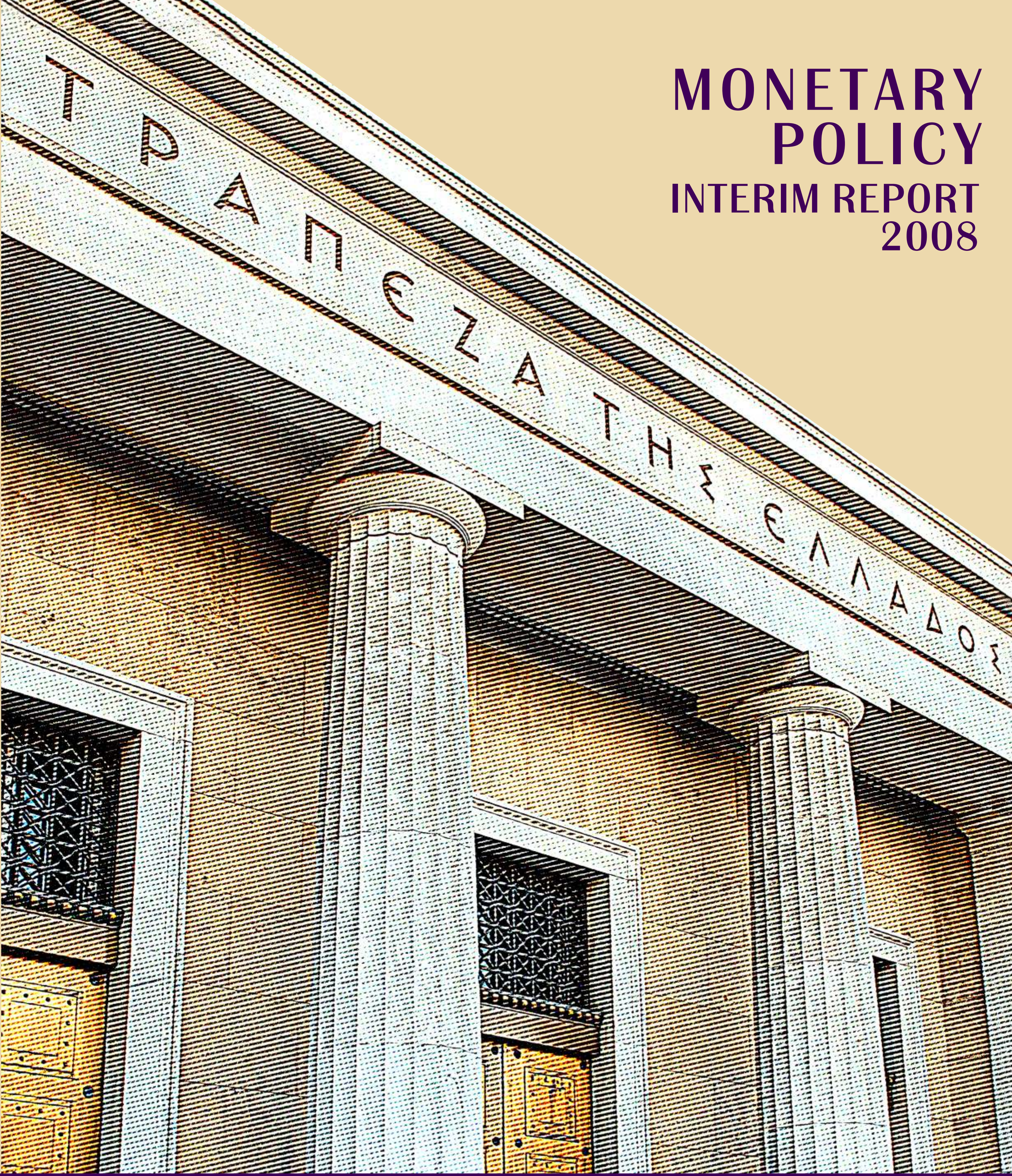

MONETARY POLICY

INTERIM REPORT 2008

OCTOBER 2008

BANK OF GREECE
EUROSYSTEM

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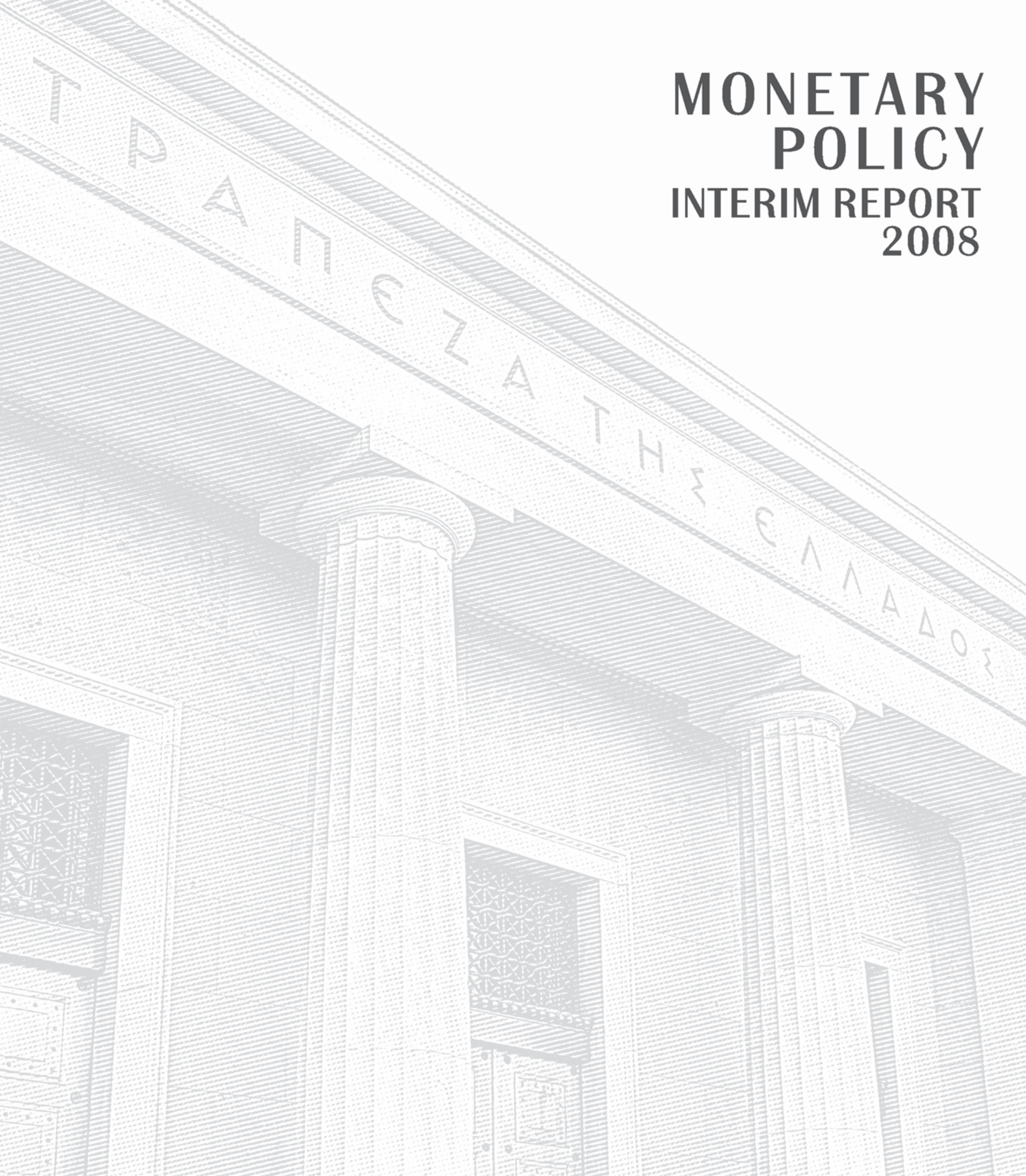

OCTOBER
2008

BANK OF GREECE
EUROSYSTEM

To the Greek Parliament and the Cabinet

The Bank of Greece submits the present Interim Report on Monetary Policy to the Greek Parliament and the Cabinet in accordance with its Statute.

This Report is published at a time of serious deterioration in the global economic environment. The adverse effects of this downturn, which have impacted nearly all the economies, manifest themselves through turmoil and extremely acute tensions in the financial markets, a slowdown in economic growth (with stagnation or even recession in some countries) and an upsurge in inflation, mainly due to high oil and food prices.

In Greece, the most visible effect is the rise of inflation to its highest level since 1998. This further erodes the Greek economy's international competitiveness, with negative implications for the outlook of output and employment, and hits the economically weaker segments of the population harder. Moreover, GDP growth this year is slowing, nonetheless remaining above the euro area and EU averages, while the current account deficit has widened further from its already very high level of 2007, owing, among other factors, to the rise of oil prices in the world market.

In spite of the acute tensions in the world's financial markets, the indirect effects of which are also being felt in our country, the Greek credit system remains fundamentally sound, safe and stable, as more than 90% of loans are financed through customer deposits, the exposure to toxic financial products is limited and the banks' capital base is strong. There have, of course, been some negative effects on profitability (after a strong rise in 2007, however), capital adequacy ratios and the cost of capital, as well as a marginal increase in the credit risk associated with bank loans to households. The Bank of Greece, as the supervisory authority, remains vigilant and is monitoring developments closely, in order to safeguard the stability of the banking system and protect depositors and others customers. Against this backdrop, the Bank of Greece has asked banks to take the necessary measures and adopt the appropriate policies to safeguard stability.

In this difficult global economic conjuncture, the Greek economy's macroeconomic imbalances and structural weaknesses become all the more apparent, as the combination of factors that had supported rapid and uninterrupted growth over the past thirteen years is gradually losing strength. Among the factors that had underpinned the robust growth of demand were: the improved macroeconomic environment ensuing from Greece's EMU entry, the drop in interest rates, the deregulation of the credit system and the substantial inflows from the EU Structural Funds.

It is therefore of the utmost urgency to decisively address the macroeconomic imbalances and the structural weaknesses of the Greek economy in order to set in motion a long-term and more export-oriented growth dynamic that will primarily rely on strengthening the productive base through investment and structural reforms. Securing macroeconomic stability will require fiscal consolidation and the elimination of conditions of imperfect competition in major markets, so that the pricing policies of businesses and wage increases are compatible with price stability. This new growth dynamic will also require other bold structural reforms (apart from the ones related to competition), notably in public administration, fiscal management and the broader public sector, as well as in the systems of education and training, so as to ensure the more efficient utilisation of available national resources and of inflows from the EU Structural Funds, to encourage high-quality and high-yield investment, to raise productivity and increase the employment rate. The necessary interventions must be carried out in a coordinated manner and according to a clearly defined timetable. This would support an export-oriented economy and raise the potential growth rate on a sustainable basis.

Structural reforms are all the more necessary at the present stage also as a means of shielding the Greek economy against the international economic downturn. In order to withstand the effects of exogenous and, to some extent, transitory shocks, policy makers and the social partners should ensure that the negative impact of domestic macroeconomic imbalances and structural weaknesses on the medium-term prospects of output, employment and income are contained. Otherwise, the negative impact will be even more pronounced and persistent and its burden will be largely borne by the more vulnerable social groups.

The assessment of the current course and the outlook for the Greek economy, as well as suggestions on the appropriate orientation of economic policy, are outlined in Chapter I. Chapter II examines the external economic environment, focusing in particular on the financial turmoil and its impact on the global banking system. Chapter III analyses why the single monetary policy of the European Central Bank (ECB) contributes effectively to economic growth in the euro area through the ECB's commitment to the objective of price stability over the medium term. More specifically, monetary policy must above all ensure that any temporary external inflationary pressures are not incorporated in medium- and long-term inflation expectations and do not trigger second-round effects. Meanwhile, the Eurosystem has been intervening to normalise conditions in the euro area interbank market. Chapters IV, V and VI examine the developments and prospects in Greece in terms of economic activity, employment, main fiscal aggregates, inflation and the balance of payments. According to projections for 2008 as a whole, GDP growth will slow to approximately 3.3%, with average annual inflation picking up to 4.6% and the current account deficit widening further to 14.7% of GDP. These chapters include special presentations concerning economic regulation and competition conditions in the Greek market, the energy and oil intensity and dependence of the Greek economy, as well as Greece's trade with the other Balkan countries. Chapter VII of the Report examines the developments in Greece's money, credit and capital markets and the stability of the Greek banking system.

The main conclusion of the Report is that the Greek economy is now at a crucial juncture and that high growth rates together with low inflation can be more readily and sustainably achieved only if the required bold structural changes are decisively promoted and completed. These priorities become all the more urgent in the light of the impact of the continuing turmoil in the global financial markets.

Athens, October 2008

George Provopoulos
Governor

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I THE CURRENT COURSE AND THE OUTLOOK FOR THE GREEK ECONOMY

The international economic environment has seriously deteriorated due to the financial turmoil and the strong rise in oil and food prices

Since mid-2007, the global economy has entered a particularly difficult phase. Economic growth rates have been slowing, inflation is peaking and exceptionally strong tensions have broken out in the financial markets. In the course of the current year, international organisations have repeatedly adjusted their forecasts downwards, both with regard to the outlook for economic activity (especially in advanced economies) and for inflation (especially in emerging economies). The deterioration in macroeconomic performance and outlook worldwide was caused by the combined effect of two key determinants – the financial turmoil and the sharp rise in the prices of oil, food and other commodities.

The *global financial turmoil* is continuing for the second year running. Its depth, possible duration, sporadic peaks and adverse macroeconomic impact have already exceeded initial estimates, while it is still impossible today to predict the final outcome and overall impact with any accuracy or certainty. What is certain, however, is that the global financial system remains vulnerable. The losses recorded by several global financial institutions continue to mount, the mood on the financial markets is becoming more sombre, while the risk of a rekindling of the adverse interaction between financial and macroeconomic developments is visible. More specifically, the slowdown in economic growth (and —in certain countries— stagnation or even recession), after having been triggered in part by the financial turmoil, may now even intensify it, if the reduced ability of businesses and households to service their loans inflates bank losses. In such an event, initially banks and, at a later stage, non-financial institutions will have more difficulty accessing capital, thus causing a stronger slowdown in activity. In the euro area, the situation, in terms of financial stability, is less of a concern than in the US, although the risk of a deterioration is real. Governments, central banks, as well as other supervisory authorities of the financial sector around the world are coordinating their actions to avert any further deterioration and to gradually normalise the situation. Moreover, the outlook for financial stability, both at euro area and global levels, will also depend on how banks face up to the massive challenges posed by the environment in which they operate.

The *sharp rise in the prices of oil, food and other commodities* has adversely impacted both inflation and economic activity worldwide. Oil prices in the world market, after a period of very strong increase, dropped significantly in the past few months, and the slowdown in demand growth may cause them to drop further. Nonetheless, oil prices are still high and likely to remain very volatile, while the uncertainty about their future course has increased. The rise in food prices has primarily hurt the financially weaker segments of the population (within a given country) and the emerging economies (at a global level).

This exceptionally adverse international environment has negative implications for almost all economies, but to a varying extent depending on the initial conditions in each of the respective economies as regards their adjustability and resilience to exogenous shocks, i.e. their ability to absorb these shocks without facing major problems concerning domestic production, employment, fiscal management and the balance of payments. Resilience to all types of shocks depends on the structural features of a given economy.

When formulating and implementing economic policy, greater emphasis and a higher priority must therefore be given to more permanent factors and to the long-term, rather than the short-term, outlook.

After thirteen years of strong uninterrupted growth, Greece's economy is now at a crucial juncture

Over the past thirteen years (1996-2008), Greece's economic growth rates have been relatively high (at an annual average of 3.9%), driven mainly by the robust increase of domestic demand. During the larger part of this period, GDP growth rates were above potential (on average at 3.5% per annum over 1996-2008). At first, the rise in domestic demand reflected the outcome of Greece's effort to join the euro area, in terms of stabilisation of the economy and the overall improvement of the macroeconomic environment, as well as the formation of positive expectations on behalf of households and businesses. Later on, joining EMU in itself exerted a strong favourable impact, mainly on account of the stable context it provided for the conduct of economic policy, the fall in interest rates and the significant rise in private sector borrowing (at rates many times the growth rates of nominal GDP). At the same time, the international conjuncture was generally favourable, while, throughout the period, there was a positive impact from structural reforms, such as the deregulation of the credit system and the telecommunications sector, as well as from the inflow of resources from the EU Structural Funds.

However, given the robustness of domestic demand, the particularly rapid increase not only in business investment (at a average annual rate of 11%) but also in the economically active population during the twelve years from 1996 to 2007 did not contribute to a *corresponding* and *sufficient* strengthening of the production base and potential output, as well as of the Greek economy's international competitiveness. The reason why supply-side factors did not have their full potential impact on the production capacity of the economy is that the structural reforms carried out at the time did not reach the level needed to achieve the maximum possible effect on "total factor productivity". The decrease in "total factor productivity" growth observed in the recent period explains why domestic supply has failed, in terms of both quantity and quality, to meet the robust growth of domestic (consumer and investment) demand and to cope with intensifying global competition. This shortcoming is evidenced by the alarming widening of the balance of payments deficit and the accumulation of a sizeable external debt, developments which, if not reversed, will have an adverse effect on growth prospects and the standard of living. Moreover, the shortfall of domestic supply relative to domestic demand and the conditions of imperfect competition prevailing in major domestic markets have contributed to inflation persisting at levels above the euro area average and thus to the continuous deterioration of the Greek economy's international competitiveness. In addition, in spite of the improved fiscal aggregates, the fiscal deficit has not been eliminated (the target set in the Updated Stability and Growth Programme of December 2007 is for it to be eliminated by 2010), while the general government debt ratio is the second highest in the EU.

In the difficult current international conjuncture, these macroeconomic imbalances become all the more apparent, as the previously strong favourable impact of factors such as the fall in interest rates, the deregulation of the credit system and the inflow of resources from the EU Structural Funds gradually wears off.

The continuing turmoil in the international financial markets, high oil and food prices in the world market, as well as the slowdown in global economic growth and signs of recession in certain major economies have also had their impact in Greece.

The impact in the world market most directly and widely felt is, of course, the rise of inflation to its highest level since 1998, a development that further erodes the international competitiveness of the Greek economy (given the persisting differential with average euro area inflation), with adverse consequences for output and employment prospects, and takes a heavier toll on the economically weaker social groups.

Also, GDP growth is slowing down in 2008, but nonetheless remains significantly above the euro area and EU averages, while the current account deficit has widened further, from its already very high level of 2007, mainly on account of the rise in oil prices in the world market.

However, the Greek credit system remains fundamentally sound, safe and stable, and the impact of the international turmoil has been limited, compared with other European countries. Negative effects have, of course, been recorded in bank profitability (after an important rise in 2007), capital adequacy ratios and funding costs, along with a marginal increase in the credit risk associated with bank loans to households. The Bank of Greece is monitoring the developments very closely in order to protect the interests of all bank customers and has also asked banks to take all the necessary measures and to adopt the appropriate policies to safeguard financial stability.

As the entire range of consequences from the serious deterioration in the international environment unfolds, the combination of determinants that have driven growth since 1996 will start to lose its effectiveness. Therefore, in order to set a new growth momentum in motion, the primary objective should be to eliminate macroeconomic imbalances, support supply and upgrade the domestic production potential. This would strengthen the export orientation of the economy and increase the potential growth rate on a sustainable basis. In other words, interventions aimed at a more effective functioning of markets and at stronger competitive conditions must be carried out —in a coordinated manner and based on a clear time schedule— together with other structural reforms, especially in public administration, fiscal management and the broader public sector, as well as in the systems of education and training, in order to better utilise the national resources available and the future inflow of resources from the EU Structural Funds, encourage high-quality and profitable investment and create the preconditions for sustainable strong economic growth in the long term.

The external environment is worsening

The global economy, as mentioned above, was adversely affected by two developments in 2008: the sharp rise in the prices of crude oil, basic food and other commodities, and the ongoing turmoil in the financial markets of the advanced economies that broke out in August 2007.

• In the *advanced economies*, the rise in oil and other commodity prices has caused inflation to rise considerably and has negatively affected both total demand (by eroding income purchasing power) and total supply (through the increase in the prices of raw materials). Moreover, it is well known that the financial turmoil, which began in mid-2007 with the increase in non-performing loans in the US sub-prime mortgage market, is associated, *inter alia*, with the high level of liquidity in recent years, the search for yield on the part of investors and their increased appetite for risk, as well as with the development of structured —and largely non-transparent— financial products. The financial turmoil has led to the adoption of stricter lending criteria, to an increase in funding costs and to a slowdown in credit expansion, in spite of the significant differences in impact across economies. Furthermore, it has adversely affected the profitability, capital position and liquidity of several credit institutions, while also causing certain major international financial corporations to collapse. The macroeconomic outlook for the advanced economies is characterised by exceptional uncertainty, and the risks of a further deterioration in terms of both economic activity and inflation are significant.

• In the *developing and emerging economies*, developments have been somewhat different. Growth rates in these countries have been slowing, but in most cases remain rather high, supported by domestic demand and —in the case of commodity-exporting countries— rising export receipts. With regard to inflation, however, the developments in the emerging and developing economies are definitely more adverse than in the advanced ones. The social and economic implications of higher inflation in countries where the expenditure for food accounts for a large share of the household budget are particularly negative. The emerging economies of South-eastern Europe are also characterised by high rates of growth and inflation, but —in contrast with the emerging economies of other geographical regions— run up very large current account deficits. For some countries, these deficits are a source of concern with regard to their sustainability, especially if the global environment worsens further.

- In the *euro area*, GDP declined slightly in the second quarter of the year (over the previous quarter). In 2008 as a whole, annual GDP growth will slow down significantly to 1.1-1.7% (from 2.6% in 2007) and is projected to remain low in 2009 (0.6-1.8%), according to the latest forecasts by ECB experts released in early September. Similar was the interim forecast, also released in September, of the European Commission, according to which euro area GDP in 2008 will increase by 1.3%. In the medium term, economic growth in the euro area is projected to benefit from the fact that the economy is not characterised by significant imbalances (in contrast, for instance, with the US). Although economic activity has slowed down considerably, euro area inflation remains persistently high and is in fact higher than the level compatible with price stability as defined by the ECB (below, but close to, 2% year-on-year). From 2.1% in September 2007, the annual rate of inflation in the euro area climbed to 4.0% in June-July 2008, mainly because of the strong increase in the world prices of oil and food commodities, before falling to 3.8% in August and 3.6% in September according to flash estimates. After taking into account the current forecasts of market participants regarding the future prices of oil and other commodities, euro area inflation is expected to remain significantly above the level compatible with price stability for several months, though continuing to gradually decline. According to the projections of ECB experts, average annual inflation will come to 3.4-3.6% in 2008 and to 2.3-2.9% in 2009.

The single monetary policy contributes to economic growth by safeguarding price stability in the medium term

The single monetary policy contributes effectively to economic growth in the euro area by remaining firmly focused on the objective of price stability in the *medium term*. Monetary policy cannot prevent or offset the short-term fluctuations of inflation around its medium-term trend which are due to external factors such as the international prices of oil and commodities. What it is in a position to do and must therefore accomplish is to ensure that the *medium-term* movements of inflation are compatible with price stability, as a prerequisite for fostering economic growth and creating jobs in sufficient number. To be able to reach this medium-term objective, monetary policy must first of all ensure that the external inflationary pressures that break out from time to time do not feed through into medium- and long-term inflation expectations and do not trigger second-round effects. The latter manifest themselves when economic agents, in the process of setting prices (enterprises) and agreeing to wage increases and other remunerations, take it for granted that the temporary increase in inflation will persist in the medium term. Such behaviour transforms a short-term problem into a more permanent one, by prolonging the temporary peaking of inflation and feeding into its medium-term trend.

In order to avert the occurrence of a wide range of second-round inflationary effects and to offset the increasing risk of inflation accelerating in the medium term, the Governing Council of the ECB decided to increase the ECB key interest rates by 25 basis points in July 2008. Since then, the minimum main refinancing rate has remained at 4.25%. This decision of the Governing Council is regarded as one of the factors (apart from the fall in oil prices) why euro area inflation expectations were contained in July and receded in August. Similar was the course of long-term government bond yields.

The Eurosystem intervenes in order to normalise conditions in the euro area interbank market

At the same time, the Eurosystem has been following a policy of interventions aimed at normalising conditions in the euro area interbank market. More specifically, the Eurosystem strives to reduce the fluctuations of very short-term interest rates around the minimum bid rate for main refinancing operations so as to keep these rates at a level consistent with the stance of monetary policy set by the Governing Council of the ECB and to facilitate monetary policy transmission. Through these interventions, in the form of open market operations, the aim of the Eurosystem is, *inter alia,* to supply liquidity to those credit institutions which, without facing solvency problems, have difficulty in raising funds from the interbank market. This helps to reduce the difficulties in question and the associated risks to financial stability.

The ECB has stressed that it will continue to fulfil in a timely manner the primary objective and the institutional mission it was entrusted with by Europe's 320 million citizens. Indeed, as shown by recent opinion polls conducted both in Greece and elsewhere in the euro area, respondents declared inflation to be their first concern. In any event, the ECB will always do what is necessary to ensure that inflationary pressures are and remain consistent with the maintenance of price stability in the medium term.

Greece's GDP growth is slowing, but nonetheless remains relatively high

GDP growth rate in Greece (at constant prices) is projected to slow to around 3.3% in 2008, from 3.5% in the first half of 2008 and 4.0% in 2007, but will nonetheless remain well above the euro area and EU averages.

Growth in 2008 is expected to continue to be mainly driven by domestic demand. However, the growth rate of private consumption has slowed down substantially, reflecting the lower rate of increase in households' real income as a result of the rise in oil and food prices. Consumer credit growth slowed slightly in the first eight months of the year, but still remained high. The annual rate of change in investment was negative in the first half of the year owing to the decrease in residential investment, while the rate of increase in housing credit slowed considerably. Business investment growth is expected to remain rather high, while credit expansion to enterprises has accelerated over the first eight months of 2008. However, the outlook for business investment is characterised by uncertainty, related to the magnitude of the financial turmoil's impact on domestic and foreign demand, the strong inflationary pressures, the appreciation of the euro (on average during 2008), the recent increase in interest rates and the high prices of oil and raw materials.

The contribution of the change in the real external balance (i.e. the difference between exports and imports of goods and services at constant prices) to GDP growth is expected to be slightly positive in 2008 (whereas it was negative in 2007), reflecting the considerable acceleration in export growth and, more importantly, the strong slowdown in import growth.

The increase in employment and the decrease in unemployment continue

The main aggregates of the labour market in Greece over the past few years have been converging towards those of the other euro area countries, as evidenced by the increase in the rate of employment and the decrease in the rate of unemployment. In the first half of 2008, the growth of economic activity was accompanied by an increase in employment at an annual rate of 1.3%, while the unemployment rate fell further to 7.7% of the labour force (i.e. by roughly 1 percentage point compared with the first half of 2007), but remains relatively high. Another encouraging development is that the long-term unemployed as a percentage of total unemployment have decreased, as has youth unemployment. However, the fact that the youth unemployment rate remains high, combined with the fact that a large percentage of first-time job finders in the non-agricultural private sector only have fixed-term contracts, could imply that the economic slowdown, if it were to continue, could take a more direct toll on youth employment. In addition, even though the increase in the total employment rate mainly reflects an increase in the *female* employment rate, the latter is still low.

The current account deficit is widening further

Based on the developments from January through July 2008, the current account deficit is projected to widen further to about 14.7% of GDP in 2008, from the already very high level of 2007 (€32.4 billion or 14.1% of GDP), mainly on account of the impact of oil price increases on the fuel balance. In greater detail, the widening of the current account deficit reflects two negative factors:

- The increase by 0.9% of GDP in the trade deficit (with a deterioration in the balances for fuels, ships and other goods by 0.5%, 0.1% and 0.3% of GDP respectively).

- The widening of the income balance by 0.2% of GDP, owing to increased net interest, dividend and profit payments. The increase in these payments is attributable both to Greece's worsening net international investment position (i.e. the increasing net financial liabilities of the public and the private sector vis-à-vis non-residents, which reached 93.6% of GDP at end-2007, from 46.5% of GDP at-end 2001) and to the higher interest rates in the international markets.

These developments are expected to be partly offset by the improvement in the services balance (by 0.2% of GDP), as a result of the increase in net shipping receipts, and by the recovery of the current transfers surplus by 0.3% of GDP (the rather low surplus of 2007 was mainly due to the extraordinary contribution to the Community Budget, following the upward revision of Greece's GDP).

The total deficit in the current account and capital transfers balances —which corresponds to the economy's funding requirements from abroad (i.e. net inflows from borrowing, portfolio investment and direct investment)— is expected to come to around 12.9% of GDP in 2008, compared with 12.2% in 2007.

Inflation is at its highest level since 1998, while second-round effects from the rise in fuel prices have already been recorded

Average annual HICP inflation in 2008 is expected to come to 4.6%, the highest level in the past ten years, from 3.0% in 2007 and 3.3% on average during the period 2001-2007, mainly reflecting exogenous factors, i.e. the strong increase in oil and food prices worldwide, but also the effects of domestic production costs, i.e. the acceleration in the growth rate of unit labour costs. The appreciation of the euro against other major currencies and the slowdown in domestic demand growth have somewhat moderated inflationary pressures.

The inflationary impact of the external shocks on supply is intensified as a result of the conditions of imperfect competition in major domestic markets. Furthermore, as the oil intensity and the oil dependence of the domestic production of goods and services are rather high (see Appendix 2 to Chapter V), the inflationary impact from the rise in oil prices is greater in Greece than on average in the euro area. Of course, it can be reasonably expected that the *counter-inflationary* effect of a *decrease* in oil prices will be similarly greater.

The faster growth of unit labour costs in 2008 was due to conjunctural reasons, i.e. (i) to the impact that the peaking of inflation has had, since end-2007, on the inflation expectations of wage earners and on the outcome of collective wage bargaining in 2008 and (ii) to certain special salary adjustments in central government. However, the rather high growth rates of unit labour costs over the past eight years (much higher than in the euro area as a whole) are due to *more permanent* factors. First, the Greek economy has for the past few years been characterised by conditions of excess demand, which weakened in 2008 and may be totally eliminated in 2009. Second, the conditions of imperfect competition in major markets, both for goods and services (see Appendix 1 of Chapter V for specific examples), enable businesses operating in such an environment to grant rather high wage increases and to pass the entire increase in their production costs onto prices (and, generally speaking, to increase their prices more than needed to cover the increase in cost components and achieve reasonable profits). Third, the labour market is characterised by rigidities due to arrangements that continue to be part of the institutional framework. Fourth, the social partners have not fully adjusted their behaviour to the fact that, owing to the conditions under which the economic and monetary union operates, their contribution to safeguarding and improving competitiveness, and hence employment, is of crucial importance.

As illustrated by developments, the rise in oil prices since the last months of 2007 has already had strong second-round effects on inflation in 2008, as it influenced the inflation expectations both of wage earners and of enterprises and —consequently— pricing and incomes policies. In contrast, these effects were limited in the other euro area countries.

Only with the passage of time and with an increase in productivity will it be possible to make up effectively for the loss in the purchasing power of incomes due to the rise in oil prices

It is obvious that, so long as the above-mentioned structural factors remain strong, the medium-term outlook for inflation —and thus for competitiveness and employment— will be adversely affected. Of course, of these factors, the *domestic* ones may be reduced or even eliminated with the implementation of appropriate national economic policy measures. As for the *external* inflationary factors, the increase in the prices of oil and other commodities (especially food) in the world market is, for Greece and the other countries that import these items, a sort of compulsory contribution or tax in favour of the countries that export them. In other words, this entails an inevitable transfer of income from the households and the businesses of the countries that import commodities towards the countries that export them. This transfer of income reflects a shift in relative prices at a global level. Neither households nor businesses can recover this lost income in the short term. Of course, as a first priority, targeted interventions that do not throw fiscal prospects off-track must be devised to relieve the weaker social groups from the repercussions of this phenomenon. In the longer term, these non-directly recoverable losses in purchasing power can be compensated for by policy interventions that strengthen competition, but also with productivity-boosting initiatives by businesses themselves.

The state budget deficit widened during the first seven months of 2008, but budget deviations are expected to be contained in the last months of the year

The deficit of the State Budget (SB) widened significantly from January through July 2008 (to 4.3% of GDP), compared with the respective seven-month period of 2007 (3.5% of GDP) and a target of 3.4% of GDP set for 2008 as a whole. This development was due to a slowdown in economic growth, to pressures to exceed the budgeted primary expenditure, but also to temporary factors, the impact of which is expected to be reversed in the remainder of 2008, while there also indications that tax evasion has increased further. More specifically, during the period from January to July 2008, SB revenue fell considerably short of the budgeted amount (increasing by only 6.7%, compared with a budgeted 13.1% for 2008 as a whole). This is partly attributable to the more adverse domestic economic conjuncture, to the fact that legislated measures (for instance regarding the fuel tax and the single real estate tax) will start to yield revenue towards the end of the year, but also to a rise in tax evasion. In addition, the growth rate of SB primary expenditure in the first seven months of the year was rather high (13.8% against a targeted increase of 5.2% throughout 2008), but is expected to decelerate in the remainder of the year as a result of substantial one-off expenditure in the last five months of 2007 (resulting in a favourable base effect).

It is expected that the reversal of trends in SB revenue and primary expenditure in the final months of the year will considerably reduce the deviations from the budget noted in the period from January through July. Nevertheless, given the developments during these first seven months of the year, strong efforts will be required to contain the 2008 fiscal deficit.

The government adopted a package of measures to improve the fiscal outcome

The government adopted a package of measures, in an effort to improve the fiscal outcome of 2008 and, more importantly, to support next year's fiscal programme. Law 3697/2008 (passed in September) provides for the integration of the Special Accounts of Ministries into the State Budget, as a means of ensuring transparency and uniform fiscal management. It also introduces arrangements that improve the control of expenditures of various general government agencies (e.g. public hospitals and local authorities). In addition, it provides for tax measures (settlement of pending tax cases and collection of tax arrears, increase in the car circulation tax for year 2009, taxation of income from dividends, taxation of capital gains from share acquisition/sale, abolition of the tax exemption for the self-employed, etc.) which, according to the Ministry of Economy and Finance, are expected to yield additional revenue in the amount of €4.1 billion by the end of 2010 (of this amount, €3.0 billion are one-off revenue). Most of this total revenue is expected to be collected in 2009, while only a small amount will increase the revenue of 2008 (about €700 million) and 2010. Efforts are being made to further reduce the general government debt as a percentage of GDP in 2008 (from 94.5% in 2007 and 99.1% on average during the period 2001-2006).

The growth rate of business and household financing remains strong

The annual growth rate of total financing of the economy by monetary financial institutions (MFIs)[1] picked up during the first eight months of the year, coming to 17.5% in August (fourth quarter of 2007: 13.1%). This development in total credit expansion mainly reflects the acceleration in the funding of general government, which in July and August registered a positive rate of change for the first time since September 2006 (August 2008: 4.2%, July 2008: 2.7%, fourth quarter 2007: -16.1%) as a result of adjustments in the asset portfolio of MFIs (namely the increase of MFI investment in government bonds). In contrast, a small slowdown compared with the end of 2007 was noted in the growth rate of total business and household financing, which however remains strong (August 2008: 20.1%, fourth quarter 2007: 21.2%).

Credit expansion to businesses has quickened

The annual growth rate of MFI financing of businesses accelerated to 22.9% in August 2008 (fourth quarter 2007: 19.3%), while bond issuance represents roughly one fifth of total

1 The financing of the economy by domestic MFIs comprises outstanding MFI loans to corporations, households and general government, as well as total Greek government debt securities and corporate bonds held by the central bank, credit institutions and money market funds. Moreover, the calculation of the rate of change in total financing, apart from the change in pertinent balances, also includes securitised loans and total write-offs made by banks during the reference period.

financing. This development is associated with the increased need of businesses to finance operating costs and investment and with their assessment that credit standards may become tighter and financing conditions less favourable in the future. It is worth noting that, in spite of the rise in interest rates, the tendency for borrowers to assume most of the interest rate risk in corporate loan agreements has not been reversed. Thus, more than 90% of new loans with a fixed maturity to non-financial corporations continue to be contracted at a floating rate or at a fixed rate for a period of up to one year.

Credit expansion to households has slowed, but remains strong

Contrary to the situation with businesses, the annual growth rate of bank financing to households slowed in the first eight months of 2008, to 17.0% in August (from 23.2% in the fourth quarter of 2007). This is mainly attributable to the continued rise in bank rates from their historically low levels, the moderation in growth of households' consumption expenditure and the drop in their housing investments, as well as to the commercial banks' adoption of stricter credit standards and terms. Among the various categories of loans to households, a particularly strong slowdown was recorded for housing loans, the annual growth rate of which fell to 15.5% in August 2008 from 22.8% in the fourth quarter of 2007. A smaller slowdown was observed for the growth rate of consumer loans (August 2008: 20.6%, fourth quarter 2007: 22.6%). It should be noted that the shift in household preference towards housing loans with fixed interest rates and a maturity of more than one year, which began together with the rise in ECB rates at the end of 2005, continued into the first eight months of 2008. In addition, households tend to prefer consumer loans with a fixed interest rate for a longer initial period, as a way to avoid an increase in loan servicing costs. Total household indebtedness (total borrowing from MFIs, including securitised loans), as a percentage of GDP, rose to 46.4% in August 2008 from 42.7% in August 2007. Excluding securitised loans, this figure came to 40.3% in August 2008 (from 39.6% in August 2007), compared with 53.1% in the euro area as a whole (53.2% in August 2007).

Interest rates on deposits and loans increased more in Greece than on average in the euro area in the first seven months of 2008 – In any case, housing loan rates in Greece remain among the lowest in the euro area

The upward trend in deposit and repo rates that had begun in the second half of 2007 as a result of the financial turmoil continued into the first eight months of 2008. This trend was also strengthened by the rise in the ECB's key interest rates in July 2008. Among the various categories of deposits, the highest increase was recorded in the interest rate on time deposits. This development was to a large extent associated with the conditions of limited liquidity that prevailed in the interbank market and the expectations that these conditions would continue, which induced banks, *inter alia*, to strengthen their deposit base, especially with regard to time deposits. As an example, the euro area interbank market rate (3-month Euribor) increased from 4.15% in June 2007, i.e. before the financial turmoil broke out, to 5.02% in September 2008. During the seven months to July 2008, the average deposit rate increased more in Greece than in the euro area as a whole, meaning that the positive differential between the two rates widened.

The increase in funding costs for Greek banks (mainly on account of the above-mentioned increase in the time deposits held with them) contributed to the increase in bank loan rates being generally higher than elsewhere in the euro area and to the slight widening of the respective differential. The smallest increases in interest rates both in Greece and in the euro area were recorded for business loans, while the largest were recorded for consumer loans. Interest rates on housing loans also increased in Greece, but remain among the lowest in the euro area.

The spread between lending and deposit rates continues to decrease

The interest rate margin in Greece, i.e. the difference between the average weighted interest rate on new bank loans and the corresponding rate on new bank deposits, decreased by a further 18 basis points in the first eight months of 2008, to 388 basis points in August, reflecting a faster increase in the average deposit rate relative to the average lending rate. It should be recalled that from December 1998 to August 2008 the interest rate margin had decreased by 421 basis points. However, it remains higher in Greece than in the euro area (where in July it fell to 301 basis points, i.e. 8 basis points lower than in December 2007) for reasons related, *inter alia*, to inherent characteristics of the domestic banking system, such as higher bank operating costs, the comparatively larger number of small depositors and borrowers, the higher costs of bank borrowing from the interbank market, the higher ratio of non-performing to total loans, and the longer time required in Greece for the selling-off of collateral. One of the more important factors in the case of Greece is the different composition of both deposits and loans. If their composition were the same as in the euro area, the interest rate margin in Greece in July would have been 23 basis points lower (amounting to 363 basis points) and the differential over the euro area margin would have been reduced to 75% of what it was (i.e. to 62 basis points).

Bond yields increased – share prices fell

The international financial turmoil that broke out in 2007 continued to affect capital markets in 2008 as well. Greek government bond yields in the secondary market (especially the yields of short-term securities), which generally move together with the corresponding euro area securities, increased considerably up to the end of June 2008, but this increase was perceptibly reduced in the three months that followed. At end-September 2008, the yield of the 10-year Greek government bond had increased by 30 basis points compared with end-December 2007. The yield differential between this bond and its German counterpart widened considerably, same as with other euro area bonds, to 95 basis points at end-September 2008, compared with 29 basis points at end-December 2007. Developments in the Athens Exchange in the first nine months of 2008 were characterised by a sharp fall in share prices, limited raising of funds on the part of businesses and a still relatively high value of transactions.

The Greek banking system remains basically healthy, safe and stable —The international financial turmoil affected it in an only limited manner— In view of increased risks from the turmoil, the Bank of Greece remains vigilant in order to ensure bank customer interests

The continuing turmoil in the financial markets, the persistence of inflationary pressures and the global slowdown in economic activity have adversely affected the determinants of stability in the international banking system. The Greek banking system, however, remains basically healthy, safe and stable, on account of the following:

- Loans granted by Greek banking groups are backed by deposits to a percentage of 92% or more (according to June 2008 data). Therefore, Greek banking groups are less dependent on the money market, which has witnessed a substantial increase in the cost of money, and on the capital markets, which are not functioning fully in the current juncture.

- The Greek banking system's efficiency and capital adequacy have been affected considerably less than most banks' internationally, owing to the limited exposure of Greek banks to asset items directly or indirectly connected with the turmoil. Greek banking groups had no reason to invest in problematic financial products, given the very favourable environment they operate in (Greece and the wider SE

European region), which offers plenty of opportunities for profitable growth.

- The capital base of Greek banking groups is strong and their leverage relatively low, as their assets-to-own-funds ratio is just 14.5 (according to June 2008 data).

- The Bank of Greece remains vigilant in view of increased risks; it monitors and assesses developments very carefully, seeking to safeguard bank customer interests. Furthermore, it has asked banks to take all the necessary measures and adopt the appropriate policies to ensure stability.

In the first half of 2008 the profits and the profitability and efficiency of Greek commercial banks and groups fell. Their capital adequacy ratios also declined, partly because of the calculation, for the first time, of capital requirements for operational risk. Moreover, the credit risk related to bank loans to households increased marginally. Finally, even though the relevant supervisory indicators show that the liquidity of Greek banks remained satisfactory, *the cost of raising funds to finance credit expansion has increased* (as evidenced also by the Eurosystem's Bank Lending Surveys of April and July 2008).

The slowdown in the growth rate of housing loans, which used to be high in the past few years, is expected to push upwards the non-performing loans to total loans ratio (an essentially technical effect). Expected losses from housing loans may also increase, since, according to estimates, the ability of households to service their debt may decrease on account of the increased borrowing costs and the slowdown in income growth. Banks, therefore, have to keep the housing loans-to-collateral ratio at reasonable levels and also take care, when granting new loans, to keep the ratio of households' debt servicing costs to their disposable income within the limits recommended by the Bank of Greece.

Moreover, the further, albeit small, expansion of housing loans in foreign currency as a percentage of total housing loans makes it essential, as the Bank of Greece has repeatedly pointed out, to inform borrowers in detail not only of the usual characteristics of loans and the obligations generated thereby, but also of the foreign exchange risk to be borne when borrowing in foreign currency. Banks, moreover, have to take these risks into consideration when setting their pricing and credit policies. *A fortiori*, loans in foreign currency granted by subsidiaries and branches of Greek banks abroad (which sum up to a sizeable share of total loans) should be treated in a similar manner.

In combination with the implementation of the new framework on capital requirements ("Basel II") and the continuous expansion of Greek banks in the domestic and external markets, the Bank of Greece has asked banks to take account, when formulating and updating their policies, of the conclusions drawn from the financial turmoil and the weaknesses revealed with respect to banking risk management. These warnings become of particular importance when taking into account that it is increasingly likely for the debt servicing ability of households and firms in Greece and other countries where Greek banks operate to be adversely affected by (i) the increase in the cost of borrowing (owing to the repricing of credit risk internationally and the increase in the cost of raising new funds) and (ii) the slowdown in economic and income growth. As regards activities in countries where foreign exchange risk exists, the volatility of the exchange rate should also be taken into account, especially with respect to countries with very high current account deficits, as they are vulnerable to, *inter alia*, sharp exchange rate fluctuations. The Bank of Greece assesses these factors together with the margin of the capital adequacy ratio, according to the second pillar of "Basel II". The degree to which banks conform to best practices (regarding the evaluation of increased risks as a whole in the shaping of the assumptions used in risk management systems) will be assessed at individual bank level.

The factors that have supported domestic demand and the growth process over the last 13 years are weakening

Economic growth in the last years was mainly based, as already mentioned, on the benefits reaped from the country's effort to join the euro area and from the entry itself, the generally favourable international environment and the transfers from EU Structural Funds; it was based less on the strengthening of the domestic production base. Relatively low inflation, coupled with expectations that it would remain low in the medium-term thanks to the credibility of the ECB's monetary policy, contributed to a climate of certainty and safety in Greece too. This climate encouraged households to adopt more "lax" consumption patterns and businesses to plan and implement more effective and far-reaching investment projects. Against this background, declining interest rates and the deregulation of the domestic credit system fostered, for a number of years, high credit expansion rates (several times higher than the nominal GDP growth rates), keeping the growth of domestic demand at high levels. Furthermore, entry to the area of a single, strong currency effectively eliminated foreign exchange risks, improving the terms of external borrowing and encouraging the inflow of foreign funds. The growth process was also favoured by the international environment, namely the historically low prices of oil and other raw materials for a number years and the brisk pace of global growth combined with low global inflation, as well as Greece's proximity to emerging economies, whose rapidly developing markets have presented Greek firms with fine opportunities for exports and investment.

Weaknesses in the growth process are clearly recorded in the widening current account deficit and the constantly higher inflation compared with the euro area as a whole. Now that the economic environment is less favourable for the Greek economy, such weaknesses are also reflected in the slowdown of economic activity.

The current account deficit increased considerably to 14.1% of GDP in 2007, from the already high level of 8.0% of GDP, on average, in the six-year period 2001-2006. This deficit increase to high levels in the past few years has led, as mentioned above, to a significant deterioration of Greece's *negative international investment position*.

Greece's very high current account deficit is in sharp contrast with the small current account surplus of the euro area as a whole (0.2% of GDP in 2007). Based on 2007 data, gross national saving as a percentage of GDP is 12.5 percentage points lower in Greece than in the euro area (9.7% compared with 22.1% of GDP), whereas investment as a percentage of GDP is higher by 3.8 percentage points only (25.7% compared with 21.9% of GDP) – in part because of the higher residential investment in Greece (7.0% of GDP in 2007, compared with 5.0% in the euro area). The shortfall of saving in Greece (*which is already small*) with respect to saving in the euro area is attributed both to higher (total) consumption as a percentage of GDP and to the fact that a large and increasing share of the Greek GDP (4.0% in 2007) is transferred abroad as net payments of interest, dividends and profits; this results in the income account recording a deficit, in contrast with the euro area, where it records a surplus (i.e. net receipts are recorded). This in turn is due to Greece's unfavourable international investment position. As regards the current transfers balance, Greece is in surplus (0.7% of GDP in 2007), due to the inflow of Community funds, whereas the euro area is in deficit (0.9% of GDP).

Since 2001, inflation in Greece remains constantly higher than in the euro area as a whole, reflecting differences in the development of demand and production costs, the markets' operating conditions and the behaviour of the social partners. Inflation erodes the purchasing power of incomes, especially as regards the economically weaker and those whose nominal income adjusts slowly or not at all.

Moreover, the persistent inflation differential, coupled with the appreciation of the euro, has resulted in a further loss of international competitiveness. In particular, the real effective exchange rate indices (vis-à-vis the country's major trading partners), i.e. both relative consumer prices and relative unit labour costs in the whole economy, expressed in a common currency, have increased significantly since 2000 (cumulatively by about 18.5% and 26%, respectively). These increases translate into an equivalent loss of competitiveness. The considerable deterioration of the economy's international competitiveness has reduced domestic production of internationally tradable goods, contributing to a shortfall in domestic production growth vis-à-vis domestic demand growth and adversely impacting on employment and real incomes. Turning to the medium-term outlook, the factors that in the past few years bolstered domestic demand, especially consumption, and hence the growth process, are weakening. The rise in domestic demand has begun to slow down and this trend is expected to continue in the forthcoming years, as the swift pace of credit expansion that supports private consumption and residential investment will be decelerating and households' total borrowing as a percentage of GDP, which is still lower than the euro area average, will tend to stabilise. The upward trend of interest rates or an unfavourable change in real estate market conditions may contribute to a sharper slowdown. In addition, the wide current account deficit —to the degree to which it does not reflect productive investment but the high levels of private consumption and residential investment— leads to an increase in the external debt *without* improving production and export capacity at the same time and, thus, *without* correspondingly improving the economy's ability to service its debt. Hence —although Greece's membership of the monetary union and the absence of foreign exchange risk have made deficit financing easier and under much more favourable terms than would be possible before the adoption of the euro— an ever increasing share of national income will be absorbed by the interest payments for the external debt, with adverse consequences for investment, growth prospects and, thus, the standard of living.

The foregoing analysis contains a key message: It is urgent to realise broader and effective structural reforms in a number of crucial sectors, aimed at enhancing supply and underpinning sustainable growth dynamics (high growth rates of potential output). This would contribute to the elimination of domestic imbalances and to the lessening of social disparities or of potential side-effects on natural environment.

Prerequisites for a new and "outward-looking" growth dynamic

The economy's macroeconomic imbalances and structural weaknesses should be decisively addressed, in order to ensure the long-term prospects for economic growth by a new and outward-looking growth dynamic based primarily on the expansion of the production base through investment and structural reforms. Ensuring macroeconomic stability will require fiscal consolidation and the elimination of conditions of imperfect competition in major markets, so that the pricing policy of businesses and wage adjustments are compatible with price stability. The new growth dynamic will also require further bold structural reforms (in addition to those regarding competition) in many sectors of the economy so as to improve productivity and increase the employment rate. It should be recalled that guidelines for such reforms are included in the Lisbon Strategy, adopted by the European Union, as well as in the National Reform Programme for Growth and Jobs 2005-2008 drawn up by the Greek government in October 2005.

The control of primary public expenditure is the cornerstone of fiscal consolidation

In spite of the considerable decrease in fiscal deficits in the last years, fiscal imbalances remain very high, considering on the one hand the extremely large public debt (94.5% of GDP in 2007) and on the other hand the consequences of population ageing, which, notwithstanding the structural measures taken, will lead in the long-run to large increases in public expenditure and the deterioration of the fiscal position.

The cornerstone of any effort to achieve sustainable fiscal adjustment is the control of public expenditure, especially primary expenditure. First, international experience has shown that the possibility to achieve sustainable fiscal adjustment increases enormously when the decrease in deficits is based on the rationalisation and control of primary expenditure,[2] especially personnel outlays and transfer payments. Second, the intense tax competition, both from EU and non-EU countries, limits the ability to increase tax rates. An increase in tax revenue is therefore possible mainly by curbing tax evasion and improving the tax collection mechanism.

Notwithstanding the occasional piecemeal attempts, public expenditure continued to increase, even in periods of large reduction in public deficits.[3] The drawing up of a Programmes Budget and the incorporation of "Special Accounts" into the state budget, by virtue of Law 3697/2008, is a positive step in this direction, which will particularly contribute to the *improvement of public expenditure "efficiency" – i.e. the achievement of at least the same results with less expenditure, as regards the provision of public goods and services.* (An assessment of the efficiency of public expenditure in Greece is included in a research paper published by the ECB in 2003.[4]) The rationalisation, control and containment of public expenditure, however, would require further measures supplementary to the introduction of the Programmes Budget.

International experience is particularly useful in this respect. Most euro area countries as well as other EU or OECD member-countries (e.g. the UK, Sweden, New Zealand, Canada, Australia, etc.) have achieved a considerable containment of primary expenditure by implementing numerical fiscal rules. Such rules usually set limits mainly with respect to the annual growth rate and the amount of primary expenditure. If these rules are to be effective, they should meet certain requirements, most importantly transparency. Fiscal target variables should be defined with accuracy, their development systematically monitored and they should also yield measurable results. Rules should be considered permanent and cover all general government components (e.g. public hospitals, local authorities, universities, etc.), not just central government, while annual targets should be connected to corresponding medium-term targets. It should also be clear which agent or person is responsible (accountable) for the achievement of each target and the final result should be controlled by a body of independent auditors. Finally, including the operation of these rules in an appropriate institutional framework is considered crucial. Indicatively, measures in this direction would include the drawing up of multi-annual budgets, the establishment of a system that will assess public expenditure during the drawing up of the budget (e.g. a zero-base budget), the timely drafting and submission of the budget to the Parliament along with additional information, as well as the restructuring of the budget and the drafting of additional budgets covering the entire general government (social security funds, local authorities, public hospitals, universities, etc.). At the same time, detailed annual balance sheets should be drawn up, enabling the monitoring of changes in the general government's assets and liabilities.

2 See C.J. Mc Dermott and R.F. Wescott, "An Empirical Analysis of Fiscal Adjustments", IMF Staff Paper, No 4, Vol. 43, December 1996, pp. 726-27. Also, A. Alesina and R. Perotti "Fiscal Expansions and Adjustments in OECD countries", *Economic Policy*, XXI, 1995, pp. 205-48, and "Reducing Budget Deficits", *Swedish Economic Policy Review*, 3, 1996, pp. 113-34.

3 See V. Manessiotis and R. Reischauer, "Greek Fiscal and Budget Policy and EMU" in R. Bryant, N.C. Garganas and S. Tavlas (eds), *Greece's Economic Performance and Prospects*, Bank of Greece and the Brookings Institution, Athens, 2001, p. 103.

4 A. Afonso, L. Schuknecht and V. Tanzi, "Public sector efficiency: an international comparison", ECB Working Paper No. 242, July 2003.

The improvement of the public sector's operational framework and of the "quality" of public finances is indispensable

The above measures should be combined with the restructuring of expenditure in favour of categories that promote economic growth, e.g. expenditure on education and healthcare, research and technology and infrastructures. The issue of the quality[5] of public finances has taken, in recent years, a prominent position among the priorities and the analyses of European Union organs. The quality of public finances is a multi-dimensional notion, which includes the composition and efficiency of public expenditure, the structure and effectiveness of the government's tax collection mechanisms, fiscal administration, the size of the public sector, and fiscal policies that affect the operation of markets and the business climate and, thus, the optimal allocation of production factors and the promotion of long-term economic growth. It has been proven that by improving the quality of public finances, substantial fiscal policy challenges can be better met both directly, because of the enhanced efficiency of public expenditure and revenue, and indirectly, by reducing existing distortions and the cost for the economy and improving the ability to adjust to external shocks.

Reducing tax evasion is crucial

If fiscal consolidation is to be achieved, it is also crucial to reduce tax evasion. This is a complex, far-reaching and long-standing phenomenon, and is the most telling sign of the malfunctioning and inefficiency of the tax collection mechanism. Hence, improving the tax collection mechanism should be at the heart of any effort to reduce tax evasion. This can be achieved by making further progress in the introduction of IT applications, simplifying tax provisions and improving essentially the presumed income system, as well as by effectively tackling corruption. *The tax collection mechanism is the only link between the tax base and the tax legislation, on the one hand, and tax revenue, on the other hand.* Although certain changes in the tax legislation may facilitate the task of tax authorities, they cannot cover the need for an effective tax collection mechanism.

Moreover, broadening the tax base and treating citizens according to their tax capacity will help reduce tax avoidance opportunities and strengthen citizens' tax conscience. Tackling tax evasion would help curb the deficit and, at the same time, further cut tax rates and treat taxpayers more fairly. Combatting contribution evasion is equally important.

Recent Law 3697/2008 ("Enhancement of Government Budget transparency, containment of government expenditure, measures to promote tax justice, and other provisions") includes positive provisions designed to ensure transparent and unified fiscal management, improve expenditure control and broaden the tax base. However, it also includes certain provisions (e.g. on tax amnesties and collection of tax arrears) that offset the chronic weaknesses of the tax collection mechanism only temporarily and cannot contribute to tackling tax evasion and nurturing tax conscience over the medium term.

Public debt remains a serious structural problem

The high public debt remains one of the most serious structural problems of Greece's public finance and a source of macroeconomic imbalance. Specifically, a high public debt makes fiscal management very vulnerable to increases in the government's borrowing rates. These increases are driven by both overall interest rate developments and Greece's credit rating.

The structural nature of this problem is revealed by the evolution of the debt so far,

5 See European Commission, COM (2008) 387 final, *The Role of Quality of Public Finances in the EU Governance Framework*, 24 June 2008.

which has remained at 99% of the revised GDP on average during the past 15 years, despite very favourable conditions for its reduction. Specifically, for over a decade Greece enjoyed high growth rates, historically low government borrowing rates and, up to 2001, sizeable primary surpluses, as well as high revenue from privatisations throughout the period. Nevertheless, the debt-to-GDP ratio remained virtually unchanged and the debt, in absolute terms, has continued to rise.

The last few months have seen conditions that tend to feed into the debt dynamics. Specifically, the rise in the cost of new government borrowing (from 3.2% in 2005 to 3.8% in 2006, 4.4% in 2007 and 4.6% on average in the January-August 2008 period), which is associated also with developments in financial markets, as well as the slowdown in economic growth hamper a fast decline in the debt. At the same time, the yield spread between long-term Greek government bonds and the corresponding German bonds rose from 29 basis points at end-December 2007 to 95 basis points at end-September 2008.

Finally, it should be noted that, despite a decrease in the consolidated general government debt to 94.5% of GDP in 2007, from 95.3% in 2006 and 103.8% in 2001, Greece's debt remains the second largest in the European Union, standing well above the reference value set forth in the Maastricht Treaty (60% of GDP).

Tackling the impact from population ageing is a pressing need

If sustainable fiscal adjustment is to be achieved, the impact from population ageing on the government's spending on pensions and healthcare should be addressed in time. The fiscal impact of population ageing, according to all available projections and estimates, will be far more serious in Greece than in most EU countries. The government's pension expenditure as a percentage of GDP (about 11.5% of the revised GDP in 2005) is already among the highest in the EU and, over the long term, is expected to show one of the sharpest increases in the EU (of about 5 percentage points of GDP up to 2030 and over 10 percentage points of GDP up to 2050). Since the early 1990s, certain important legislative efforts have somewhat reduced the magnitude of the problem. However, in relation to other EU countries, Greece has rather lagged behind as regards a broad, comprehensive and far-reaching social security reform.

The recent social security law (3655/2008, April 2008) seeks to tackle the problem of a segmented pension system by merging a large number of social security funds. Fragmentation entailed high administrative costs and inefficient management of social security funds' assets and contributed to the creation of a labyrinthine social security legislation. Moreover, this law reduces early retirement, raising age limits for specific categories of insured, which will gradually approach the limits laid down in generally applicable provisions. It also provides for a more rational and more restrictive determination of occupations to be classified as "arduous and unhygienic." However, the strengthening of the correspondence between social security contributions and benefits, which is achieved by reducing early retirement, is inadequate in relation to the size of the problem. Strengthening this corespondence tends to discourage and reduce contribution evasion by giving employees strong incentives to ensure the payment of (both employee and employer) contributions.

Structural reforms to enhance competition, improve productivity and international competitiveness and raise the employment rate are an important challenge

Bold structural reforms are required if competition, productivity, the international competitiveness of the economy and the employment rate (which are the components of a new, extrovert growth dynamics) are to improve.

The direct objectives of these reforms should be to bring about a more efficient functioning of labour and product markets (so that, among other things, firms' pricing policies and wage adjustments are in line with price stability); improve the business environment, the tax system and public sector efficiency (including a more efficient utilisation of available national resources and of inflows from the EU Structural Funds); cut red tape and effectively combat corruption; and further upgrade human resources.

As is known, according to the Country-Specific Integrated Recommendations for 2008, adopted last March by the Council of the European Union, "policy areas ... where challenges need to be tackled with the highest priority" in Greece include, in addition to long-term fiscal sustainability, also implementation of the public administration reform agenda, consolidation of active labour market policies, tackling high youth unemployment and undeclared work, and acceleration of education and lifelong learning reforms.[6]

Besides, Greece's Economic and Social Committee (OKE), which expresses, *inter alia*, the views of the social partners, points out (in its Opinion No. 200 "Indicators for Monitoring the Implementation of the National Reform Programme 2005-2008 – Review of Developments" adopted in late July) that the competitiveness of the Greek economy continues to deteriorate and that business research and innovation remain very low. Moreover, spending on human resources development is still low, in particular for employment and lifelong learning policies, while social cohesion does not improve and income inequalities are widening. According to the OKE, no in-depth changes are contemplated in public administration, such as upgrading of human resources (meritocracy, further training, systems of remuneration), review of regulatory provisions, combatting corruption, and efficient organisation of public administration. The OKE also observes that the drop in the unemployment rate is largely accounted for by the spread of flexible forms of employment, while the evolution of environmental protection indicators is not satisfactory. Finally, the OKE notes that "rising oil prices and the pressing need to address climate change by reducing fossil fuel consumption will lead to changes in consumer patterns and new inequalities in the access to energy, heating and energy-intensive services".

Key policy directions to increase the employment rate

The employment rate is rising in Greece, but still falls short of that in the more advanced EU countries. A faster increase in the employment rate may be achieved by enhancing labour market flexibility, encouraging new forms of labour organisation and introducing a larger variety of contractual arrangements for employees. Moreover, improving child care systems, promoting equal employment opportunities for men and women and eliminating tax disincentives can help population groups with relatively low participation rates (especially women and relatively older persons) to enter the labour market. Finally, improving education and vocational training systems will allow the continuous upgrading of labour force skills, which will facilitate access to employment in the current conditions of rapid structural changes in the economy and production technology. Higher employment rates are all the more important as the expected demographic developments lead to a decline in the employment-age population. This implies that, over the long term, economic growth should rely exclusively on raising labour productivity —which can be achieved by increasing capital per employee, upgrading human resources and using inputs more efficiently— and on higher employment rates, especially for women, relatively older persons and the youth.

6 See Council of the European Union, document No. 7275/08, 4 March 2008, and Brussels European Council, 13-14 March 2008, *Presidency Conclusions*, document No. 7652/08.

Market reform and improving the business environment are crucial

Improving the operation of product markets and the business environment requires policies aimed at promoting competition and simplifying the regulatory and tax environment, and in particular eliminating barriers to new business set-ups and entrepreneurship. Characteristically, although Greece improved its ranking (from 106th to 96th) on the "ease of doing business" index compiled by the World Bank for 181 countries, it still ranks last among the OECD countries and well below the other EU countries.[7]

Improvements in the business environment (and the tax collection mechanism, as already mentioned) are directly linked with combatting corruption. It should be pointed out, in this connection, that the most recent "governance" indicators compiled by the World Bank (which were released in June 2008 and concern 2007) include the "control of corruption" indicator. For 2007, Greece ranks 21st in the EU-27 on this indicator.[8] As the Bank of Greece has stressed in the past, effectively fighting corruption requires eliminating the conditions that favour it. This implies, among other things, that transparency should be enhanced (e.g. in transactions between citizens/firms and the civil service in general, and in government procurements, enforcement of tax and town planning legislation, market surveillance by the competent authorities etc.), decision-making by the public authorities on the basis of clear and simple rules should be promoted, and auditing mechanisms and supervision should be strengthened. To eliminate the conditions that generate corruption, reforms in other sectors may also help – e.g. cutting red tape and making public administration and the healthcare and social security systems more efficient, creating a simpler and fairer tax system, simplifying the business regulatory framework and enhancing arms-length competition.[9]

The progress achieved in Greece so far — through the liberalisation of the financial sector, telecommunications and postal services — has delivered benefits to consumers and the economy. However, there is still room for strengthening competition both in these industries and in other network industries, such as energy (electricity, natural gas, water, oil refinement), where competition is still weak. The lack or inadequacy of competition in these industries is attributable to defects in the institutional framework (e.g. electricity) and incomplete harmonisation with EU directives (e.g. telecommunications). The Competition Commission can contribute more to enhancing competition. Continuous progress in privatisations is also required. More benefits from privatisations will be reaped if the State gives up controlling public utilities' commercial policies and withdraws from activities better suited to the private sector.

Structural reforms are necessary, in particular in the current phase, in order to, *inter alia,* insulate the Greek economy from the impact of the unfavourable international conjuncture

In the current phase, it is indispensable to effectively counter the impact on the Greek economy from external and, to some extent, temporary shocks. To this end, policy-makers and the social partners can and should primarily ensure that the adverse impact from domestic factors (i.e. macroeconomic imbalances and structural weaknesses) on prospects for medium-term output, employment and income growth remains low. If this is not achieved, negative consequences will be more serious and lasting, and will be largely shouldered by the more vulnerable (i.e. the less well-off) social groups.

This endeavour should take stock of the lessons from past experience. The oil crises in the

7 See World Bank, *Doing Business 2009*, September 2008, Table 1.3.
8 See World Bank: (a) "Worldwide Governance Indicators Show Some Countries Making Progress in Governance and in Fighting Corruption", press release No. 2008/392/WBI, 24 June 2008; and (b) *Governance Matters 2008: Worldwide Governance Indicators, 1996-2007*, June 2008.
9 For policy directions on combatting corruption, see Ministry of Economy and Finance, *National Reform Programme for Growth and Employment 2005-2008*, 15 October 2005, pp. 9, 22 and 37.

1970s teach that a rise in the prices of oil and other commodities in the world market inevitably leads (as already mentioned) to income transfers from households and firms in commodity-importing to commodity-exporting countries. Therefore, neither households nor firms can eventually recover income losses, and any effort to pass these losses to each other will lead to lower competitiveness and higher unemployment. Generally, the errors made at the time when the Greek economy was faced with the first two oil crises —i.e. the relaxation of overall economic policy in the 1970s and 1980s— should not be repeated. As a result of these errors, the inflation rate remained at double-digit levels for 20 years and the average annual growth rate was below 1% for 15 years (1980-1994), while still mounting debts will take long to be paid off.

Certainly, it is first necessary to relieve the more vulnerable social groups of the impact from the oil crisis. In Greece, this could be achieved through targeted actions that would not lead to fiscal derailment. In this connection, it will be of particular relevance to increase the relatively low efficiency of social spending in Greece, as the government itself has stressed, while the establishment of the National Social Cohesion Fund in 2008 aims at, *inter alia*, tackling this problem. At the same time, both firms and households should realise that the non-directly recoverable purchasing power losses caused by the rise in oil and other commodity prices may, over the long term, be made up for effectively only through policy actions increasing competition, as well as through businesses' initiatives that will improve productivity.

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In recent years, due to the optimism inspired by the continuous improvement in key macroeconomic indicators such as GDP, employment and unemployment, in conditions of a generally favourable external environment, the public's focus moved away from the need to increase and improve the productive capacity of the economy. Now, with the factors that supported rising domestic demand and growth in the last 13 years gradually waning and with the deterioration in the external environment affecting Greece, faster and sustainable high growth rates with low inflation will only be possible if the required bold structural changes are decisively promoted and completed. These priorities become all the more urgent at the current conjuncture.

II THE EXTERNAL ENVIRONMENT OF THE GREEK ECONOMY

1 INTERNATIONAL ECONOMIC DEVELOPMENTS AND PROSPECTS[1]

In the first nine months of 2008, the external environment of the Greek economy deteriorated significantly on account of the international financial turmoil (in its second year already) and the very steep rise in international oil[2] and food prices. The shocks caused by these developments led global economy growth to decrease considerably and inflation to increase in all economic areas. The impact of these shocks is stronger than expected and the degree of uncertainty surrounding the global and the European economy remains high.

World GDP growth, after standing at very high levels for four years in a row, is decelerating substantially in 2008, compared with 2007 (see Table II.1). The economic slowdown is more marked in advanced economies, especially in countries where the "correction" in the real estate market persists, strengthening the impact of the financial turmoil. Emerging and developing economies have been affected much less by the international financial turmoil and continue —mainly boosted by the economies of China and India— to record high rates of economic growth, albeit lower than in previous years, contributing significantly to the containment of the global economy slowdown. According to the latest published IMF forecasts, world GDP growth will decelerate to 4.1% in 2008, from 5.0% in 2007. In advanced economies, the growth rate will stand at the lowest level since 2001 (1.7%, compared with 2.6% in 2007) and in the emerging and developing economies at 6.9% (2007: 8.0%).

Inflation is on the rise in every economic area —particularly in emerging and developing economies— due chiefly to higher commodity prices but also to the faster increase in unit labour costs.[3] In advanced economies, inflation is expected to hike to 3.4% in 2008, from 2.2% in 2007, despite the shortfall of current vis-à-vis potential output in major advanced economies, the persistent fall in real estate prices in many of them and the increase in key interest rates by certain central banks in 2006-2007. In emerging and developing economies, inflation will climb to 9.1% from 6.4% in 2007. The acceleration of inflation in emerging economies is bolstered by demand, which is higher than the potential output, and by the fact that food items weigh more in the CPI basket. The upsurge of inflationary pressures in these areas spills over into the entire global economy. Thus, it is currently estimated that globalisation —notwithstanding its role as a propeller of global economic growth— increases rather than weakens inflationary pressures.[4]

The **US** economy suffered directly and intensely the consequences of the financial turmoil that burst out in the third quarter of 2007,[5] resulting in a further slowdown of GDP growth to 2.0% in 2007, from 2.8% in 2006 and an expected deceleration to 1.8% in 2008. Economic activity waned significantly, especially from the fourth quarter of 2007 onwards, as the financial turmoil generated a tightening in credit supply and contributed to a further decline in the value of household assets.[6] In the first quarter of 2008, the GDP (annualised) growth rate was 0.9%, but in the second quarter it sped up beyond forecasts to 2.8%, primarily because of the implementation as from

1 The analysis is based on the macroeconomic developments until end-September 2008 and has taken into consideration IMF's most recent forecasts (*World Economic Outlook*, April 2008, and *World Economic Outlook Update*, 17 July 2008). The interim forecasts of the European Commission (*Interim Forecast*, 10 September 2008) and the OECD (*An Interim Assessment*, 2 September 2008), ECB staff macroeconomic projections (4 September 2008) and other available data were also taken into account. The IMF is expected to publish its revised assessments and forecasts on 8 October 2008.

2 International oil prices, despite their recent fall, remain at significantly high levels compared with their 2007 average.

3 In OECD countries, nominal unit labour costs in the whole economy are estimated to reach 2.6% in 2008, from 2.2% in 2007 (OECD, *Economic Outlook*, June 2008).

4 In the last decade, the increasing imports by advanced economies of products from countries with low production costs, such as China, have contributed substantially to the moderation of inflation in advanced economies. Nonetheless, the emerging and developing economies' high demand for commodities, especially oil and food, has contributed to a sharp rise in the corresponding prices and in inflation worldwide. Moreover, these economies have witnessed a marked rise in the prices of goods and services, including exportable goods. Therefore, globalisation no longer has a dampening net effect on inflation.

5 The turmoil was triggered by increasing defaults on sub-prime mortgage loans in the United States and spilled over into the global economy thereafter.

6 It is noted that the "correction" of real estate prices in the USA had started in 2005.

Table 11.1 Key macroeconomic aggregates of the world economy (2006-2008)

	Number of countries	Share in GDP[1] (%)	GDP (annual percentage changes in volume)			Inflation[2] (annual percentage changes)			Fiscal balance (% of GDP)			Current account balance (% of GDP)		
			2006	2007[3]	2008[3]	2006	2007[3]	2008[3]	2006	2007[3]	2008[3]	2006	2007[3]	2008[3]
World total	172	100.0	5.1	5.0	4.1	-	-	-	-	-	-	-	-	-
1. Advanced economics	*31*	*56.4*	*3.0*	*2.6*	*1.7*	*2.4*	*2.2*	*3.4*	*-1.4*	*-1.1*	*-1.6*	*-1.3*	*-1.0*	*-1.1*
United States		21.4	2.8	2.0	1.8	3.2	2.9	3.0[4]	-2.2	-2.5	-4.5	-6.0	-5.3	-4.3
Japan		6.6	2.4	2.1	1.2	0.2	0.1	0.6[4]	-3.8	-3.2	-3.4	3.9	4.8	4.0
United Kingdom		3.3	2.9	3.1	1.1	2.3	2.3	3.6	-2.6	-2.7	-3.3	-3.9	-4.3	-4.8
Euro area	15	16.1	2.8	2.6	1.3	2.2	2.1	3.6	-1.3	-0.6	-1.0	0.3	0.2	-0.7
2. Emerging and developing economies	*141*	*43.6*	*7.9*	*8.0*	*6.9*	*5.4*	*6.4*	*9.1*	*0.4*	*0.5*	*-1.3*	-	-	-
China		10.8	11.6	11.9	9.7	1.5	4.8	7.0	-0.7	1.0	-1.0	9.4	11.3	9.9

Sources: IMF, *World Economic Outlook*, April 2008, and *World Economic Outlook Update*, 17 July 2008, European Commission, *Spring Economic Forecasts*, 28 April 2008, and *Interim Forecast*, 10 September 2008, and OECD, *An Interim Assessment*, 2 September 2008.

Note: According to IMF classification: Advanced economies: EU-15, Slovenia and Malta, the four new industrial economies in Asia (Korea, Singapore, Taiwan-Chinese province and Hong-Kong-SAR) and USA, Japan, Canada, Australia, Switzerland, Iceland, Israel, Cyprus, Norway and New Zealand. Emerging and developing economies: Africa (47), Central and Eastern Europe (13), Commonwealth of Independent States (13 incl. Mongolia), Developing Asia (23), Middle East (13) and Western Hemisphere (32).

1 Percentage share in world GDP in 2007, on the basis of purchasing power parities.
2 HICP for the euro area and the United Kingdom, CPI for the other countries.
3 2007: estimates, 2008: forecasts.
4 Last published IMF forecasts (April 2008). According to the most recent data for the first half of 2008, annual inflation is estimated to be around one percentage point higher in both Japan and the United States.

May of the extraordinary measure of personal income tax refund to support private consumption.[7] The decrease both in construction activity and in the prices of dwellings continued at a faster pace. The volume of residential investment has been declining for ten consecutive quarters: its annualised quarterly rate of change reached even -27% in the fourth quarter of 2007 and -25.1% in the first quarter of 2008, more than offsetting the increase in other types of investment and resulting in the decrease of total gross fixed capital formation. The downward course of the US dollar, coupled with the larger (than the global) slowdown in domestic demand, paved the way for the improvement of net exports and the acceleration of GDP growth from the second quarter of 2007 onwards. However, the current account balance still records a considerable deficit, although the latter, as a percentage of GDP, is expected to narrow in 2008. In spite of the economic slowdown, inflation (CPI) is increasing, mainly on account of the rise in commodity prices, especially those of oil and food. In the first half of 2008, inflation was 4.2%, but rose to 5.4% in August.

Regarding developments in the **US financial sector**, the Federal Reserve System intervened, at the beginning of March, to prevent a further deterioration of the business sentiment, bailing out Bear Stearns, the 5th larger investment bank. On 7 September, the government and the Federal Reserve System announced that the two largest mortgage agencies in the USA (Fannie Mae and Freddie Mac), which guarantee mortgages of a value equivalent to 1/3 of the US GDP, would be put under government control (measures for the support of these agencies had already been taken on 13 July). On 16 September, the biggest US insurance company (AIG – American International Group) was also put under government control, as the danger of financial collapse was imminent. Due to AIG's interconnections with thousands of financial corporations worldwide, its bankruptcy would trigger a domino of negative effects. From 20 to 28 September, the "Emergency Economic Stabilisation Act of 2008" was drafted, which would allow the allocation of $700 billion to the US Treasury Department for bailing out US-based financial corporations by buying their doubtful assets. On 29 September the draft Act was rejected by the House of Representatives, but on 1 October the Senate voted in its favour. On 21 September, the Federal Reserve System approved the transformation of two investment banks, Goldman Sachs and Morgan Stanley, into bank holding companies: thus they were put under stricter supervisory rules and gained access to a larger pool of financing (customer deposits and access to the Federal Reserve System financing facilities). These measures are aimed at gradually restoring confidence in international financial markets (see also Box II.1).

7 The total amount of fiscal expenditure that was approved in February 2008 was in the area of $150 billion and accounted for 1% of the US GDP in 2008.

Box II.1

THE TURMOIL IN FINANCIAL MARKETS AND ITS IMPACT ON THE INTERNATIONAL BANKING SYSTEM – RECENT DEVELOPMENTS

One year after the onset of the financial market turmoil, the smooth operation of the international banking sector has been significantly affected,[1] along with, *inter alia*, some of its key aggregates, such as profitability and capital adequacy, which ensure its stability. The balance

1 See speech of the President of the US Federal Reserve System, Ben S. Bernanke, at the Federal Deposit Insurance Corporation's Forum on Mortgage Lending for Low and Moderate Income Households, Arlington, Virginia, on 8 July 2008, and his testimony before the Committee on Financial Services, of the US House of Representatives, on 10 July 2008. Also, see the speech of the President of the ECB, Jean-Claude Trichet in Frankfurt on 30 September 2008.

sheets and profit and loss accounts of many banks worldwide still suffer from heavy pressures, owing to the high degree of asset write-downs and write-offs[2] brought about by changes in the valuation of these items[3] or by their liquidation at prices lower than acquisition costs.

The above mentioned developments have shaken investors' confidence. This is reflected in the development of share prices[4] and the limited interest of shareholders and investors in participating in capital increases announced by certain banks. Moreover, in some cases the developments have also shaken depositors' confidence. As a result, some banks went bankrupt;[5] in other cases,[6] the bankruptcy was prevented thanks to the intervention of central banks,[7] supervisory authorities and governments.

In more detail, the asset write-downs and write-offs announced by 24 major banking groups in the USA, Europe and Japan in the second half of 2007 and in the first half of 2008 were worth approximately \$400 billion.[8] This amount, according to the balance sheets of these banks for 2006 (i.e. before the turmoil), stands for about 31% of the said banking groups' own funds and 1.4% of their total assets. Moreover, at the global level, until end-September 2008, total asset write-downs and write-offs amounted to approximately \$520 billion (the largest part of which is related to American banks), while, according to estimates by international organisations and independent researchers, the total amount of asset write-downs and write-offs may reach \$1.3 trillion until the end of 2008.[9]

Because of the high degree of bank leverage, such amounts give rise to concerns about possible adverse effects on the stability of the international financial system and thereby on the global economy.[10] These concerns are intensified by the difficulties that, apart from banks, government-sponsored entities (GSEs), such as Fannie Mae and Freddie Mac in the USA, begin to

2 Banks worldwide, after the onset of the turmoil, started gradually to announce, in more detail than in the past, the development of their investments in complex structured financial products as well as the write-offs they carried out.
3 Such data pertain mainly to investments in instruments that, according to the international accounting standards, are classified as follows: (i) valued at fair value, on the basis of profit and loss accounts, (ii) available-for-sale and (c) held-to-maturity. In their majority, investments connected with the financial turmoil fall under the first two categories and their "fair" value is determined either on the basis of market prices, if available, or by running valuation models. Changes in the value of investments falling under the first category are recorded in the profit and loss account, thereby affecting it directly, while corresponding changes in the second category affect the profit and loss account only once these instruments are sold. Even if they are not sold, however, a possible decrease in the value of this category's investments has a negative impact on own funds.
4 It is noted that the bank share price index in the euro area and the United States witnessed, between 31 December 2007 and 29 September 2008, a reduction of 39% and 42.6%, respectively, while, for a number of major banks that recorded extensive asset write-downs and write-offs, the prices of their shares have fallen more than 70% from the onset of the turmoil up to now. Over the same period, the margins of bank-related credit default swaps widened considerably. For more information on these margins, see the ECB *Monthly Bulletin* and the ECB's periodical reports on the stability of the financial system.
5 Recent examples in the USA are the bankruptcy of Lehman Brothers, IndyMac Bancorp, First Heritage Bank and First National Bank of Nevada, and in Europe the case of Roskilde Bank in Denmark.
6 Indicatively, the bailout of Merrill Lynch, Countrywide Financial, Bear Stearns, Washington Mutual and Wachovia in the USA through the acquisition of the first and the second companies by the Bank of America, of the third and the fourth ones by JPMorgan Chase and of the fifth one by Citigroup; also, the supply of liquidity via a loan that the US government granted to the American International Group in exchange of 79.7% of its shares; the approval (by the US Federal Reserve System) of the transformation of two investment banks, Goldman Sachs and Morgan Stanley, into bank holding companies; the nationalisation of two banks, Northern Rock and Bradford & Bingley, in the UK; the support of Fortis by the governments of the Netherlands-Belgium-Luxembourg, of Dexia by the governments of Belgium-France-Luxembourg and of Hypo Real Estate, Sachsen LB and IKB by the government of Germany.
7 Within their field of competence to ensure financial stability and their role as lenders of last resort.
8 The asset write-offs referred to herein do not include write-offs of assets of insurance and reinsurance groups or losses recorded by other investment funds (high leverage funds, sovereign investment funds, etc.). Moreover, smaller credit institutions with large exposures to sub-prime mortgage loans in the United States have also proceeded with asset write-offs.
9 The most recent assessment was included in a speech delivered by John Lipsky, First Deputy Managing Director of the International Monetary Fund, to UCLA Economic Forecasting Conference on 24 September 2008. For earlier estimates on the total amount of asset write-downs and write-offs and on their general impact on the economy, see indicatively: (i) Adrian Blundell-Wignall, "The Subprime Crisis: Size, Deleveraging and some Policy Options", *Financial Market Trends*, vol. 1, No. 94, 2008; (ii) David Greenlaw, Jan Hatzius, Anil K. Kashyap and Hyun Song Shin, "Leveraged Losses: Lessons from the Mortgage Meltdown", presented in the U.S. Monetary Policy Forum, February 2008; and (iii) IMF, *Global Financial Stability Report*, April 2008 (and *GFSR Market Update*, 28 July 2008).
10 See footnote 9 above.

face. Such entities own or have guaranteed 50% of the outstanding housing loans and are currently refinancing 75% of the new housing loans in the USA. Thus, they play a leading role in the said loan market, which renders them very important for the stability of the financial system. This is why the American government and the Federal Reserve System decided, at the beginning of September 2008, to put these entities under a government-controlled capital restructuring programme, in order to avert bankruptcy.[11] Moreover, at the end of September an Act was drafted in the USA that would allow the US Treasury Department to buy doubtful assets (to a total amount of $700 billion) of US-based financial corporations (see main text).

These developments make it particularly difficult to assess on the duration and overall repercussions of the ongoing turmoil, even though, in general, banks have managed thus far to absorb a significant part of the shocks internationally. Apart from the support of governments, central banks and supervisory authorities, new inflows (from, *inter alia*, sovereign wealth funds-SWFs) have covered 70% of the current outstanding asset write-downs and write-offs.

It is obvious that the top priority, in this stage, is to restore confidence in global financial markets.

11 The government and the US Federal Reserve System had already announced in July 2008 measures for the support of Fannie Mae and Freddie Mac in an effort to keep unimpaired investor interest in the debt issued by these agencies. The decision that put these companies under government control is expected to adversely affect holders of preference shares (mainly American banks) and counterparties in credit default swaps with an underlying debt issued by these agencies.

In **Japan**, the pace of economic growth is expected to moderate to 1.2% in 2008, from 2.1% in 2007, owing to the larger than in 2007 decline in total fixed capital formation, despite the recovery of residential investment. Notwithstanding the slight appreciation of the yen at the beginning of the year and the weaker demand from the USA, the contribution of net exports to GDP remained important, as the share of Japanese exports in the Asian market increased. The rise in oil and food prices conduced to the upsurge of inflation (in the first half of 2008 inflation was 1.2% but in August it had reached 2.1%), even though core inflation remained close to zero. The financial turmoil has so far affected Japanese money markets comparatively less, but there are still risks to the financial system as international shocks continue and the country's economic activity is slowing down.[8]

As regards EU economies outside the euro area, GDP growth in the **United Kingdom** is expected to recede to 1.1% in 2008 from 3.1% in 2007, as consumption and investment are affected by deteriorating credit conditions and the waning housing market. Inflation (HICP) picked up this year and is anticipated to reach 3.6% in 2008 from 2.3% in 2007.

In **China** GDP growth is estimated to slow down to 9.7% in 2008, from 11.9% in 2007, as the contribution of net exports to economic growth is decreasing. The steady increase of wages boosts domestic consumption and gradually expands the share of domestic demand in economic growth. Inflationary pressures have built up, despite the appreciation of the yuan, due to the rally of oil and food prices and the "positive gap" of the economy (i.e. current output being in excess of potential output). Inflation, which had risen swiftly to 4.8% in 2007 from 1.5% in 2006, is anticipated to climb to 7.0% in 2008.[9] The yuan appreciated against the US currency in the last twelve months and China's reserve assets grew further (to $1,809

8 See IMF, *2008 Article IV Consultation with Japan - Concluding Statement of the IMF Mission*, May 2008.
9 According to a recent report of the Asian Development Bank, *Outlook 2008 update*, 16 September 2008.

billion in June 2008), increasing excess liquidity, despite the efforts to absorb a part of it. On 15 September 2008, the People's Bank of China cut its key interest rates and loosened restrictions on the granting of bank loans, in an effort to prevent a further slowdown of economic activity and to put a check on surging capital inflows. The current account surplus is estimated to remain at extremely high levels (9.9% of GDP from 11.3% in 2007).

Economic growth in other large emerging economies is expected to keep its fast pace in 2008 (**Russia** and **India**: 7.5%, **Brazil**: 5%), though somewhat moderated compared with 2007, especially for India.

International commodity prices reached new historical highs in the second quarter of 2008, both at nominal and real terms, generating high inflationary pressures in all economies.[10] As global demand for crude oil in 2008 is still high despite the global economic slowdown and as global oil supply is adjusting sluggishly in terms of pumping and refining, global reserves remain at levels that render international oil prices particularly sensitive to adverse developments. Moreover, the continuous depreciation of the effective exchange rate of the US dollar since 2003 is estimated to have a direct reverse impact on the development of the international price (in US dollars) of crude oil.[11] The reason is that the oil-producing countries (OPEC countries and Russia) increase oil prices to offset the loss of their incomes' purchasing power caused by the US dollar depreciation. Furthermore, the reduced cost of crude oil (due to the US dollar depreciation) increases demand for crude oil in importing countries outside the dollar area. Finally, it is estimated that financial factors, such as investors' portfolio shifts from US dollar-denominated paper markets to commodity forward markets, also contributed to the rise in crude oil prices.

The international price of crude oil increased beyond all forecasts in 2008. In the second quarter of 2008, it was $122.6/barrel, but until end-June 2008 it had exceeded $140/barrel, i.e. it was 100% higher than the 2007 average. In *euro terms*, the rally of Brent crude oil was slower: from €52.9/barrel in 2006 and €52.8/barrel in 2007, it reached €85.9/barrel (monthly average) in June 2008. Prices then fell and on 15 September the international price of crude oil was around $97/barrel, same as at the beginning of April.

International prices of non-oil commodities (in US dollars) are anticipated (according to the IMF) to increase in 2008 at an average rate of around 15% (2007: 14.1%). The rate of increase in food commodity prices is estimated to double.[12]

The **fiscal condition in advanced economies**, after four consecutive years of improvement, is deteriorating in 2008. The impact that the significant economic slowdown and the rise in inflation have had on *real disposable income* forced some governments, especially the US one, to ease their fiscal policy. In the 7 major advanced economies as a whole, the deficit of general government is expected to widen to 3.4% of GDP from 2.2% in 2007. This widening reflects (i) the easing of the fiscal policy, since the structural deficit is anticipated to rise to 3.0% of GDP, from 2.3% in 2007, and (ii) the adverse economic conjuncture, given that in 2008 the growth of economic activity was weaker than potential GDP growth in advanced economies. In the USA, it was decided to support economic activity by means of a tax refund to specific population groups. The adoption of similar policy measures was not considered appropriate for the euro area, where the automatic fiscal stabilisers are more effective than in the USA,[13] nor for Japan,

10 It is estimated that the new historically high price of crude oil (in US dollars), which was recorded in July 2008, exceeds by 30% (in real terms) the former historical high of 1979.

11 It has been estimated that a short-run depreciation of the US dollar's nominal effective exchange rate by 1% leads to an almost equal percentage increase in the prices of crude oil and gold, whereas in the long-run this increase exceeds 1% (see IMF, *World Economic Outlook*, April 2008, Box 1.4, "Dollar Depreciation and Commodity Prices").

12 For the determinants and the impact of this increase, see Box V.1.

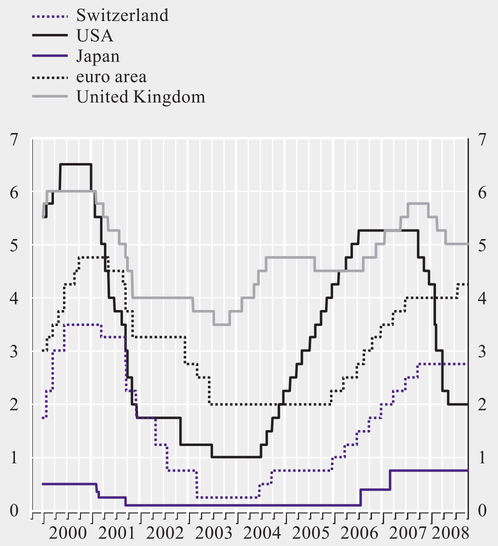
13 See e.g. *Public Finances in EMU 2008*, p. 21.

where the impact of the international financial turmoil was not as serious. It is estimated that the fiscal deficit in the USA will widen to 4.1% of GDP in 2008[14] (from 2.5% in 2007) and in the euro area to 1.4% of GDP (from 0.6% in 2007), whereas in Japan it will remain unchanged to 3.2% of GDP.

Monetary policy in advanced economies is faced in 2008 with the complex problem of global inflation rising to the highest levels since 1992, in an environment of economic slowdown, deteriorating financial conditions internationally and a correction in the real estate market in both the USA and other advanced economies. The Federal Reserve System, in response to forecasts for a considerable slowdown, implemented a policy of successive reductions of its interest rate from September 2007 onwards. Thus, it reduced its key federal funds rate by 100 basis points during 2007 and by 225 basis points in the first four months of 2008. In its last intervention, on 30 April, the Federal Reserve System set its key interest rate at 2.0% (5.25% a year earlier) and kept it unchanged thereafter. In the euro area, where inflation was rising in the first half of 2008 and kept significantly exceeding the target for price stability, the ECB increased its key interest rate by 25 basis points to 4.25% on 9 July 2008 (see Chapter III), having kept it unchanged to 4% for an entire year (June 2007-June 2008). In Japan, the official discount rate remains very low (0.75%) and unchanged since February 2007. In the United Kingdom, the Bank of England reduced its key interest rate twice in the first half of 2008, in February and April, by 50 basis points overall, to 5% (see Chart II.1).

Chart II.1 Central bank policy rates (1 January 2000–30 September 2008)

(percentages per annum, daily data)



Sources: Euro area: European Central Bank (ECB), minimum bid rate on main refinancing operations. USA: Federal Reserve, intended federal funds rate. Japan: Bank of Japan, official discount rate. United Kingdom: Bank of England, repo rate. Switzerland: Central bank of Switzerland, intended range average for the three-month Libor.

2 SOUTHEASTERN EUROPEAN ECONOMIES

Southeastern European economies continue to witness relatively high growth rates, bolstered by strong domestic (consumer and mainly investment) demand. However, the growth rate of exports is decelerating, net capital inflows (bank flows, portfolio investments and foreign direct investments) are weakening and the cost of borrowing for enterprises and households is increasing, as the impact of the international financial turmoil and the slowdown of advanced economies begin to be felt. Southeastern European economies are characterised by large current account deficits and a high degree of dependence from external financing, which make them more vulnerable to changes in the international market sentiment and to fluctutations of interest and exchange rates.[15]

The effect of the ongoing increase in international oil and food prices on inflation and on inflation expectations is considerable. The

14 Estimates on the US fiscal deficit will be revised upwards once the fiscal cost of government interventions in the financial system for the aversion of systemic risks (see above in the main text) is also taken into account.

15 A prominent characteristic of this region that differentiates it from other emerging markets is the high degree at which subsidiaries are financed by European parent companies, mainly banks. Bank flows are usually more volatile than other portfolio flows or foreign direct investment; as a result, a possible sudden change in these flows, on account of the financial turmoil, increases the risk of credit cuts and a drop in asset value in the countries of the region. See IMF, *World Economic Outlook*, April 2008, p. 86.

increase in food prices was particularly felt in the economies of this region, due to the larger share of food in the CPI and to domestic shortages in supply.

The growth rate of Southeastern European economies is expected to slow down slightly in 2008 and more in 2009 (see Table II.2), eventually reaching the potential GDP growth rate and thereby reducing both the risk of a further overheating of the economy as well as the widening of current account deficits, inflation rises and wage increases in excess of productivity growth.

In more detail, in **Bulgaria** GDP growth is estimated to stand at around 6% in 2008 (from 6.2% in 2007), due to the slackened domestic demand, whereas inflation will hike to approximately 12% (from 7.6% in 2007), due to the increase in commodity prices and wages. The most important problem remains the extremely wide current account deficit, which is expected to increase further as a percentage of GDP (from 21.4% in 2007) and is mainly attributed to the high imports of capital goods and raw materials. In **Romania**, economic growth is expected to gather pace to 6.5%-7% in 2008 (from 6.0% in 2007), but the tightness of credit supply, increased interest rates and high energy and food prices will moderate the rise in consumption and investments in the second half of 2008 and in 2009. Despite the depreciation of the leu, inflation is estimated to speed up to about 8% in 2008 (from 4.8% in 2007), while the current account deficit will roughly maintain its high 2007 levels (14.8%).

As regards the **other Southeastern European countries**, it is expected that economic growth will slacken, inflation will increase, the current account deficit will widen and the unemployment rate will fall. In **Serbia**, it is expected that GDP growth will decelerate to about 4% from 7.3% in 2007 and that inflation will climb to 11%-11.5% from 6.8% in 2007. In **FYROM**, the political uncertainty affects the external sector of the economy, but domestic demand, supported mainly by private transfers from abroad, remains robust. Unemployment decreased only marginally, remaining at particularly high levels (over 30%). GDP growth is expected to slow down slightly in 2008 (from 5.1% in 2007). The **Albanian** economy maintains its high growth rates and GDP is expected to increase by 6%, similar as in 2007, supported by industry, mining and manufacturing, despite the problems with electricity supply.

The outlook for the **Turkish** economy remains relatively favourable (GDP is expected to increase by around 4% in 2008, from 4.5% in 2007). However, as the agreement with the IMF came to term in May 2008 and political instability holds, uncertainty as to the continuation of economic reforms is on the rise, contributing to an increase in risk premia and real interest rates. At the same time, the reduction in foreign direct investment inflows along with the outflow of portfolio investments exerted pressure on the exchange rate of the Turkish lira. The current account deficit is estimated to exceed 7% of GDP in 2008, from 5.7% of GDP in 2007, despite the rise in exports. The large financing requirements, coupled with the steep fall of the Turkish lira exchange rate (March-August 2008) make the Turkish economy vulnerable to the financial turmoil.[16] Despite the anti-inflationary stance of monetary policy, the increase in consumer prices is expected to exceed 10% in 2008 (from 8.8% in 2007), mainly on account of the rise in oil and food prices.

The presence of Greek banks in SE European countries

The favourable outlook for the development of SE European economies and the relatively low degree of bank intermediation have made the region, in the past few years, attractive to

16 It is characteristic that in Turkey domestic banks' financing through the securitisation of loans has been reduced and there are concerns that some sources of financing may have begun to get exhausted (e.g. syndicated loans and liquidity in the exchange rate swap market that domestic banks use in order to convert Turkish liras into foreign exchange). See IMF, *Regional Economic Outlook*, April 2008, pp. 12-13.

Table II.2 Key macroeconomic aggregates of Southeastern European countries (2007-2009)

(annual percentage changes, unless otherwise indicated)

	GDP			Inflation			Current account balance[1]		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
Bulgaria	6.2	5.8	5.6	7.6	12.0	5.9	-21.4	-21.2	-20.9
Romania	6.0	6.5	5.1	4.8	8.0	4.8	-14.8	-14.8	-16.2
Slovenia	6.1	4.2	3.8	3.8	5.4	3.3	-4.8	-4.9	-4.3
Croatia	5.6	4.5	5.0	2.9	5.9	3.0	-8.6	-8.1	-7.8
FYROM	5.1	4.8	5.5	2.3	6.0	2.7	-3.1	-4.4	-5.3
Turkey	4.5	4.0	4.7	8.8	10.0	6.0	-5.7	-7.0	-6.4
Albania	6.0	6.0	6.1	2.9	4.2	2.9	-8.3	-8.3	-5.5
Serbia	7.3	4.0	6.0	6.8	11.0	8.9	-16.5	-16.1	-15.8
Bosnia-Herzegovina	5.8	5.5	5.5	1.3	4.8	2.7	-13.0	-14.0	-15.3
Montenegro	7.5	7.2	5.4	3.4	4.8	4.1	-37.0	-32.7	-29.1

Sources: IMF, *World Economic Outlook*, April 2008, European Commission, *Spring Economic Forecasts*, 28 April 2008, and OECD, *Economic Outlook*, 4 June 2008.
Note: According to the official classification of the European Union (EU), Croatia, FYROM and Turkey are EU candidate countries, whereas Albania, Serbia, Bosnia-Herzegovina and Montenegro are potential EU candidate counties.
1 Deficit (-)/surplus (+) as a percentage of GDP.

Greek banks, which are increasingly adding to their presence there, especially during the last five years.[17]

At the end of the first half of 2008, Greek banks' activity in these countries accounted for about 11% of their total assets, a percentage almost entirely attributable to credit expansion, as the supply of other services is still very limited, in spite of the public's gradual familiarisation with the new specialised financial products. Moreover, the market share of Greek banks in the wider region exceeded 9% and their activity therein contributed by about 17% to the pre-tax profits of Greek banks as a whole.[18] It is also noteworthy that, in the period under review, Greek banks' exposures in this wider area amounted to €51.2 billion.

Greek banks, therefore, have a noticeable presence in the economies of these countries, a fact that has favoured their profitability. However, this presence has significantly heightened risks: besides the credit risk, Greek banks are also increasingly exposed to foreign exchange and country-specific risks. Therefore, this activity calls for particular vigilance, especially during the current international economic situation, even though the financial turmoil has not had until now a serious direct impact on SE European economies.

3 DEVELOPMENTS AND PROSPECTS OF THE EURO AREA ECONOMY[19, 20]

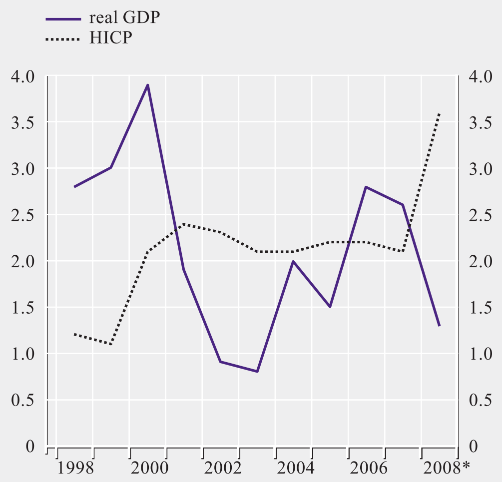
Economic growth in the euro area is slowing down considerably this year, because of the international financial turmoil and the rally of

17 See also, Bank of Greece, *Monetary Policy – Interim Report 2006*, October 2006, pp. 79-83.
18 Indeed, for the four Greek banks with the greater penetration in the region, the percentage of their profits and their loan portfolio related to their activity there exceeds their total corresponding aggregates by 20% and 23%, respectively.
19 The analysis below is based on the developments recorded until the end of September 2008, as well as on ECB staff macroeconomic projections (ECB, 4 September 2008), European Commission and OECD interim economic forecasts (September 2008) and IMF forecasts (*World Economic Outlook*, April 2008, and *World Economic Outlook Update*, 17 July 2008).
20 At the institutional level: (i) the EU Council decided on Slovakia's entry into the euro area as from 1 January 2009. The decision was taken on the basis of the ECB and European Commission convergence reports ascertaining that Slovakia meets the Maastricht Treaty convergence criteria; (ii) the Slovak koruna exchange rate vis-à-vis the euro was set, by virtue of the Council's decision of 8 July 2008, at 30.1260 krunas/euro. This exchange rate corresponds to the Slovak kruna's central parity within the Exchange Rate Mechanism (ERM II).

international oil and food prices. The latter factor has led inflation to increase to levels significantly higher than those compatible with monetary stability (see Chart II.2). In 2009 GDP growth will remain low and is forecast to decelerate further, while inflation will recede gradually.

Chart II.2 Euro area: real GDP and HICP (1998–2008)

(annual percentage changes)



Source: European Commission, *Interim Forecast*, 10 September 2008.
* 2008: estimates.

3.1 INFLATION

Euro area HICP inflation was above 3% during 2008, peaking (4.0%) in June and July and decelerating thereafter to 3.8% in August and 3.6% in September (provisional estimates). The steep rise in international oil and food prices from the second half of 2007 onwards was the main cause of the inflation hike. Inflation is anticipated to remain at relatively high levels for several months, falling gradually however, as both domestic and external pressures are expected to ease.

According to ECB staff projections, average annual inflation in the euro area will be in the area of 3.4%-3.6% in 2008 (compared with 2.1% in 2007) and of 2.3%-2.9% in 2009.[21] These projections are based on the estimate that, as for domestic inflationary pressures, wage growth in 2008 will be higher than in previous years, whereas productivity growth will undergo a cyclical decline that will cause unit labour cost growth to speed up. Nonetheless, the impact of the increased unit labour costs on inflation is expected to become milder on account of the narrowing of corporate profit margins due to the economic slowdown. In 2009 it is forecast that the acceleration of productivity growth and the deceleration of wage increases will dampen inflationary pressures; however, this effect will be moderated by the recovery of profit margins. External inflationary pressures are anticipated to decline in 2009, according to current projections on the development of international oil and food prices (based on forward market prices).

Uncertainties as to the projections on inflation mainly focus on the probability of wage increases that will be larger than expected or price increases in sectors with imperfect competition, as well as on the future oil and agricultural prices. The European Central Bank deems it highly important to deter a strengthening of inflationary pressures, which would lead to a second round of price and production cost increases (see Chapter III).

3.2 ECONOMIC ACTIVITY

The high quarterly GDP growth rate in the euro area in the first quarter of 2008 (0.7% compared with 0.4% in the last quarter of 2007) was the result of extraordinary factors (good weather conditions that favoured constructions); in the second quarter, GDP fell slightly (by 0.2%, compared with the first quarter).

The international financial turmoil and the rally of international oil and food prices had a negative effect on euro area economies, which is expected[22] to continue in the remainder of

21 According to the European Commission's "Interim Forecast", inflation in the euro area will amount to 3.6% in 2008.
22 As also shown by the findings of business surveys in the euro area as a whole. E.g. the Economic Sentiment Indicator published by the European Commission continued to decrease in August 2008.

the year and in 2009. In more detail, in the second quarter of 2008 private consumption fell by 0.2%, having remained unchanged in the first quarter. Investment also dropped (-1.2%), after a significant increase (1.5%) in the first quarter. The GDP annual growth rate decelerated to 1.4% in the first half of 2008, from 2.4% in the corresponding 2007 period. Moreover, the appreciation of the euro from 2006 until July 2008 is beginning, according to estimates, to have a negative impact on the growth rate of euro area exports (which were reduced by 0.4% in the second quarter of 2008).

According to ECB staff macroeconomic projections (4 September 2008), the GDP growth rate in the euro area will be 1.1-1.7% in 2008 and 0.6-1.8% in 2009.[23] These projections take into account estimates of a slackening of the global economy and world trade in 2008 and of their gradual recovery during 2009[24] (see Section 1 above). The growth rate of demand in euro area's external export markets will be 5.2% in 2008 and 5.7% in 2009 and euro area exports are expected to grow at a rate of 2.9-4.5% in 2008 and 2.4-4.6% in 2009.

As regards domestic demand, the growth rate of private consumption is expected to drop in 2008 (as the rise in oil and food prices will limit the increase in households' real disposable income), but will gradually recover in 2009, mainly on account of the anticipated decrease in inflation. The continuing growth of employment, albeit at lower rates than in the recent past, is expected to boost consumption and dampen the negative impact of the price hike on real income. Overall, private consumption is anticipated to grow at a rate of 0.5-0.9% in 2008 and 0.6-1.6% in 2009.

Business investment is expected to be unfavourably affected by the slowdown of economic activity and higher borrowing costs due to the international financial turmoil. However, the fact that the capacity utilisation rate remains high and there are still shortages in equipment is favourable for the growth of business investment. Residential investment is expected to drop, due both to the "correction" in the housing market in some euro area countries and to the deterioration of financing conditions. Total investment change is anticipated to be in the area of 0.9-2.3% in 2008 and -0.7-2.1% in 2009.

3.3 EMPLOYMENT AND UNEMPLOYMENT

Despite the slowdown of economic activity, the key aggregates of the euro area labour market continued to improve in 2008, albeit at considerably lower rates. The growth rate of employment reached 0.2% in the second quarter of 2008 from 0.3% in the first quarter, whereas for 2008 as a whole it is expected to stand at around 1% (compared with 1.7% in 2007). In 2009, the anticipated prolongation of the economic slowdown will have a downward effect on employment growth, which is expected to drop to 0.5%.

The euro area unemployment rate accounted for 7.3% of the labour force in July 2008 — remaining unchanged from April 2008 — compared with 7.4% in July 2007. The unemployment rate is expected to reach 7.2% in 2008 and to remain at similar levels in 2009.

The relatively robust increase in euro area employment at an average annual rate of 1.4% during 2004-2007 is a noteworthy development, which is mainly attributable on the one hand to the relatively satisfactory growth of economic activity (GDP grew at an average annual rate of 2.3% during 2004-2007) and on the other hand to structural reforms and other developments (globalisation, moderation of wage demands). Structural reforms[25] improved both the supply and the demand for labour, by

23 According to the European Commission's Interim Forecast, GDP will increase by 1.3% in the euro area in 2008.

24 Even if the average annual growth rate of GDP seems to be lower in 2009 than in 2008, quarterly forecasts show that the lowest quarterly GDP growth rate will be recorded within 2008, recovering in 2009.

25 See e.g. the recent ECB paper *Labour supply and employment in the euro area countries*, June 2008. Examples of reforms are the introduction of measures that increase mobility in the labour market and spark motivation for the supply of labour as well as measures that improve the qualifications of workers, making it possible for them to work in alternative jobs.

encouraging new recruitments. As pointed out in previous Bank of Greece reports, the increase in employment over the last years spilled over to all sectors of economic activity and included various forms of employment, even though most of new vacancies were created in the services sector. It should also be noted that the share of part-time employment in total employment increased.

3.4 FISCAL DEVELOPMENTS

The general government deficit in the euro area as a whole is expected to widen in 2008 as a percentage of GDP, for the first time after four years of decline. In more detail, according to European Commission projections, the fiscal deficit will widen to 1.0% of GDP (from 0.6% in 2007), whereas a further slight increase in the deficit, to 1.1% of GDP, is anticipated for 2009. The structural deficit[26] is forecast to widen also, to 1.0% of GDP in 2008 (from 0.7% of GDP in 2007), and to marginally decrease to 0.9% in 2009, implying that the fiscal policy stance will be slightly expansionary in 2008 and essentially neutral in 2009.

As regards fiscal developments in individual countries, the ECOFIN Council proceeded in June with the abrogation of the Excessive Deficit Procedure (EDP) to which Italy and Portugal[27] were subjected. After that, none of the euro area countries is subject to the EDP. However, in June, the Commission issued a "policy advice", calling France to abide by the Council's recommendations on fiscal adjustment and structural reforms, as its fiscal deficit is expected to rise to 2.9% of GDP in 2008 and to 3.0% in 2009.[28]

The issue of the quality[29] of public finances has taken, in recent years, a prominent position in the priorities and analyses of the European Commission and the Economic Policy Committee; it has also entered the focus of the ECOFIN Council. It has peen proven that the improvement of public finances in quality terms can contribute to dealing with significant fiscal policy challenges, both directly, since it increases the effectiveness of public expenditure and revenue, and indirectly, as it reduces existing distortions and the costs for the economy, creating a better long-term outlook and enhancing the ability to adjust to external shocks. On 14 May 2008, the ECOFIN called on the Economic Policy Committee and the European Commission to step up their efforts to improve the measurement and analysis of public finances' quality and of its impact on economic growth and, *inter alia*, to assess the effectiveness and efficiency of public expenditure on research-development and education.[30]

3.5 THE EURO EXCHANGE RATE AND THE EXCHANGE RATE MECHANISM II – ERM II[31]

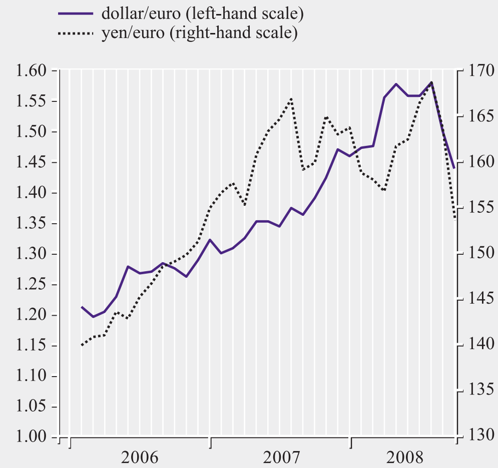
The broad index of the nominal effective exchange rate of the euro,[32] which had increased by 3.8% in 2007 compared with 2006 (at average annual levels), continued its upward course in the first seven months of 2008, but declined slightly in August. In August 2008 this index was 2.0% higher than in December 2007 and 5.1% higher than the 2007 average. These developments reflect, *inter alia*, the changing market expectations on the performance of major economies.

The broad index of the real effective exchange rate (based on the CPI) kept close track of the developments in the nominal rate. Having increased by 3.1% in 2007, it continued

26 Defined as the deficit that is free from cyclical effects and other extraordinary factors.
27 As well as Slovakia and the Czech Republic.
28 The policy advice procedure was implemented by the Commission for the first time since its introduction in the reform of the Stability and Growth Pact in 2005.
29 The quality of public finances is a multi-dimensional notion, which includes the composition and effectiveness of public expenditure, the structure and effectiveness of the government's tax collection mechanisms, fiscal administration, the size of the public sector and fiscal policies that affect the operation of markets and the business climate.
30 The issue of public finance quality has been the focal point of the recent publication of the European Commission on public finances (see European Commission, *Public Finances in EMU – 2008*, June 2008).
31 The bilateral and the effective exchange rates used in this section are period (year or month) averages.
32 An index of the development of the individual bilateral exchange rates of the euro weighted according to the value of the euro area external trade with 42 countries-trading partners.

Chart II.3 Exchange rate of the euro against the US dollar and the Japanese yen (January 2006–September 2008)

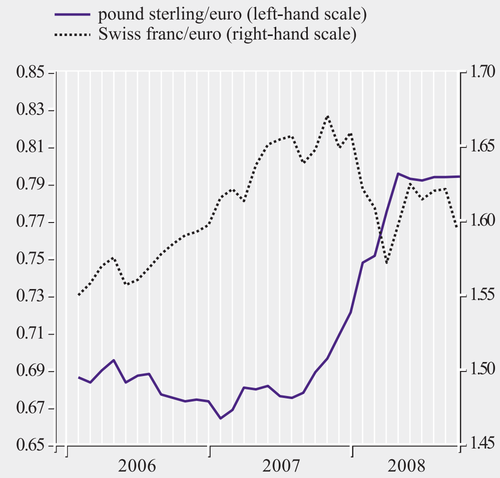
(monthly data)



Sources: ECB and Bank of Greece.

Chart II.4 Exchange rate of the euro against the pound sterling and the Swiss franc (January 2006–September 2008)

(monthly data)



Sources: ECB and Bank of Greece.

its upward course in the first seven months of 2008. In August it was by 1.0% higher compared with December 2007 and by 3.7% compared with the 2007 average, which translates into erosion of the euro area's international price competitiveness.

As regards bilateral exchange rates, the euro continued to appreciate against the US dollar and thereby against many Asian currencies whose exchange rate is pegged to the American currency (see Chart II.3).[33] Since August, however, when markets perceived that the slowdown might be sharper in the euro area and milder in the USA, compared with the initial forecasts, the dollar rebounded. In August, the euro was by 2.8% appreciated against the dollar, compared with December 2007, and by 9.3% compared with the 2007 average.

The yen, having steadily depreciated against the euro over the period 2001-2007, rebounded in the first quarter of 2008 but fell again thereafter; thus, the exchange rate of the yen against the euro in August 2008 decreased by 1.5% compared with the 2007 average (see Chart II.3). The pound sterling depreciated considerably against the euro in 2007: its exchange rate in August 2008 had fallen by 9.1% compared with December 2007 and by 13.7% compared with the 2007 average (see Chart II.4).

In the Exchange Rate Mechanism II (ERM II), most currencies remained stable against the euro and around their central parity during the first eight months of 2008, with the exception of the Slovak koruna. The appreciation of the koruna became more marked after the publication of the "convergence reports" by the European Commission and the ECB and the positive recommendation to the Council regarding the entry of Slovakia into the euro area as from 1 January 2009. On 28 May 2008, following a request by Slovakia, it was decided that the central parity of the koruna would be raised by 17.6%.

33 It is noted, however, that in June the euro was appreciated against the Chinese yuan by 3% compared with the 2007 average, i.e. less than against the US dollar, as the yuan appreciated against the dollar at a faster pace in 2007. In June, the exchange rate of the euro against the yuan was slightly lower (by 0.1%) than in December 2007.

III THE SINGLE MONETARY POLICY

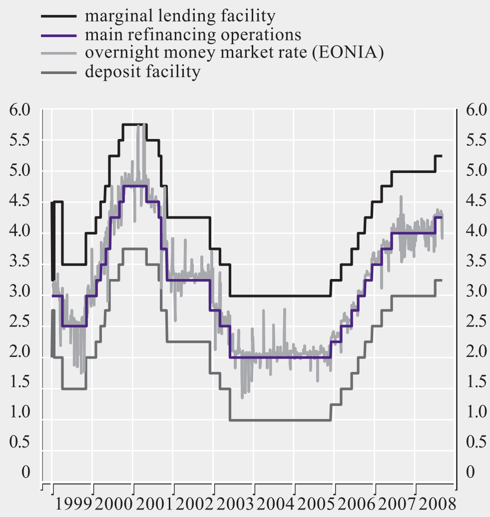
Since late 2005 the Eurosystem's monetary policy has gradually become less accommodative. Between December 2005 and June 2007, the Governing Council of the ECB gradually raised key interest rates by a total of 2 percentage points. Key interest rates remained stable for more than a year thereafter, before being increased again by 25 basis points in July 2008 (see Table III.1 and Chart III.1).[1]

Key interest rates are set by the ECB Governing Council so as to achieve the Eurosystem's primary objective of price stability in the euro area over the medium term.[2] Between January and early October 2008, the Governing Council repeatedly emphasised that, in order to achieve this objective, the Eurosystem contributes decisively to securing a firm anchoring

1 These increases brought the minimum bid rate in main refinancing operations to 4.25%.
2 Price stability is achieved when inflation is maintained below, but close to, 2%.

Chart III.1 Key ECB interest rates and the overnight money market rate (EONIA)

(percentages per annum, daily data)



Source: ECB.

Table III.1 Changes in key ECB interest rates

(percentages per annum)

Date of interest rate change[1]	Deposit facility	Main refinancing operations (minimum bid rate)	Marginal lending facility
6 October 2000	3.75	4.75	5.75
11 May 2001	3.50	4.50	5.50
31 August 2001	3.25	4.25	5.25
18 September 2001	2.75	3.75	4.75
9 November 2001	2.25	3.25	4.25
6 December 2002	1.75	2.75	3.75
7 March 2003	1.50	2.50	3.50
6 June 2003	1.00	2.00	3.00
6 December 2005	1.25	2.25	3.25
8 March 2006	1.50	2.50	3.50
15 June 2006	1.75	2.75	3.75
9 August 2006	2.00	3.00	4.00
11 October 2006	2.25	3.25	4.25
13 December 2006	2.50	3.50	4.50
14 March 2007	2.75	3.75	4.75
13 June 2007	3.00	4.00	5.00
9 July 2008	3.25	4.25	5.25

Source: ECB.
1 As from 10 March 2004, the effective date of changes in all three key ECB interest rates is the date of the first main refinancing operation following the relevant decision of the Governing Council (on which the minimum bid rate on the main refinancing operations is changed), not the date of the Governing Council meeting at which this decision is made.

of medium- and long-term inflation expectations in line with price stability.[3] It also seeks to prevent broadly based second-round effects[4] on consumer prices stemming from the rise in oil and food commodity prices[5] and to counteract other upside risks to price stability over the medium term (which are mentioned below).

The delivery of price stability is the best contribution monetary policy can make to sustainable economic growth, since, among other things, price stability favours an efficient allocation of resources. The fact that, since the inception of Monetary Union on 1 January 1999, medium- and long-term inflation expectations in the euro area have remained at levels broadly consistent with price stability confirms the Eurosystem's credibility.[6] Maintaining inflation expectations at low levels results in lower medium- and long-term interest rates (for a given economic and fiscal outlook, etc.) and thus fosters the growth of aggregate supply and aggregate expenditure in the euro area economy. Moreover, by safeguarding price stability, monetary policy protects economically weaker members of society from losses of purchasing power, while price stability also contributes to financial stability.

3 As recently underscored by the ECB Governing Council, the firm anchoring of inflation expectations is even more critical, in view of the exceptionally high uncertainty stemming from the intensification of the financial turmoil since mid-September 2008.

4 Second-round effects occur when consumer prices increase due to increases in profit margins or wages in an attempt to offset the adverse effect of higher commodity prices on the purchasing power of entrepreneurs and wage earners, respectively. Such an attempt is self-defeating since it leads to further rises in consumer prices. See Bank of Greece, *Monetary Policy 2004-2005*, February 2005, Box III.1, and ECB, *Monthly Bulletin*, July 2004, pp. 28-30.

5 Although the international prices of crude oil and food commodities have declined steeply since mid-July 2008, they continue to be significantly higher than in the previous year, therefore there is still a very serious risk of second-round effects.

6 The proximity of inflation expectations to the (medium-term) inflation rate targeted by a central bank is a measure of its credibility. Indeed, it indicates the degree to which financial market participants and the general public have been convinced by the actions of the central bank (including its interest rate policy and communication policy) that it will achieve its inflation target and therefore the degree to which they anticipate that the actual inflation rate will coincide with the target in the medium term. In the context of economic analysis the Governing Council of the ECB monitors various indicators of inflation expectations in the euro area in the medium and the long term (e.g. 5 years ahead). These indicators are derived from indexed bond yields, swaps, the ECB's Survey of Professional Forecasters, etc. Especially indicators derived from indexed bonds, even those referring to medium- and long-term horizons, have recently exceeded 2% but this could be due to technical factors or reflect a risk premium, given the uncertainty surrounding the outlook for inflation.

Box III.1

EUROPEAN CENTRAL BANK (ECB): THE FIRST TEN YEARS

The Maastricht Treaty (1992) stipulates that macroeconomic policies are conducted on the basis of a well-defined allocation of responsibilities. The competence for the single monetary policy at euro area level has been assigned to the European Central Bank (ECB), while fiscal and structural policies remain within the remit of Member States but are subject to some limitations and coordination procedures (such as the Stability and Growth Pact and the Lisbon Strategy). The Treaty endowed the ECB with full independence regarding the conduct of the single monetary policy and the fulfilment of its other tasks. At the same time, however, it required accountability to the European public and their elected representatives.

The ECB pursues as its primary objective the maintenance of price stability in the euro area over the medium term. In order to fulfil its objective, the ECB has formulated a decision-making and communication strategy for monetary policy, consisting of a clear definition of price stability and a framework of analysis of risks thereto. This strategy has been successful and has helped consolidate ECB's credibility. For almost a decade, inflation in the euro area has been contained to levels only slightly above 2%. This is not an insignificant achievement, especially considering the severe external shocks that occurred during this period (e.g. sharp hikes in the prices of raw materials and food, which are not directly influenced by monetary policy) and the fact that inflation had been significantly higher in euro area countries in earlier decades.

By maintaining low inflation rates, anchoring inflation expectations in line with price stability and reducing inflation risk premia —and thus lowering interest rates— the single monetary policy has promoted sustainable economic growth and job creation over the past decade. From the adoption of the euro in 1999 to the end of 2007 15 million new jobs were created in the euro area (compared with a mere 5 million in the period 1990-1998), while unemployment is at its lowest level since the early 1980s.

Moreover, the adoption of the euro has boosted both intra- and extra-euro area trade, which grew by 9 and 13 percentage points of GDP, respectively, and, at the same time, has provided new impetus to capital flows (i.e. foreign direct investment and portfolio investment). Over the past decade, the use of the euro as an international currency has also gradually increased. The euro is currently the second most important currency worldwide after the US dollar (e.g. in terms of its share in debt issuance and in the foreign exchange reserves of different countries, etc.).

The monetary union and the euro have influenced the financial system in two ways. First, the euro has acted as catalyst for financial integration in the euro area. This has enhanced the effectiveness of monetary policy and ensured the smooth operation of payment systems and a more efficient allocation of resources, which in turn has contributed to sustainable growth. Second, the Eurosystem has promoted financial stability both through its own initiatives and actions and by providing support and assistance to the relevant national authorities. It should be noted that the circulation of euro banknotes in 2002 has become a tangible symbol of monetary union for euro area citizens.

Lastly, the Eurosystem's monetary policy decisions are supported by high-quality statistics produced in cooperation with Eurostat.

Taking stock of the first ten years of the ECB, it can be concluded that the single currency enjoys as much credibility as the most credible among legacy currencies. This is reflected in the stability of inflation expectations, the low level of long-term interest rates and the remarkable resilience of the euro area economy in a complex international environment. However, the economic performance of the euro area can be further improved, through a policy mix comprising the following elements: adherence to the Stability and Growth Pact, completion of the Single Market and implementation of the structural policies set out in the Lisbon Strategy

ECB interest rates are set with the single purpose of enabling the attainment of the Eurosystem's primary objective and therefore cannot be used as a policy instrument to counteract money market tensions generated by the international financial turmoil. In order to counteract these tensions, the Eurosystem continued its successful intervention policy in the interbank market between January and early October 2008. This policy had been essentially initiated in August 2007, when pressures first appeared in the money market (see Box III.2). Thanks to its flexibility, the operational framework for monetary policy implementation[7] did not need to undergo changes in structure. Eurosystem interventions contribute to improving the impaired

7 The operational framework consists of a number of instruments (e.g. open-market operations) and procedures (e.g. steps for conducting tenders) available to the Eurosystem for monetary policy implementation, as opposed to monetary policy formulation, which refers to the making of decisions about the level of key interest rates based on the monetary policy strategy. Another element of the operational framework is the specification of counterparties and assets eligible as collateral for Eurosystem operations.

Box III.2

MONEY MARKET TENSIONS GENERATED BY THE INTERNATIONAL FINANCIAL TURMOIL AND THE RESPONSE OF THE EUROSYSTEM

Tensions in the euro area money market were particularly strong in the period from January to September 2008, they increased further after mid-September and were still very pronounced in early October, as the international financial turmoil intensified. Their existence is reflected, *inter alia*, in the historically high levels of *spreads* between:

- the (e.g. three-month) Euribor and the "fixed rate" on overnight-indexed swaps of similar maturity (EONIA swap rate – see Chart A).[1] Specifically, in the period from January to July 2007, prior to the emergence of money market tensions in August 2007, this spread slightly exceeded 5 basis points on average. Subsequently, in the period from August to December 2007, it widened markedly to an average of about 60 basis points amid large fluctuations. Between January and September 2008, the spread widened a little further, to an average of about 64 basis points, still amid large fluctuations. This widening suggests that the perceived default risk associated with (three-month) interbank loans has increased compared with the pre-turmoil period. Default on an interbank loan could occur if a borrowing bank finds itself unable to attract new deposits or liquidate assets, or if the assets of a borrowing bank (even if they could be liquidated) would not suffice to meet its obligations.[2]

- the marginal rate[3] and the minimum bid rate[4] on the main refinancing operations (see Chart B). The relatively high marginal interest rates on the main (and longer-term) refinancing operations are indicative of the constraints facing many credit institutions in relation with borrowing from the interbank market. Against this backdrop, credit institutions were determined to draw funds through the open market operations of the Eurosystem by submitting bids with relatively high interest rates.

Thanks to its considerable flexibility, the Eurosystem's operational framework for monetary policy implementation did not need to undergo changes in structure in order to effectively address tensions in the interbank market generated by the financial turmoil. Within this frame-

1 Two parties enter into an overnight-indexed swap in which one party agrees to pay interest for a given period (e.g. three months) on a specified notional amount at a "fixed rate" (the EONIA swap rate) and, in return, its counterparty agrees to make interest payments, on the same amount, at the overnight money market rate (EONIA) compounded daily over the duration of the transaction. Only the difference between the two flows of interest payments is settled upon maturity. The EONIA swap rate embodies expectations regarding the evolution of EONIA. Should these expectations be revised, a different rate is agreed for new swaps (interest rates on already existing swaps are "fixed" and cannot change). Accordingly, as shown in Chart A, newly contracted overnight-indexed swaps often have different rates from pre-existing ones, but for each swap the rate is fixed at the start of the transaction and cannot change up to maturity. It is reasonable to think that these transactions involve negligible risk compared with interbank loans of comparable maturity. Consequently, the spread between the three-month Euribor and the three-month EONIA swap rate is a measure of the risk premium incorporated in the Euribor rate in addition to the expectations regarding the evolution of the EONIA rate in the following three months. See "The Eurosystem's open market operations during the recent period of financial market volatility", ECB, *Monthly Bulletin*, May 2008, Box 2, p. 93.

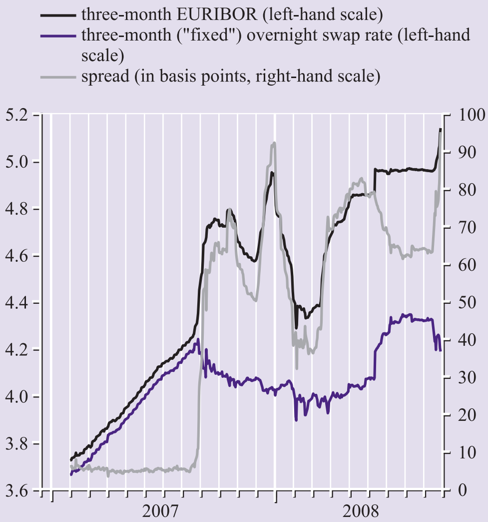
2 See Michaud, F.L. and C. Upper, "What drives interbank rates? Evidence from the Libor panel", *BIS Quarterly Review*, March 2008, pp. 47-58.

3 Bids submitted by credit institutions in open market operations state the amount of financing required from the Eurosystem and (in principle) the respective maximum interest rate that they are prepared to pay. Usually, not all bids are accepted. In the case of the main refinancing operations, any bid which is below the minimum bid rate determined by the monetary policy decisions of the Governing Council of the ECB is not accepted. Even bids which are above that minimum may be rejected if satisfying them would mean that the overall provision of liquidity would be greater than desired by the ECB. The lowest interest rate accepted by the ECB in an open market operation is the marginal interest rate.

4 This was set at 4% in the first half of 2008 and at 4.25% on 3 July.

Chart A Spread between the three-month Euribor and the three-month "fixed rate" on overnight-indexed swaps (January 2007–September 2008)

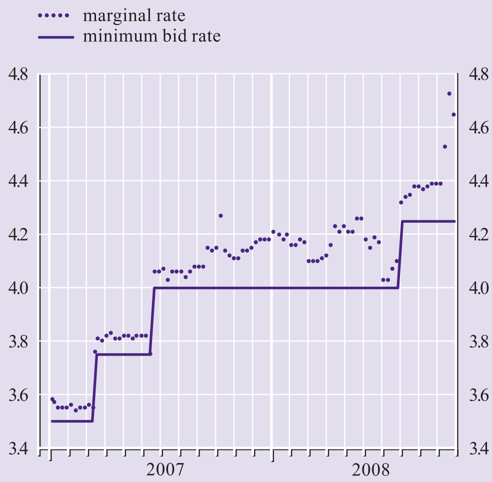
(percentages per annum and basis points, daily data)



Sources: ECB and European Banking Federation.

Chart B Marginal rate and minimum bid rate on the Eurosystem's main refinancing operations (January 2007–September 2008)

(percentages per annum)



Source: ECB.

work, the Eurosystem in effect continued its successful intervention policy in the interbank market, which had already been put in place since August 2007,[5] so as to improve the impaired functioning of the interbank market and, more specifically, to:

- maintain very short-term rates close to the minimum bid rate on the main refinancing operations, in line with the monetary policy stance determined by the ECB Governing Council, and thus facilitate the transmission of monetary policy impulses;

- provide, through open market operations, liquidity to credit institutions which, though solvent, were facing difficulties in obtaining funding in the interbank market, so as to mitigate these difficulties and limit the hazards they create for financial stability.

The Eurosystem continued to provide the bulk of liquidity (about 60% of the total) through longer-term refinancing operations (mostly with a maturity of three months), while the remaining amount (about 40%) was channelled to credit institutions through (one-week) main refinancing operations (Chart C). Specifically, between January and September 2008, the Eurosystem executed 9 regular and 6 supplementary[6] longer-term refinancing operations with a maturity of three months; moreover, two open market operations with a maturity of six months and a special-term refinancing operation with a maturity of 5 weeks (to be renewed) were also carried out for the first time. The overall supply of liquidity through all these operations was only marginally higher than in the pre-turmoil period.

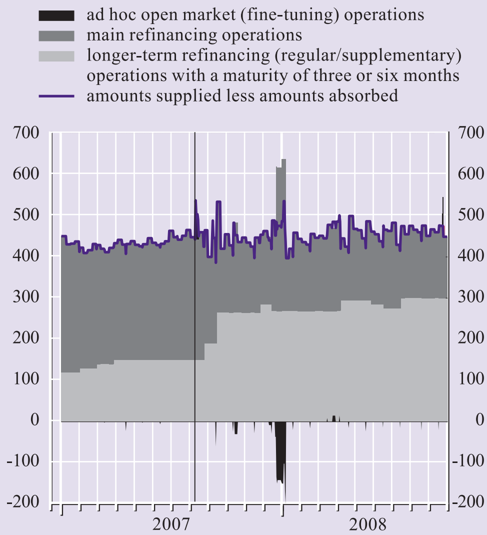
5 The interventions of the Eurosystem in the interbank market were systematised and refined by the end of 2007. In 2008, they were further enriched by the inclusion of six-month longer-term refinancing operations.
6 In addition to those executed with a monthly frequency, as was the practice prior to the turmoil.

The amount of liquidity provided in each main refinancing operation was determined weekly, so as to respond to an increasing tendency on the part of credit institutions[7] to obtain from the interbank market the liquidity required to meet their reserve requirements already from the first few days of the maintenance period.[8] The emergence of this tendency coincided with the appearance of money market tensions and the ensuing uncertainty. To prevent the accumulation of excess liquidity[9] at the end of each maintenance period, the Eurosystem conducted fine-tuning operations to absorb liquidity.

To meet strong demand for reserves by banks towards the end of the first quarter of 2008,[10] as well as in mid-September,[11] the Eurosystem conducted again liquidity-providing fine-tuning operations.

Chart C The Eurosystem's supply of liquidity to credit institutions through regular and ad hoc open market operations*
(January 2007–September 2008)

(billion euro)



Source: ECB.
* Also, absorption of liquidity through ad hoc operations. The vertical line indicates the date (9 August 2007) on which the Eurosystem began its ad hoc interventions to address tensions associated with the financial turmoil.

The Eurosystem continued to conduct four-week US dollar liquidity-providing open market operations with euro area credit institutions as counterparties, against assets eligible as collateral for its other open market operations (e.g. main refinancing operations, etc.) and standing facilities.[12] Furthermore, since May 2008 US dollar liquidity-providing operations have been conducted every second week, while, since August 2008, US dollar liquidity-providing operations with a maturity of twelve weeks have also been carried out. In the face of heightened tensions in world financial markets in mid-September 2008, the amounts of liquidity provided through the Eurosystem's four- and twelve-week US dollar liquidity-providing operations have been increased substantially. Operations with overnight and one-week maturity have also been introduced for the first time.

7 See "The Eurosystem's open market operations during the recent period of financial market volatility", ECB, *Monthly Bulletin*, May 2008, Box 2, pp. 89-104.
8 The maintenance period lasts approximately 30 days. By the end of this period, the average of the reserve balances, which every credit institution (with very few exceptions) is required to maintain with its respective national central bank, must come to be equal to a prespecified amount. However, credit institutions' daily reserve balances may vary. Faced with the turmoil, credit institutions seem to prefer accumulating large balances on their reserve accounts early in the maintenance period, so as to fulfil their reserve requirements several days before the period ends. Underlying this behaviour is apparently an effort of credit institutions to protect themselves against potential liquidity shortages towards the end of the maintenance period.
9 Even though the liquidity provided in the main refinancing operations was gradually reduced towards the end of the maintenance period. Normally, in each reserve maintenance period, there take place four main refinancing operations, one operation in each week.
10 It is usual for credit institutions' demand for reserves to increase at period (month, quarter, year) ends, given the release, albeit with some time lag, of various financial data on these institutions, as at the period ends. Therefore, credit institutions deem it advisable to have fairly large liquid holdings at period ends. The financial turmoil has intensified this phenomenon.
11 When the aggravation of problems facing very big US financial corporations resulted in heightened tension in financial markets and an even stronger preference for liquidity worldwide.
12 These operations are important for dealing with the financial turmoil but do not have any direct impact on pressures in the euro area money market.

functioning of the interbank market and thus ensure effective transmission of monetary policy impulses and protect financial stability in the euro area without, however, increasing the *overall* amount of liquidity provided compared with its pre-turmoil levels.

In the period from January to May 2008 the Governing Council of the ECB continued to note the existence of upside risks to price stability. In June, however, it became obvious that these risks had increased further. Therefore, in July 2008, the Governing Council decided to raise key interest rates by 25 basis points to prevent broadly based second-round effects and counteract the increasing upside risks to price stability over the medium term. Since then the Governing Council has repeatedly stressed that, following this decision, the monetary policy stance contributes to achieving the objective of price stability in the medium term.

According to the economic analysis taken into account by the Governing Council of the ECB in the period from January to early October 2008, strong GDP growth in the first quarter of 2008 can be explained by a number of extraordinary and temporary factors. In the second quarter of 2008, the GDP growth rate became negative, because (i) the aforementioned factors ceased to operate and (ii) aggregate consumption was adversely affected by the increase in commodity prices, while aggregate expenditure growth was also adversely affected by the weakening of global economic activity. However, falling oil prices and continuing growth in emerging economies may underpin a gradual rebound in economic activity in 2009 (see also Chapter II).

Since November 2007 inflation has been above 3% in the euro area because of the direct and indirect impact[8] of the increase in commodity prices. Moreover, as recently underscored by the ECB Governing Council, wage growth has been picking up in the last few quarters and, in conjunction with slower labour productivity growth, has resulted in a sharp acceleration of unit labour cost growth in the euro area.

The Governing Council of the ECB expects inflation to persist at levels higher than those consistent with price stability for several additional months, despite some signs of gradual moderation which should continue into 2009. The latest ECB staff macroeconomic projections forecast an average annual inflation rate of 3.4-3.6% in 2008 and 2.3-2.9% in 2009 (for an overview of the assumptions on which these projections are based, see Chapter II).

The Governing Council of the ECB has also noted that, despite the recent weakening of aggregate demand in the euro area, upside risks to price stability over the medium term still exist, although they have diminished. Specifically, these risks[9] include:

- the emergence of broadly based second-round effects;

- renewed increases in commodity prices; and

- stronger than expected indirect effects on consumer prices from the rises in commodity prices over the past few months.

The Governing Council of the ECB has been monitoring price-setting behaviour and wage negotiations in the euro area with particular attention and has stressed the need for all social partners (in both the private and the public sector) to meet their responsibilities in the face of the current exceptional challenges. Regarding the prevention of second-round effects, the Governing Council has repeatedly expressed its concern about the existence of

8 The *direct* impact of the increase in crude oil prices stems from the fact that consumer prices are inflated by higher prices for fuels included in the overall CPI. *Indirect* effects result as increased production costs due to higher commodity prices (supposing that wages remain stable), given that commodities are used as inputs in the production process, are passed on to the prices of final products included in the CPI,. See Bank of Greece, *Monetary Policy 2004-2005*, February 2005, Box III.1, and ECB, *Monthly Bulletin*, July 2004 pp. 28-30.

9 According to the introductory statement of the President of the ECB in the press conference following the meeting of the Governing Council on 2 October 2008.

schemes whereby wages are indexed to consumer prices. Such schemes involve the risk of an acceleration of inflation leading to a wage-price spiral, which would be detrimental to employment and international competitiveness in the countries concerned. More recently, the Governing Council has called for these schemes to be abolished. In general, the Governing Council has stressed the need for economic units in the euro area to refrain from using upward adjustments in wages and prices as a means of recouping losses due to the transfer of income from commodity-importing countries to those exporting commodities as a result of the rise in commodity relative prices.

The monetary analysis, taken into account by the ECB Governing Council in addition to the economic analysis, has confirmed the prevalence of upside risks to price stability in the medium and long term as the "underlying" pace of monetary expansion continues to be very strong.[10]

The financial turmoil[11] does not appear to have had any significant direct impact[12] on monetary and credit aggregates. Specifically, it does not seem to have led to constraints on the availability of credit, given, e.g. that loans to non-financial corporations continue to expand at a very rapid,[13] albeit slowing, pace. The growth rate of loans to households[14] is also moderating. The slowdown of credit expansion to non-financial corporations and households is attributable to the rise in interest rates and the tightening of other financing conditions, the economic downturn and, in the case of housing loans, the weakness of housing markets in many euro area countries.

10 Unlike the temporary fluctuations of broad money growth, the "underlying" pace of monetary expansion is deemed to relate to the evolution of inflation in the future, after a time lag of a few years. This statistical relationship has been recognised for several – high- and low-inflation – countries and has been traced over long periods of time. The existence of time lags creates the potential for an acceleration of inflation to be prevented by means of monetary policy, provided that the underlying pace of monetary expansion and the size of the resulting future inflationary pressures have been properly assessed. For the computation of the underlying pace of monetary expansion, the ECB does not limit itself to just one method, but uses a variety of methods in the context of its broad-based approach to monetary analysis, (see ECB, *Monthly Bulletin*, May 2008, Box 1, p. 15). Many of these methods currently point to a strong underlying pace of monetary expansion in recent years, yet slower than the rate of M3 growth. In this connection, the Governing Council of the ECB has stressed that the upward trend of inflation over the past few quarters reflects previous developments in the underlying pace of monetary expansion.

11 The latest available data on monetary and credit aggregates refer to August and therefore do not reflect any repercussions resulting from the intensification of the financial turmoil since mid-September 2008.

12 That is, other than the dampening effect exerted on credit expansion by the rise in interest rates and the tightening of other financing conditions, as well as by the economic downturn and developments in housing markets.

13 December 2007: 14.5%, August 2008: 12.6%.

14 December 2007: 6.2%, August 2008: 3.9%.

IV ECONOMIC ACTIVITY, EMPLOYMENT AND KEY FISCAL AGGREGATES: DEVELOPMENTS AND PROSPECTS

1 ECONOMIC ACTIVITY: DEVELOPMENTS AND PROSPECTS

Greek economic activity continues to expand and the GDP growth rate (see Table IV.1) considerably exceeds the corresponding euro area average. However, the annual growth rate slowed down appreciably in the second half of 2007 (to 3.7% from 4.3% in the first half of the year). In the first half of 2008, it slightly decelerated further, to 3.5%. This mainly reflects the gradual realisation of risks that had been pointed out previously and relate to the international environment, mainly the rise in fuel prices, the slackened increase in global demand and the impact of the financial turmoil. The setback in activity growth is confirmed both by "direct" indicators of activity in individual sectors as well as by the results of business surveys covering the first nine months of the year.

According to the coincident indicator of economic activity compiled by the Bank of Greece,[1] GDP growth has decreased, but has not yet been considerably affected by the deteriorating international environment. In more detail, the indicator records growth rates in the area of 3.3%. By contrast, the Economic Sentiment Indicator for Greece[2] did record the increased uncertainty and has been steadily falling during the last twelve months up to September to levels clearly lower than the average of the last few years (see Chart IV.1).

It is estimated that economic growth will slow down further in the second half of 2008. This estimate has taken into consideration the latest available data, the current trends of key macroeconomic aggregates and indicators, the economic policy stance, the estimates and forecasts of international organisations regarding developments in the global economy, as well as reasonable technical assumptions on the development of international commodity prices and of exchange rates. It is estimated that in 2008 average GDP growth will be in the area of 3.3%, provided that certain crucial aggregates develop in line with the assumptions of the central projection. Domestic demand continues to be the main propeller of GDP growth, even though the former is

1 This indicator is derived from a set of short-term indices and reflects the growth rate of "underlying" economic activity, smoothing out the excess volatility of some short-term indices.
2 Compiled by the European Commission and based on business survey results.

Table IV.1 Demand and gross dromestic product (2006-2008)

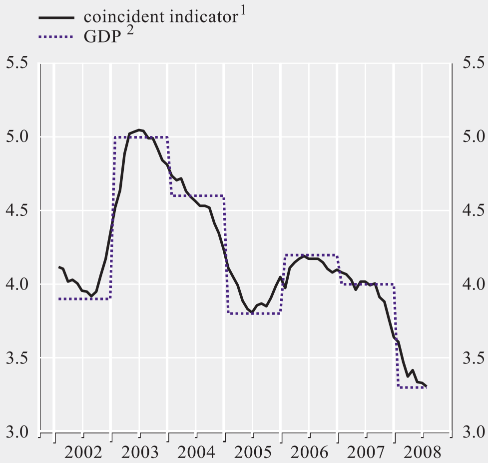
(at constant market prices of year 2000, annual percentage changes)

	2006	2007	2008 (1st half)
Private consumption	4.2	3.2	2.3
Government consumption	0.3	7.4	2.7
Gross fixed capital formation	14.8	4.4	-4.7
Housing	21.5	-6.8	...
Other construction	21.7	11.4	...
Equipment	6.5	7.7	...
Other	12.2	5.3	...
Stocks and statistical discrepancy (percentage of GDP)	-0.4	0.2	...
Final domestic demand	**5.4**	**4.6**	**...**
Exports of goods and services	5.1	5.9	4.4
Exports of goods	12.4	1.6	...
Exports of services	-0.2	9.4	...
Imports of goods and services	8.7	7.0	-5.9
Imports of goods	8.7	6.2	...
Imports of services	8.4	11.0	...
Gross domestic product at market prices	**4.2**	**4.0**	**3.5**

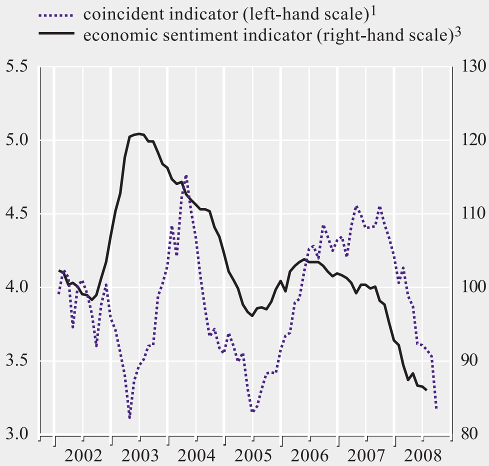
Sources: NSSG/National Accounts and Ministry of Economy and Finance, March-April 2008 data for 2006 and 2007 (under revision). For 2008, provisional NSSG data. For Bank of Greece estimates for 2008, see the main text.

Chart IV.1 Economic activity indicators

A. The coincident indicator of economic activity compiled by the Bank of Greece
(January 2002 - July 2008)



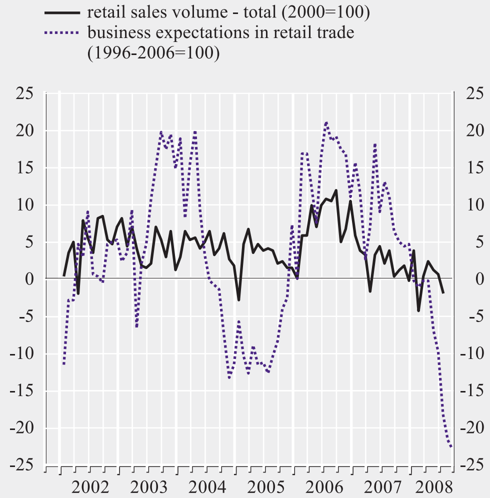
B. The coincident indicator of economic activity compiled by the Bank of Greece and the economic sentiment indicator compiled by the European Commission for Greece
(January 2002 - September 2008)



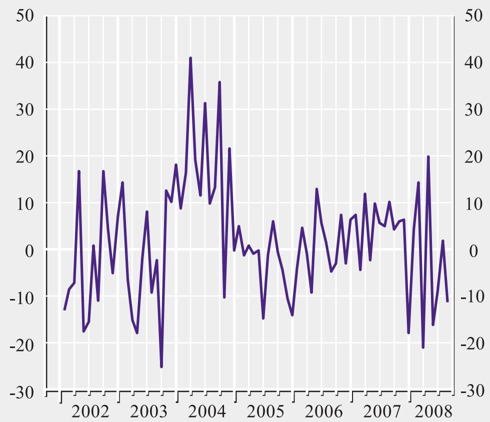
Sources: Bank of Greece (coincident indicator and 2008 GDP), NSSG (2002-2007 GDP) and European Commission (economic sentiment indicator).
1 Annualised monthly percentage changes.
2 Annual rate.
3 Monthly data.

Chart IV.2 Indices of consumer demand

A. Sales volume and business expectations in retail trade[1]
(January 2002 - September 2008)



B. New passenger car registrations[1]
(January 2002 - August 2008)



Sources: NSSG (retail sales and cars), IOBE (expectations). The business expectations index is based on firms' estimates of sales and stocks as well as on their forecasts of business activity over the next six months.
1 Percentage changes over same month of previous year

expected to decline significantly (to approximately 2.5% from 4.0% in 2007). The contribution of the real external balance, however, is anticipated to reverse into positive (by 0.5 percentage point). The main characteristics of the projection for 2008 are: the slackening of private consumption (and a respective limited increase in the saving ratio), the steep fall in housing investment, the maintenance of the growth rate of business investment at relatively high levels and the large increase in transport (mainly shipping) receipts.

Private consumption growth in 2008 is estimated to slow down to approximately 2.5% (from 3.2% in 2007). Although the estimated rate is the lowest in the last seven years, private consumption will continue in 2008 to be a significant driving force of activity, contributing to GDP growth by almost 2 percentage points. According to NSSG provisional estimates, private consumption rose at an average annual rate of 2.4% in the first half of 2008, compared with 4.4% in the first half of 2007.

The average annual growth rate of retail trade volume (excluding cars and fuels) in the first seven months of 2008 was curbed to 0.3%, from 3.0% in the corresponding 2007 period (and 2.3% in 2007 as a whole – see Chart IV.2 and Table IV.2). The number of new passenger car registrations between January and August 2008 was reduced at an annual rate of 3.2% (having increased by 5.4% in the corresponding 2007 period). The IOBE index of business expectations in retail trade also recorded a reduction (9.1%) in the January-September 2008 period. However, the annual growth rate of the general index of employment in retail trade remained essentially stable (1.5% in the first half of 2008 compared with 1.3% in the first half of 2007).

Households' nominal disposable income is estimated to grow faster in 2008. This is the combined result of the following:

- the larger than in 2007 nominal increase in average pre-tax earnings (see Chapter V);

- the considerable rise in total employment, especially salaried employment (see Section 2 of this chapter);

- the lightened tax burden of households and

- the implementation of targeted measures in support of low-income groups (such as the increase in pensioners' social solidarity allowance —EKAS— and in pensions paid by the Farmers' Insurance Fund – OGA), on account of which social transfers rose to 17.9% of GDP from 17.3% in 2007.[3]

The accelerated growth of nominal income, however, is smaller than the rise in inflation. Thus, the growth rate of real income will be slightly lower than in 2007, but will nonetheless support the increase in private consumption.

3 See the speeches of the Minister of Economy and Finance (22 and 23 September 2008).

Table IV.2 Indicators of consumer demand (2006-2008)

(annual percentage changes)

	2006	2007	2008 (available period)
Volume of retail sales	8.0	2.3	0.3 (Jan.-July)
Food-beverages-tobacco[1]	9.0	0.9	0.5 (» »)
Clothing-footwear	0.8	1.1	-2.3 (» »)
Furniture-electrical appliances-household equipment	17.7	6.7	-0.8 (» »)
Books-stationery-other	3.7	6.7	2.9 (» »)
Revenue from VAT (constant prices)	8.5	6.8	4.0 (» »)
Retail trade business expectations index	14.5	9.0	-9.1 (Jan.-Sept.)
New passenger car registrations	0.5	4.3	-3.2 (Jan.-Aug.)
Tax revenue from mobile telephony (monthly flat fees)[2]	11.8	114.2	6.0 (» »)
Outstanding balance of total consumer credit extended by banks[3]	23.9 (Dec.)	22.4 (Dec.)	20.6 (Aug.)

Sources: NSSG (retail sales, cars), Bank of Greece (VAT revenue and consumer credit), IOBE (expectations), Ministry of Economy and Finance (tax revenue from mobile telephony).
1 Including big food stores and specialised food-beverages-tobacco stores.
2 Adjusted rates apply as from 1 November 2006.
3 Taking into account securitised loans and loan write-offs.

The slackened growth of consumption will help reverse the downward trend of the already extremely low household saving ratio. The anticipated moderate rise in the saving ratio reflects the incorporation into the households' consumption pattern of the uncertainties surrounding the Greek economy on account of the international financial turmoil and the sustained increase in inflation.

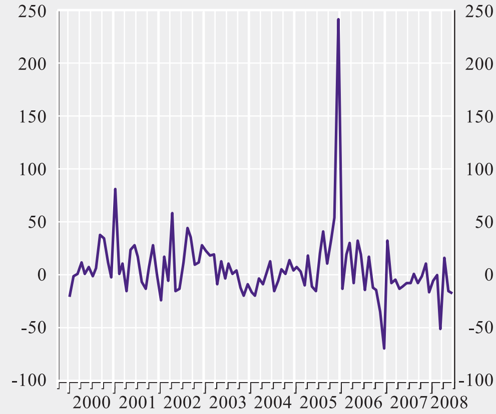
Changes in the value of households' assets (wealth) are expected to have a marginally negative or even neutral effect on the growth rate of private consumption. The prices of real estate (the main form of households' assets) are expected to stand at satisfactory levels in 2008, in spite of their slower increase, since the cost of building new houses is rising at a faster pace than inflation in general and construction firms are not faced with particular problems of liquidity and loan repayment. For these reasons, the setback in housing prices is modest, despite the sharp fall in construction activity (see Table IV.3, Chart IV.3 and Box IV.1). Share prices in the Athens Exchange dropped significantly since the beginning of the year (at an average annual rate of 29.0% in the period January-August). Since equity represents only a small portion of households' total wealth, however, this has no considerable effect on the consumption pattern.

Consumer credit expansion decelerated somewhat in the first eight months of the year, but is nonetheless expected to remain at high levels throughout 2008, fuelling private consumption. The brisk credit expansion to households has been connected in the last few years with the deregulation of the financial market and the enhancement of competition therein, as well as with the reluctance of households to downgrade their living standards during periods of low income.[4]

In 2008, **public consumption** is expected to slow down considerably (to about 2.5%, from 7.4% in 2007), contributing to the pursued narrowing of the fiscal deficit as a percentage of GDP. According to NSSG provisional estimates, public consumption rose at an annual rate of 2.8% in the first half of 2008.

Chart IV.3 Volume of new buildings and extensions on the basis of permits issued (January 2002–June 2008)

(percentage change over same month of previous year)



Source: NSSG.

The growth rate of **total gross fixed capital formation** (see investment demand indices in Table IV.4) is estimated to decelerate further in 2008 (after slowing down significantly to 4.4% in 2007, from 14.8% in 2006). According to NSSG quarterly national accounts data, the downward trend of investment expenditure in the last quarter of 2007 (-4.7% at constant prices) continued in the first half of 2008 (-4.8%). This is mainly the result of a further significant decrease in housing investment (which is anticipated to drop by approximately 15% for the year as a whole, having already fallen by 6.8% in 2007). By contrast, it is estimated that business investment (investment other than residential and general government's) will manage to keep a relatively fast pace (about 8.5-9%, compared with 10.3% in 2007). The rise in general gov-

4 According to a recent study, young couples with children are reluctant to downgrade their children's and family's standard of living on account of low income and seek ways (borrowing, selling property, etc.) to keep their expenditure at high levels (see Th. Mitrakos, "Child poverty: recent developments and determinants", Bank of Greece, *Economic Bulletin*, No. 30, May 2008). Their attempt often finds the support of the wider family and is also fostered by deepened concerns over the future of the children, especially in latest years, in the framework of policy options that affect future generations (social security system, the abolition of inheritance tax, etc.).

Table IV.3 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 correspond-ing period of previous year	1997=100	Over previous period	Over correspond-ing period of previous year	1993 IV=100	Over previous period	Over correspond-ing 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		137.7	10.6	10.6	149.1	15.1	15.1	171.3	6.1	6.1
2001		157.5	14.4	14.4	175.4	17.6	17.6	190.2	11.0	11.0
2002		179.3	13.9	13.9	203.8	16.2	16.2	211.7	11.3	11.3
2003		189.0	5.4	5.4	211.9	4.0	4.0	226.8	7.1	7.1
2004		193.4	2.3	2.3	212.4	0.3	0.3	237.4	4.7	4.7
2005		214.5	10.9	10.9	230.8	8.6	8.6	269.3	13.4	13.4
2006		240.6	12.2	12.2	256.7	11.3	11.3	304.2	13.0	13.0
2007		249.3	3.6	3.6	265.6	3.5	3.5	315.8	3.8	3.8
1997	I	96.2	...	...	95.1	...	...	130.9	3.0	6.1
	II	98.2	2.1	...	97.8	2.9	...	132.6	1.3	6.2
	III	100.2	2.0	...	100.8	3.1	...	134.0	1.1	4.8
	IV	105.4	5.1	...	105.7	4.8	...	141.3	5.5	11.2
1998	I	110.1	4.5	14.4	109.3	3.4	14.9	149.4	5.7	14.1
	II	113.9	3.5	16.0	115.4	5.6	18.0	151.6	1.5	14.4
	III	115.0	0.9	14.8	116.5	1.0	15.6	153.0	0.9	14.2
	IV	118.4	2.9	12.3	120.9	3.7	14.4	156.3	2.1	10.6
1999	I	120.4	1.7	9.3	123.8	2.5	13.3	157.9	1.0	5.7
	II	123.6	2.7	8.5	128.1	3.4	11.0	161.0	2.0	6.2
	III	125.3	1.3	8.9	130.5	1.9	12.0	162.3	0.8	6.1
	IV	128.8	2.9	8.9	136.0	4.2	12.5	164.7	1.5	5.4
2000	I	132.1	2.5	9.7	141.6	4.1	14.3	166.1	0.8	5.2
	II	135.7	2.8	9.8	146.5	3.5	14.4	169.6	2.1	5.3
	III	138.8	2.2	10.8	150.4	2.7	15.3	172.6	1.8	6.4
	IV	144.2	3.9	11.9	158.0	5.0	16.2	177.1	2.6	7.5
2001	I	150.5	4.4	14.0	165.7	4.9	17.0	184.0	3.9	10.8
	II	156.1	3.7	15.0	174.2	5.1	18.9	188.0	2.2	10.8
	III	159.5	2.2	15.0	178.7	2.6	18.8	191.3	1.8	10.9
	IV	164.0	2.8	13.7	183.0	2.4	15.8	197.5	3.2	11.5
2002	I	171.5	4.6	14.0	193.6	5.8	16.8	204.0	3.3	10.8
	II	180.3	5.1	15.5	208.0	7.4	19.4	208.9	2.4	11.2
	III	180.7	0.2	13.3	205.4	-1.3	14.9	213.3	2.1	11.5
	IV	184.9	2.3	12.7	208.2	1.4	13.8	220.5	3.4	11.6
2003	I	188.6	2.0	10.0	214.6	3.1	10.8	222.5	0.9	9.1
	II	187.5	-0.6	4.0	210.6	-1.8	1.3	224.4	0.8	7.4
	III	189.0	0.8	4.6	210.6	0.0	2.6	228.1	1.7	7.0
	IV	190.9	1.0	3.3	211.5	0.4	1.6	232.1	1.7	5.3
2004	I	190.6	-0.2	1.0	209.7	-0.9	-2.3	233.6	0.6	5.0
	II	191.6	0.5	2.2	209.4	-0.2	-0.6	236.5	1.2	5.4
	III	193.3	0.9	2.3	211.1	0.8	0.2	238.8	1.0	4.7
	IV	198.0	2.4	3.7	219.4	3.9	3.7	240.9	0.9	3.8
2005	I	205.2	3.6	7.7	223.7	2.0	6.6	254.1	5.5	8.8
	II	211.6	3.1	10.5	228.9	2.3	9.3	264.1	3.9	11.7
	III	216.9	2.5	12.2	231.5	1.1	9.7	274.5	4.0	15.0
	IV	224.1	3.3	13.2	239.0	3.2	8.9	283.8	3.4	17.8
2006	I	232.2	3.6	13.1	247.5	3.6	10.6	294.1	3.6	15.7
	II	238.9	2.9	12.9	255.3	3.2	11.6	301.7	2.6	14.2
	III	242.5	1.5	11.8	258.1	1.1	11.5	307.4	1.9	12.0
	IV	248.6	2.5	11.0	266.0	3.0	11.3	313.7	2.0	10.5
2007	I	248.8	0.1	7.1	264.6	-0.5	6.9	315.8	0.7	7.4
	II	246.9	-0.8	3.3	261.8	-1.1	2.5	314.3	-0.5	4.2
	III	248.5	0.6	2.5	264.9	1.2	2.6	314.5	0.1	2.3
	IV	253.1	1.9	1.8	271.3	2.4	2.0	318.4	1.2	1.5
2008	I	...	...	...	...	...	...	321.1	0.8	1.7
	II	...	...	...	...	...	...	323.7	0.8	3.0

Sources: For the other urban areas: Bank of Greece. For Athens: calculations based on data from "Danos and Associates" (1993-97), "Property Ltd" (1997-2005) and "PropIndex SA" (2005-07). For the total of urban areas: weighted index based on the housing stock in Athens and the other urban areas.

Table IV.4 Indicators of investment demand (2006-2008)

(annual percentage changes)[1]

	2006	2007	2008 (available period)
Capital goods output	1.3	-2.4	-2.4 (Jan.-July)
Capacity utilisation rate in the capital goods industry	(76.7)	(80.4)	77.8 (Jan.-Sept.)
Outstanding balance of loans to non-financial corporations with a maturity of over one year[2]	12.1 (Dec.)	25.7 (Dec.)	22.0 (Aug.)
Disbursements out of the Public Investment Programme	8.9	7.6	0.3 (Jan.-Sept.)
Volume of private construction activity (on the basis of permits issued)	-19.5	-5.0	-13.9 (Jan.-June)
Cement production	3.1	-9.2	0.2 (Jan.-July)
Construction business expectations index	44.6	1.5	5.0 (Jan.-Sept.)
Outstanding balance of total bank credit to housing[3]	25.8 (Dec.)	21.4 (Dec.)	15.5 (Aug.)

Sources: NSSG (capital goods output, volume of private construction activity, cement production), IOBE (capacity utilisation rate, business expectations index), Bank of Greece (loans to non-financial corporations, disbursements out of the public investment programme, housing loans).
1 Except for the capacity utilisation rate.
2 Adjusted for the amount of loan write-offs.
3 Taking into account securitised loans and loan write-offs.

ernment investment is expected to slightly exceed 2% (2007: 1.7%).

Anticipated developments in investment, particularly business investment, are characterised by uncertainty as to whether the following assumption will be verified: that the international financial turmoil, the slowdown in global economic activity, the intense inflationary pressures, the significant appreciation of the euro (annual average), the recent climb of interest rates and the increase in the prices of oil and raw materials —i.e. developments that generally curb the growth of domestic and international demand— will exert only a modest influence on domestic enterprises' investment decisions.

Nevertheless, the satisfactory development of **business investment** is fostered by the following:

- Many investment projects came under the provision of Law 3299/2004; this has endowed investment demand with stability. Completion of such projects is scheduled for 2008 or the forthcoming years; therefore, investment is expected to keep momentum.

- Thus far, the financial turmoil has not generated problems of investment project financing, since credit expansion to enterprises accelerated in the first eight months of the year and interest rates on corporate loans increased only slightly (see Chapter VII.2-3).

- Enterprises have generally published relatively healthy balance sheets, even though profits dropped in the first half of the year (see Chapter V).

- An important role in investment demand in 2008 and in the future will be played by the realisation of energy investment initiatives (including Renewable Energy Sources – RES), some of which have been already scheduled but not yet entered the phase of implementation (e.g. investment in photovoltaic and aeolic parks).

Against this background, it is concluded that the indisputable deterioration of the business climate and the sluggish domestic and international demand due to the above mentioned factors will be conducive to a moderate decline in business investment growth from the high levels of 2007. Of course, due to the uncertainties and the risks mentioned above, the possibility of further deceleration cannot be ruled out.

Total investment in the construction industry is estimated to drop somewhat in 2008 (having increased by 1.9% in 2007), while, as mentioned above, **residential investment** will fall considerably. (For more details on the construction sector see Box IV.1).

Box IV.1

THE CONSTRUCTION INDUSTRY AND THE HOUSING MARKET

The construction confidence indicator, which was falling in the first half of 2008, made a distinct rebound in July and August, recording eventually an average annual growth of 4.4% for the period January-August 2008. In the last 12 months, however, the indicator decreased by 2.5% on average. At the same time, the IOBE index, which records the months of secured production for housing construction firms, fell in September 2008 to 7.1 (from 14.7 in December 2007), as the flow of housing loans to households has been steadily declining (the growth rate of outstanding housing loans to households decreased in August 2008 to 15.5% from 21.4% in December 2007 and 25.8% in December 2006). Given, however, the large reduction in the volume of private construction activity (based on permits) at an average annual rate of 13.9% in the first half of 2008 (which presages a further slowdown in current construction activity) and the marginal growth in cement production (at an average rate of 0.2% in the first seven months of the year), it is estimated that total investment in construction will decrease slightly in 2008 (having increased by 1.9% in 2007).

A basic feature of the Greek housing market over the last two years has been the setback in the upward trend of prices (roughly since the beginning of 2006), which however continued to present marginal positive changes in the first months of 2008. This setback is attributed both to the small decline in demand, at least as implied by the slackened growth rate of housing loans, and to the increased supply, which was the result of the particularly intense construction activity before the imposition of VAT (at the beginning of 2006) to newly built dwellings.[1] According to more recent data, the first months of 2008 witnessed marginal changes compared to 2007. Market trends exert a stabilising influence and real estate prices at nominal terms recorded a small increase, commensurate to or slightly less than the total cost of construction.[2] Deflated 2008 prices are almost the same as last year's or slightly lower in some areas.

Demand in the real estate market remains subdued in 2008, given the general economic condition; on the supply side, there seems to be a considerable stock of available houses, which nonetheless is being gradually absorbed. These facts, coupled with the significant reduction in construction activity, on the basis of permits issued (2006: -19.5%, 2007: -5.0%), have made building contractors cautious and hesitant to take initiative in the last two years. In the short run, it is estimated that the real estate market will not undergo noticeable changes, since demand will remain at the current or slightly lower levels, while it is possible that, in the forthcoming months, the apparent tactic of construction companies to curb expansion will continue. On the supply side, despite the increased stock of dwellings for sale, the situation does not seem particularly pressing, since the galloping rise in dwelling prices in the last decade has generated high profits. It is also encouraging that, in spite of the increase in the cost of

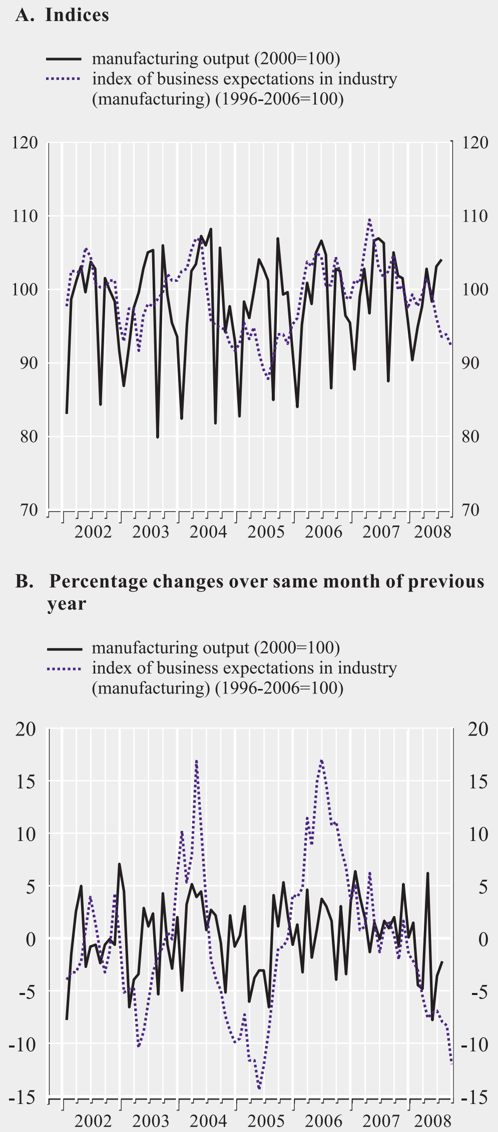
1 The average annual growth in the volume of private construction activity based on permits issued was 35.2% in 2005.
2 According to the most recent Bank of Greece data on urban areas except from Athens, dwelling prices increased by 2.3% in the first half of 2008 (compared with an average of 3.8% for 2007). In the area of Athens and in urban areas as a whole dwelling prices rose in 2007 by 3.5% and 3.6%, respectively (see Table IV.3). The General Construction Costs Index of New Residential Buildings published by the NSSG increased in the first half of 2008 by 4.5%, compared with 4.4% for 2007 as a whole.

money and the clearly stricter criteria applied by banks with respect to housing loans, outstanding housing loans continue to grow at high, though distinctly decelerating, rates (as already mentioned).

In 2008, the contribution of the real external balance (i.e. the difference between exports and imports of goods and services) to GDP growth is estimated to reverse (*positive* contribution of approximately 0.5 percentage point). **Exports of goods and services** will grow faster in 2008: this will come almost exclusively from the anticipated large increase in transport receipts,[5] which account for about 35% of the total exports of goods and services at nominal terms. The rise in transport receipts (see also Box VI.2) is partly attributable to the increased transport capacity of the new Greek-owned merchant fleet and the brisk rise in freight rates.[6] Travel receipts are expected to increase slightly in 2008 at real terms. The growth rate of *goods* exports will exceed the very low levels of 2007 (1.6%), but will still lag behind the rise in international demand (i.e. the demand for imports by the destination markets, which is estimated to grow by 4.2% in 2008, from 6.5% in 2007), mainly because of the cumulative loss of the Greek economy's international price competitiveness (see also Table VI.1).

The growth of **imports of goods and services** is expected to decelerate considerably in 2008, mainly owing to the expected significant slowdown of domestic final demand, while no further increase in ship imports at constant prices is expected. (According to NSSG provisional quarterly national accounts data, in the first half of 2008 imports of goods and services decreased by 5.9%, possibly because customs statistics, which form the basis of national

Chart IV.4 Output and business expectations in manufacturing (January 2002–September 2008)



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

5 During January-July 2008, transport receipts increased by 24.3% and, according to the national accounts practice, they are deflated by the CPI. In the first half of the year, exports of goods and services increased by 4.4% on a national accounts basis.

6 It should be noted, however, that as from June 2008 freight rates for both liquid and dry cargoes have begun to drop, still remaining, nonetheless, at levels clearly above the average of the last few years.

accounts statistics for the import of goods, reflect the impact of port strikes over the same period.)

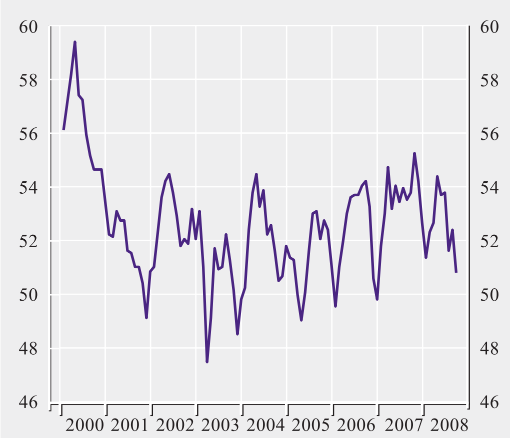
In summary, the growth rate of the export volume of *goods and services* on a national accounts basis is anticipated to reach 6.5% in 2008 (from 5.9% in 2007), whereas the corresponding rate of *goods and services* imports will drop to around 2.5% (from 7.0% in 2007).

On the *supply* side, the upward trend of total industrial and manufacturing production during 2006-2007 seems to have been interrupted in the first seven months of 2008. According to NSSG data, **total industrial production** during January-July 2008 decreased at an average annual rate of 2.1% (having increased by 2.2% in 2007). Accordingly, **manufacturing output** declined at an average annual rate of 2.3% (having increased by 1.8% in 2007). This development is mainly attributable to the large reduction in the production of all basic goods with the exception of consumer non-durables, which have recorded a small increase.

The IOBE monthly business survey paints a similar picture with respect to manufacturing activity (see Chart IV.4). The index of business expectations in industry has constantly followed a descending path since December 2007, resulting in an average decline of 6.7% in the January-September 2008 period, which is mainly attributable to the unfavourable development of demand, especially the external one. Moreover, the capacity utilisation rate in total industry fell marginally over the same period (to

Chart IV.5 Purchasing Managers' Index (PMI) for manufacturing (January 2000–September 2008)

(seasonally adjusted index; positive deviations from the value of 50 indicate an expansion of economic activity)



Sources: Markit Economics and Hellenic Purchasing Institute.

Table IV.5 Indicators of activity in the services sector (2006-2008)

(annual percentage changes)

	2006	2007	2008 (available period)
Services turnover indicators			
Car trade	5.7	6.8	2.8 (Jan.-June)
Wholesale trade	11.4	11.4	9.2 (» »)
Telecommunications-postal services	3.2	1.2	2.7 (» »)
Information technology	23.3	9.9	8.5 (» »)
Tourism (hotels and restaurants)	3.7	6.5	3.5 (» »)
Other business services[1]	10.0	18.3	12.7 (» »)
Passengers			
Passenger-kilometres of Olympic Airlines (OA)	-4.1	2.7	-6.5 (Jan.-July)
Passenger-kilometres of Aegean Airlines[2]	8.6	25.5	18.9 (Jan.-June)
Piraeus Port Authority (OLP) passengers	3.7	2.0	-0.4 (» »)
Index of business expectations in services	**10.7**	**2.8**	**-3.4 (Jan.-Sept.)**

Sources: NSSG (services turnover indicators), OA, Aegean Airlines, OLP and IOBE (expectations).
1 Including mainly architect and engineering activities, legal services and the sector of advertising.
2 Including charter flights.

76.4% on average during January-September 2008 from 76.9% in the corresponding 2007 period), still remaining higher than the 2004-2006 average. The months of secured production remained at high levels (5.0 months on average for the nine-month period compared with 4.9 months in the corresponding 2007 period).

The Purchasing Managers' Index (PMI) draws a more positive picture for manufacturing; the index has steadily remained above the threshold of 50 points (52.6 on average during January-September 2008, compared with 53.7 for 2007 as a whole), implying that the upward trend of manufacturing output was carried forward to 2008 (see Chart IV.5).

Most branches of the **services sector** saw an increase in activity, despite several indications of deceleration (see Table IV.2 and Chart IV.2 on the volume of retail sales and new passenger car registrations, already mentioned above, and Table IV.5 for other indices of activity in the services sector).

Chart IV.6 Employment (1999–2008)

(percentage changes over corresponding quarter of previous year)

Source: NSSG, Labour Force Surveys (LFS). New revised data for 1998-2003, published in January 2005. No changes are shown for 2004, since data are not fully comparable, due to a change in the survey sample.
* Other employed persons = Self-employed with staff (employers) + Self-employed without staff + assistants in family businesses.

2 EMPLOYMENT AND UNEMPLOYMENT

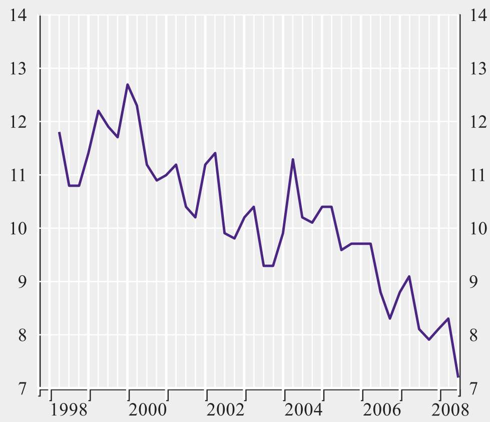
The total number of employed persons in the first half of 2008 was 1.3% (which translates into 56.3 thousand people) higher than in the first half of 2007. This increase in employment (see Chart IV.6), at a rate higher than that of the labour force, led to a reduction in the unemployment rate (see Chart IV.7). The growth rate of employment in the first half of 2008 (1.3%) was slightly lower than in 2007 (1.4%) and 2006 (1.7%). Compared with the two previous years, employment in the private non-agricultural sector increased at a slightly higher rate in the first half of 2008 (2.1% in 2008 against 1.9% in 2007 and 1.9% in 2006), whereas employment in the public sector increased only marginally (+0.2% in 2008, compared with 2.0% in 2007 and 2.9% in 2006). In the agricultural sector, the number of employed persons continued to fall, albeit at a lower rate (2008 Q1: -1.3%, 2007 Q1: -2.1%, 2006 Q1: -1.6%).[7]

The **increase in employment in the private non-agricultural sector** (+2.1%) mainly stemmed from (i) the 3.5% rise in the number of employees in this sector (which contributed 2.2 percentage points in the change in the sector's total employment) and (ii) the 4.7% rise in the number of self-employed with staff (which contributed 0.5 percentage point). By contrast, the number of self-employed without staff and of assistants in family businesses fell by 1.4% and 5.3%, respectively, making a negative contri-

7 Comparisons between 2008 and previous years, at the sectoral level, are difficult because of the adoption (since 2008 Q1) of the new statistical classification (STAKOD-08). For the time being, cross-sectoral comparisons are possible for Q1 only, which avails of LFS data for both classifications. Such comparisons show that the rise in employment during the first quarter was mainly based on the branches of trade and various business activities, while the contribution of manufacturing and of transport and communications declined. According to data from the NSSG survey in retail trade business firms, employment continued to increase in this branch during the second quarter too; thus, in the first half of 2008 it was 1.5% higher than in the first half of 2007. In manufacturing, the employment sub-index of the PMI shows a curb in employment from April onwards.

Chart IV.7 Total unemployment rate (1998–2008)

(percentage of the labour force)



Source: NSSG, Labour Force Surveys.

bution (-0.3 percentage point each) to the change in total employment. **Average hours worked per employed person** (normal and overtime) for employees in the private non-agricultural sector of the economy remained essentially unchanged in the first half of 2008 (+0.5%), compared with the first half of 2007.[8]

There are no substantial changes between the first half of 2007 and the first half of 2008 as regards the forms of employment (e.g. full-time/part-time, fixed-term/indefinite-term labour contracts) for the total of employed persons.[9] However, there seems to be a difference in the forms of employment between new entrants in the labour market and older ones. More specifically, within the private non-agricultural sector, **employees working under fixed-term labour contracts** as a percentage of total persons employed in the first half of 2008 but not employed in the first half of 2007 were 38.6%, while the corresponding percentage for the total of employees in the same sector was 11.5%. Actually, the percentage of newly recruited workers under fixed-term labour contracts is slightly higher than in 2007 (37.2%). *This implies that, if the slowdown of economic activity has a negative impact on employment over the coming months, this impact will probably be borne mostly by employees working under fixed-term labour contracts.* LFS data also show an increase (from 4% in the first half of 2007 to 4.8% in the first half of 2008) in the percentage of employees in the private non-agricultural sector who declare that they are not covered by social insurance.[10]

The rise in employment between the first half of 2007 and the first half of 2008 at a rate (1.3%) higher than that of the labour force (0.3%) resulted in **the decline of the unemployment rate** from 8.6% to 7.7%. This decline stemmed both from the reduction in the number of persons who were laid off or stopped working because their contract came to term and from the increased number of persons who found a job after being unemployed the year before.

In the first half of 2008, **the percentage of persons unemployed for a year or more (long-term unemployed) was reduced** to 49.4% of the total number of the unemployed, from 50.6% in the first half of 2007. **The unemployment rate of the 15-29 age group also declined** (to 17.3% in the first half of 2008 from 18.2% in the first half of 2007), still remaining, however, at very high levels.

Firms' estimates on the short-term outlook of the number of employed persons, as captured by the IOBE business survey (see Chart IV.8), remain positive in September 2008 as regards retail trade and services, even though at considerably lower levels for services than in September 2007. As regards industry and constructions, firms in September 2008, same as in September 2007, expect a drop in employment over the forthcoming months. NSSG data on the number of vacancies for the first quarter of

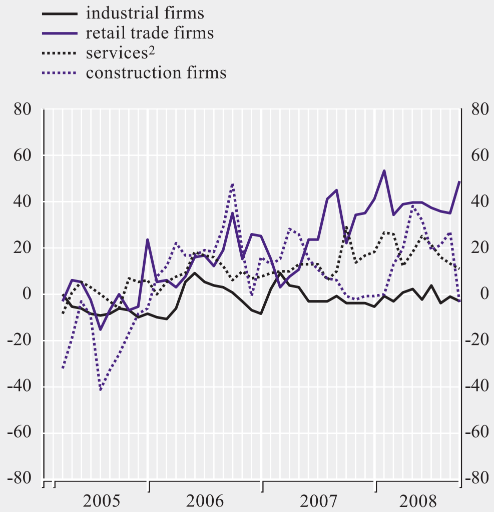
8 The calculation did not include persons whose hours of work were affected by holidays or strikes in the survey's reference week.

9 The percentage of part-time employed persons in total employed persons was 5.8% in the first half of 2007 and 5.6% in the first half of 2008, whereas the percentage of employees in the non-agricultural private sector working under fixed-term labour contracts was 11.5% in the first half of both 2007 and 2008.

10 According to the LFS, the percentage of public sector employees who declare themselves as not insured is 0.59%.

Chart IV.8 Business expectations[1] for employment (December 2004–September 2008)

(percentage balances)



Source: IOBE, Business Surveys.
1 Firms were asked to assess the prospect of an increase in their number of employees over the coming period.
2 Excluding banks and retail trade firms.

2008 show a small decline compared with the corresponding 2007 period.[11]

As for the more general trends, it should be underlined that the labour market has been characterised by increased mobility; at the same time, there are indications of population ageing. Indicatively, the reduction in the general rate of unemployment is related to the increase in the percentage of those unemployed for less than two months, while changes in the age structure of the population are also reflected in the increased average age of persons employed (from 40 years of age in 2000 to 41 in the first half of 2008).

Notwithstanding the increased employment in the last decade, the **employment rate** in Greece, especially of women and young people, is still low. The improvement of children's day care infrastructures could contribute to an increase in the rate of female employment. In the same vein, youth employment could benefit from a reduction in employers' social security contributions for young people, as is the case in many other EU-15 countries.

3 FISCAL DEVELOPMENTS

3.1 FISCAL DEVELOPMENTS IN THE SEVEN-MONTH PERIOD JANUARY-JULY 2008 ON THE BASIS OF ADMINISTRATIVE DATA

The Budget for 2008 anticipated a reduction of the state budget (SB) annual deficit to 3.4% of GDP (compared with 4.6% in 2007), i.e. to a level compatible with the target of narrowing the general government deficit (on a national accounts basis) as a percentage of GDP (see Table IV.6).[12]

The deterioration of the international economic environment, however, has unfavourably affected macroeconomic and, hence, fiscal developments in almost all euro area countries. It is characteristic that the European Commission[13] expects the fiscal deficit in the euro area as a whole to widen to 1.0% of GDP in 2008 and 1.1% in 2009, from 0.6% in 2007. International developments have had an adverse influence on the execution of the Greek budget as well, especially in respect of revenue.

More specifically, in the seven-month period January-July 2008 the SB deficit amounted to 4.3% of GDP, compared with 3.5% in the corresponding 2007 period. Over the same periods, the SB primary balance turned from a primary surplus of 0.1% of GDP in 2007 to a primary deficit of 0.9% of GDP (see Table IV.6).

The widening of the SB deficit by 0.8% of GDP in these seven months stems by 75% from the ordinary budget (OB) and by 25% from the

11 According to data from IOBE business surveys in industry, services and constructions, the percentage of firms whose activity is hindered by the lack of suitable personnel decreased slightly in the first half of 2008 (compared with the first half of 2007) for constructions and services, but increased slightly for industry.
12 According to Greece's notification to Eurostat at end-March 2008, the deficit for the year 2007 was estimated to 2.8% of GDP; for 2008, the target was to narrow it to 1.6% of GDP. Eurostat expressed its reservation on the statistical treatment and the coverage of certain administrative data (see Eurostat, press release 54/2008, 18 April 2008). Moreover, the ratio of the consolidated debt of general government to GDP was forecast (by the Budget for 2008 and the Updated Stability and Growth Programme of December 2007) to fall to 91% at end-2008, against 94.5% at end-2007. In 2007, this ratio was the second highest among EU countries.
13 European Commission, DG-ECFIN, *Public Finances in EMU-2008*, p.14.

Table IV.6 State budget results

(million euro)

	January - July			Percentage changes		Annual data					Percentage changes			
	2006	2007	2008*	2007/06	2008*/07	2004	2005	2006	2007*	Budget 2008	2005/04	2006/05	2007*/06	Budget 2008/07*
I. Revenue[1]	**29,544**	**31,512**	**33,366**	**6.7**	**5.9**	**44,949**	**47,446**	**52,460**	**56,647[6]**	**62,602**	**5.6**	**10.6**	**8.0**	**10.5**
1. Ordinary budget	27,293	28,668	30,601	5.0	6.7	42,055	44,760	48,685	51,775[6]	58,070	6.4	8.8	6.3	12.2
(of which: extraordinary revenue)	482	0					0	773[3]						
2. Public investment budget	2,251	2,844	2,765	26.3	-2.8	2,894	2,686	3,775	4,872	4,532	-7.2	40.5	29.1	-7.0
– Own revenue	...	...	...			83	63	212	...	240	-24.1	236.5	...	...
– Revenue from the EU	...	...	...			2,811	2,623	3,563	...	4,292	-6.7	35.8	...	...
II. Expenditure[1]	**35,635**	**39,436**	**43,836**	**10.7**	**11.2**	**57,810**	**58,763**	**60,692**	**67,168[7]**	**70,908**	**1.6**	**3.3**	**10.7**	**5.6**
1. Ordinary budget	32,389	34,901	38,710	7.8	10.9	48,288[4]	51,239[5]	52,508	58,365[7]	61,608	6.1	2.5	11.2	5.6
– Interest payments[2]	8,040	8,127	8,230	1.1	1.3	9,464	9,774	9,589	9,791	10,500	3.3	-1.9	2.1	7.2
– Ordinary budget primary expenditure	24,349	26,774	30,480	10.0	13.8	38,824[4]	41,465[5]	42,919	48,574	51,108	6.8	3.5	13.2	5.2
(of which: tax refunds)	(1,343)	(1,729)	(2,309)	(28.7)	(33.5)	(2,799)	(2,554)	(2,392)	(2,623)	(2,550)	(-8.8)	(-6.3)	(9.7)	(-2.8)
2. Public investment budget	3,246	4,535	5,126	39.7	13.0	9,522	7,524	8,184	8,803	9,300	-21.0	8.8	7.6	5.6
III. State budget (SB) results	**-6,091**	**-7,925**	**-10,470**			**-12,861**	**-11,318**	**-8,232**	**-10,521**	**-8,306**				
% of GDP	**-2.8**	**-3.5**	**-4.3**			**-6.9**	**-5.7**	**-3.8**	**-4.6**	**-3.4**				
1. Ordinary budget	-5,096	-6,233	-8,109			-6,233	-6,479	-3,823	-6,590	-3,538				
2. Public investment budget	-995	-1,691	-2,361			-6,628	-4,838	-4,409	-3,931	-4,768				
IV. State budget primary surplus	**1,949**	**202**	**-2,240**			**-3,397**	**-1,544**	**1,357**	**-730**	**2,194**				
% of GDP	**0.9**	**0.1**	**-0.9**			**-1.8**	**-0.8**	**0.6**	**-0.3**	**0.9**				
Amortisation payments[2]	15,779	20,385	24,427	29.2	19.8	20,356	21,752	16,954	22,544	26,211	6.9	-22.1	33.0	16.3
Ministry of National Defence programmes for the procurement of military equipment[2]	609	572	1,053	-6.1	84.1	1,792	1,394	2,076	2,129	1,800	-22.2	48.9	2.6	-15.5
GDP (current prices)	213,985	228,949	245,374	7.0	7.2	185,225	198,609	213,985	228,949	245,374	7.2	7.7	7.0	7.2

Source: Ministry of Economy and Finance, General Accounting Office.
* Provisional data.
1 For comparability purposes, tax refunds are included in expenditure and have not been deducted from revenue, a practice followed by the Ministry of Economy and Finance in the last few years.
2 From 2003 onwards, interest and amortisation payments taken over by the Ministry of National Defence are recorded in the off-budget item "Ministry of National Defence programmes for the procurement of military equipment".
3 Comprising €149.7 million from EETT revenue settlement, €299.3 million (not included in the 2006 budget) from the decrease in the capital of the Postal Savings Bank, €34 million from the decrease in the Agricultural Bank capital and €290 million from additional dividends of the Deposits and Loans Fund.
4 Including a grant of €220 million to OTE's personnel insurance fund (TAP-OTE).
5 Including a grant of €330 million to TAP-OTE and the repayment of Greek government debt to the Agricultural Bank, amounting to €345 million. These expenses were not taken into account in the Ministry of Economy and Finance estimates for 2005 (published in the Introductory Report on the 2006 Budget), but they were finally included in the Introductory Report on the Budget for 2007.
6 Including "accounting" revenue of €437 million from the settlement of outstanding debt by the Olympic Airlines.
7 Including "accounting" outlays of €840 million from the settlement of outstanding debt with the Olympic Airlines, as well as a retroactive contribution (of €1,108 million) from Greece to the Community budget, owing to a revision of Greece's GDP.

public investment budget (PIB) and is derived from a shortfall in revenue and an overrun in primary expenditure, as well as a pick-up in public investment growth.

Ordinary Budget revenue

OB revenue increased by 6.7% in the seven month period January-July 2008 compared with a budgeted increase of 13.1%.[14] According to available detailed data, the growth rate of revenue from direct and indirect taxes fell short of the budgeted amounts; at the same time, non-tax revenue increased by 8.5%, compared with the corresponding 2007 period.

The shortfall in revenue from direct taxes during these seven months (6.1% increase against a targeted annual 11.1%) was mainly the result of:

- the 13.2% decrease in corporate tax revenue compared with a targeted increase of 4.4% (partly as a result of the tax rate cut[15] from 29% to 25%),

- the 20.7% reduction in revenue from taxes on inheritance, gifts and parental donations[16] (owing to the significant cut or even abolition of the pertinent taxes) and

- the 0.7% reduction in revenue from the large property tax (which was replaced by the Single Real Estate Tax – ETAK).[17]

As regards indirect tax receipts, the shortfall in relation to the budgeted figures (increase of 6.9% against a targeted 14.1%) is partly the result of the slowdown in economic activity. This shortfall can be mainly attributed to the decelerated growth of VAT revenue (8.7%, or 6.4% if the revenue from VAT on fuel is not taken into account, compared with 10.1% in the corresponding 2007 period and a targeted 14.5%), which is partly due to the slowdown in consumption. Besides, in the past, firms partly abstained from paying VAT in the face of deteriorating economic conditions. Receipts from the real estate transfer tax also decreased (by 6.2%), when, in the corresponding 2007 period, they had increased by 30.7%. This was the result of (i) the general downturn in the real estate market following three years of strong growth and (ii) the sharp increase in revenue in the first quarter of 2007[18] (base effect). Revenue from tobacco tax also fell by 1.3%, having increased by 8.1% in the corresponding 2007 period. Receipts from car registration fees dropped by 8.0%, having received an 11.6% increase in the corresponding half of 2007, partly because of the 2.2% decrease in car sales. Finally, revenue from the tax on stock exchange transactions fell by 11.6%, having risen by 20.7% in the corresponding 2007 period, owing to stock exchange developments.

By contrast, a significant increase (21.6%) was recorded during this seven-month period in revenue from the special consumption tax on fuel (which is not affected by changes in prices, since it applies to volume units), as the tax rate on heating oil was equalised to that on diesel oil as from 15 February 2008.

It is estimated that revenue will improve significantly over autumn, with the start of heating oil distribution[19] in mid-October and the collection of revenue from ETAK. Moreover, Law 3697/2008, which was passed in September, includes measures such as the settlement of pending tax cases, the collection of tax arrears and the 20% increase in annual road duties, which are expected to affect revenue favourably in the last months of the year.

14 The 13.1% growth rate is arrived at if the extraordinary "accounting" revenue from Olympic Airlines (€437 million) is deducted from total 2007 revenue. See Bank of Greece, *Annual Report 2007*, April 2008, Chapter VIII.2, fn.5.

15 Applying as from 1 January 2007 and relating to 2007 profits taxed in 2008.

16 Regarding taxes on inheritance, gifts and parental donations as well as on large property, the relevant law (3634/2008) was passed at end-January 2008; possibly, therefore, the pertinent provisions were not known when the Budget was being drawn up (October 2007).

17 Revenue from the large property tax has become null; ETAK has yielded approximately €80 million (from corporations). The amount of ETAK revenue from households is expected to be announced in the forthcoming months.

18 For the reasons for the marked increase in real estate transactions and the related revenue in the first quarter of 2007 see Bank of Greece, *Annual Report 2007*, April 2008, Chapter VIII.2.1.

19 Associated revenue (which accounts for 10.6% of total revenue from VAT) has increased by 33.2% already, during these seven months, having declined by 2.0% in the corresponding 2007 period.

Ordinary Budget expenditure

OB expenditure (which includes tax refunds) increased by 10.9% in the seven-month period January-July 2008, from 7.8% over the same 2007 period (see Table IV.6). The Budget outlines an (annual) expenditure increase of 5.6%.[20] Same as in 2007, the high growth rate of expenditure stems from the growth of OB primary expenditure, which increased by 13.8% during these seven months, compared with a targeted increase of 5.2%.

According to provisional data,[21] the overrun in primary expenditure is derived from the rise in personnel outlays, specifically: (i) the payment of the first instalment of arrears to the judiciary amounting to €180 million, (ii) the application, since the beginning of the year, of a special payroll for the members of the armed forces and the security forces (rises of 8-9% beyond those provided for by incomes policy), (iii) the extension of the allowance paid to families with many children to include families with three children and (iv) the considerable increase in expenditure for civil servants' pensions (17.0%) and tax refunds (33.5%). Moreover, outlays for government grants (the second largest expenditure item) increased by 21.0% in the seven-month period. It is noted that outlays for grants include subsidies to social security funds for the payment of the second increase in OGA (Farmers' Insurance Fund) pensions and of the social solidarity allowance to pensioners (EKAS). It is estimated that the growth rate of primary expenditure will decelerate in the remainder of the year on account of the extraordinary expenditure[22] of 2007 (base effect) and of the recent decision[23] to cut back on OB expenditure by €500 million.

Contrary to primary expenditure, interest payments increased over the seven-month period by only 1.3% compared with the corresponding period in 2007. It is estimated that interest payments will rise in the remainder of the year and that they will eventually reach the budgeted amount (7.2% increase on an annual basis), same as in previous years. It is noted that, because of the increase in the government's borrowing rates in the first half of 2008, the interest rate on new borrowing ("marginal rate") reached 4.6%, exceeding by 20 basis points the government's "average borrowing rate". This means that interest payments will tend to increase in the future.

Public Investment Budget

The PIB deficit in the seven-month period January-July 2008 amounted to €2,361 million (or almost 1.0% of GDP), compared with €1,691 million in the corresponding 2007 period. This widening of the deficit is mainly the result of the swifter pace of project implementation and of the 13.0% increase in investment expenditure, combined with a small decrease of 2.8% in PIB revenue (see Table IV.6).

3.2 NET BORROWING REQUIREMENT IN THE EIGHT-MONTH PERIOD JANUARY-AUGUST 2008 ON A CASH BASIS

The central government's cash deficit widened to 4.4% of GDP in the eight-month period January-August, from 3.9% of GDP in the corresponding 2007 period. This widening has been contained by the large increase in the balance of the account for income support to farmers (ELEGEP account managed by the Organisation for the Payment and Control of Guidance and Guarantee Community Subsidies – OPEKEPE), which from €717 million in 2007 reached €2,224 million in 2008 (see Table IV.7). Since the ELEGEP account balance becomes null in the course of the year,[24] this is actually a temporary improvement. Should this balance not be taken into consideration, the cash deficit of the state budget would have

20 From August until the end of 2007, €2,360 million of extraordinary primary expenditure were recorded, with no similar expenditure for 2008. If this expenditure is deducted from 2007 results, the growth rates of OB total expenditure and primary expenditure for 2008 amount to 10.0% and 10.6%, respectively.

21 These data are published on a monthly basis by the State General Accounting Office (*Budget Implementation Bulletin*).

22 See footnote 20.

23 See Ministry of Economy and Finance, the announcements published on 7 and 14 September 2008.

24 In 2007, subsidies to farmers were paid earlier and the balance had effectively become null by June already.

Table IV.7 Net borrowing requirement of central government on a cash basis[1]

(million euro)

	Year		January-August		
	2006	2007	2006	2007	2008*
1. State budget	**11,500**	**12,432**	**8,685**	**9,633**	**12,898**
Percentage of GDP	5.4	5.4	4.1	4.2	5.3
- Ordinary budget[2]	7,020[4]	8,512[5]	7,151	7,109	10,316
- Public investment budget	4,480	3,920	1,534	2,524	2,582
2. ELEGEP –OPEKEPE[3]	**-1,033**	**1,160**	**-1,301**	**-717**	**-2,224**
3 Central government (1+2)	**10,467**	**13,592**	**7,384**	**8,916**	**10,674**
Percentage of GDP	4.9	5.9	3.5	3.9	4.4

Source: Bank of Greece.
* Provisional data.
1 As shown by the respective accounts with the Bank of Greece and other credit institutions.
2 Including movements in public debt management accounts.
3 Organisation for the payment and Control of Guidance and Guarantee Community Subsidies. It replaced DIDAGEP (Agricultural Markets Management Service) on 3 September 2001.
4 Including revenue of €149.7 million from EETT revenue settlement, €299.3 million from the decrease in the capital of the Postal Savings Bank, €34 million from the decrease in the capital of the Agricultural Bank, €290 million from additional dividends of the Deposits and Loans Fund, €323 million from the sale of Agricultural Bank shares, €597.4 million from the sale of Postal Savings Bank shares, €364.4 million from the sale of Emporiki Bank shares, as well as expenditure for a grant of €422.9 million to OGA.
5 Including receipts of €1,107.5 million from the sale of OTE shares and €502.8 million from the sale of Postal Savings Bank shares, as well as expenditure of €264.9 million for aid to the fire-stricken and of €465.7 million for a grant to OGA.

widened from 4.2% in January-August 2007 to 5.3% in the corresponding 2008 period (see Table IV.7).

It is noted that the eight-month expenditure (on a cash basis) includes an amount of €36 million which was paid in direct financial support to those stricken by the earthquake of June 2008.

3.3 OVERVIEW OF THE DEVELOPMENTS AND PROSPECTS FOR THE YEAR AS A WHOLE – THE NEW FISCAL MEASURES

In the January-July period, the SB deficit widened significantly (on an administrative basis) to 4.3% of GDP from 3.5% in the corresponding 2007 period.

This development stems from the shortfall in SB revenue and the overrun in SB expenditure. The growth rate of revenue is expected to gather pace in the remainder of the year, as the receipts from the single real estate tax (ETAK) and the tax on heating oil (the distribution will commence in October) will come in along with revenue from the tax measures provided for by Law 3697/2008. By contrast, the growth rate of primary expenditure is expected to slow down in the rest of the year, since at the end of 2007 considerable extraordinary expenditure was realised, which will not be repeated in 2008. At the same time, a cut of €500 million in expenditure until year-end has been announced. In the last quarter of the year, however, extra expenditure will be added (e.g. the second instalment of the increase in civil servants' salaries).

Interest payments, which appear slightly increased in January-July 2008, are estimated to conform to the budgeted amounts by the end of the year, as is usually the case.

It is expected that this reversal of trends in SB revenue and primary expenditure over the last months of the year will reduce to a large extent the differentials recorded in the seven-month period. Given the developments, however, particular efforts are required to contain the fiscal deficit for 2008.

With a view to improving the fiscal balance, the government introduced on 28 August 2008 a draft law entitled "Enhancing the transparency of the State Budget, controlling public expenditure, tax equitability measures, and other provisions". The law, which was passed in September (Law 3697/2008), contains a three-part package of fiscal measures:

- The first part relates to the incorporation of "Special Accounts" into the state budget. This arrangement will enhance the transparency of the budget and restore the uniformity of fiscal management.

- The second part includes provisions aimed at monitoring and containing the expenditure of various general government entities, e.g. public hospitals, local authorities, social security organisations, etc.

- Finally, the third part contains a series of tax measures designed to improve OB revenue, most of which will enter into force on 1 January 2009. These measures include the settlement of pending tax cases and the collection of tax arrears under favourable terms for tax payers, the increase in annual road duties for 2009, the taxation of dividend income and of the surplus value resulting from stock market transactions, the abolition of the freelancers' tax exemption etc. Some of these regulations are aimed at broadening the tax base, others (for the settlement of pending tax cases and the collection of tax arrears) are aimed simply at counteracting the long-lasting weaknesses of the tax collection mechanism and cannot contribute to combatting tax evasion and cultivating the taxpayers' consciousness over the medium term.

According to the Ministry of Economy and Finance, the tax regulations of this new law are expected to yield €4.1 billion, of which approximately €3 billion will be one-off revenue. Most of this revenue will be collected in 2009, with only a small portion to be realised in 2008 (approximately €700 million) and 2010.

V INFLATION: DEVELOPMENTS, PROSPECTS AND DETERMINANTS

1 SUMMARY OF INFLATION DEVELOPMENTS, AND INFLATION PROSPECTS FOR THE WHOLE OF 2008

The considerable rise in inflation, which began in the last quarter of 2007, has increased in the course of 2008 and affects particularly the economically weaker social groups. This rise is attributable, at first sight, to short-term external factors (the large rise in oil and food commodity prices internationally) and short-term domestic factors (the faster growth of unit labour costs). The inflationary effect of these factors offsets by far the anti-inflationary effect exerted by:

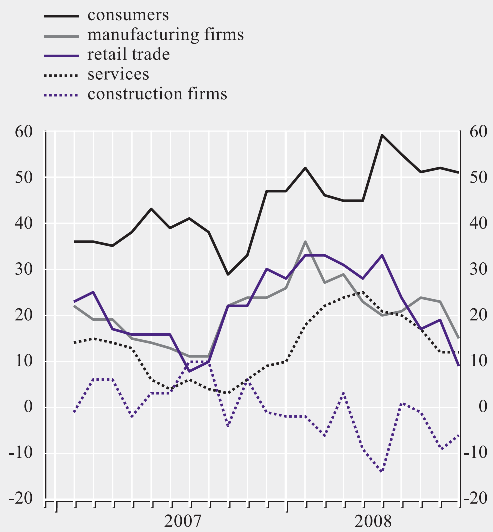
- first, the appreciation of the euro (on an average annual basis), which *limits* the loss of households' purchasing power caused by increased inflation, and

- second, the slowdown of domestic demand growth (see Chapter IV.1).

The external and domestic determinants of the increase in inflation since the last quarter of 2007 are short-term only *in part*.

Chart V.1 Inflation expectations[1] of consumers and business firms (January 2007–September 2008)

(percentage balances)



Sources: IOBE and European Commission, *Business and consumer survey results.*
1 The responses of business firms concern the prospect, in the next 3-4 months, of price increases for the goods they produce, while consumers' responses concern the prospect of a faster increase in consumer prices in the next 12 months. The data for consumers are seasonally adjusted.

Indeed, the large increase in oil and food commodity prices internationally reflects, to a large extent, structural changes in the global economy, such as rapid growth, the rise in living standards and the increase in the contribution of developing economies, particularly China and India, to global demand (see also Box V.1). Of course, international oil prices, following their very large rise, dropped substantially in the last period and the slowdown of the rise in demand might lead to their further drop. However, oil prices remain high, while uncertainty regarding their future development is increased and it is likely that they will continue to show strong fluctuations. This means that oil and food commodity prices are most likely to remain at high *levels* in the medium term. Furthermore, the inflationary impact of the external disturbances of supply is intensified owing to imperfect competition in important domestic markets (see Appendix 1 of this chapter).[1] Besides, as the "oil intensity" and the "oil dependence" of the domestic production of goods and services are relatively high (see Appendix 2 of this chapter), the inflationary impact of the rise in oil prices is greater than on average in the euro area. Consequently, it is reasonable that the anti-inflationary impact of a drop in oil prices will be greater, too.

The acceleration of the growth rate of unit labour costs in 2008 is attributable to conjunctural reasons:

- the effect that the acceleration of inflation since-end 2007 had on wage earners'[2] inflation

1 This observation applies by analogy to domestic supply disturbances. For instance, if owing to adverse weather conditions the production of fruit and vegetables is reduced, the rise in prices may be higher than expected, because conditions of imperfect competition exist in the market (in the distribution circuit).
2 Indeed, households' inflation expectations have increased noticeably since November 2007 (see Chart V.1).

expectations and on the outcome of collective bargaining for wage increases in 2008, and

- certain specific wage arrangements in the public sector.

Nevetheless, the relatively high growth rates of labour costs in the last eight years (which are much higher than in the euro area as a whole – see Table V.4) are the result *of more permanent* factors.

First, in recent years the Greek economy has been characterised by conditions of excess demand, which in 2008 have weakened and in 2009 may be eliminated.

Second, imperfect competition in major product markets, both of goods and services, allows the businesses which operate in this environment to grant relatively high wage increases and pass all of the labour cost increase on their product prices (and, generally, raise their prices more than what the increase in cost elements and the maintenance of reasonable profit levels would entail).

Third, elements of labour market rigidity still exist, due to regulations that remain in its institutional operational framework.

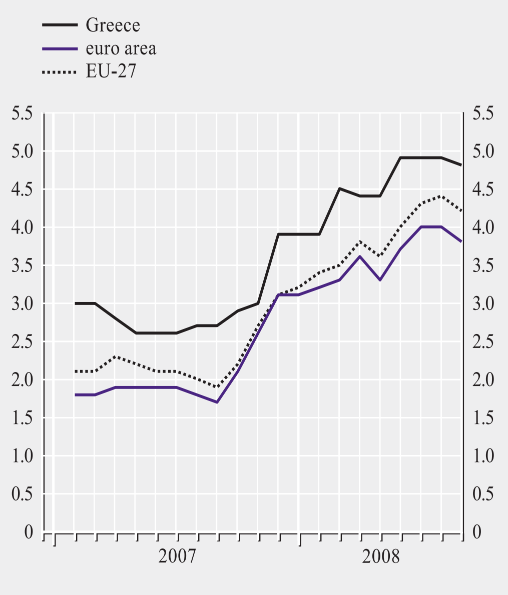
Fourth, the social partners' behaviour has not fully adapted to the fact that, under the conditions of operation of the economic and monetary union, their contribution to safeguarding and improving competitiveness and, consequently, employment, is crucial.

The analysis of developments shows that the rise in fuel prices since the last months of 2007 has already had strong second-round effects on inflation in 2008, as it affected both wage-earners' and enterprises' inflation expectations and — thereby — their pricing and wage policies. By contrast, in the other euro area countries second-round effects were limited.

It is obvious that, if the above-mentioned structural factors remain strong, the medium-term outlook of inflation will be adversely affected. Of course, of these factors, the domestic ones may weaken or be eliminated with the implementation of appropriate national economic policy measures. As for the external factors, the increase in international oil prices and other basic commodities (mainly food) is, for Greece and the other countries that import these items, a kind of mandatory contribution, a "tax" in favour of the countries that export them. This income transfer reflects a shift of relative prices worldwide. Neither households nor enterprises can retrieve lost income in the short-term. Certainly, it is necessary as a first step to relieve the most vulnerable social segments from the effects of this phenomenon, with targeted interventions which will not derail fiscal prospects. In a longer time horizon, it is possible to compensate for these non-directly retrievable losses of purchasing power with policy interventions for the enhancement of competition, but also with initiatives by enter-

Chart V.2 Harmonised index of consumer prices in Greece, the euro area and the European Union (January 2007–August 2008)

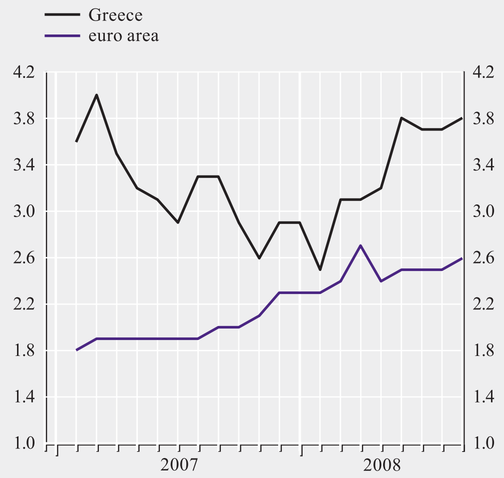
(percentage changes over same month of previous year)



Sources: NSSG and Eurostat.

Chart V.3 Core inflation in Greece and the euro area on the basis of the HICP excluding energy and unprocessed food (January 2007–August 2008)

(percentage changes over same month of previous year)



Sources: NSSG and Eurostat.

prises themselves which will improve competitiveness.

As concerns the short-term evolution of, and outlook for, inflation in Greece, the annual growth rate of the Harmonised Index of Consumer Prices (HICP – see Chart V.2), from 3.6% in the last quarter of 2007, accelerated considerably in the first seven months of 2008 and stood at 4.9% for three months (May-July), while in August in dropped imperceptibly to 4.8%. Core inflation, as measured on the basis of the HICP excluding energy and unprocessed food prices, recorded a slightly smaller acceleration: it reached 3.8% in August 2008, compared with 2.8% in the last quarter of 2007 (see Chart V.3). It is characteristic that 50% of the annual growth rate of the HICP in August (4.8%) was accounted for by the rise of 1.6 percentage points in energy prices (mainly fuel) and 0.8 percentage point in unprocessed

Box V.1

THE EVOLUTION OF FUEL AND FOOD PRICES INTERNATIONALLY AND IN GREECE

International crude oil and food prices continued to increase rapidly in the first half of 2008, but they subsequently fell, as a result mainly of the considerable slowdown of global economic growth.[1] International food prices increased more than 50% from the beginning of 2007 until mid-July 2008, while oil prices have exceeded in real[2] terms the high levels of the previous oil crises (of 1973-74 and 1979-80). This development has important implications for countries with high oil intensity and dependence such as Greece (see Appendix 2 of this chapter). Estimates on the future evolution of oil and food prices are surrounded by high uncertainty and prices are characterised by strong volatility. Despite the drop in oil prices in the recent period, they remain high. Also, the impact of supply and demand factors is expected to have a longer-term character, maintaining pressures for increases in commodity prices in the future. Specifically, as regards demand prospects, a distinction should be made between cyclical effects (which stem from the current slowdown of world economic growth) and the more permanent changes which are associated with the rapidly increasing industrial production and the rise in disposable income (from a low basis) in large emerging economies, specifically in China and India, and lead to an upward shift of the curve of world demand for commodities.

1 The average international price of crude oil increased by 427% from 2002 up to the end of June 2008. The average international price of non-fuel commodities increased by 120% in the same period. The increase in the sub-indices of food (112%) and metals (239%) is very large. In euro terms, these cumulative changes are far smaller: crude oil: 220%, non-fuel commodities: 34%, food and metals: 29% and 106%, respectively.

2 The US CPI is usually employed as deflator.

The key factors which caused the increase in oil prices are the constantly increasing world demand and the tightness of supply in conjunction with increasing geopolitical concerns. As regards global oil consumption, the fast increase in the demand of the larger developing economies, such as China, more than offsets the reduction in demand from advanced economies. The increase in oil prices is attributable in the short-term to the depreciation of the dollar and the shift of investors to basic commodity markets in order to offset yield losses from investment in capital markets.

The rise in food prices is mainly due to the large rise in global demand for food and animal feed, due to the rise in living standards in developing countries, but also because agricultural products such as corn are demanded for the production of bio-fuels. At the same time, the rise in food prices is the result of factors that limited supply, such as the reduced production owing to adverse weather conditions, low reserves, the increase in cultivation costs due to high energy and fertiliser prices, the substitution between cultivations, but also the increase in tariffs and in other constraints on exports by certain developing countries so as to cover high domestic demand.

Table A HICP and its food and fuel components in Greece and the euro area (2001-2008)

(annual percentage changes)

	HICP		Food		Fuel	
	Greece	Euro area	Greece	Euro area	Greece	Euro area
2001	3.7	2.3	5.4	5.3	-3.5	-2.5
2002	3.9	2.2	5.9	3.0	-1.8	-1.2
2003	3.4	2.1	5.0	2.2	3.8	3.0
2004	3.0	2.1	0.8	1.2	7.6	7.1
2005	3.5	2.2	0.8	0.6	16.8	13.2
2006	3.3	2.2	3.4	2.3	11.1	6.8
2007	3.0	2.1	2.2	2.7	1.4	1.8
2008*	4.6	3.6	6.1	6.3	23.7	19.3

Source: Calculations based on NSSG and Eurostat data.
* Average annual percentage changes for the first eight months of the year.

The increase in international crude oil and food commodity prices contributed to the increase in international and domestic fuel and food prices, exerting direct impact on inflation in almost all economies. Certainly, the size and the speed of the inflationary impact from the change in international fuel and food commodity prices differ among countries and are mainly influenced by:

- the quantity and the import prices[3] of crude oil, oil derivatives and food,

3 The prices of fuel and food imports in the euro area are affected, *inter alia*, by the appreciation of the euro against the dollar, the degree of pass-through of international prices into the prices of imports, the structure of world trade and the pricing strategies of exporters.

- the oil intensity and dependence of each economy,

- the factors that shape final consumer prices of fuel and food, such as domestic competition conditions, taxes and subsidies, and

- the share of fuel and food in the "basket" of goods and services of the consumer price index. In the case of Greece, this share is 22.3%, compared with 19.9% in the euro area.

Although it is forecast that commodity prices in 2009 will be relatively stable, their previous protracted rise will continue to have a direct and indirect effect on inflation.

In Greece, the direct effect of the continuous rise in food and fuel prices is now evident on a monthly basis in the rate of change in the Harmonised Index of Consumer Prices (HICP), as well as in the relevant food[4] and fuel[5] sub-indices. In the first eight months of 2008 (see Table A), the average annual rate of increase in the Greek HICP was one percentage point higher than in that of the euro area, the respective rate for the food sub-index was lower by 0.2 percentage point and that of the fuel sub-index was high by 4.4 percentage point. In the same period, the direct contribution of food and fuel prices to overall inflation was particularly important and came to 53% for Greece and 56% for the euro area. The contribution of fuel to the HICP increase was larger than that of food items (see Table B).

Table B Contribution of the rise in food and fuel prices to overall inflation in Greece and the euro area (2001-2008)

(percentage points)

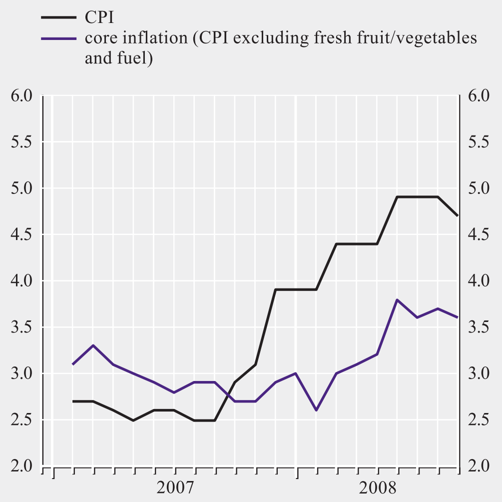
	Food		Fuel	
	Greece	Euro area	Greece	Euro area
HICP weight in 2008	*16.51%*	*14.45%*	*5.82%*	*5.47%*
2001	1.07	0.75	-0.20	-0.12
2002	1.06	0.44	-0.08	-0.04
2003	0.89	0.32	0.16	0.11
2004	0.14	0.17	0.31	0.26
2005	0.14	0.09	0.77	0.56
2006	0.58	0.32	0.68	0.34
2007	0.35	0.39	0.08	0.10
2008*	0.99	0.92	1.43	1.08

Source: Calculations based on NSSG and Eurostat data.
*First eight months.

4 The "Food" sub-index of the HICP comprises "Cereals and preparations", "Meat", "Fish", "Dairy and eggs", "Oils and fats", "Fruit", "Vegetables", "Sugar, chocolates, sweets, ice-creams" and "Other food".
5 The "Fuel" sub-index of the HICP comprises "Gas", "Heating oil" and "Fuels-lubricants".

Chart V.4 Consumer price index and core inflation in Greece (January 2007–August 2008)

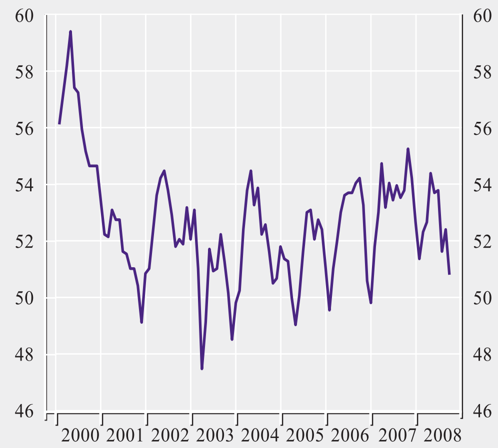
(percentage changes over same month of previous year)



Source: Calculations based on NSSG data (national index).

Chart V.5 Annual inflation differentials between Greece and the euro area (2002–2008)

(selected indices, differentials in percentage points)



Source: Calculations based on Eurostat and ECB data.

food prices and its entire acceleration in comparison with 2007 can, from an "accounting" aspect be attributed to these two categories.[3]

The annual growth rate of HICP inflation is forecast to drop slightly to around 4.4% in the last quarter of 2008 (mostly because fuel prices, which have been falling recently, will be compared with the high levels of the corresponding quarter of 2007, but it will increase considerably for the whole of 2008 – to about 4.6%, from 3.0% in 2007. Core inflation is expected to stand around 3.6% in the last quarter of 2008 (from 2.8% in the corresponding quarter of 2007), while on an average annual basis it will increase to about 3.5%, from 3.2% in 2007. These forecasts are characterised by increased uncertainty, particularly as regards the course, in the remaining months of 2008, of the international prices of oil, food commodities and other raw materials, as well as of the dollar-euro exchange rate.

A considerable increase in the annual growth rate of HICP inflation and a limited increase in core inflation was observed also in the euro area in the first eight months of 2008 (see Charts V.2 and V.3). The upward deviation of inflation in Greece from the corresponding aggregate in the euro area as a whole increased slightly (to 1.0 percentage points on average, from 0.9 percentage point in the corresponding period of 2007), but the deviation of *core* inflation was reduced (to 0.9 percentage point, from 1.5 percentage points in the corresponding period of 2007 (see Tables V.1 and V.2 and Chart V.5). The maintenance of inflation and particularly core inflation at levels higher than in the euro area as a whole is attributable to macroeconomic factors and the already mentioned conditions under which the market operates (for more details see Box V.2).

3 In the January-August period of 2008, the average annual level of HICP inflation was 4.6% (from 2.8% in the respective last-year period), while that of core inflation was 3.4% (from also 3.4% in the respective last-year period). Energy prices accelerated (to 20.5%, from a drop of 2.0% in the respective last-year period), as did the prices of processed food (to 5.9% from 3.9%) and the prices of non-processed food (which include fresh fruit and vegetables – to 3.7% from 1.8%). By contrast, a deceleration was recorded in the prices of industrial goods excluding food and energy (to 1.9% from 2.4%) and of services (to 3.5% from 3.8%).

Table V.1 Harmonised index of consumer prices: Greece and the EU (2006-2008)

(annual percentage changes)

Country	2006 (year average)	2007 (year average)	August 2007	August 2008
Austria	1.7	2.2	1.7	3.6
Belgium	2.3	1.8	1.2	5.4
Bulgaria	7.4	7.6	9.3	11.8
Cyprus	2.2	2.2	2.2	5.1
Czech Republic	2.1	3.0	2.6	6.2
Denmark	1.9	1.7	0.9	4.8
Estonia	4.4	6.7	6.1	11.1
Finland	1.3	1.6	1.3	4.6
France	1.9	1.6	1.3	3.5
Germany	1.8	2.3	2.0	3.3
Greece	**3.3**	**3.0**	**2.7**	**4.8**
Hungary	4.0	7.9	7.1	6.4
Italy	2.2	2.0	1.7	4.2
Ireland	2.7	2.9	2.3	3.2
Latvia	6.6	10.1	10.2	15.6
Lithuania	3.8	5.8	5.6	12.2
Luxembourg	3.0	2.7	1.9	4.8
Malta	2.6	0.7	0.6	5.4
Netherlands	1.7	1.6	1.1	3.0
Poland	1.3	2.6	2.1	4.4
Portugal	3.0	2.4	1.9	3.1
Romania	6.6	4.9	5.0	8.1
Slovakia	4.3	1.9	1.2	4.4
Slovenia	2.5	3.8	3.4	6.0
Spain	3.6	2.8	2.2	4.9
Sweden	1.5	1.7	1.2	4.1
United Kingdom	2.3	2.3	1.7	4.7
European Union-27	2.2	2.3	1.9	4.2
Euro area	**2.2**	**2.1**	**1.7**	**3.8**

Source: Eurostat.

Table V.2 Contribution to the inflation differential between Greece and the euro area (2003-2008)

(percentage points)

	2003	2004	2005	2006	2007	2008 (Jan.-Aug.)
Differential of average annual rates of HICP change	**1.3**	**0.9**	**1.3**	**1.1**	**0.9**	**1.0**
Contributions:						
Core inflation	0.94	1.16	1.40	1.15	1.00	0.59
of which:						
Services	0.60	0.48	0.51	0.43	0.50	0.42
Processed food	0.04	0.20	0.10	0.44	0.13	-0.13
Non-energy industrial goods	0.30	0.48	0.79	0.28	0.35	0.30
Unprocessed food	0.36	-0.36	-0.30	-0.12	-0.06	0.00
Energy	0.00	0.10	0.20	0.11	-0.03	0.45

Source: Calculations based on Eurostat and ECB data.

The maintenance of the inflation differential and the appreciation of the euro entail a further drop in the international price competitiveness of the economy. Specifically, the real effective exchange rate indices vis-à-vis Greece's 28 trading partners, namely both relative consumer prices and relative unit labour costs, expressed in a common currency, have increased considerably from 2000 to date (see Table VI.1) These increases equal corresponding losses in competitiveness.

Box V.2

INFLATION DIFFERENTIAL BETWEEN GREECE AND THE EURO AREA

In the first seven years of Greece's participation in the economic and monetary union (2001-2007), the *average* annual inflation rate exceeded by 1.2 percentage points the corresponding aggregate for the euro area as a whole. The differential is maintained in 2008 as well (see Table V.1 and Chart V.5 in the main text).[1]

The persistence of inflation, particularly core inflation, at levels higher than in the euro area as a whole is attributable to macroeconomic factors (developments in domestic demand and production costs), the conditions of market operation and the fact that the social partners' behaviour has not been fully adjusted to the conditions of the economic and monetary union.

Specifically, the inflationary pressures resulting from the faster development of the Greek economy and the conditions of excess demand which exist in recent years in Greece (but not in the euro area[2]) interact with the increase in unit labour costs, which in Greece is faster than in the euro area.

Moreover, the operating conditions of certain goods and services markets in the Greek economy have not adequately improved and there is still a lag compared with the European economy (see Appendix 1 of this chapter). The fact that domestic markets of crucial importance, such as the fuel and the fruit and vegetables markets, do not function effectively leads to the intensification of the inflationary effects of external or domestic disturbances.

An additional factor is the differences in the structure of the economy, which may be reflected in imports composition. A characteristic example is the relatively high energy and oil intensity and dependence of the Greek economy (see Appendix 2 of this chapter), because of which oil price fluctuations affect inflation in Greece more than in other countries.

Finally, it is reasonable for the economic convergence and integration process which is under way in the Greek economy to lead, to a certain extent, to higher inflation. Indeed, in the context of the operation of the single market and the monetary union the levels of marketable goods prices[3] are expected to converge. So, as the level of prices in Greece is lower than the

1 Of course, during the period that preceded the entry, the inflation differential vis-à-vis the average of the countries that later constituted the euro area was much greater. The differential was reduced from 11.9 percentage points on average in the period 1980-1989 to 8.8 percentage points in the period 1990-1998 and 1.1 percentage points in the 1997-2007 period. See ECB, *Monthly Bulletin – 10th Anniversary of the ECB 1998-2008*, June 2008.
2 According to European Commission estimates (*Statistical Annex of European Economy – Spring 2008*, Tables 80, 92, 93), the "output gap", which constitutes an index of excess demand, was positive in Greece and negative in the euro area in the years 2003-2006 (the same applies for 2008 as well), while in 2007 it was positive both in Greece and the euro area, but in Greece it was bigger.
3 See ECB, *ibid.*

corresponding euro area average and gradually converges therewith,[4] inflation in Greece may be higher than average inflation in the euro area.[5]

Particularly regarding the faster increase in unit labour costs (mentioned above), it should be pointed out that, according to one approach, this simply constitutes the other facet of inflation deviation and it is attributable to the same factors, namely the ineffective operation of goods and services markets, the difference of phase of the economic cycle, the stronger effect of the rise in oil and fruit and vegetables prices, as well as the economic convergence process. This happens precisely because such factors affect inflation and, hence, wage claims. At the same time, however, the positive differential of the growth rates of unit labour costs constitutes an independent determinant of inflation deviation, to the degree that it reflects differences in the operating conditions of the Greek labour market (in comparison with other euro area countries) and the social partners' behaviour (as already mentioned).

4 According to Eurostat estimates (Structural Indicators), the *level* of consumer prices in Greece corresponded to 81.3% of the respective level in the euro area-12 in 2001, while in 2007 it had come to 86.8%.

5 Of course, to the degree that the price convergence process concerns also internationally non-tradable goods and services, the inflation differential does not necessarily imply an equivalent worsening of international competitiveness. It should be recalled that, according to the "Balassa-Samuelson effect" analysis, higher inflation in the less developed countries does not necessarily imply a deterioration of international competitiveness, to the degree that it concerns products which are not internationally tradable. This occurs when nominal wages in the economy increase in line with the higher rate of increase in productivity in the sector of internationally tradable products, resulting in a rise in the general level of prices due to the increase in the prices of internationally non-tradable goods, where productivity remains stable. In Greece, however, the sector of internationally tradable products does not play a decisive role in determining pay rises, while wage bargaining in the broader public sector plays a more important role. Furthermore, a wider range of products are internationally tradable in Greece than in many other countries, owing to the importance of tourism. Finally, certain services, traditionally considered as internationally non-tradable, are now provided by branches that have been deregulated and are affected by international competition or — in any case — the prices of these services enter into the production costs of other, internationally tradable products. See Bank of Greece, *Monetary Policy 2006 – Interim Report*, October 2006, p. 88, footnote 2. For older estimates of international organisations (which, in their majority, had not taken these factors into account) see Bank of Greece, *Monetary Policy 2003 – Interim Report*, October 2003, pp. 47-51.

2 KEY DETERMINANTS OF INFLATION IN 2008

In more detail, the key determinants of the increase in inflation in 2008 evolved as follows:

The international price of Brent crude oil (in US dollars) increased at an average annual rate of 71% in the first eight months of 2008, compared with a sole 8.9% in 2007 on average. However, owing to the appreciation of the euro against the dollar at an average annual rate of 14.4% in the same period (compared with 9.1% in 2007), the price of oil in euro increased noticeably less, albeit at a very high rate (49.4%), while it had remained stable (-0.2%) in 2007. These developments affected similarly fuel prices in the domestic market (see Charts V.6 and V.7).[4] If —due to the uncertainty characterising the prospects of these aggregates— it is assumed that the dollar price of oil and the exchange rate of the euro against the dollar are maintained in the remaining months of 2008 at the level of August, it arises that for the whole of 2008 the average increase in the price of oil will come to 57% in dollars and 43% in euro, while the average annual appreciation of the euro against the dollar will be of the order of 9.5%.[5]

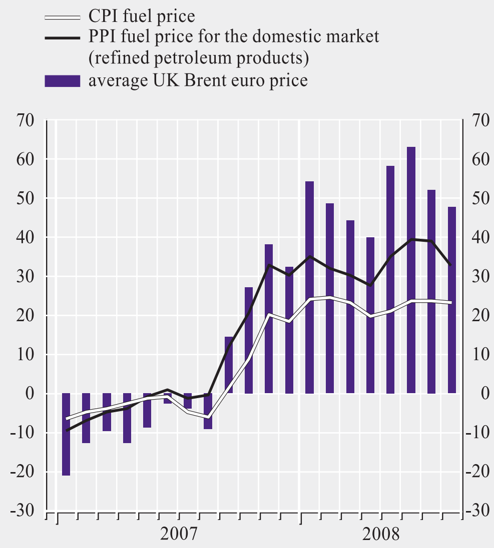
Furthermore, the rate of increase in non-oil commodity prices is accelerating in dollars and

4 In Greece, according to the Index of Import Prices in Industry (NSSG), the prices of imported energy raw materials (crude oil and natural gas) increased at an average annual rate of 39.0% in the first seven months of 2008 and the prices of imported fuel end-products at an average annual rate of 30.4%. Besides, in the domestic market and at a wholesale level, fuel prices (end-products) which are included in the Index of Producer Prices in industry for the domestic market increased at an average annual rate of 34% in the first eight months of 2008, while fuel retail prices which are included in the CPI increased in the same period at an average annual rate of 22.9%.

5 See ECB, *Monthly Bulletin*, statistical section, Tables 5.1.2 and 8.2. Besides, according to the ECB staff projections-assumptions published on 4 September, the average annual price of crude oil will come to $115.1 in 2008.

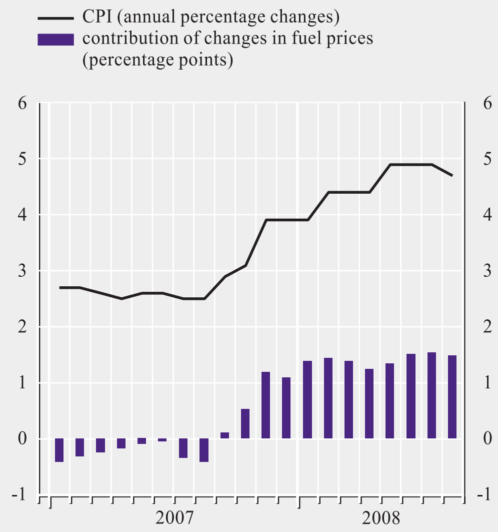
Chart V.6 Evolution of CPI/PPI fuel prices and of the euro price of Brent crude oil (January 2007–August 2008)

(percentage changes over same month of previous year)



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

Chart V.7 Inflationary contribution of changes in fuel prices (January 2007–August 2008)



Source: Calculations based on NSSG data.

remains high in euro.[6] This development reflects the doubling of the rate of increase in the international prices of food commodities (in euro, from about 14% in 2007 to 29% in 2008), while the growth rate of commodity prices except oil and food is slowing down.

It is also worth noting that the rate of increase in the prices of imported consumer goods, which directly affect consumer prices, more than doubled. What is more, the correspon-ding rate for imported consumer *non-durables* (which include food) stood at a relatively high level.[7]

However, the appreciation of the euro limits the inflationary effect of the faster increase in the prices of imported goods (for imports from non-euro area countries). Indeed, the nominal exchange rate of the euro, weighted on the basis of Greece's external trade, increased at an average annual rate of 2.9% in the first nine months of 2008, while in 2007 it had increased by 1.4% (see Charts V.8 and V.9). If in the remaining months of the year the effective exchange rate is maintained at September levels, its average annual increase in 2008 will be 2.4%.

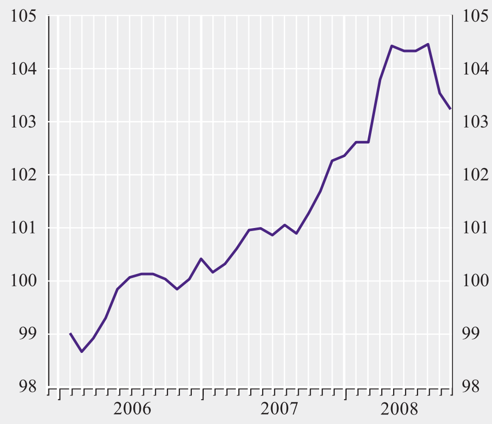
The rise in inflation in 2008 is also associated with the acceleration of the growth rate of unit labour costs. It is estimated that the growth rate of unit labour costs in the whole economy (which, as estimated by the Bank of Greece, constitutes a satisfactory approach to the growth rate of unit labour costs in the non-

6 In the first eight months of 2008 the prices of non-energy raw materials in dollars increased at an average annual rate of 25.4% (from 19.2% for the whole of 2007), while in euro the rate was 9.6% (from 9.2% for the whole of 2007 – see ECB, *Monthly Bulletin*, statistical section, Tables 5.1.2 and 8.2). Besides, according to the recent ECB staff projections-assumptions (see previous footnote), food prices (in US dollars) will increase at an average annual rate of 42.8% in 2008, while commodity prices excluding energy and food will increase by 10.6%.

7 According to the Index of Import Prices in Industry (NSSG), the prices of imported consumer goods increased at an average annual rate of 3.6% in the first seven months of 2008, from a mere 1.4% in the respective period of 2007. Specifically, the rate of increase in the prices of imported consumer goods reached 4.1% (from 1.7%) and of consumer durables 1.6% (from 0.1%).

Chart V.8 Revised nominal effective exchange rate of the euro, weighted on the basis of Greece's external trade (January 2006–September 2008)

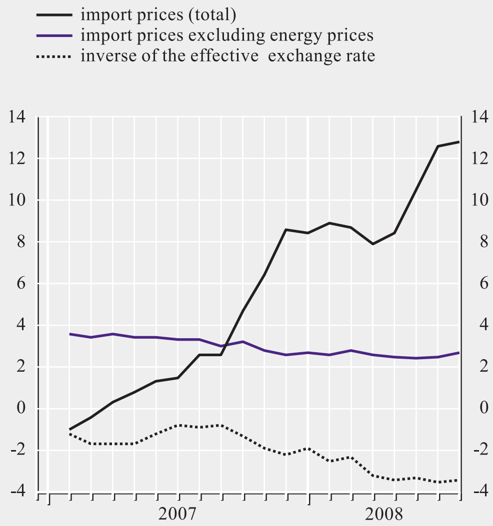
(1999 Q1 = 100, monthly data)



Source: Bank of Greece.
Note: The revised nominal effective exchange rate index comprises Greece's 28 main trading partners (among them, the other euro area countries, excluding Malta). The weights are calculated on the basis of manufacturing imports and exports (categories 5-8 of the Standard International Trade Classification – SITC 5-8) during 1999-2001, taking into account competition in third markets.

Chart V.9 Import price index in industry and the inverse of the effective exchange rate of the euro, weighted on the basis of Greece's external trade (January 2007–July 2008)

(percentage changes over same month of previous year)



Sources: NSSG and Bank of Greece.

agricultural sector of the economy[8]) is accelerating in 2008 to 5.3% from 4.2% in 2007. In the business sector (which includes public and private enterprises and banks) it is estimated that unit labour costs are also increasing by 5.3%, compared with 4.8% in 2007.

The acceleration of the rise in unit labour costs is mainly attributable to the fact that the rate of increase in average nominal pre-tax earnings is estimated to be accelerating to 6.7% in 2008, from 5.4% in 2007,[9] while the growth rate of productivity will be slightly lower than in 2007. The forecast for productivity[10] is based on indications that employment in the non-agricultural private sector (except manufacturing) is characterised by relative dynamism in 2008.[11]

Specifically, it is estimated that in central government – on the basis of the 2008 Budget appropriations – the gross compensation per central government employee will increase by 8.8% in 2008 (compared with 4.5% in 2007). The large acceleration of the increase in central government wage outlays reflects – beyond the general increases in civil servants'[12] salaries – the special benefit awarded to the

8 It should be recalled that in the present estimates the growth rate of (nominal) unit labour costs is calculated after comparing the change in workers' total compensation with the change in real GDP or – equivalently – the change in wage outlays per employee with the change in productivity (which is calculated after comparing the change in GDP with the change in the number of working *employees*). In the National Accounts the change in productivity is calculated differently, on the basis of GDP per *person employed in general*, including the self-employed). See also *Annual Report 2006*, April 2007, Box IV.1, p. 132. Furthermore, it is noted that since 1977 the Bank of Greece has been publishing its own estimates on the increase in average labour remuneration in the whole economy, which do not always coincide with the respective estimates of the Service of National Accounts of the NSSG.
9 The per capita compensation of employees including employers' contributions (and civil servants' pensions) will also increase by 6.7% (from 5.7% in 2007).
10 The change in productivity is calculated as mentioned in footnote 8.
11 See also Chapter IV.2.
12 As announced on 3 April 2008 and provided for in Law 3670/2008 passed in June, ordinary public servants' salaries increased by 2.5% as from 1 January 2008 and by 2.0% as from 1 October 2008.

Table V.3 Earnings and labour costs (2001-2008)

(annual percentage changes)

	2001	2002	2003	2004	2005	2006	2007	2008 (forecast)
Greece								
Average gross earnings (nominal):								
– whole economy	4.7	6.6	5.6	7.2	4.4	5.7	5.4	6.7
– central government[1]	5.5	7.3	5.9	9.7	2.3	3.1	4.5	8.8
– public utilities	7.0	10.6	10.9	9.9	7.6	7.0	7.1	8.2
– banks	6.4	2.9[4]	3.1[4]	8.0	1.5[4]	10.8	8.9	3.3
– non-bank private sector	5.3	6.5	5.8	5.8	5.6	6.8	6.1	6.5
Minimum earnings	**3.5**	**5.4**	**5.1**	**4.8**	**4.9**	**6.2**	**5.4**	**6.2**
Average gross earnings (real)	**1.3**	**2.9**	**2.0**	**4.2**	**0.9**	**2.4**	**2.4**	**2.0**
Net[2] income of an employee with average earnings								
– nominal	3.4	6.3[5]	6.3[7]	5.3	3.6	4.3	5.7	...
– real	0.0	2.6[5]	2.7[7]	2.3	0.1	1.1	2.7	...
Total compensation of employees	**8.3**	**9.1[6]**	**8.3[7]**	**8.9**	**5.8**	**7.8**	**8.4**	**8.8**
Compensation per employee	**4.8**	**5.9**	**5.5**	**7.6**	**3.9**	**5.9**	**5.7**	**6.7**
GDP[8]	**4.5**	**3.9**	**5.0**	**4.6**	**3.8**	**4.2**	**4.0**	**3.3**
Unit labour costs:								
– whole economy	3.6	5.0[6]	3.1[7]	4.2	1.9	3.5	4.2	5.3
– business sector[3]	4.5	4.4[6]	3.5[7]	2.8	2.2	4.1	4.8	5.3

Sources: NSSG/Ministry of Economy and Finance (GDP 2001-2007), Bank of Greece estimates (for the 2008 GDP and the other annual aggregates in 2001-2008).
1 Compensation per employee.
2 Gross earnings less employees' social security contributions less income tax.
3 It comprises private and public enterprises and banks.
4 The relatively low growth rate of bank employees' average earnings mainly reflects changes in staff structure.
5 Including the abolition (as from 1 January 2002) of stamp duties (0.6% of gross earnings) paid by employees.
6 Including the abolition (as from 1 January 2002) of stamp duties (0.6% of earnings) paid by business sector employers.
7 Taking into account the increase (of 0.1% of gross earnings) in employees' and employers' contributions to the Workers' Fund.
8 NSSG/Ministry of Economy and Finance for the years 2001-2007 (figures under revision). Bank of Greece estimates for 2008.

judiciary,[13] the increases in the salaries or benefits of the staff of the police, the coast guard and the armed forces and of teachers and hospital staff, as well as the wage bill for employees granted tenured status by Presidential Decree 164/2004.

In the business sector (see Table V.3), the two-year accord reached by the social partners for the National General Collective Labour Agreement (NGCLA) provides for an average annual increase in minimum earnings of 6.2% in 2008 and 5.7% in 2009.[14] (The previous NGCLA provided for an average annual increase of 6.2% for 2006 and 5.4% for 2007). At a sectoral level, the collective agreements that have been concluded in the non-bank private sector do not noticeably diverge from the NGCLA as regards the rates of wage increase. Besides, in the major public utility enterprises, the collective agreements signed provide for an average annual increase of 6.7% in 2008, while in September an arbitration decision was issued providing for an *average annual* increase of 3.3%[15] in bank employees' contractual earnings. Besides, according to a legislative provision

13 Furthermore, a new legislative provision (July 2008) stipulates an increase in the judiciary's earnings as from 1 January 2008 (article 57 of Law 3691/2008).
14 The said average annual increases arise from the increase in minimum earnings of 3.45% as from 1 January 2008, 3.0% as from 1 September 2008 and 5.5% as from 1 May 2009.
15 Specifically there will be increases of 3.5% as from 3 June 2008, 2.5% as from 1 September 2008 and 2% as from 1 December 2008 (the previous increases had been granted on 1 January 2007).

Table V.4 Average earnings and unit labour costs in the whole economy: Greece and the euro area (2001-2008)

(annual percentage changes)

	Average earnings		Unit labour costs	
	Greece	Euro area	Greece	Euro area
2001	4.7	2.7	3.6	2.3
2002	6.6	2.7	5.0	2.3
2003	5.6	2.8	3.1	2.1
2004	7.2	2.5	4.2	0.8
2005	4.4	2.1	1.9	1.1
2006	5.7	2.4	3.5	1.0
2007	5.4	2.4	4.2	1.5
2008 (forecast)	6.7	3.3	5.3	2.4

Sources: For Greece, Bank of Greece estimates. For the euro area: European Commission, *Economic Forecasts, Spring 2008*, and *Statistical Annex of European Economy*, Spring 2008.

passed in August and supplementing Law 3429/2005, the Interministerial Committee for DEKOs (public enterprises and entities) may decide on the maximum percentage of total increases in the salaries of the employees in loss-incurring or subsidised DEKOs.[16]

It is pointed out that, as forecast, the growth rates of wage aggregates will accelerate considerably also in the euro area as a whole in 2008. Specifically, the per capita compensation of employees (including employers' contributions) will increase by 3.3% (compared with 2.4% in 2007) and unit labour costs by 2.4% (compared with 1.5% in 2007).[17] However, unit labour costs will continue to increase much faster in Greece than in the euro area (see Table V.4). Already, in the past seven-year period (2001-2007) the cumulative increase in unit labour costs in Greece reached 28.3% according to national accounts data,[18] while in the euro area as a whole it was kept at 11.7%: the increase in Greece was the largest among euro area countries.

Developments in import prices and labour costs have led to the increase in inflation in 2008 (although the appreciation of the euro has limited the inflationary effect of the rise in import prices). By contrast, developments in profit margins and demand exert an anti-inflationary effect in 2008.

Specifically, it is estimated that profit margins are reduced in 2008, while in 2007 they had increased. Indeed, according to data concerning a sample of 255 businesses of the non-financial sector with stocks listed on the Athex,[19] sales (turnover) increased by 20.3% in the first half of 2008, but net pre-tax profits dropped by 7.7% in comparison with the corresponding period of 2007. It should be noted that if the two refineries (which displayed a considerable increase in sales and profits) are

16 Article 56 of Law 3691/2008. According to it, the decision will be made on the criteria of the current increase in the Consumer Price Index on an annual basis, the financial situation of each enterprise and the margins of the state budget.
17 See European Commission, *Economic Forecast Spring 2008*, 28 April 2008.
18 The cumulative increase according to Bank of Greece estimates does not differ, as it was 28.4%.
19 Only the data of *parent companies* have been taken into account, not the consolidated data of the respective groups. The sample does *not* include DEH (Public Power Corporation) and OTE (Hellenic Telecommunications Organisation). Excluded also are the enterprises the data of which for 2008 are not comparable with those for 2007 for various reasons (break-up, merger etc.) or the accounting period of which ends on 30 June and they have not yet published their data.

omitted from the sample, for the remaining enterprises the drop in profits amounts to 13.6% and the increase in sales is limited to 10.7%.[20] These developments reflect the slowdown of the rise in total demand and the acceleration of the increase in production costs, as well as the recording, in the results, of extraordinary revenue in 2007 and extraordinary expenditure in 2008.

20 The estimates mentioned in Chapter VII.5 (footnote 35) are similar, according to which in the first half of 2008 the net profits (on a consolidated basis) of all companies (without the financial sector) with stocks listed on the Athex declined by about 20% in relation to the corresponding period of 2007.

Box V.3

PRICE STABILITY AND ECONOMIC GROWTH

Macroeconomic and financial stability, which constitute prerequisites for sustainable economic growth and job creation, have as a key component monetary stability, the main objective of monetary policy. However, some decades ago the prevailing view was that there is a stable negative relationship between inflation and the unemployment rate (the Phillips curve).[1] Consequently, those responsible for economic policy conduct would have to choose between a permanently higher inflation and a permanent and more dynamic macroeconomic growth. In the mid ’60s it was argued that high inflation leads economic agents to convert part of their wealth, which has the form of “non-productive” money, to physical capital, the accumulation of which would increase per worker capital and, consequently, productivity and production potential.

Subsequently, these views were criticised and it was argued that there is no stable relation between inflation and unemployment in the long-term. Specifically, researcher-economists pointed out that higher inflation is incorporated in economic agents’ expectations, which leads to an increase in wages and production costs and a reduction in employment and, thus, there is no positive relationship between inflation and economic growth.[2] This position implies that, if an economy functions in a state of long-term equilibrium, an increase in money supply, i.e. a reduction in interest rates, would only cause an increase in prices and would not affect the growth rate of real output.

Experience from the stagflation of the ’70s not only supported this view, but also confirmed the ascertainment that high inflation entails a slowdown of economic activity. Indeed, the statistical data for that period show that a permanent increase in inflation leads to a reduction in real total output, employment and, consequently, social welfare.

The negative effect of inflation on economic activity and employment is also construed on the basis of the following ascertainments:

- The price mechanism is the system through which information is disseminated in an economy. Consequently, in an economic environment of high inflation economic agents have difficulty distinguishing changes in the relative prices of goods from changes in the general level

1 See Phillips, A.W. (1958), “The relation between unemployment and the rate of change of money wage rates in the United Kingdom, 1861-1957”, *Economica*, 25, pp. 283-299.
2 See Phelps, E. (1967), “Phillips curves, expectations of inflation and optimal unemployment over time”, *Economica*, 34, pp. 254-281, Friedman, M. (1968), “The role of monetary policy”, *American Economic Review*, 58, pp. 1-17, and Lucas, R.E.Jr (1972), “Expectations and the neutrality of money”, *Journal of Economic Theory*, 4, pp. 103-124.

of prices in order to decide rationally on the effective use and distribution of available production factors.

- The difficulty to distinguish between changes in relative prices and changes in the general level of price increases in periods of high inflation accompanied by large price fluctuations (these fluctuations imply an increase in uncertainty, namely economic risk).

- High inflation and the increased uncertainty accompanying it may lead to a reduction in capital accumulation. As high inflation risks increase, investors expect that they will not have the anticipated yields from their investment and thus they cancel or postpone their investment plans, which results in the reduction of private investment. In this case it is common for investors to demand, for protection purposes, a higher risk premium, in which case real interest rates increase, while economic uncertainty obliges them to dedicate more time on the protection of their assets against inflation rather than promote new productive activities.

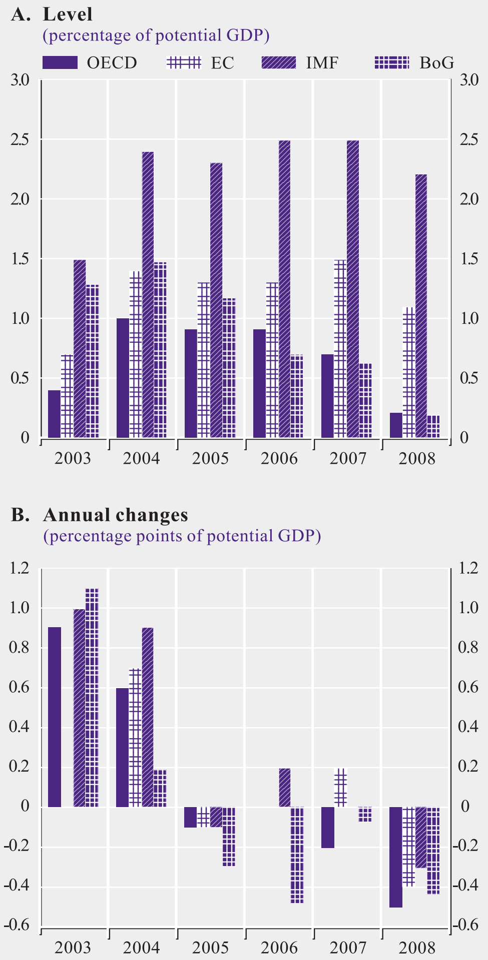
- The interaction between inflation and the tax system is important, as, *inter alia*, the increase in inflation reduces after-tax real disposable income and consequently leads to a reduction in labour and capital supply.

- Economic agents' expectations concerning the performance of the economy seriously affect the relationship between inflation and economic activity. When these expectations are formed under monetary regimes which have price stability as their primary objective, inflation expectations remain stable and are not revised each time that new macroeconomic data become known. This attitude of economic agents indicates their confidence in the monetary policy pursued by the central bank, and as a result economic episodes which result to an increase in inflation do not considerably affect agents' economic decisions. In the opposite case, economic agents revise their inflation expectations and economic decisions more often and thus an increase in interest rates owing to an increase in inflation substantially reduces private investment and consumption and consequently economic activity.[3,4]

Recent empirical data on the euro area show that a permanent increase of two percentage points in inflation will reduce economic growth from 0.2 to 0.4 percentage point a year. These figures imply that in ten years the level of gross domestic product (GDP) in the euro area will be 2.0-4.1% lower in relation to what it would have been if inflation had not increased.[5] As it is theoretically and empirically ascertained that inflation negatively and systematically affects real economic activity, the existence of an independent central bank pursuing price stability becomes of particular importance. The pursuit of monetary stability by the European Central Bank, in the conduct of monetary policy, in essence contributes to sustainable economic growth and stable job creation. Thus, as long-term inflation expectations are closely associated with the pursuit of monetary stability, it is reasonably expected that in the remote future inflation will be low and the economic growth rate considerably high.

3 For an extensive analysis of the existing economic theories see "Price stability and growth" in ECB, *Monthly Bulletin*, May 2008, pp. 75-87.
4 Many empirical studies employ cross-section or time-series statistical data and confirm the negative relationship between inflation and economic growth. See Barro, R.J (1996), "Inflation and growth", *Federal Reserve Bank of St. Louis Economic Review*, 78, pp. 153-169, and Benati, L. (2008), "Investigating inflation persistence across monetary regimes", ECB Working Paper No. 851, Jan. 2008. What is more, Benati ascertains that since the creation of EMU, i.e. the period after January 1999, during which the main objective of monetary policy in the euro area has been price stability, indications of an essential relationship between the two aggregates are weak, as during that period inflation in the euro area did not present permanent changes.
5 See "Price stability and growth" in ECB, *Monthly Bulletin*, May 2008, p. 85.

Chart V.10 The output gap of the Greek economy (2003–2008)



Sources: OECD, *Economic Outlook*, No. 83, June 2008, European Commission (EC), *Spring 2008 Economic Forecasts*, IMF, *Greece: 2007 Article IV Consultation – Staff Report, May 2008*, Bank of Greece (BoG), Economic Research Department estimates.

The evolution of profits is also associated with demand-side inflationary pressures, which are limited in 2008, given —as already mentioned— that the conditions of excess demand have weakened. Specifically, it is estimated that for the whole year the growth rates of consumer and investment demand will slow down (see Chapter IV.1). In addition, the "output gap"[21] of the Greek economy is almost zero in 2008, while it was positive in all recent years (i.e. the level of current output exceeded the level of "potential" output – see Chart V.10) and, according to certain forecasts, it will be eliminated in 2009.[22] At the same time, the considerable increase in ECB interest rates from December 2005 to date and the policy objective of a further reduction in the fiscal deficit in principle contribute to the containment of inflation expectations. However, the rate of credit expansion to households, although it is slowing down, remains high, while credit expansion to enterprises is accelerating (see Chapter VII.2). Furthermore, the growth rate of state budget primary expenditure accelerated between January and July (see Chapter IV.3).

Finally, in February the Ministry of Development announced and started to gradually implement a package of 41 measures and actions to deal with the high cost of living, which concern "the whole spectrum of production-commercial-consumer activity" and aim at "a comprehensive resolution of structural problems and deficiencies which contribute to pressures on prices".[23] Thirty-five of these measures have already been implemented. Particularly regarding the prices of food and certain other items (mainly cleaning and personal hygiene items), the Ministry of Development discussed the matter with supermarket and food businesses, addressed "an invitation of self-regulation" to them and then released data on the businesses whose response regarding price reductions[24] was positive, limited, low or zero. A positive

21 The "output gap" is defined as the difference of the level of current production (GDP) from the country's production capacity (potential GDP level) as a percentage of the level of potential GDP. It is an aggregate not directly measurable, but it is estimated by means of different alternative methods. The potential output and the "output gap" estimates are surrounded with great uncertainty. These caveats must be kept in mind when interpreting the results of relevant analyses. Perhaps, a more reliable indicator is the *change* in the "output gap", measured in percentage points of GDP.

22 According to the European Commission (*Economic Forecast Spring 2008*, 28 April 2008), the "output gap" will fall from 1.5 in 2007 to 1.1 in 2008 and 0.7 in 2009. According to the OECD (*Economic Outlook*, June 2008), it is reduced from 0.7 in 2007 to just 0.2 this year, while in 2009 it will become negative (-0.3). According to IMF estimates (*Greece: 2007 Article IV Consultation – Staff Report and Staff Supplement*, 2 May 2008), it will be reduced from 2.5 in 2007 to 2.2 this year and it will become zero by 2013. Finally, according to Bank of Greece Economic Research Department estimates, the output gap is reduced from 0.3-0.6 in 2007 to 0-0.2 in 2008.

23 Minister of Development statements, 21 February 2008.

24 Minister of Development press interview and Ministry of Development press release, 26 June 2008.

indication of the anti-inflationary effect of this policy is the fact that in the first eight months of 2008 the average annual rate of increase in processed food prices was contained in Greece at a level lower than in the euro area as a whole (5.9% against 6.7%), while in the respective period of 2007 it had come to a higher level (3.9% against 2.1%).

APPENDIX I TO CHAPTER V
ECONOMIC REGULATION AND COMPETITION: SOME EVIDENCE FOR THE GREEK ECONOMY

Excessive economic regulation can, under certain conditions, lead to suboptimal resource allocation, with possible adverse consequences for competition, productivity and inflation, especially when regulations prevent businesses from adapting to exogenous shocks. While some regulations are adopted to protect consumers, the environment, investors, as well as government interests, the introduction of regulatory measures without comprehensive cost-benefit analysis and the upholding of older regulatory measures despite changes in the economy's operating conditions can lead to a situation where the total cost of regulation exceeds the benefit therefrom.[1]

I THE EXTENT OF ECONOMIC REGULATION IN THE GREEK ECONOMY

In order to portray the extent of economic regulation, most empirical analyses rely on six OECD indices constructed to this effect.[2] Five of these are sector- or occupation-specific and cover the energy, telecommunications, transport and retail trade distribution sectors, as well as a number of professional services. The sixth index has a broader scope and summarises the extent to which business activity is under state control, the legal and administrative bottlenecks enterprises are faced with and any obstacles in international trade and foreign investment. The latest available values for these six indices are presented in the table below and refer to 2003.[3] The value of the indices is increasing in the restrictiveness of regulatory provisions for competition. The indices permit comparisons across countries for the same sector; however, comparisons between sectors either within or across countries are not possible.

As suggested by the figures presented in the table, Greece fares worse than most EU-15 countries in road freight transport, the import and distribution of natural gas and retail trade distribution.

In **road freight transport**, limits on the number of enterprises operating in the sector and administrative controls on prices appear to inhibit competition. A study by IOBE shows that the full, albeit gradual, deregulation of freight transport could lead to, *inter alia*, a significant reduction of transport costs, as well as to an increase in the number of firms and employees in the sector.[4] In addition to the restrictions to competition in freight transport, constraints also exist in passenger road transport (e.g. there is a monopoly of KTEL — the interurban bus service provider — until 2019 in transporting passengers between prefectures).[5]

The assessment (by the OECD) of the regulatory burden in the **import, sale and distribution of natural gas** sector is based on information prior to 2003, that is before the adoption of Law 3248/2005, which set the regulatory framework for the natural gas market, harmonising the latter with the provisions of EU Directive 2003/55. The adoption of the said framework creates the necessary conditions for the enhancement of competition in the industry.

A number of developments in the last few years (such as the deregulation of shop open-

1 For an overview of empirical results on the costs of regulation see Arnold, Nicoletti and Scarpetta (2008), "Regulation, allocative efficiency and productivity in OECD countries: industry and firm-level evidence", OECD Economics Department Working Paper 616, and the references to other OECD articles therein. For a theoretical approach to the subject see Blanchard and Giavazzi (2001), "Macroeconomic Effects of regulation and deregulation in goods and labor markets", NBER Working Paper 8120.

2 The indices depict, *inter alia*, the number of the administrative requirements that entrepreneurs must satisfy in order to start a new business, the extent of the direct involvement of the state in the supply of products or services, the "horizontal" or "vertical" structure of network sectors (energy, transport, communications) and any administrative setting of prices. For the indices covering professional services, the existence or otherwise of entry regulations (e.g. obligation of issuance of a trade license, a maximum number of licensees, the number of services rendered exclusively by the specific sector, limits to the number of foreign professionals or companies that can operate in the sector etc.), the existence of price and fee regulations, as well as indications regarding the need for participation in the relevant professional association in order to obtain a trade licence are considered.

3 The 2007 data will be made available by the OECD at the end of 2008.

4 Stoforos, Ch. and Plemmenos, I.B. (2006), *The closed market of public use trucks: problems and perspectives*, IOBE sectoral study 216.

5 See KEPE (Centre of Planning and Economic Research), *The economic and social impact for Greece of the proposed EU Services Directive*, May 2005, SETE (Association of Greek Tourism Enterprises), Proposals to the Ministry of Transport and Communication – Press Release 3.4.2007, and SEV (Hellenic Federation of Enterprises), "The multi-stranded state intervention in the economy" – Press Release 19.6.2008.

Indicators of regulatory conditions in certain business sectors[1]

	Energy		Telecommunications and postal services		Transport			Retail trade	Professional services				
	Electricity	Natural gas	Telecommu-nications	Post	Road freight	Rail	Passenger air tranport		Accountants	Architects	Engineers	Legal professions	*Business activity (overall)*
Greece	**3.3**	**5.2**	**1.7**	**2.9**	**6.0**	**5.6**	**4.3**	**4.2**	**2.0**	**2.5**	**2.8**	**4.5**	**1.8**
Austria	1.5	2.7	1.6	2.9	1.7	5.3	1.2	3.2	1.6	2.1	2.1	2.1	1.4
Belgium	1.3	2.6	2.1	2.9	1.7	4.3	0.0	4.5	2.7	2.8	0.3	2.5	1.4
Denmark	1.0	3.2	0.7	2.9	0.5	2.6	0.4	2.5	1.2	0.0	0.0	2.0	1.1
Finland	1.5	4.5	0.9	2.2	0.5	5.3	1.7	2.6	2.2	1.0	0.5	0.3	1.3
France	3.6	4.0	2.1	2.9	1.7	5.3	1.7	3.1	3.0	2.1	0.0	2.8	1.7
Germany	1.8	1.5	1.6	2.2	1.3	3.8	0.0	3.1	2.8	3.1	3.1	3.6	1.4
Ireland	3.3	4.1	1.5	2.9	0.5	5.6	4.3	1.1	1.6	0.7	0.0	2.8	1.1
Italy	1.1	2.4	1.0	3.5	5.5	2.6	1.9	2.4	4.0	3.1	3.8	3.6	1.9
Luxembourg	n.a.*	3.4	n.a.*	2.7	n.a.*	n.a.*	n.a.*	n.a.*	2.8	3.5	3.2	3.1	1.3
Netherlands	0.6	2.9	1.1	2.2	1.3	2.6	0.4	1.6	2.9	0.0	1.5	2.0	1.4
Portugal	2.3	4.1	1.5	2.9	0.5	3.8	3.0	2.2	2.8	1.6	1.6	3.6	1.6
Spain	0.5	2.5	1.2	2.9	1.3	4.9	1.0	3.4	2.1	2.5	1.5	3.6	1.6
Sweden	1.0	2.7	1.8	2.2	1.0	3.8	0.6	0.5	2.4	0.0	0.0	1.2	1.2
UK	0.0	1.7	0.5	2.9	0.5	0.4	1.4	2.0	2.1	0.0	0.0	2.1	0.9

Source: OECD, Product market regulation database (www.oecd.org/eco/pmr).
1 All indicators vary between 0 and 6 (a lower indicator value implies less regulation), refer to 2003 and allow only for cross-country (not inter-sectoral) comparisons.
*n.a.=not available.

ing hours) in the **retail** distribution sector are thought to have led to increased competition. However, there seem to be obstacles in the operation of **wholesale** trade (which is not covered by the OECD indices). These obstacles concern, *inter alia*, the limited number of import licences and the lack of rules (governing the wholesale distribution of agricultural products).[6] The lack of measures for combatting unfair competition through "underground" trade might also be hindering competition in retail trade.

As concerns **professional services**, it seems that regulations (e.g. regulation of minimum fees, geographical restrictions in services' provisions, quotas) for certain professions (e.g. engineers, public notaries) may lead to prices and fees being maintained at high levels.

The regulatory interventions in the aforementioned sectors also impact on the operation of other sectors which use the output from the former as intermediate inputs in their production process. Relevant OECD[7] data show that the regulatory impact from the sectors discussed above on Greek manufacturing and on business and management consultants is particularly heavy, actually more so than in the other EU-15 countries.

According to a KEPE study, "...there are clear indications that, in several instances, the regulatory framework for the provision of services in Greece generates rents for service providers and corresponding charges for consumers – which would not exist under more competitive conditions...".[8]

2 COMPETITION INTENSITY IN THE GREEK ECONOMY

The aforementioned interventions may create obstacles to the entry of enterprises into certain branches inhibiting competition.[9] The measurement of competition intensity is based on, *inter alia*, indices which describe the structure of a sector (e.g. mobility therein, concentration of sales in a few enterprises, sectoral developments), as well as on profit margins, although the latter are influenced by the very operation of the enterprise and the phase of the economic cycle. On the basis of the Herfindahl[10] concentration index, among industries with a large share (above 2%) in the sales of the sector they belong to, a large concentration is observed in the industries of **oil refinement and oil trade**, as well as in **telecommunications** (despite the entry of a substantial number of enterprises in the industry in recent years).[11] A thorough study of competition intensity in Greek **manufacturing** was carried out by the Athens University of Economics and Business on behalf of the Hellenic Competition Commission in 2004.[12] The study identifies 41 industries-markets operating under conditions of inadequate competition, but these account for only 7.1% of total sales in manufacturing. As for changes in competition conditions over time, while profit margins in manufacturing appear to be declining, this decline has been accompanied by decreased mobility of firms in the sector.[13] In **trade** and **services**, no considerable change in profit margins was recorded over the 2004-2006 period.

Further indications of competition intensity are provided by the Hellenic **Competition Commission's** (CC) investigations. The evi-

6 Measures for lifting these obstacles are included among the 41 measures announced by the Ministry of Development in February 2008 and gradually implemented since then.
7 Details on the regulation impact indicators can be found at the OECD web page www.oecd.org/eco/pmr, while their construction methodology is briefly presented in Arnold, Nicoletti and Scarpetta (see footnote 1). On the basis of input-output tables, the OECD calculates the impact on all sectors of economic activity resulting from the restrictions in the sectors included in the table in this Appendix.
8 See KEPE, *ibid*, p.8.
9 See Bank of Greece, *Annual Report 2006*, April 2007, Box III.1, "The extent and impact of business regulations", pp. 77-85.
10 The Herfindahl index is defined as the sum of the squares of the market shares —in terms of sales— of all firms in an industry. In the calculations mentioned here, the industry is defined on the basis of the STAKOD-91 (NACE Rev.1.1) four-digit classification .
11 These estimates, which refer to the period 2002-03, do not differ from those presented in a previous report of the Bank of Greece (*Monetary Policy 2005-2006*, February 2006, pp. 85-90).
12 *Mapping of Greek Industry Branches*, October 2004, supervised by professors N. Vettas and G. Katsoulakos.
13 The net profit margin in manufacturing declined from 7.4% in 1999 to 4.6% in 2006, while in construction it dropped from 10.9% in 2002 to 1.8% in 2006. See SEV, *The Greek business in 2007: industry, trade, services*, May 2008.

dence suggests that the CC intervention can be delayed, while, even following a CC decision, a number of non-compliance cases are reported. Recent CC decisions concern mainly the activities already mentioned above: distribution trade, transport, oil refinement and oil trade. As regards **distribution trade**, a recent CC decision concerns violations of competition rules in franchising network agreements. There is also a report of the General Competition Directorate of the CC, which looks at the existence of a restrictive clause (banning parallel imports) in contracts of a manufacturing firm with supermarket chains in the period 2002-03.[14] According to its Chairman,[15] the CC attaches "...great importance to the relationship between retailers and suppliers mainly as to whether agreements between the two parties mask anti-competitive behaviour by prohibiting parallel imports or by assuming an obligation to sell these products at prices higher than those applicable in other countries".

As regards the **transport** sector, a report of the General Competition Directorate of the CC (not yet investigated by the CC) deals with possible distortions of competition in sea transport.[16]

In the **oil products** sector, the CC estimates that there are still competition distortions and problems both in the refinement and wholesale trade markets and in the retail oil product market.[17] According to CC ascertainments, the necessary conditions that would allow the determination of the marginal price of oil products by import prices of ready-made oil products do not exist, and thus this is guided by refinement companies. Furthermore, the CC points out the existing obstacles in the wholesale and retail trade markets, which stem from, *inter alia*, the license issuance procedure regarding storage space, limited competition in fuel transport and the contracts of exclusive cooperation between fuel outlet owners and wholesale companies. It is self-evident that these obstacles do not favour competition or price-squeezing. In order to mitigate some of the negative consequences of the said obstacles for competition, the CC has recently submitted for consultation certain proposals. These include the strengthening of market supervision, the better dissemination of information on prices and the way these are determined, the modernisation of the regime regarding oil inventories, the abolition of minimum fees for the transport of fuel with public use vehicles etc. Moreover, the CC proposes the deregulation of the working hours of liquid fuel outlets and the reduction of the burden caused by administrative obstacles and charges on the operation of gas stations (overall but particularly on highways).[18]

Regarding **professional services** a report by General Directorate of Competition of the CC, to be examined by the latter, argues that the provision of services by lawyers is subject to geographical constraints which may inhibit competition.[19]

The above show that there are important sectors in which measures must be taken or interventions be abolished, in order to secure smooth market operation. Once this is achieved, benefits are expected to arise in the form of lower rates of price increases and higher growth rates. Measures for the enhancement of transparency concerning the determination of prices and generally the improvement of consumers' information, such as the recent 41 measures announced by the Ministry of Development, are also expected to operate in this direction. For the implementation of these measures, however, market supervision must be enhanced, e.g. by a speedier response of the CC

14 See CC press release of 19 August 2008 (" First results of the CC's *ex officio* investigation in the detergents' sector").
15 Interview of the Chairman of the CC Mr. S. Zisimopoulos to the newspaper *Imerisia*, 24 May 2008.
16 CC press release, 17 July 2008.
17 In the framework of research and assessment of competition conditions in the oil products industry and following the measures and proposals put forward in its 334/V/2007 decision, the CC submitted for public consultation a text on competition conditions in the said markets.
18 See "Measures and proposals for the enhancement of competition in the oil products market according to the provisions of article 5 of Law 703/1977 as applicable", 27 August 2008.
19 CC press release, 29 January 2008.

to competition violations. In any case, however, what is needed is to strike a balance between the functioning of competition and consumer protection.

APPENDIX II TO CHAPTER V
THE GREEK ECONOMY'S ENERGY AND OIL INTENSITY AND DEPENDENCE

Energy and oil intensity and dependence are indices of the degree to which an economy is exposed to disturbances in supply and international energy prices. The higher the degree of an economy's oil intensity and dependence, the more important the expected impact of an oil crisis worldwide on inflation and the real economy.

1 INTERTEMPORAL EVOLUTION OF ENERGY AND OIL INTENSITY FOR THE WHOLE ECONOMY

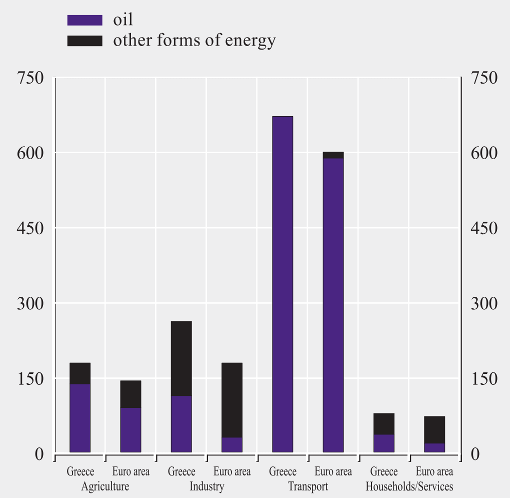
Energy intensity expresses the degree to which energy is used effectively in production and is defined as the ratio of energy gross domestic consumption[1] to GDP. Lower energy intensity means greater effectiveness in the use of energy for each unit of output produced, namely the output increases faster than energy consumption. Respectively, oil intensity is defined as the ratio of oil gross domestic consumption to GDP.

Energy intensity in Greece was reduced by 14.9% in the period 1995-2006.[2] This reduction was slightly smaller than the corresponding one in the EU-27 (15.3%), but considerably bigger than in the euro area[3] (9.6% – see Chart B). In 2006 Greece ranked 8th concerning energy intensity in the euro area – i.e. 7 euro area countries had *lower* energy intensity than Greece (1995: 9th position). Although Greece is more energy-consuming than the euro area as a whole, this difference is ever decreasing from 12.5% in 1995 to 6% in 2006.

Oil intensity as well was also reduced in Greece (by 15%) in the period 1995-2006. This reduction was smaller than the corresponding ones in the EU-27 (20.2%) and the euro area (17% – see Chart B). In 2006 Greece held the 11th "best position" as regards oil intensity in the euro area, the same position as in 1995. Greece is more energy-consuming than the euro area as a whole and, actually, this difference has been increasing, from 50% in 1995 to 54% in 2006.

Chart A Energy intensity by sector in Greece and the euro area

(tonnes of oil equivalent – toe– per product unit [€1 million of GDP at constant 2000 prices], average for 2000 to 2006)



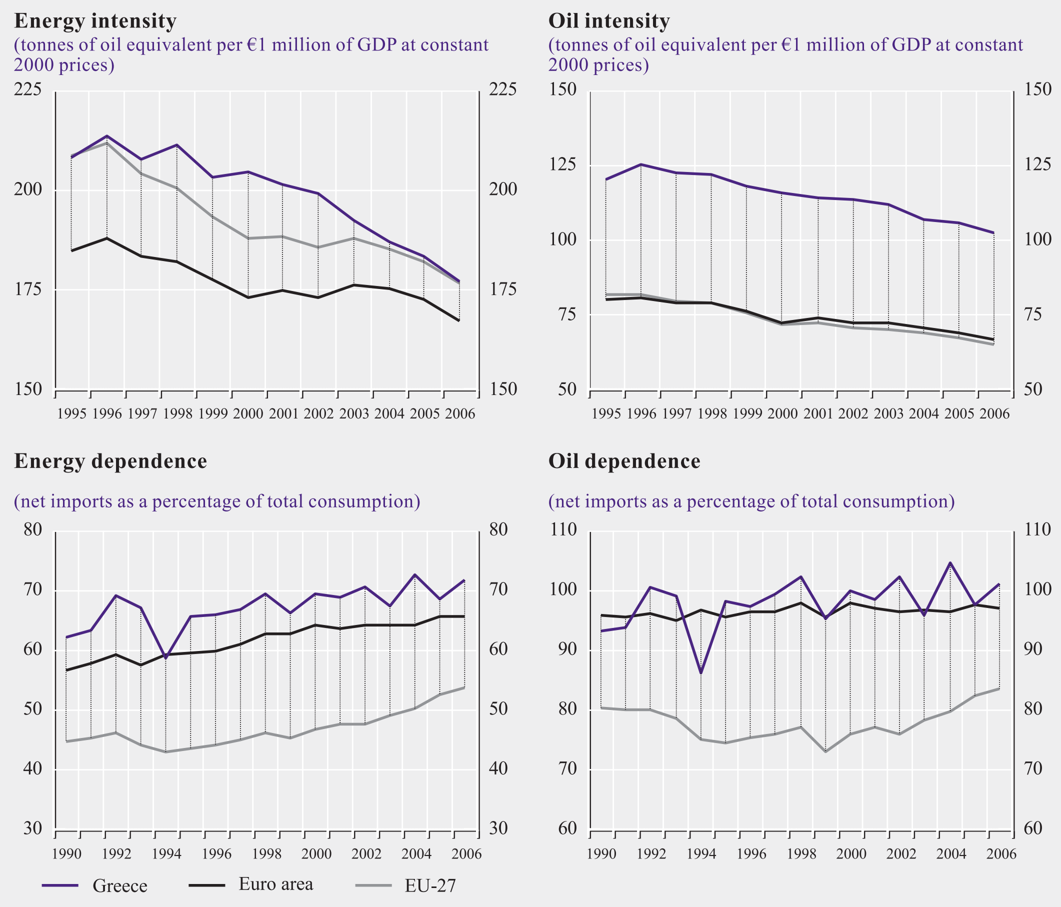
Source: Bank of Greece calculations based on Eurostat data.

2 ENERGY AND OIL INTENSITY PER BRANCH OF ECONOMIC ACTIVITY

The share of oil products in total energy consumption remains stable in Greece since 1990, while in the euro area and the EU-27 it has been reduced. This development suggests that in Greece the substitution of oil products by other forms of energy, such as natural gas, electricity[4] and renewable sources of energy, is advancing at a slow pace and remains very low. In the period 1990-2006 oil products represented about 58% of energy gross domestic consumption in Greece, the third higher percentage in the EU-27. The corresponding share in the EU-27 as a whole was 38% and in the euro area 42%. The share of oil products in

1 Gross inland consumption or, in other words, primary energy supply, is defined as the quantity of energy consumed within a country. It is calculated as follows: Primary production + retrieval products + imports + reserve changes – exports – ship fuel (i.e. quantities for the refuelling of sea-going vessels). The measurement unit is the "tonne of oil equivalent".
2 Eurostat data processing.
3 It should be noted that the euro area has been enlarged, a fact affecting the oil intensity index.
4 It should be noted that the basic hydroelectric and lignite units in Greece had been constructed before 1990.

Chart B Energy/oil intensity and dependence: a comparison between EU-27, the euro area and Greece



Source: Bank of Greece calculations based on Eurostat data.

energy consumption per branch of economic activity in Greece is almost equal to 100% in transport (euro area and EU-27: 98%), 81% in agriculture (euro area: 63% and EU-27: 60%), 52% in households (euro area: 28% and EU-27: 21%), 44% in industry (euro area: 17% and EU-27: 16%) and 23% in services (euro area: 25% and EU-27: 21%).

Greece is more energy —and more oil— consuming than the euro area in all branches of economic activity. For each unit of output in industry, Greece consumes 47% more energy and 319% more oil than the euro area, in agriculture 24% more energy and 56% more oil and in transport 12% more energy and 14% more oil. Finally, it needs 5% more energy but 109% more oil for each unit of output in the branch of households and services (see Chart A).

The extra quantity of energy Greece needs compared with the euro area for the production of an output unit is exclusively derived from oil. Of the extra oil quantity used, 4.4% in industry, 15% in transport, 30% in agriculture and 81% in households is employed in order to cover the lack of supply or the reduced demand for other forms of energy, while the remaining extra quantity of the oil needed is related to the ineffectiveness in the use of oil or to structural factors.

In the 2000-2006 period,[5] the improved effectiveness of energy and oil use in industry and transport in Greece more than offset the less effective use of energy and oil in agriculture and households/services. The same development was observed in the whole economy of the euro area, with the difference that the oil intensity of households/services was reduced, while in the EU-27 an improvement was recorded in all branches. A particular characteristic of Greece is that households/services have over time increased the use of oil per unit of output,[6] in contrast with the euro area and the EU-27 where this use has been reduced.

3 FACTORS THAT AFFECT ENERGY AND OIL INTENSITY

The needs for energy and oil and consumers' energy behaviour are differentiated among countries owing to economic, social and other characteristics, such as climatic conditions, kilometre distances, the abundance of energy resources, and infrastructures. An equally important role is played by energy prices, the structural characteristics of the economy and the implementation of policies which encourage the more effective use of energy.

The most important structural changes which contributed to the reduction of energy and oil intensity over time in Europe, but also in Greece (to a smaller degree) are the following:

- the increase in the share of services in total GDP in comparison with the respective share of industry,

- the modernisation of production procedures in industry, the turn to other forms of energy, the decline in the share of heavy industry in industry as a whole and the transfer abroad of the production of high oil intensity products, such as iron and steel production,

- the better heat insulation and the shift from heating oil to natural gas,

- the promotion of low fuel consumption vehicles or hybrid vehicles and

- the policies which encouraged energy saving and the reduction in oil use (e.g. increase in competition with the deregulation of the energy market, reduction of subsidies or increase in fuel tax, bio-fuel subsidies, research in new more energy-efficient technologies etc.).

There is still plenty of room for a further reduction in energy and particularly oil intensity in Greece, as the penetration of the use of natural gas by end-consumers is still very limited in comparison with the other European countries, while at the same time the percentage of primary energy production from renewable sources remains very low. Significant challenges are posed by the continuing increase in the number of means of transport, particularly passenger cars,[7] and the demand for road and air transport of passengers and merchandise.

4 ENERGY AND OIL DEPENDENCE IN GREECE AND EUROPE

Each country's energy dependence is defined as the ratio of net energy imports to total gross domestic energy consumption. Respectively, oil dependence shows the percentage of net domestic oil consumption which is covered by oil imports.

Over time, while Greece's energy dependence has changed at an average annual rate about the same as that of the euro area as a whole, oil dependence has increased at the highest average annual rate among euro area countries. By contrast, in countries comparable with Greece,

5 Revised data on value added per industry are for the time being available at Eurostat since 2000. By end-2008, revised historical data since 1988 are expected to be published.
6 Households' output mainly includes the services or goods they produce for own use.
7 IEA, *Worldwide Trends in Energy Use and Efficiency*, 2008, pp. 60, 62 and 64.

such as Portugal and Ireland, oil dependence decreased in the period 1990-2006.

Greece's net energy imports as a percentage of the sum of gross domestic consumption and the quantities for the refuelling of sea-going vessels amounted to 67% on average in the 1990-2006 period, while in the euro area they were about 62% and in the EU-27 about 47%. The corresponding percentage for net oil imports came to 98% on average in the same period in Greece, while in the euro area it was about 97% and in the EU-27 around 78%. In countries comparable with Greece, such as Portugal, Ireland and Spain, the oil import dependence ratio was on average higher in the 1990-2006 period.

In 2007, the major countries of origin of oil products consumed by Greece were Russia (29.7% of total oil product imports), Iran (23.5%), Libya (10.9%) and Saudi Arabia (10.3%).[8] The anticipated increase in natural gas penetration in the forthcoming years in Greece is expected to limit the use of oil products, without, however, reducing dependence on imported fuel, as natural gas is imported, too. The substitution of oil by domestic energy sources, such as renewable energy sources, could over time reduce Greece's oil dependence.

8 NSSG imports data (SITC 3).

VI BALANCE OF PAYMENTS

1 COMBINED CURRENT AND CAPITAL ACCOUNT BALANCE: SUMMARY OF DEVELOPMENTS AND PROSPECTS

In the seven months from January to July 2008, the current account deficit stood at €21.5 billion, increased by €2.4 billion compared with the same period of 2007 (see Chart VI.1 and Statistical Appendix, Table 6). The combined current and capital account deficit (based on the old presentation method) stood at €18.9 billion in the period under review, up from €16.6 billion in the same period of 2007.

The widening of the current account deficit was limited to 12.7% (from 28.5% in the same period of 2007), as the increases in both the trade deficit (by €3.6 billion or 15.4%)[1] and the income deficit (by €0.9 billion or 16.0%) were partly offset by the higher surpluses of current transfers (up €1.1 billion or 80.4%) and services (up €1.0 billion or 11.4%).

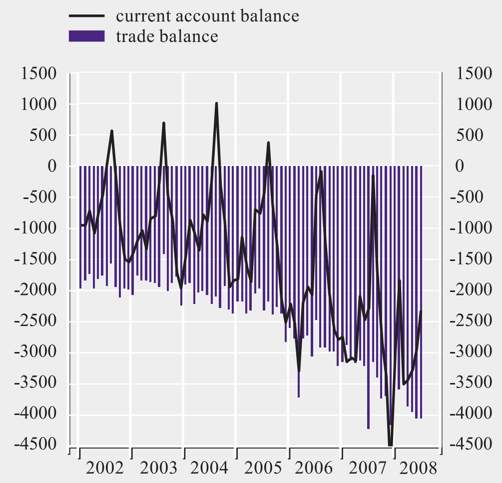
Based on developments in the first seven months of 2008, the current account deficit is estimated to widen further this year, to roughly 14.7% of GDP from the already exceptionally high level of 2007 (€32.4 billion or 14.1% of GDP), mainly due to the impact of higher oil prices on the oil balance. In more detail, the worsening of the current account deficit reflects two adverse factors:

- an increase in the trade deficit by 0.9% of GDP (with a worsening of the oil, ship and other goods balances by 0.5%, 0.1% and 0.3% of GDP respectively);

- a widening of the income deficit by 0.2% of GDP, due to higher net payments for interest, dividends and profits. The rise in such payments is attributable to Greece's worsening net international investment position (i.e. the increasing net financial liabilities of the Greek public and private sector vis-à-vis non-residents, which reached 93.6% of GDP at end-2007, from 46.5% of GDP at end-2001), as well as to the higher interest rates in world markets.

Chart VI.1 Trade balance and current account balance (January 2002–July 2008)

(million euro)



Source: Bank of Greece.

The above developments are expected to be partly offset by an improvement in the services balance (by 0.2% of GDP), as a result of higher net receipts from shipping, and a recovery in the current transfers surplus by 0.3% of GDP (the relatively low surplus in 2007 is mainly attributable to the additional contribution to the Community Budget following the upward revision of GDP).

The combined current and capital account deficit – which corresponds to the economy's foreign financing requirement (i.e. net inflows of borrowing, portfolio investment and direct investment) – is expected to turn out at around 12.9% of GDP in 2008, compared with 12.2% in 2007.

1.1 TRADE BALANCE

The increase in the trade deficit over the period under review is attributable by three fifths to the widening of the oil deficit and by two fifths to the increased deficit of other goods (excluding fuel and ships), while the rise

1 The trade deficit excluding ships rose by €3.5 billion or 17.2%.

in net payments for ship imports was very limited.[2] The large increase in the oil deficit resulted mainly from higher international crude oil prices. (The small widening of the ship balance deficit is associated with the ongoing renewal of the Greek merchant fleet.)

The increase in the trade deficit excluding fuel and ships is mainly attributable to the ongoing loss of the economy's price competitiveness, which hampers the growth of Greek exports (see Table VI.1). Another contributing factor is the increase in imports, due to the strong, although decelerating, growth of domestic demand. As the competitiveness of Greek products in the domestic market is low and the composition of domestic supply does not adequately respond to the composition of domestic demand, higher domestic demand is to a large extent met by imports. However, it should be noted that in the seven-month period under review, the year-on-year growth of the import bill excluding fuel and ships at current prices was weaker than in the same period of 2007 (10.1% compared with 11.5% respectively). This development is associated with the deceleration in the annual rate of increase in private consumption and declining total investment (according to national accounts estimates for the first half of the year).[3]

1.2 SERVICES BALANCE

The increase in the services surplus is almost wholly attributable to higher net receipts from transport services, while a small rise in net receipts from travel services was offset by an increase in net payments for "other services".[4] The considerable rise in net transport receipts resulted mainly from the high levels of global transit trade volumes as well as international freight rates (see Box VI.2).

1.3 INCOME BALANCE

The widening of the income deficit reflects the considerable rise (by 15.7%) in net payments for interest, dividends and profits. The higher net interest payments are attributable to the large increase in the gross external debt of the public and the private sector, fuelled by the high current account deficits. At end-2007, this debt exceeded 130% of GDP.

1.4 CURRENT TRANSFERS BALANCE

The substantial increase in the current transfers surplus reflects a strong rise in net EU transfers to general government. This in turn stemmed mainly from the significant inflow of funds under the Common Agricultural Policy (CAP) in February and to a lesser extent from a decrease in general government payments to the Community Budget.[5]

1.5 CAPITAL TRANSFERS BALANCE

The slight increase of the capital transfers surplus in the period under review reflects a small rise in net EU capital transfers to general government.[6] It should be recalled, however, that at end-2007 there was a considerable inflow of Community funds. From the onset of CSF III implementation in 2001 to end-July 2008 Greece received from the Structural Funds some €19.5 billion, i.e. 86% of the total Community commitments for the 2000-2006 period (€22.7 billion).[7] In the

2 Specifically regarding the trade balance excluding fuel and ships, export receipts rose by €969 million (13.9%), while the import bill rose by €2,264 million (10.1%). Moreover, according to the available provisional NSSG data (trade values for the period January-July 2008), exports excluding oil and ships increased by 5.8%, while imports increased by 5.7%. In addition, total exports rose by 3.0% and total imports (excluding ships) decreased by 1.7%. It should be recalled that discrepancies between Bank of Greece balance of payments data and the above NSSG trade statistics are largely due to the fact that the former relate to receipts and payments effected mainly through the domestic banking system, while the latter are based either on customs data for transactions with non-EU countries or tax data (INTRASTAT) for intra-EU trade.

3 See Chapter IV.1.

4 Receipts from travel services rose by 5.9% in the period under review. Developments in travel receipts seem to have been affected, among other things, by the tourism industry's squeezed prices in the form of "all inclusive" packages. Moreover, against the background of a weak global economic outlook and the appreciation of the euro, certain non-euro area countries have become more attractive destinations compared with Greece.

5 Current transfers from the EU to general government include mainly CAP direct payments and market price support, distributed unevenly over the year, and resources from the European Social Fund.

6 Capital transfers from the EU include mainly receipts from the Structural Funds – other than the European Social Fund – and the Cohesion Fund under the CSFs.

7 By the end of December 2006 Greece had received 54% of total Community funding.

Table VI.1 Greece: revised nominal and real effective exchange rate (EER) indices

(annual percentage changes in year averages)

	Nominal EER	Real EER	
		On the basis of relative consumer prices	On the basis of relative unit labour costs in the whole economy
2001	1.1	1.0	0.6
2002	1.9	2.8	3.6
2003	4.5	5.3	4.9
2004	1.4	1.9	4.1
2005	-0.7	0.3	-0.6
2006	0.1	1.0	2.1
2007	1.4	1.9	3.7
2008[2]	2.4	2.9	5.2
Cumulative percentage change in 2001-2008	12.6	18.4	26.0

Sources: Exchange rates: ECB, euro reference exchange rates. CPI: ECB. Harmonised CPI where available. Unit labour costs in the whole economy: for Greece: Bank of Greece estimates, for the other countries: ECB.
1 Revised indices (compiled by the Bank of Greece) comprise Greece's 28 major trading partners (among them, the other euro area countries, excluding Malta).The weights are calculated on the basis of manufacturing imports and exports (categories 5-8 of the Standard International Trade Classification – SITC 5-8) during 1999-2001, taking into account competition in third markets.
2 Provisional data and estimates.

period ahead, Greece will seek to accelerate its absorption rate, in order to avoid any decommitment of funds.[8]

Total net inflows from the EU (current transfers plus capital transfers minus contributions to the Community Budget), on a cash basis, amounted to €4.5 billion in the seven months from January to July 2008 and are expected to exceed €5.5 billion by end-2008, as Greece is to receive – in addition to CSF III disbursements – advance and first payments for projects coming under the National Strategic Reference Framework 2007-2013 (i.e. under CSF IV).[9] These receipts correspond to approximately 2.2% of GDP.

2 FINANCIAL ACCOUNT: SUMMARY OF DEVELOPMENTS

Financial investment, i.e. the sum of direct, portfolio and "other" investment, showed a net inflow of €18.7 billion in the seven months from January to July 2008, compared with €16.5 billion in the same period of 2007. This development was broadly based across the individual components of financial investment, all of which recorded positive net inflows ("other" investment: €8.8 billion, portfolio investment: €8.4 billion and direct investment: €1.5 billion).

Inflows under direct investment came to €2.8 billion, mainly reflecting the acquisition of a 19.99% stake in the share capital of the Hellenic Telecommunications Organisation (OTE) by Deutsche Telekom (Germany) in May, amounting to €2.5 billion.[10] Direct investment

8 According to EU guidelines on the closure of operational programmes of the 2000-2006 period (known as the "n+2" rule), CSF III projects had to be implemented by 31 December 2008. However, following the August 2007 forest fires, the European Commission extended this deadline until end-2009 for all regional programmes that concern the disaster areas and – as was announced on 30 June 2008 – for major sectoral programmes.
9 In 2007, total net transfers of EU funds came to €4.9 billion, including advance payments under the National Strategic Reference Framework 2007-2013 (CSF IV).
10 In the period under review, other noteworthy inward direct investment transactions were: the acquisition by Alapis Farma (Cyprus) of a holding (€50 million) in the capital of its parent company Alapis SA, and the participation of Xanatech Ltd (Cyprus) with €22 million in the share capital increase of Channel Nine SA. At the same time, an outflow of €70 million was recorded due to the sale of the Plus Hellas supermarket chain by Tengelmann KKG (Germany) to AB Vassilopoulos SA.

outflows came to €1.3 billion (compared with €2.9 billion in the same period of 2007).[11]

Although direct investment inflows in Greece appear increased relative to the same period of 2007 due to the sale of part of OTE's share capital, the overall picture is far from reassuring. Aside from the adverse global economic situation that weighs heavily on foreign direct investment flows worldwide, Greece faces additional constraints in its effort to attract FDI. These relate, among other things, to poor structural competitiveness, bureaucratic burdens, inadequate infrastructure and rigidities in product and labour markets.[12]

Direct investment outflows remain relatively high (despite a decrease compared with one year earlier) and involve mainly investment activity in the Balkan countries, particularly by Greek banks.

Net inflows under portfolio investment decreased markedly compared with the same period of 2007. More specifically, this stemmed from the equity component, showing net redemptions of Greek company shares held by non-residents amounting to €1.3 billion (compared with net acquisitions worth €8.5 billion in the corresponding period of 2007). This reversal is associated with the uncertainties prevailing in world capital markets. On the other hand, inflows for purchases of Greek government bonds and Treasury bills by non-residents increased slightly to €17.0 billion from €16.5 billion in the same period of 2007. A small decline was recorded in Greek residents' purchases of foreign bonds and Treasury bills, representing an outflow of €8.1 billion, compared with €8.4 billion in the same period of 2007.

In "other" investment, the relatively large net inflows are accounted for by strong inflows into deposits and repos, which offset by a considerable margin the increase in corresponding placements abroad by Greek residents.

Finally, in the seven months from January to July 2008, Greece's foreign reserves decreased by €182 million to €2.4 billion at end-July.

3 PERMANENT AND CONJUNCTURAL DETERMINANTS OF THE CURRENT ACCOUNT DEFICIT

The Greek balance of payments is affected by a number of endogenous and exogenous factors, the adverse consequences of which can only be successfully addressed over a longer-term horizon. Meanwhile, it is urgently necessary to take measures that should bear fruit in the medium term.

The shortfall of total saving relative to domestic investment expenditure persists as a major factor of imbalance, with saving as a percentage of GDP remaining at very low levels (chiefly because the expansion of consumer credit has boosted private consumption spending at the expense of private saving), while investment is relatively high.[13] The increase in imports of capital equipment in line with rising investment expenditure burdens the trade deficit, given that the scope for import substitution is, as far as capital goods are concerned, rather limited. Therefore, considering that in absolute terms import expenditure is many times over export receipts and taking into account the high import content of many Greek exports, it is crucial to improve considerably the export performance of the Greek

11 In the period under review, the most important direct investment outflows were: (i) €80 million for a capital injection by Eurobank to EFG Spolka AK (Poland); (ii) €26 million and €24 million for the increase of the participation of Piraeus Bank in the share capital of its subsidiary Atlas Banka (Serbia); (iii) €17 million for the increase of the participation of Eurobank in the share capital of its subsidiary Eurobank Serbia (Serbia); (iv) €47 million for the participation of the National Bank of Greece in the share capital increase of Romaneaska bank (Romania); (v) €260 million for the partial acquisition of Ocean Rig ASA (Norway) by the Oikonomou Group; and (vi) €49 million for the participation of Alpha Bank in the share capital increase of its subsidiary Alpha Bank Srbjja AD.

12 See Bank of Greece, *Monetary Policy – Interim Report*, October 2006, Box IV.1, pp. 128-134.

13 Indicatively, total saving in 2007 came to 9.5% of GDP, compared with 11.1% in 2006 and 10.3% in 2005, while the respective euro area percentages were 22.0%, 21.3% and 20.7%. In addition, gross fixed capital formation stood at 25.7% of GDP in 2007, compared with 25.8% in 2006 and 23.4% in 2005, while the respective euro area percentages were 22.1%, 21.6% and 20.8%. (The current account deficit based on national accounts data reached 16.4% in 2007, from 14.4% in 2006 and 13.4% in 2005.)

goods-producing sector, so as to prevent the trade deficit from becoming permanent. In this respect, advantage must be taken of the opportunities for *further* penetration of Greek exports into the fast-growing economies of South-eastern Europe (see Box VI.1).

Box VI.1

GREECE'S TRADE WITH THE OTHER BALKAN COUNTRIES

The strengthening of market economy and the modernisation of institutions in the Balkan countries, as well as their emerging European prospects (Bulgaria and Romania are already EU members), have contributed to the development of their economic relations with Greece. Particularly important was the Greek businessmen's response to the new investment and trade opportunities in the region.

Table A Greece's external trade with the Balkan countries

(value in million euro)

	1995	2000	2005*	2006*	2007*
A. (Non-oil) exports to:					
Bulgaria	323	447	758	903	1,057
	(38.6)	(23.6)	(32.0)	(30.4)	(31.5)
Romania	113	406	393	574	733
	(13.5)	(21.5)	(16.6)	(19.4)	(21.8)
Turkey	139	394	446	517	471
	(16.6)	(20.8)	(18.8)	(17.4)	(14.0)
Albania	185	224	298	290	321
	(22.1)	(11.8)	(12.6)	(9.8)	(9.6)
FYROM	19	235	284	330	338
	(2.2)	(12.4)	(12.0)	(11.1)	(10.1)
Serbia & Montenegro	13	138	97	185	226
	(1.5)	(7.3)	(4.1)	(6.2)	(6.7)
Other[1]	45	47	94	166	213
	(5.4)	(2.5)	(4.0)	(5.6)	(6.3)
Total	**836**	**1,890**	**2,370**	**2,965**	**3,358**
% of total Greek exports	*10.5*	*17.2*	*17.8*	*20.7*	*22.3*
B. (Non-oil) imports from:					
Bulgaria	357	416	461	587	843
	(52.8)	(29.0)	(21.7)	(21.4)	(23.8)
Romania	89	323	298	376	505
	(13.2)	(22.5)	(14.0)	(13.7)	(14.2)
Turkey	156	424	955	1,237	1,541
	(23.1)	(29.5)	(44.9)	(45.0)	(43.4)
Albania	28	46	17	28	64
	(4.2)	(3.2)	(0.8)	(1.0)	(1.8)
FYROM	11	75	187	219	296
	(1.7)	(5.2)	(8.8)	(8.0)	(8.3)
Serbia & Montenegro	1	93	79	192	189
	(0.1)	(6.5)	(3.7)	(7.0)	(5.3)
Other[1]	33	58	129	107	110
	(4.9)	(4.1)	(6.0)	(3.9)	(3.1)
Total	**676**	**1,436**	**2,126**	**2,746**	**3,549**
% of total Greek imports	*3.7*	*4.5*	*5.6*	*6.3*	*6.7*

Source: NSSG.
Note: Bracketed figures denote each country's percentage share in total Greek exports/imports to and from the region.
* Provisional data.
1 Bosnia-Herzegovina, Croatia, Slovenia.

Table B: Breakdown of Greece's non-oil external trade with the Balkan countries

(% of total Greek exports/imports to and from the region)

	1995	2000	2005*	2006*	2007*
A. Exports					
Agricultural products	26.9	16	12.8	11.6	13.6
Non-oil raw materials	12.9	13.1	9.3	11.2	8.3
Chemical products	8.1	10.8	16.1	16.6	14.5
Transport machinery & equipment	16.8	23.4	14.5	15.7	19.1
Other industrial items	35.1	36.2	47.1	44.6	44.2
Other	0.2	0.5	0.2	0.3	0.3
Non-oil total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Oil exports as a percentage of total Greek exports to the region	*11.0*	*21.2*	*9.1*	*16.9*	*13.8*
B. Imports					
Agricultural products	11.6	7.1	15.1	13.7	11.8
Non-oil raw materials	6.5	7.0	10.8	10.0	8.3
Chemical products	13.8	7.2	6.4	6.2	5.1
Transport machinery & equipment	7.5	11.2	17.6	19.1	19.0
Other industrial items	60.6	66.1	50.0	50.9	55.8
Other	0.0	1.4	0.1	0.1	0.0
Non-oil total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Oil imports as a percentage of total Greek imports from the region	*5.6*	*1.7*	*11.4*	*13.4*	*5.0*

Source: NSSG.
* Provisional data.

(Non-fuel) trade has recorded a satisfactory increase. Greece's receipts from exports to these countries as a percentage of its total export receipts rose to 22.3% in 2007, from 10.5% in 1995 (see Table A). The corresponding percentage of Greece's expenditure for imports from these countries reached 6.7% in 2007, from 3.7% in 1995. The bulk of trade relates to the "other industrial items" category, which includes mostly traditional industrial products. The share of this category in total receipts from exports to the countries at issue rose from 35.1% in 1995 to 47.1% in 2005, while it slightly declined thereafter and in 2007 stood at 44.2%. The share of the same category of goods in the total value of Greek imports from the countries at issue remained high (60.6% in 1995 and 55.8% in 2007 – see Table B). Accounting for a noteworthy share in the corresponding exports and imports —in the order of 20% for 2007— is the "transport machinery and equipment" category, which involves mainly medium- and high-technology products.

The increase in the share of Greek exports to these countries is mainly the result of the faster rise in their demand compared with total external demand. However, the Greek exports' market share (i.e. their share in the total imports of the countries at issue) remains stagnant (1.6%), albeit higher than the share of Greek exports in the market of industrial countries as a whole (0.2% according to data for 2007 – see Table C). This is explained by the fact that the bulk of Greek exports to the Balkan countries relates to traditional products (such as textiles), which meet with intense competition from the domestically produced ones. These are usually labour-intensive and low-technology products, and the Balkan countries have a comparative advantage for their production, mainly because of their low labour costs. A competitiveness problem, however, is also detected in the case of the "transport machinery

Table C: Greece's market share in the Balkan countries

(imports from Greece as a percentage of total imports of each country)

	1995	2000	2005	2006	2007
Bulgaria	4.4	4.9	5.0	5.2	6.3
Romania	1.5	2.8	1.1	1.2	1.5
Turkey	0.6	0.8	0.7	0.8	0.5
Albania	40.3	26.5	16.5	16.9	17.2
FYROM	1.7	9.6	9.2	8.5	12.5
Serbia & Montenegro	7.8	4.3	1.7		
Other[1]	0.2	0.2	0.4	0.7	0.6
Total	1.6	1.6	1.5	1.5	1.6
Industrial countries	*0.2*	*0.1*	*0.1*	*0.2*	*0.2*
European developing countries	*0.7*	*0.8*	*0.6*	*0.6*	*0.7*

Source: IMF, Direction of Trade Statistics.
1 Bosnia-Herzegovina, Croatia, Slovenia.

and equipment" category (which, as already mentioned, relates mostly to exports of medium- and high-technology products): the share of this category in Greek exports to the above countries decreased in the period 2000-2007.

But also on the import side, the fact that the largest share of expenditure equally relates to "other industrial items" demonstrates how vulnerable Greece's exports to these countries are, from a perspective of both cost and price competitiveness. Already many Greek firms active in this specific category of products have moved their production units to these countries, so as to benefit from the lower labour costs. It should be noted, however, that part of the imports at issue relates to inexpensive intermediate goods utilised in the production of higher technology products, and thus the competitiveness of Greek exports is ultimately strengthened.

Greece's geographical closeness to the Balkan countries and the knowledge of their individual markets by Greek firms offer to Greek products a clear advantage vis-à-vis similar products from other European countries and favour the Greek exporters' commercial penetration attempts. There is a need, however, for a shift of the Greek producers' export efforts towards products of high value added and technology. Such a shift, in the context of rising living standards in the Balkan countries, could lead to a considerable and permanent increase in the share of Greek exports in the markets of the Balkans (and South-eastern Europe in general).

Coping with balance of payments problems becomes even more difficult on account of certain structural weaknesses of the Greek economy, reflected in a high income elasticity and low price elasticity of import demand,[14] but most importantly in the declining price competitiveness of Greek products in the international as well as in the domestic market.

The balance of payments is also occasionally burdened by extraordinary factors, such as shipbuilding orders and purchases of new and used vessels by Greek-based shipping companies (see Box VI.2).

14 Estimates by the Econometric Forecasting Section of the Bank of Greece Economic Research Department.

Box VI.2

SEA TRANSPORT RECEIPTS

In 2007 net receipts from sea transport accounted for 4.5% of GDP, while in the period 2004-2007 their average annual rate of increase was in the order of 20%[1] (see the table below). The bulk of receipts (almost 98%) stems from transit trade by Greek sea-going shipping.

Sea transport receipts and macroeconomic fundamentals

(million euro)

	January-December				January-June	
	2004	2005	2006	2007	2007	2008
GDP (current prices)	185,225.0	198,609.0	213,985.0	228,949.0	112,885.0	120,617.0
Trade balance	-25,435.8	-27,558.9	-35,286.3	-41,499.2	-19,031.4	-22,777.3
– of which: ships' balance	135.6	-723.0	-3,390.5	-5,520.3	-2,263.8	-2,547.4
Services balance	15,467.0	15,391.1	15,337.1	16,591.7	5,758.4	6,286.2
Sea transport receipts	12,404.2	12,953.0	13,280.2	15,678.6	7,199.2	9,047.2
Minus payments for sea transport	4,486.0	4,646.9	5,024.5	5,426.7	2,502.8	3,237.0
Net inflows from sea transport	7,918.3	8,306.1	8,255.7	10,251.9	4,696.4	5,810.2
– As a percentage of GDP	4.3%	4.2%	3.9%	4.5%	4.2%	4.8%
– As a percentage of the services balance	51.2%	54.0%	53.8%	61.8%	81.6%	92.4%
– As a percentage of trade balance deficit coverage	31.1%	30.1%	23.4%	24.7%	24.7%	25.5%
Annual increase of net inflows from sea transport	54.0%	4.9%	-0.6%	24.2%	15.2%	23.7%

Sources: Bank of Greece and NSSG.

The considerably increased receipts are associated with the rise in international freight rates, as well as with the size of the Greek-owned fleet.[2] In the first half of 2008, the index of freight rates for dry cargo transport ships (BDI – Baltic Dry Index) rose by 61% and the corresponding index for oil tankers (BDTI – Baltic Dirty Tanker Index) stood at a level 32% higher than in the first half of 2007[3] (see the chart), but in the third quarter both these indices declined.

The rise in freight rates for dry cargo transport is attributable to China's ongoing demand for raw materials —chiefly iron ore and metallurgical coal— as well as its need to procure raw materials from alternative markets farther away.[4] At the same time, congestion in the loading and unloading ports limited the supply of shipping services. The rise in freight rates for oil carriers is associated with the withdrawal of ships,[5] although the decelerated rate of

1 The corresponding average annual rate of increase in US dollars comes to 25%.
2 Other determinants of receipts are the rate of commissioning of the Greek-owned fleet and the evolution of the exchange rate of the euro vis-à-vis the US dollar, since practically all charter parties are concluded in US dollars.
3 The BDI rose considerably (by 72%) in 2004. It then declined at an average annual rate of 25% in 2005 and 6% in 2006, while in 2007 it rose at an average annual rate of 122%. In parallel, the BDTI rose by 33% in 2004 and then fell both in 2005 and 2006, by 15% each year. In 2007 it fell by another 13%. Both indices recorded a considerable increase at end-2007, but fell in early 2008, to rise noticeably again in the second quarter of the year, before recording a new decline in the third quarter.
4 E.g. China imports iron ore from Brazil instead of Australia which is closer to it.
5 Either for their retrofit into dry cargo ships or for dismantlement.

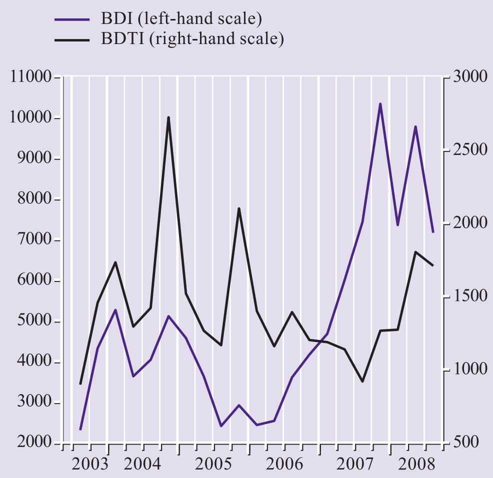
increase in world oil consumption limited the demand for oil tankers.

The outlook for sea transport receipts remains positive[6] until 2010, due to the expected enlargement of the Greek-owned fleet by about 10% per annum over the next four years[7] and the continuing demand, which reflects mainly growth in China and other Asian countries. However, any prolongation of the current financial turmoil, which has an impact on international trade as well, could constitute a bottleneck to such positive prospects.

6 Sea transport receipts are estimated to rise by about 15% in 2008.
7 Greek shipping is expected to preserve its market share even after completion of the investment programmes worldwide. It should be noted that, in February 2008, ships of Greek interest under construction corresponded to 48.9% of the active fleet, while the respective percentage for the global fleet was 47.3%.

Developments in the indices of freight rates for dry cargo ships (BDI) and oil tankers (BDTI)

(average quarterly data)



Source: Clarkson Research Services.

The substantial rise in the net fuel import bill is a major source of trade imbalance.[15] This effect is associated with the strong growth rates of the Greek economy combined with its low price elasticity of demand. The Greek current account balance is constantly vulnerable to rising oil prices, especially in view of the economy's high energy dependence (see Appendix 2 to Chapter V).

Of course, a higher current account deficit — given that foreign direct investment inflows remain relatively small — entails higher external debt and interest payments, which feed back into the deficit. Moreover, the medium-term prospect of a reduction in net current and capital transfers from the Community budget (as a result of EU enlargement)[16] points to the need to improve the economy's goods export performance (as already mentioned) and highlights the importance of receipts from services exports for counterbalancing the trade and income deficits. The outlook for transport receipts is discussed in Box VI.2. As regards travel receipts, the need to further upgrade the tourism infrastructure in order to ensure the provision of more competitive services in terms of price and quality has been repeatedly stressed.

A question therefore arises as to whether the current account deficit and —by extension— the external debt are sustainable. To the extent that higher investment helps to raise competitiveness and productivity, the part of the current account deficit that is associated with an increase in capital goods imports presents no threat to the sustainability of the external debt. The same applies to spending for the renewal of the merchant fleet. In any case however, reducing the current account deficit necessitates the consistent implementation of policies aimed at addressing the economy's structural weaknesses (see Chapter I).

15 Reference to net fuel imports is opted for, given that for every $10 paid for imports of oil products, the Greek economy receives $2 from exports of oil derivatives (see Panhellenic Exporters Association (PEA), "Oil trade of Greece", *Episimanseis* No. 32, November 2006, in Greek).
16 As already mentioned, total net transfers of EU funds came to €4.9 billion in 2007 and are expected to exceed €5.5 billion in 2008. For the entire 2007-2013 period, Greece has secured €24.3 billion of Community funding for the implementation of the National Strategic Reference Framework, including resources committed to rural development. Meanwhile, CAP direct payments and subsidies in the 2007-2013 programming period will depend on the outcome of the ongoing modernisation of CAP in the context of the EU Budget Review for the next programming period (2014-2020).

VII MONEY, CREDIT AND CAPITAL MARKETS

1 THE EVOLUTION OF MONETARY AGGREGATES IN GREECE

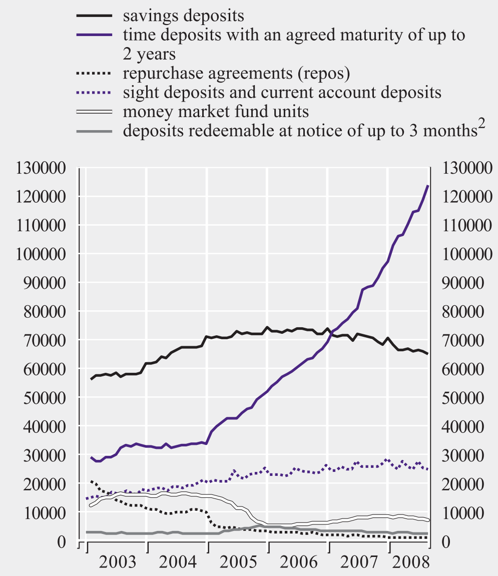
1.1 MONETARY DEVELOPMENTS

The annual growth rate of the monetary aggregate M3[1] in Greece accelerated to 15.2% in August (2007 Q4: 14.7% – see Table VII.1) and stands higher than in the euro area. This increase mainly reflects shifts from assets not included in M3[2] to assets included therein, mostly deposits with an agreed maturity of up to two years. This shift is associated with increased short-term interest rates, in conjunction with negative returns on all mutual funds in the period under review.

Turning to M3 components, **time deposits** increased between January and August 2008. In this period, the interest rate on time deposits rose more than the **overnight deposit** rate, thereby leading to shifts within M3, specifically from highly liquid deposits to time deposits. Thus, the growth rate of time deposits decelerated, but remained high, while the decrease in overnight deposits became stronger. Following these developments, the annual rate of increase in total deposits included in M3 decelerated to 14.3% in August 2008 (2007 Q4: 15.9%). Finally, **investment in repos and money market fund shares/units** declined, while holdings of securities with an agreed maturity of up to 2 years increased considerably (see Table VII.1 and Chart VII.1).

Chart VII.1 Deposits, repurchase agreements and money market fund units in Greece[1] (January 2003–August 2008)

(end-of-period balances, million euro)



Source: Bank of Greece.
1 These aggregates are included in M3 according to the ECB definition and therefore constitute the Greek contribution to the corresponding euro area aggregates.
2 Including savings deposits in currencies other than the euro.

1.2 BANK DEPOSIT RATES

The upward trend of deposit and repo rates, which had started in the second half of 2007 due to the turmoil in financial markets, continued in January-August 2008. This trend was also fed by the increase of 25 basis points in key ECB interest rates on 3 July 2008. Among deposit categories, the interest rate on time deposits recorded the largest rise (see Table VII.2A and Chart VII.2). These developments are largely associated with liquidity shortage in the interbank market and expectations that this situation would persist, which forced banks to seek, *inter alia*, to boost their deposit base, especially time deposits. By way of illustration, it should be noted that the euro area interbank rate (three-month EURIBOR) rose from 4.15% in June 2007, before the financial turmoil began, to 5.02% in September 2008.

In the January-July 2008 period, the average deposit rate in Greece increased; as a result, its positive differential from the average euro area rate widened (see note 3 in Table VII.2A). Specifically, the average rate on new deposits with an agreed maturity of up to 1 year increased in Greece by 57 basis points, compared with a rise of 33 basis points in the euro area as a whole, and their differential

1 Excluding currency in circulation.
2 Mainly shares/units of bond funds and funds of funds.

Table VII.1 Greek contribution to the main monetary aggregates of the euro area

(non-seasonally adjusted data)

	Outstanding balances on 31.08.08 (million euro)	Annual percentage changes[1]										
		2003	2004	2005	2006	2007				2008		
		Q4[2]	Q4[2]	Q4[2]	Q4[2]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	Q1[2]	Q2[2]	August[3]
1. Overnight deposits	89,530.0	6.8	16.8	9.3	0.7	0.2	0.1	-0.6	-0.9	-2.8	-4.4	-7.3
1.1 Sight deposits and current account deposits	24,373.0	17.7	19.1	20.2	1.8	6.4	9.3	7.3	10.3	6.2	2.6	-4.1
1.2 Savings deposits	65,157.0	4.1	16.1	6.3	0.2	-1.9	-2.9	-3.2	-4.6	-5.8	-6.8	-8.3
2. Time deposits with agreed maturity of up to 2 years	124,158.4	29.3	5.3	45.2	37.5	37.7	36.5	42.1	42.2	42.1	43.0	38.8
3. Deposits redeemable at notice up to 3 months[4]	1,926.2	1.5	2.8	105.2	-24.4	-31.4	-28.1	-21.6	-20.3	-20.0	-18.0	-23.6
4. Total deposits (1+2+3)	**215,614.6**	**12.6**	**13.1**	**20.7**	**12.1**	**12.4**	**12.8**	**15.2**	**15.9**	**16.0**	**16.5**	**14.3**
5. Repurchase agreements	477.1	-47.7	-12.6	-72.8	-35.7	-44.2	-49.6	-53.3	-54.3	-55.7	-50.9	-48.3
6. Money market fund shares/units	6,775.7	68.0	-1.9	-51.8	-2.5	30.0	43.9	43.4	40.5	28.1	9.3	-12.7
7. Debt securities issued with a maturity of up to 2 years[5]	2,218.7	268.6	-0.3	-42.2	24.2	-14.1	-	-	-	-	-	-
8. M3 excluding currency in circulation (4+5+6+7)	**225,086.1**	**6.4**	**9.2**	**6.9**	**10.6**	**12.0**	**12.2**	**13.9**	**14.7**	**15.2**	**16.2**	**15.2**

Sources: Bank of Greece and ECB.
1 Annual rates of change in the corresponding index, which is compiled on the basis of outstanding stocks for December 2001 and cumulative monthly flows, adjusted for exchange rate variations, reclassifications etc.
2 The quarterly average is derived from monthly averages (which are calculated as arithmetic means of two successive end-of-month figures) and is not the three-month average of end-of-month annual growth rates (see the Technical Notes in the "Euro area statistics" section of the ECB *Monthly Bulletin*).
3 Based on end-of-month levels.
4 Including savings deposits in currencies other than the euro.
5 This aggregate is calculated on a consolidated basis with the other euro area countries and thus does not include domestic MFIs' holdings of debt securities with a maturity of up to two years issued by euro area MFIs.

came to 48 basis points. In July 2008, the interest rate on this category of deposits in Greece was the highest among euro area countries (see Table VII.2B). It should be noted that, in this period, the average rate on new overnight deposits in Greece remained virtually unchanged, while it recorded a slight increase of 8 basis points in the euro area as a whole so there was no differential between them in July.

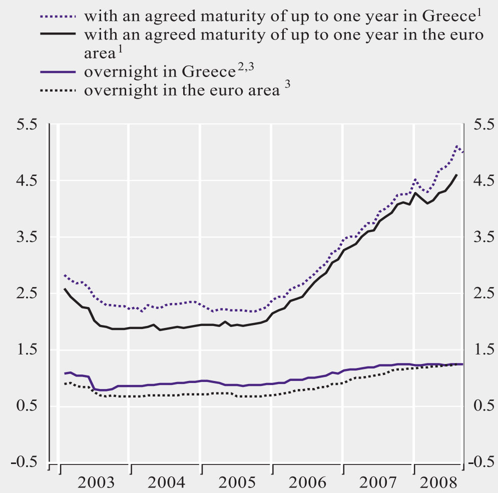
2 THE FINANCING OF THE ECONOMY

The growth rate of the **total financing of the economy** by domestic Monetary Financial Institutions (MFIs),[3] having accelerated in the first months of 2008, remained relatively stable in the April-August 2008 period at around 17%

3 The financing of the economy by domestic MFIs comprises the outstanding balance of MFI loans to enterprises, households and general government, as well as total government securities and corporate bonds held by MFIs. Included is the balance of securitised loans and corporate bonds. The calculation of the rate of change in total financing also includes total write-offs by banks during the reference period.

Chart VII.2 Bank interest rates on new deposits by households in Greece and the euro area (January 2003–August 2008)

(percentages per annum)



Sources: Bank of Greece and ECB.
1 Monthly average rate.
2 The interest rate on savings deposits is used, as these deposits represent the bulk of overnight deposits and their interest rate is almost identical to the overnight rate.
3 End-of-month rate.

Table VII.2A Bank interest rates on new deposits by households in the euro area and Greece

(percentages per annum)

	December 2007	July 2008	Change July 2008/ Dec. 2007 (in percentage points)	August 2008[3]	Change Aug. 2008/ Dec. 2007 (in percentage points)
Overnight[1]					
Weighted average interest rate in the euro area	1.18	1.26	0.08	...	...
Maximum interest rate	2.58	2.68	0.10	...	...
Minimum interest rate	0.19	0.20	0.01	...	...
Interest rate in Greece	1.24	1.26	0.02	1.26	0.02
Interest rate differential between Greece and the euro area	0.06	0.00	-0.06	...	...
With an agreed maturity of up to one year[2]					
Weighted average interest rate in the euro area	4.28	4.61	0.33	...	...
Maximum interest rate	4.68	5.09	0.41	...	...
Minimum interest rate	2.94	3.17	0.23	...	...
Interest rate in Greece	4.52	5.09	0.57	4.99	0.47
Interest rate differential between Greece and the euro area	0.24	0.48	0.24	...	...

Sources: ECB and euro area NCBs.
1 End-of-month rate.
2 Monthly average rate.
3 Euro area bank rates for August 2008 were not available on the date of publication of this Report.

Table VII.2B Bank interest rates on new deposits by households in euro area countries[1]

	Overnight[2]		With an agreed maturity of up to 1 year[3]	
	December 2007	July 2008	December 2007	July 2008
Austria	1.93	2.05	4.28	4.45
Belgium	1.16	0.99	4.21	4.46
Finland	1.09	1.36	4.68	4.92
France	0.19	0.20	4.18	4.46
Germany	1.83	1.95	4.22	4.43
Greece	**1.24**	**1.26**	**4.52**	**5.09**
Ireland	1.40	1.58	4.08[4]	4.33[4]
Italy	1.28	1.40	2.94	3.17
Luxembourg	2.58	2.68	4.07	4.24
Netherlands	0.80	0.79	4.25	4.62
Portugal	0.20	0.27	4.16	4.52
Spain	0.70	0.78	4.49	4.85
Slovenia	0.40	0.48	4.04	4.40

Sources: ECB and euro area NCBs.
1 Despite the efforts to harmonise statistical methodologies across the euro area, considerable heterogeneity remains in the classification of banking products, which is partly due to differences in national conventions and practices as well as regulatory and fiscal arrangements (see ECB, "Differences in MFI interest rates across euro area countries", September 2006).
2 End-of-month rate.
3 Monthly average rate.
4 The interest rate applies to all time deposits irrespective of maturity.

(August 2008: 17.5%, 2007 Q4: 13.1%; see Table VII.3 and Chart VII.3). This development reflects an increase in the rate of change in general government financing, which turned from negative to positive in July 2008 (August 2008: 4.2%, 2007 Q4: -16.1%), for the first time since September 2006, and is associated with a restructuring of MFI assets.[4] By contrast, the growth rate of private sector financing decelerated slightly, but remained strong (August 2008: 20.1%, 2007 Q4: 21.2%).

Bank credit to enterprises and households

The annual rate of increase in **credit to the private sector**, despite a slowdown in credit growth to households, remained high in the first eight months of 2008, as corporate credit growth edged up.

Specifically, the annual rate of increase in **corporate financing** came to 22.9% in August 2008, from 19.3% in the fourth quarter of 2007.[5,6] This development is mainly attributable to firms' increased requirements for working capital and investment project financing (see Chapter IV.1) and, to a lesser extent, to firms' estimates that credit standards and terms would probably tighten in the future.[7]

4 This restructuring involved an increase in government bond holdings, following a long period of sales of such assets. This development is associated both with banks' shift to relatively safe holdings such as government bonds and with the authorisation of MFIs to use such instruments as collateral in order to obtain financing from the Eurosystem. It should also be noted that, regarding supply of government paper, the net borrowing requirement of general government on a cash basis was higher in the first eight months of 2008 (€10,674 million) than in the corresponding period of 2007 (€8,916 million). Thus, government paper issuance in the first eight months of 2008 was significantly higher year-on-year.
5 This rate of increase has been accelerating since mid-2007.
6 As a percentage of GDP, bank credit to enterprises in Greece in 2000-2007 increased as much as in the euro area (non-financial corporations).
7 This estimate is also in line with the results of the Bank Lending Survey rounds of April and July 2008, which included specific questions about the effects of the turmoil in international financial markets on credit standards and credit terms. The Bank Lending Survey is conducted by the Bank of Greece on a quarterly basis, in the context of a broader Eurosystem survey.

Table VII.3 Total financing of the economy by domestic MFIs

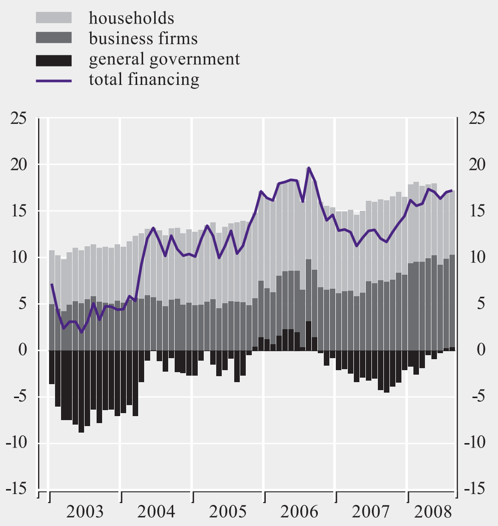
(annual percentage changes)

	2003	2004	2005	2006	2007		2008		
	Q4[1]	Q4[1]	Q4[1]	Q4[1]	Q4[1]	December[2]	Q1[1]	Q2[1]	August[2]
1. Total financing by MFIs[3]	4.4	11.0	14.0	15.3	13.1	14.4	15.7	17.0	17.5
2. Financing of general government	-15.9	-5.6	-0.7	-1.8	-16.1	-9.7	-9.4	-3.2	4.2
3. Financing of enterprises and households[3]	19.1	19.6	20.1	21.3	21.2	20.9	22.1	21.6	20.1
3.1 Enterprises[3]	13.7	13.0	12.7	16.8	19.3	19.9	22.4	23.5	22.9
3.2 Households[4]	28.8	30.2	30.6	26.7	23.2	22.1	21.7	19.6	17.0
3.2.1 Housing loans[4]	27.8	26.9	31.5	28.0	-22.8	21.4	20.5	18.1	15.5
3.2.2 Consumer loans[4]	25.0	38.4	30.4	23.7	22.6	22.4	23.3	22.1	20.6

Source: Bank of Greece.
1 The quarterly average is derived from monthly averages (which are calculated as arithmetic means of two successive end-of-month figures) and is not the three-month average of end-of-month annual growth rates (see the Technical Notes in the "Euro area statistics" section of the ECB *Monthly Bulletin*).
2 Based on end-of-month levels.
3 Including corporate bonds held in MFI portfolios, securitised bank and bond loans as well as loan write-offs.
4 Including securitised bank loans and loan write-offs.

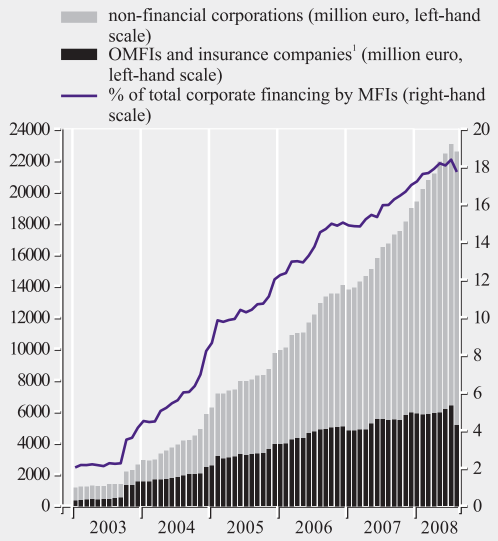
Chart VII.3 Greece: Total financing of the economy by domestic MFIs and its sectoral breakdown (January 2003–August 2008)

(annual percentage changes, shares in percentage points)



Source: Bank of Greece.
Note: Including MFI loans to business firms, households and general government, as well as total MFI holdings of government securities and corporate bonds. Also including the amounts of securitised loans and loan write-offs carried out by banks during the reference period.

Chart VII.4 MFI funds raised by enterprises through bond issuance in Greece (January 2003–August 2008)



Source: Bank of Greece.
1 The share of insurance companies does not exceed 1%.

A significant part of total corporate credit growth in January-August 2008 was covered by corporate bonds.[8] In this period, net MFI funds raised by **enterprises** through **bond issuance** came to €3,593 million (January-August 2007: €2,619 million); as a result, the share of this form of financing in total bank credit to enterprises rose to 17.7% in August 2008 (December 2007: 17.0% – Chart VII.4).

The established practice of the borrower bearing the interest rate risk under corporate loan agreements still holds, despite the upward trend of interest rates. Thus, loans with a floating rate or an initial rate fixation of up to one year still represent more than 90% of new loans with a defined maturity to non-financial corporations. At the same time, over 2/3 of the value of new loans still concern large amounts of credit (over €1 million each), typically granted to large enterprises.

The breakdown of credit expansion by sector of economic activity shows that total financing increased in most sectors, except for credit to non-monetary financial institutions[9] (see Table VII.4). Specifically, the growth rate of **financing to agriculture** edged up in the first eight months of 2008 (August 2008: 18.9%, 2007 Q4: 10.7%). The firms of this sector absorbed 3.7% of credit expansion to all firms in the reviewed period.

An acceleration was also recorded in the annual growth rate of **credit to industry** in the first eight months of 2008, compared with the

8 As mentioned in previous Reports, this practice has been widely used in recent years, mostly because of its tax advantages. Specifically, according to the legislative framework (Law 3156/2003), these securities are exempt from the 0.6% levy on the outstanding balance of the loan provided for by Law 128/1975. Almost all such issues are absorbed by banks and the relevant securities are not traded on a regulated secondary market.

9 It should be noted that the slowdown in the growth of credit to non-monetary financial institutions is due to domestic MFIs' sale of corporate bonds worth €1,300 million to foreign MFIs.

Table VII.4 Loans to domestic firms and households from domestic MFIs

	Outstanding balances on 31.08.08 (million euro)	Annual percentage changes								
		2003	2004	2005	2006	2007		2008		
		Q4[1]	Q4[1]	Q4[1]	Q4[1]	Q4[1]	December[2]	Q1[1]	Q2[1]	August[2]
A. Enterprises[3]	**127,250**	**13.7**	**13.0**	**12.7**	**16.8**	**19.3**	**19.9**	**22.4**	**23.5**	**22.9**
1. Agriculture[4]	3,901	3.3	7.8	-12.7	11.0	10.7	9.3	15.0	22.6	18.9
2. Industry[4,5]	24,320	10.4	1.1	-0.6	8.7	10.0	10.1	13.0	15.1	17.3
3. Trade[4]	31,558	4.0	12.7	6.6	9.1	16.9	16.7	18.6	20.5	22.4
4. Tourism[4]	6,888	24.4	17.6	4.6	10.1	19.9	22.6	22.9	24.6	27.0
5. Shipping[4]	9,819	2.3	3.0	34.4	12.2	17.0	21.8	17.7	17.7	21.5
6. Non-monetary financial institutions[4]	8,169	-3.2	9.5	-29.7	34.7	14.2	14.2	18.1	16.4	1.2
7. Other sectors[4]	42,595	26.5	11.7	15.7	27.8	28.4	28.5	32.3	31.8	28.7
B. Households[6]	**113,609**	**28.8**	**30.2**	**30.6**	**26.7**	**23.2**	**22.1**	**21.7**	**19.6**	**17.0**
1. Housing loans	75,204	27.8	26.9	31.5	28.0	22.8	21.4	20.5	18.1	15.5
2. Consumer loans	35,483	25.0	38.4	30.4	23.7	22.6	22.4	23.3	22.1	20.6
– Credit cards	9,920	27.8	23.4	12.4	4.6	4.4	6.4	9.2	11.4	11.8
– Other consumer loans[7]	25,563	21.8	53.1	44.5	33.9	28.5	26.8	26.6	23.5	20.8
3. Other loans	2,922	135.7	18.8	11.5	30.5	42.2	35.6	34.1	30.7	12.6
Total	**240,860**	**19.1**	**19.6**	**20.1**	**21.3**	**21.2**	**20.9**	**22.1**	**21.6**	**20.1**

Source: Bank of Greece.
1 The quarterly average is derived from monthly averages (which are calculated as arithmetic means of two successive end-of-month figures) and is not the three-month average of end-of-month annual growth rates (see the Technical Notes in the "Euro area statistics" section of the ECB *Monthly Bulletin*).
2 Based on end-of-month levels.
3 Including the outstanding balances of securitised loans (and bond loans). Growth rates take into account loan write-offs.
4 Sectoral rates of change for 2003-2005 refer exclusively to bank loans, because of the lack of detailed data by economic activity sector regarding financing through corporate bond issuance. Rates of change do not take into account loan write-offs due to the lack of data.
5 Comprising manufacturing and mining/quarrying.
6 Comprising loans and securitised loans. Rates of change take into account loan write-offs.
7 Comprising personal loans and loans against supporting documents.

low rates observed in previous years (August 2008: 17.3%, 2007 Q4: 10.0%). Industrial firms absorbed 17.7% of credit expansion to all firms in the reviewed period.

The annual growth rate of **credit to trade firms** also sped up significantly in the first eight months of 2008, coming to 22.4% in August (2007 Q4: 16.9%). Trade firms absorbed 24.3% of new credit to all firms in this period.

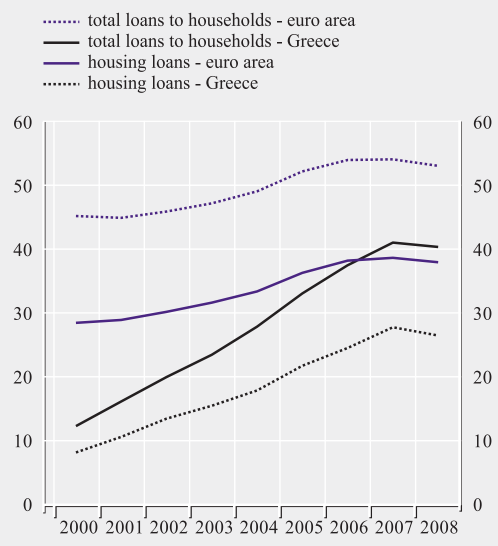
Furthermore, the annual growth rate of **financing to tourist firms** came to 27% in August 2008 (2007 Q4: 19.9%).

Credit expansion to shipping accelerated (August 2008: 21.5%, 2007 Q4: 17.0%),[10] while the rate of change in credit to firms in the "other sectors" remained relatively stable at high levels (August 2008: 28.7%, 2007 Q4: 28.4%). A significant part of this credit was extended to **construction, electricity-gas-water supply and communications-transport firms**. It should be noted that firms in the "other sectors" absorbed 44.4% of credit expansion to all firms in this period.

The annual growth rate of MFI **credit to households** has been declining since February 2006 and came to 17% in August 2008 (2007 Q4: 23.2%). Total household indebtedness (total MFI lending to households, including securitised loans) as a percentage of GDP stood at 46.4% in August 2008 (August 2007: 42.7%).[11] Net of securitised loans, household borrowing came to 40.3% of GDP in August 2008 (August 2007: 39.6%; see Chart VII.5), while this percentage for the euro area as a whole stood at 53.1% (August 2007: 53.2%).

Chart VII.5 Bank loans[1] to households in Greece and the euro area (2000–August 2008)

(percentage of GDP)[2]



Sources: Bank of Greece and ECB for outstanding loans, Eurostat for GDP.
1 Excluding securitised loans.
2 Estimates for the 2008 GDP.

Underlying the slowdown in the annual growth rate of household financing are mainly the continued rise in bank rates from historical lows, a moderation in households' consumption expenditure growth and a decrease in their housing investment, as well as a tightening of credit standards and financing terms by commercial banks.[12]

10 It should be noted, however, that most loans to the shipping sector are granted in US dollars, hence exchange rate developments had a dampening effect on this growth rate.
11 For the assessment of household indebtedness, see Box VII.1.
12 See footnote 7.

Box VII.1

HOUSEHOLD BORROWING: RESULTS OF THE 2007 BANK OF GREECE SURVEY

Following the country's entry in the euro area in 2001 and the full liberalisation of consumer credit in 2003, household borrowing increased strongly. Although household borrowing growth has been slowing in the past two years, it still remains quite robust. The fast increase in loans to households is mainly associated with higher bank liquidity over this period, the relatively low level of bank lending rates and increasing competition in retail banking. Although Greek households' total indebtedness as a percentage of GDP remains significantly lower than the euro area average (2007: Greece: 45.5%, euro area: 60.1%[1]), households' financial position needs to be monitored on an ongoing basis, in order to prevent household indebtedness from mounting to levels that would make the servicing of their loans difficult. To investigate household borrowing, the Bank of Greece in late 2007 repeated the Household Indebtedness Survey it had conducted in 2005 and 2002. The main results of the survey[2] are summarised below:

- Almost half of the surveyed households (48.6%) have no outstanding loan obligations. However, the percentage of households with outstanding debt (51.4%) is significantly higher than in 2005 (46.9%). This change would appear to be consistent with the fast increase in bank lending to households in the period between the two surveys.

- The most widespread category of credit to households is loans through credit cards, followed by housing loans. The percentage of indebted households under either category is increased relative to the previous surveys. Specifically, the percentage of households with credit card debts rose to 60.8% in 2007, from 54.4% in 2005 and 53.1% in 2002.

- As in the earlier surveys, the 2007 survey shows that average debt per household is positively related to income and wealth; this relation is particularly strong in the case of housing loans and weaker for the remaining loan categories as a whole. In this respect, the results of all three surveys indicate that low-income households have limited access to bank credit, and this access has become increasingly difficult over time. On the other hand, among total indebted households, the proportion of high-income households and the share of their debt in total household debt have been rising. This implies that banks are now better informed about the characteristics of their customers and focus on high-income customers. Strong credit growth has led to higher debt-to-income ratios (household indebtedness) across all income brackets. The indebtedness of households in the lowest income bracket is particularly increased and mainly relates to non-housing loans, although the share of these households' debt in total household indebtedness is very limited (2007: 1.9%).

- For most indebted households, the debt servicing-to-income ratio stands at generally acceptable levels, in the sense that the financial pressure exerted on these households does not, in principle, prevent them from regularly servicing their loans. However, financial pressure worsened somewhat between 2005 and 2007, since the percentage of households whose servicing costs do not exceed 1/3 of their income declined from 81% to 78% and the percentage of households whose servicing costs do not exceed 40% of their income dropped from 88% to 84%. This small deterioration is directly associated with increased bank interest rates. In any event, as already mentioned, the debt servicing ratio remains at overall relatively low levels. This reflects, *inter alia*, banks' more effective credit risk management and compliance with the Bank of Greece's instructions to adopt a longer-term and more prudent policy. It should be noted, however, that, although the percentage of households whose servicing costs exceeded 40% of their income in 2007 is limited (16%), their share in total household indebtedness is relatively high (36.6%). This is, to some extent, accounted for by non-mortgage loans and implies that banks have considerable leeway to improve credit risk

1 Including securitised loans. For the euro area, see ECB, *Financial Stability Review*, June 2008, p.72.
2 The full text of this survey ("Borrowing and financial pressure on households: Results of the 2007 sample survey") was published in May 2008 on the Bank of Greece website, http://bankofgreece.gr/announcements/files/19.5.200820%Daneismos%20noikokyrio%20%2008%20-%20Ereuna.doc.

management. The main conclusion drawn from the survey is that households must carefully weigh their financial requirements and capacity on the basis of their other obligations, as well as ask banks to point out (as they are obliged to) the special features of each loan and the risks it incorporates. This is all the more necessary in the current conjuncture, where financial market uncertainty is increased and rising interest rates affect loan servicing costs, especially for over-indebted or relatively low-income households.

The deceleration in household credit growth in the January-August 2008 period chiefly reflects a decline in the annual rate of increase in **housing loans** to 15.5% in August 2008, from 22.8% in the last quarter of 2007. This is partly associated with a drop in private building activity and a slowdown in the rate of increase in house prices in 2007 and the first few months of 2008.[13] Borrowers' shift towards housing loans with an initial rate fixation of over one year, which coincided with the ECB interest rate hikes at the end of 2005, continued in the first eight months of 2008. Thus, on average, 70% of housing loans granted in the January-August 2008 period (as in the corresponding period of 2007) had an initial rate fixation of over one year,[14] compared with a mere 25.2% in the corresponding period of 2006.

The rate of increase in **consumer loans** remained high in the period under review, decelerating only slightly (August 2008: 20.6%, 2007 Q4: 22.6%). This development reflects a slowdown in the growth rate of "other" consumer loans[15] (August 2008: 20.8%, 2007 Q4: 28.5%), which now account for more than 73% of total consumer loans. At the same time, loans through credit cards rose faster (August 2008: 11.8%, 2007 Q4: 4.4%). It should be noted that the most important category of new consumer loans with a defined maturity in the first eight months of 2008 is loans with an initial rate fixation of over 5 years, the share of which in total loans rose to 40.4% on average, from 22.6% in the corresponding period of 2007. As mentioned in previous Reports, given the upward trend of interest rates, borrowers prefer loans with longer initial rate fixation in order to avoid increased loan servicing costs.

3 BANK LENDING RATES, INTEREST RATE SPREAD AND SPREAD DIFFERENTIALS BETWEEN GREECE AND THE EURO AREA

In the January-August 2008 period, bank lending rates in Greece recorded an increase, observed mainly in July and associated with the rise in ECB key interest rates in early July. Greek banks' financing costs increased, mainly due to the growth of their time deposits (see Section 1.2 of this chapter); as a result, the rise in their lending rates was overall higher than in the euro area and the relevant differential widened slightly. The smallest interest rate increases both in Greece and in the euro area were observed in corporate loans and the largest ones in consumer loans. Housing loans rates increased more in Greece than in the euro area, but continue to be lower than in there (see Tables VII.5A-B and Chart VII.7).

Specifically, the average **interest rate on consumer loans** with a defined maturity rose by 63 basis points in the period January-August 2008 and stood at 9.03% in August. This development is mainly attributable to a significant increase[16] (of 116 basis points) in the interest rate on loans with a floating rate or an initial rate fixation of over one year, which account for about 25% of new consumer loans with a

13 The outlook of the housing market is also mentioned in the results of the April and July 2008 rounds of the Bank Lending Survey as a factor that negatively affected the demand for housing loans in this conjuncture.
14 The corresponding percentage in the euro area was 60% in the January-July 2008 period.
15 "Other" consumer loans comprise personal loans and loans against supporting documents.
16 Underlying this was, to a certain extent, the fact that this loan category includes floating rate loans, the benchmark rate of which in most cases is the interbank rate (EURIBOR), which increased in the period under review.

Table VII.5A Bank interest rates on new loans in the euro area and Greece

(percentages per annum)

	December 2007	July 2008	Change July 2008/ Dec. 2007 (in percentage points)	August 2008	Change Aug. 2008/ Dec. 2007 (in percentage points)
A. Loans with a floating rate or an initial rate fixation of up to one year					
A. 1 Loans up to € 1 million to non-financial corporations					
Weighted average interest rate in the euro area	6.08	6.26	0.18	...	...
Maximum interest rate	7.25	7.78	0.53	...	...
Minimum interest rate	5.51	5.70	0.19	...	...
Interest rate in Greece	6.83	7.03	0.20	7.11	0.28
Interest rate differential between Greece and the euro area	0.75	0.77	0.02	...	...
A.2 Loans of more than € 1 million to non-financial corporations					
Weighted average interest rate in the euro area	5.35	5.44	0.09	...	...
Maximum interest rate	6.53	6.57	0.04	...	...
Minimum interest rate	4.89	5.12	0.23	...	...
Interest rate in Greece	5.79	6.05	0.26	5.82	0.03
Interest rate differential between Greece and the euro area	0.44	0.61	0.17	...	...
A.3 Housing loans					
Weighted average interest rate in the euro area	5.32	5.66	0.34	...	...
Maximum interest rate	6.45	6.79	0.34	...	...
Minimum interest rate	4.76	5.02	0.26	...	...
Interest rate in Greece	4.76	5.30	0.54	5.34	0.58
Interest rate differential between Greece and the euro area	-0.56	-0.36	0.20	...	...
A.4 Consumer loans					
Weighted average interest rate in the euro area	8.05	8.77	0.72	...	...
Maximum interest rate	11.30	11.60	0.30	...	...
Minimum interest rate	5.51	6.23	0.72	...	...
Interest rate in Greece	7.66	9.21	1.55	8.82	1.16
Interest rate differential between Greece and the euro area	-0.39	0.44	0.83	...	...
B. Loans with an initial rate fixation of over one and up to 5 years[1]					
B.1 Housing loans					
Weighted average interest rate in the euro area	5.03	5.25	0.22	...	...
Maximum interest rate	6.30	6.76	0.46	...	...
Minimum interest rate	4.21	4.28	0.07	...	...
Interest rate in Greece	4.21	4.51	0.30	4.72	0.51
Interest rate differential between Greece and the euro area	-0.82	-0.74	0.08	...	...
B.2 Consumer loans					
Weighted average interest rate in the euro area	6.93	7.15	0.22	...	...
Maximum interest rate	11.79	12.21	0.42	...	...
Minimum interest rate	5.46	5.67	0.21	...	...
Interest rate in Greece	8.74	8.89	0.15	9.06	0.32
Interest rate differential between Greece and the euro area	1.81	1.74	-0.07	...	..

Sources: ECB and euro area NCBs.
1 Monthly average rates.

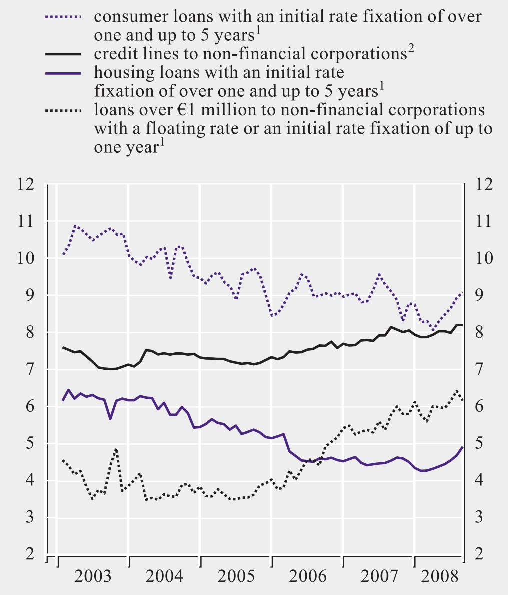
Table VII.5B Bank interest rates on new loans in euro area countries[1]

	New loans with a floating rate or an initial rate fixation of up to one year[1,2]								New loans with an initial rate fixation of over one and up to five years[2]			
	To non-financial corporations											
	Loans up to €1 million		Loans over €1 million		Housing loans		Consumer loans		Housing loans		Consumer loans	
	Dec. 2007	July 2008	Dec. 2007	July 2008	Dec. 2007	July 2008	Dec. 2007	July 2008	Dec. 2007	July 2008	Dec. 2007	July 2008
Austria	5.54	5.70	5.10	5.17	5.73	5.78	6.57	6.93	4.26	4.28	6.50	7.77
Belgium	5.89	5.93	5.20	5.33	5.26	5.76	6.98	7.52	5.18	5.13	7.52	7.92
Finland	5.73	5.87	4.89	5.35	4.92	5.42	5.85	6.23	5.03	5.61	6.14	6.55
France	5.82	6.07	5.00	5.51	5.01	5.16	8.03	7.87	4.77	4.87	6.93	7.09
Germany	6.55	6.36	5.47	5.38	5.97	6.18	5.51	6.47	5.33	5.43	5.46	5.67
Greece	6.83	7.03	5.79	6.05	4.76	5.30	7.66	9.21	4.21	4.51	8.74	8.89
Ireland	6.75	6.80	6.53	6.40	5.07	5.45	6.81	7.07	...[4]	...[4]	...[4]	...[4]
Italy	5.98	6.15	5.21	5.39	5.48	5.63	11.30	11.60	4.99	5.67	7.91	8.36
Luxembourg	...[3]	5.87	...[3]	5.20	4.83	5.02	...[3]	...[3]	...[3]	...[3]	6.29	6.28
Netherlands	5.51	5.71	5.22	5.12	5.41	5.58	9.09	11.20	5.19	5.37	...[3]	...[3]
Portugal	7.25	7.78	5.72	6.33	5.18	5.62	7.82	8.44	...[4]	...[4]	11.79	12.21
Slovenia	6.40	6.83	5.96	6.57	6.45	6.79	7.23	7.56	6.30	6.76	7.62	8.05
Spain	5.96	6.26	5.33	5.59	5.35	5.76	10.24	10.77	5.65	6.13	8.86	9.50

Sources: ECB and euro area NCBs.
1 Despite the efforts to harmonise statistical methodologies across the euro area, a considerable product heterogeneity remains in terms of instrument characteristics and volumes; this partly reflects differences in national conventions and practices, as well as regulatory and fiscal arrangements (e.g. see ECB, "Differences in MFI interest rates across euro area countries", September 2006, Table 2, showing that consumer loans without agreed maturity, which include credit cards, represent a much higher share – 53% – in Greece compared with the euro area average of 15%).
2 Monthly average rate.
3 In these interest rate categories, the volume of loans is very small.
4 No data on the respective interest rates are published in these countries.

Chart VII.6 Bank interest rates on new loans in Greece (January 2003–December 2008)

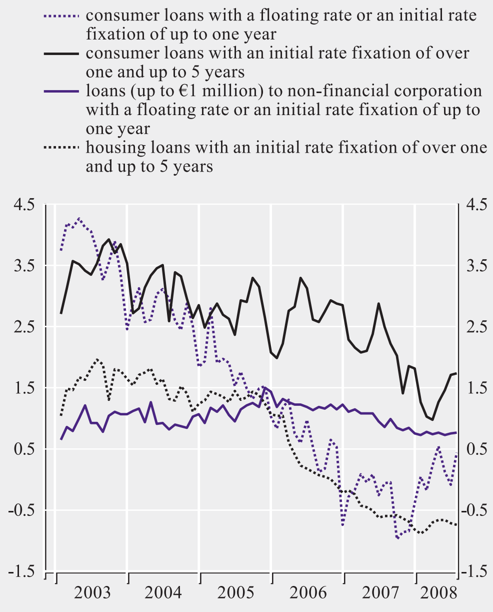
(percentages per annum)



Source: Bank of Greece.
1 Monthly average rate.
2 End-of-month rate.

Chart VII.7 Bank interest rates on new loans: differentials between Greece and the euro area (January 2003–July 2008)

(percentage points)



Sources: Bank of Greece and ECB.

defined maturity[17] (see Table VII.5A). In the other two loan categories with a defined maturity (those with an initial rate fixation of over one and up to five years and with an initial rate fixation of over five years), interest rates rose much less (by 32 and 26 basis points, respectively). In the January-July 2008 period, the differential between Greek and euro area rates widened in the category of loans with a floating rate or an initial rate fixation of up to one year, while it narrowed in the other two categories (see note 3 to Table VII.2A). As regards loans without a defined maturity, interest rates increased more in Greece than in the euro area (by 51 and 18 basis points, respectively); as a result, the interest rate differential widened by 33 basis points. As stated in previous Reports, loans of this category in Greece are mainly obtained through credit cards. Because of the increased administrative costs and the high credit risk involved, their interest rate is high (August 2008: 16.18%) and rose by 87 basis points in the reviewed period.

An increase was also observed in **housing loan rates** in the January-August 2008 period. Specifically, the average interest rate on housing loans rose by 53 basis points and stood at 4.98% in August, reflecting interest rate increases of 51 and 58 basis points, respectively, in both the most important category (loans with an initial rate fixation of over one and up to five years – see Table VII.5A and Chart VII.6) and the second largest category of housing loans (those with a floating rate or an initial rate fixation of up to one year). The corresponding euro area rates increased less

17 It should be noted that in 2007 this loan category was the most important among consumer loans with a defined maturity. However, in the first four months of 2008, its share in total loans declined, while an increase was observed in the shares of loans with an initial rate fixation of over one and up to five years and loans with an initial rate fixation of over five years (which have the largest share, about 40% – see also Section 2 of this chapter).

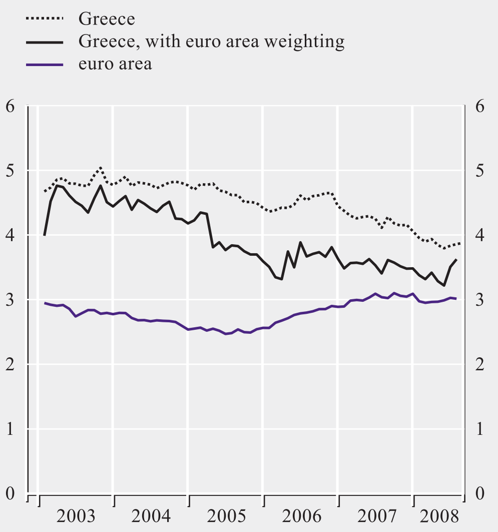
in the period January-July 2008. However, the Greek rates continued to be lower in July (by 74 and 36 basis points, respectively). The fact that these interest rates are affected more by interbank rate hikes both in Greece and in the euro area may be attributed to reduced risks facing banks, mainly due to the real estate collateral associated with such loans, as well as to banks' expectations about liquidity conditions and the cost of capital over the longer term.

The weighted average **interest rate on loans to non-financial corporations** in Greece rose by 11 basis points in the January-August 2008 period and stood at 6.76% in August, reflecting the upward course of interest rates on loans without a defined maturity and loans of up to €1 million with a floating rate or an initial rate fixation of up to one year, which increased by 22 and 28 basis points respectively. The interest rate on corporate loans of over €1 million with a floating rate or an initial rate fixation of up to one year remained virtually unchanged. A rise, albeit relatively smaller, was also observed in the corresponding euro area rates in the January-July 2008 period; as a result, their differential over Greek rates widened slightly. The largest differential between Greek and euro area interest rates (105 basis points in July) was observed in loans without a defined maturity, which account for a significant part (37%) of total corporate loans.[18]

The **interest rate spread**, i.e. the difference between the weighted average rate on total new bank loans and the corresponding rate on new deposits, narrowed further (by 18 basis points) in the January-August 2008 period (August: 388 basis points). This is due to the fact that deposit rates increased more than lending rates. It should be recalled that, from December 1998 to August 2008, the interest rate spread narrowed by 421 basis points. Moreover, although the corresponding euro area spread decreased less (by 8 basis points) in the January-July 2008 period, it stood (as in 2007) at lower levels (July 2008: 301 basis points) than the spread in Greece (see Table VII.6 and Chart VII.8).[19] The reasons why interest rate spreads differ across the euro area have already been discussed in detail in previous Bank of Greece reports.[20] In the case of Greece, one of the most important factors is the different composition[21] of both deposits and loans. Had the composition of loans and deposits in Greece been the same as in the euro area, the interest rate spread in Greece would have been 23 basis points lower (363 basis points) and its differential over the corresponding euro area rate would have declined to about 3/4 (to 62 basis points).

Chart VII.8 Average interest rate spread between new loans and new deposits in Greece and the euro area (January 2003–August 2008)

(percentage points)



Sources: Bank of Greece and ECB.

18 The bulk of these loans consists of credit lines.

19 According to Bank of Greece calculations. For similar ECB calculations, see "Differences in MFI interest rates across euro area countries", September 2006.

20 In greater detail, the reasons why the Greek interest rate spread is wider are associated with inherent characteristics of the domestic banking system, such as higher operating costs of Greek banks; the relatively large number of small depositors and borrowers; higher borrowing costs for Greek banks in the interbank market; a higher non-performing loans to total loans ratio; and the longer time required for the realisation of collateral.

21 The share of households' overnight deposits is larger in Greece than in the euro area. As regards loans, the share of credit cards is bigger in Greece, while this category is not important in the euro area.

Table VII.6 Interest rate spread in Greece and the euro area[1]

(percentages per annum)

	Average interest rate on new loans in Greece	Average interest rate on new deposits in Greece	Interest rate spread in Greece (percentage points)	Interest rate spread in Greece with euro area weighting (percentage points)	Interest rate spread in the euro area (percentage points)
Dec. 1998	16.21	8.12	8.09	...	...
Dec. 1999	14.02	6.98	7.04	...	...
Dec. 2000	9.68	4.00	5.68	...	...
Dec. 2001	7.26	1.96	5.30	...	...
Dec. 2002	6.38	1.67	4.71	...	...
Dec. 2003	5.95	1.17	4.78	4.45	2.77
Dec. 2004	5.98	1.21	4.77	4.18	2.53
Dec. 2005	5.73	1.30	4.43	3.59	2.56
Dec. 2006	6.36	1.91	4.45	3.63	2.89
Dec. 2007	6.68	2.62	4.06	3.48	3.09
July 2008	7.03	3.17	3.86	3.63	3.01
Aug. 2008	7.05	3.17	3.88	...	...

Sources: Bank of Greece and ECB.
1 Since September 2002 banks submit new, more detailed interest rate series on the basis of the single methodology followed by all euro area countries. Interest rate data for the pre-2002 period have been adjusted and reassessed in order to be comparable with the new data. It should also be noted that the average interest rate on deposits underestimates the cost of money, as it does not fully reflect banks' increased cost of funding through the interbank market at relatively high interest rates.

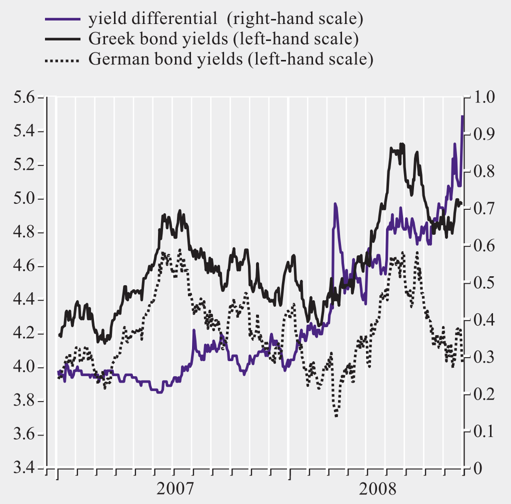
4 THE BOND MARKET

The international financial turmoil that began in 2007 continued to affect capital markets in the January-September 2008 period. This led to a considerable increase in Greek government bond yields on the secondary market until the end of June 2008, which, however, moderated visibly in the next three months (see Chart VII.9). This path of Greek bond yields was in line with similar developments in the euro area bond markets.

Yields in the first half of 2008 rose more in short-term bonds and this increase is associated with stronger inflationary pressures due to a considerable rise in oil and food prices in this period, as well as with expectations about increases in ECB interest rates. However, in the July-September 2008 period, estimates about a slowdown in the euro area economic activity and expectations of a slight decline in inflationary pressures had a downward effect on bond yields.[22]

Chart VII.9 Yields on the 10-year Greek and German government bonds (January 2007–September 2008)

(daily data; yields in percentages per annum, yield differential in percentage points)

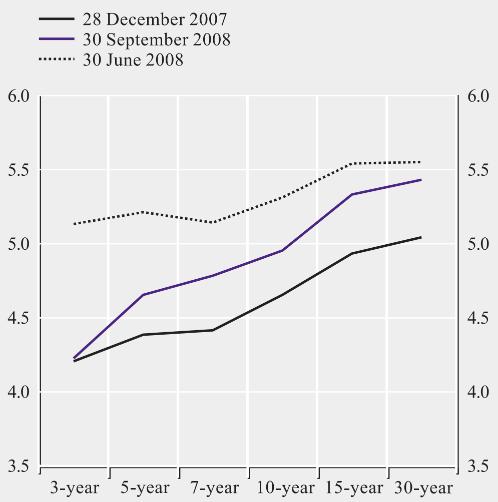


Source: Bank of Greece.

22 Specifically, this decline was more marked in three-year bonds, almost offsetting the increase recorded in the first half of the year.

Chart VII.10 Greek government paper yield curves

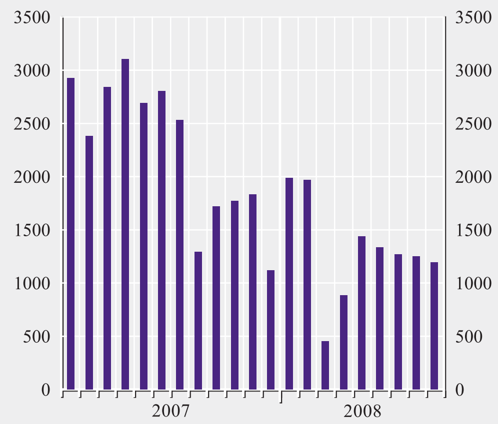
(yields in percentages per annum)



Source: Bank of Greece.

Chart VII.11 Average daily value of transactions in the Electronic Secondary Market for Securities (HDAT) (January 2007–September 2008)

(million euro)



Source: Bank of Greece.

In line with these developments, the Greek government bond yield curve reached the highest levels of 2008 and a six-year high in June 2008, while at end-September it fell to a level higher than at end-2007 (see Chart VII.10). The slope of the yield curve became steeper in the reviewed period, since the yield spread between 10- and 3-year bonds widened by 28 basis points and stood at 73 basis points at end-September.[23]

Moreover, the yield on the Greek 10-year government bond rose to 4.96% at end-September 2008, up by 30 basis points year-on-year (see Chart VII.9). The yield spread between the 10-year Greek and the corresponding German bond widened considerably, as was the case with the bonds of other euro area countries,[24] and stood at 95 basis points at end-September 2008, compared with 29 basis points at end-December 2007 (see Chart VII.9).[25]

Volatility in the **secondary market for Greek government paper**,[26] which reflects the degree of investor uncertainty, was particularly heightened in the January-September 2008 period and remained well above the last six years' average, a development also observed in the euro area bond markets.

The average daily value of transactions in the Electronic Secondary Market for Securities (HDAT) declined significantly in the reviewed period, to €1.3 billion,[27] i.e. to about half the fig-

23 Until mid-September, the yield curve flattened worldwide, leading to shifts from long-term to shorter-term assets, which offer high yields and higher liquidity. See, in this connection, Section 1.1 of this chapter and the introductory statement of the President of the European Central Bank, Mr. Jean-Claude Trichet, in the press conference of 4 September 2008.

24 In the reviewed period, yield spreads between the bonds of other euro area countries (such as Italy, Belgium, the Netherlands, Spain and France) and the corresponding German bonds also widened considerably, reaching or exceeding the highest levels observed since the accession of these countries to the Economic and Monetary Union. This increase may be attributed to the fact that, because of the uncertainty prevailing in the reviewed period, investors shifted mainly to bonds of countries with better credit ratings (lower credit risk) and a higher degree of liquidity, such as German bonds. See, in this connection, "Recent developments in government bond yield spreads", ECB, *Monthly Bulletin*, May 2008.

25 If these two bonds had the same date of issuance and maturity, the spread would have been 101 basis points at end-September 2008, from 29 basis points at end-December 2007.

26 As measured by the standard deviation in daily yields on the 10-year bond.

27 However, the average daily value of transactions through the Dematerialised Securities System of the Bank of Greece (which, in addition to HDAT transactions, includes over-the-counter transactions between banks and their customers) rose to €21.4 billion in the reviewed period, from €19.5 billion in the corresponding period of 2007.

Table VII.7 Greek government paper issuance

	January - September					
	2007			2008		
Type of security	Million euro	Percentage of total		Million euro	Percentage of total	
Treasury bills	*1,176*	*3.9*		*1,801*	*5.6*	
Bonds[1]	*29,314*	*96.1*	*100.0*	*30,111*	*94.4*	*100.0*
3-year	-		-	7,052		23.4
5-year	6,178		21.1	6,004		19.9
10-year	9,222		31.5	5,891		19.6
15-year	6,460		22.0	3,457		11.5
23-year	3,470		11.8	3,966		13.2
30-year	3,984		13.6	3,741		12.4
Total	**30,490**	**100.0**		**31,912**	**100.0**	

Source: Ministry of Economy and Finance.
1 By initial maturity as regards the reopening of past issues.

ure in the corresponding period of 2007 (see Chart VII.11). The average bid-ask spread of bonds rose to 22.9 basis points in September 2008, from 9.7 basis points in December 2007, reflecting tight liquidity conditions and investors' general risk aversion because of the financial market turmoil.[28]

In the January-September 2008 period, interest rates rose in the **primary market for Greek government paper**,[29] in line with developments in yields on the secondary market. Higher interest rates adversely affect new government bond issues and increase the servicing costs of floating-rate bonds.

Funds raised through the primary market in the reviewed period came to €32 billion,[30] slightly up year-on-year (see Table VII.7).[31,32] Specifically, the government issued new reference bonds maturing in 10 years through syndication and in 3 years through auction procedures. Moreover, 3-, 5- and 10-year bonds were reopened using auction procedures and 30-, 15- and 23-year[33] bonds were reopened through syndication. Moreover, Treasury bills were issued through auction procedures in the reviewed period, remaining low and accounting for about 6% of the total issuance value (see Table VII.7).[34]

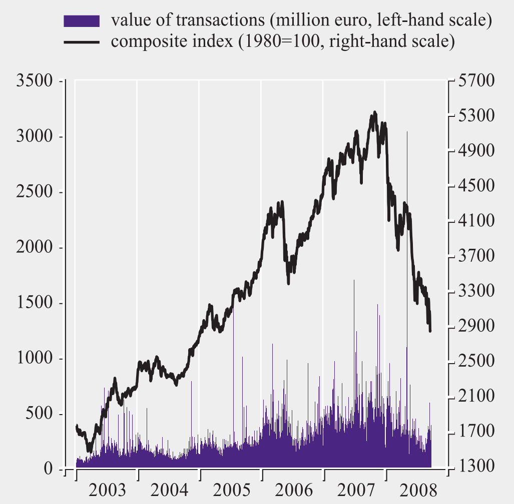
5 THE STOCK MARKET

Developments in the Athens Exchange (Athex) in the January-September 2008 period were mainly characterised by a marked decline in share prices, limited fund raising and sustained relatively high levels of transactions value (see Chart VII.12).

28 The substantial widening of this spread is due to the fact that, because of the adverse conditions prevailing in the secondary market, bid-ask spreads allowed by the HDAT regulations increased significantly according to the maturity of the traded instruments.
29 By way of illustration, the weighted average interest rate on Treasury bills with a 52-week maturity increased to 5.09% in September 2008, from 3.94% in 2007, while the corresponding interest rate on 5-year Treasury bills rose to 4.80% in the same month, from 4.21% in 2007.
30 In the January-August 2008 period, redemptions of Greek Treasury bills/government bonds and interest payments stood at €20.9 billion and €7.4 billion respectively, compared with €19.3 billion and €7 billion in the same period of 2007.
31 Total funds to be raised by government in 2008 through bond issuance are expected to exceed €38 billion, compared with €35 billion in 2007.
32 Moreover, the Greek government made use of the existing flexible Euro Commercial Paper programme in order to cover contingency cash requirements between the above scheduled issues. This programme offers the issuer the opportunity for immediate securities issuance, on a fixed or floating rate, in euro or other currencies, with a maturity of 1 to 365 days and on money market terms.
33 It is an index-linked reference bond, linked to the euro area Harmonised Index of Consumer Prices (excluding tobacco).
34 Moreover, according to balance of payments statistics, net capital inflows from abroad for purchases of Greek government paper reached €17 billion in the January-July 2008 period, compared with €16.4 billion in the corresponding period of 2007.

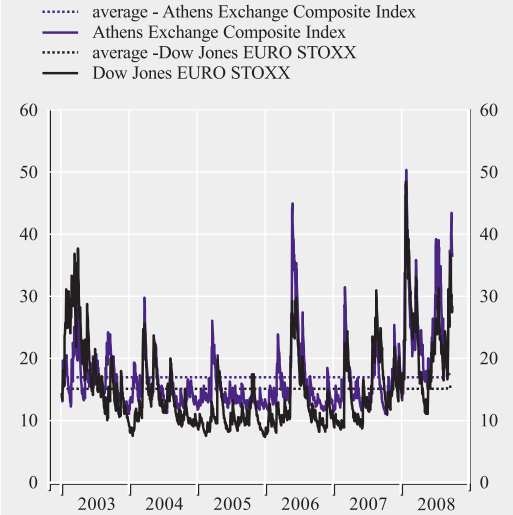
Chart VII.12 Athens Exchange: composite share price index and value of transactions (January 2003–September 2008)

(daily data)



Source: Athens Exchange.

Chart VII.13 Volatility of the Athens Exchange Composite Index and of Dow Jones EURO STOXX (January 2003–September 2008)



Source: Bank of Greece.

From end-December 2007 to end-September 2008, the Athex composite share price index declined by 44.8%, reflecting developments in most stock markets worldwide. Over the same period, the medium capitalisation index performed worse (-48.0%) than the Athex share price index, while the large and small capitalisation indices performed better (-43.1% and -42.8%, respectively).

Underlying the fall in **share prices** worldwide were investors' increased uncertainty and concerns about the potential intensity and length of the impact of the financial turmoil and the rise in international oil and food prices on the real economy and business profitability.[35] These developments in international markets have inevitably affected share prices in Greece, because of the increased internationalisation of the Greek stock market.[36] The Athex composite share price index dropped much more than the Dow Jones Euro Stoxx index (-31.9%)[37] and the Standard and Poor's 500 index (-20.6%).[38] The decline in the Athex composite index in the reviewed period was the third largest in the euro area, following the corresponding indices of Cyprus and Slovenia.

Investors' serious concerns about increased risks in international markets led to a constant reassessment of risk factors and, therefore, of investment choices, with a view to minimising perceived risks. This attitude is also reflected

35 According to forecasts by international analysts, the profitability of European firms is expected to decrease by 14% in 2008, while a further slowdown is expected for 2009. In Greece, the (consolidated) net profits of Athex-listed non-financial corporations declined by around 20% in the first half of 2008, compared with the same period of 2007, since they were affected by the increased cost of production, the appreciation of the euro (which adversely affected exports), as well as the entry of extraordinary revenue in 2007 and extraordinary expenditure in 2008 in their income statements.

36 According to Central Securities Depository data, foreign investors have been steadily holding over 50% of the market capitalisation of the Athex shares since March 2007 (August 2008: 51.4%), while this percentage is close to 60% for large capitalisation shares (August 2008: 57.5%). Almost 70% of foreign investors are institutional ones. However, in the January-August 2008 period, foreign investors' holdings of Athex shares recorded net outflows of €1.7 billion.

37 It should be noted that, even at sectoral level, on the basis of the relevant selection of sectors set out by the ECB in its *Monthly Bulletin*, share prices of the basic sectors of the Athex (other than constructions) dropped more than those of the corresponding euro area sectors, while they all performed negatively both in Greece and in the euro area.

38 Expressed in euro terms, the Standard and Poor's 500 index declined by 17.3%.

Table VII.8 Fund-raising through the Athens Exchange

Business sector	Number of firms		Funds raised (million euro)[1]	
	January-August		January-August	
	2007	2008*	2007	2008*
Listed companies	13	8	1,615.7	409.6
Newly listed companies	2	6	146.7	7.3
Total	**15**	**14**	**1,762.4**	**416.9**
– Bank	1	-	519.0	0.0
– Insurance	1	-	18.6	0.0
– Construction	1	2	34.8	11.2
– Chemicals	1	-	2.1	0.0
– Commercial	1	2	1.6	17.1
– Personal and household goods	2	1	13.4	30.1
– Healthcare	2	-	65.4	0.0
– Information technology	1	2	6.0	301.3
– Travel and recreation	2	1	236.8	16.7
– Other	3	6	864.7	40.5

Sources: Athens Exchange and Bank of Greece.
* Provisional data.
1 Capital increases through public offerings and private placements. Subscriptions to the capital increase are entered on the last day of the public offering period.

in the evolution of the volatility of share prices on the Athex composite index[39] and the Dow Jones Euro Stoxx, which surged in the reviewed period and stood at levels overall higher than the past five-year average (see Chart VII.13).[40]

As regards other key Athex aggregates, the average daily value of **transactions** in the reviewed period (€351 million) declined by about 24% compared with the same period of 2007 (see Chart VII.12); however, if account is taken of the significant drop in share prices, it recorded an increase at constant prices. It should be noted that the bulk of transactions concerned large capitalisation shares (95%) and the high capitalisation index (80%).

Funds raised through the stock market were relatively low, a phenomenon also observed in international markets. Specifically, in the January-August 2008 period (for which there are available data), funds raised stood at €417 million, down by 76% year-on-year (see Table VII.8). These funds related to 14 companies (January-August 2007: 15 companies), of which 5 made initial public offerings (IPOs) and raised €7 million (January-August 2007: 2 companies, €147 million).[41]

The share prices of the banking sector,[42] which dropped by 45.1% in the January-September 2008 period, were adversely affected by investors' reduced risk appetite worldwide, especially regarding shares of this sector, and, to a smaller extent, by a decrease in bank profitability in the first half of 2008.[43] This drop in share prices was

39 The GARCH specialised econometric model was used to estimate volatility and was applied to daily observations data over the period January 2003-September 2008.
40 Indeed, in certain time periods, volatility stood at higher levels than in the first quarter of 2003, i.e. when the previous cyclical downturn in stock markets worldwide was completed.
41 It should be noted that the significant difference observed between 2007 and 2008 in funds raised through IPOs by firms is actually due to the fact that, in 2008, 5 new firms listed their shares on the Alternative Market, i.e. the new Athex market that was launched in early 2008, on which the shares of very small developing companies are traded.
42 The market capitalisation of this sector accounts for approximately 43% of the market as a whole.
43 Specifically, according to figures for the first half of 2008, the net profits of Athex-listed banking groups declined by 15.7%. It should be noted, however, that this decline is considerably reduced to 5.5% if account is not taken of the extraordinary (one-off) results of the corresponding period of 2007 and is mainly due to the results from financial operations, since interest and commission income rose by 17.2% and 3.8% respectively.

higher than that in the euro area bank share prices (-38.9%), although Greek banks still have only an indirect and limited exposure to financial risks associated with the financial turmoil, as well as relatively satisfactory capital adequacy.

Lastly, at the institutional level, the new Athex "Alternative Market" was launched on 21 February 2008 and the shares of six firms have already been listed thereon. Moreover, the shares/units of the first Exchange Traded Fund, which reproduces the composition of the FTSE/ATHEX 20 share price index, have been traded on the Athex since 24 January 2008.

Box VII.2

THE STABILITY OF THE GREEK BANKING SYSTEM

1. Introduction

The continued turmoil in financial markets, persistent inflationary pressures and the deceleration of economic activity worldwide have adversely affected the determinants of the stability of the international banking system. However, the Greek banking system remains fundamentally sound, secure and stable for the following reasons:

- Over 92% of loans by Greek banking groups are financed by deposits (June 2008 data). Therefore, Greek banking groups rely less on the money market, where the cost of money has increased substantially, and on capital markets, which are underperforming at the present conjuncture.

- The profitability and capital adequacy of the Greek banking system were affected significantly less than those of most banks worldwide, because of the limited exposure of Greek banks to assets directly or indirectly associated with the turmoil. Greek banking groups did not have reasons to invest in toxic financial products, given that, in the very favourable environment in which they operate (both in Greece and in the greater Southeastern Europe region), they had important opportunities of profitable growth.

- Greek banking groups have a strong capital base and relatively low leverage, since the ratio of assets to own funds is only 14.5 (June 2008 data).

- The Bank of Greece is vigilant in the face of increased risks: it very carefully monitors and assesses developments to safeguard the interests of all persons transacting with banks. It has also required banks to take all necessary measures and implement appropriate policies to ensure stability.

The stability of the Greek banking system has been enhanced in recent years, owing to a tightening of credit standards, continuous examinations by the Bank of Greece and increased own funds, especially Tier I capital. Bank profitability, despite being sensitive to cyclical effects, has also boosted own funds.

Due to the aforementioned turmoil, the profitability of Greek commercial banks and groups declined in the first half of 2008, while a small drop was observed in their capital adequacy ratios, which was also due to the calculation, for the first time, of capital requirements for operational risk. Credit risk from loans to households increased marginally, while market risk showed a small rise, reflecting heightened volatility in international financial markets. On the basis of the relevant supervisory ratios, Greek banks' liquidity remained satisfactory. However, the cost of raising funds to finance credit growth has increased, as interbank interest rates worldwide stand at higher levels than central banks' key interest rates. Lastly, the Bank of Greece continuously monitors the implementation of the new supervisory framework "Basel II" and, therefore, the determination of the assumptions[1] used by banks in their risk management systems. The degree of banks' adaptation to best risk management practices is assessed on an individual basis.

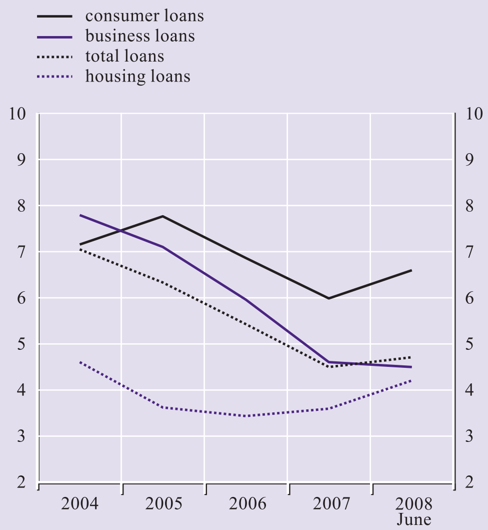
2. Banking risks

2.1 Credit risk

The quality of Greek banks' private sector loan portfolios deteriorated slightly in the first half of 2008, as indicated by a small increase in the non-performing loans (NPL) to total loans ratio[2] (June 2008: 4.7%, December 2007: 4.5%), which is solely attributable to loans to households. By contrast, the corresponding ratio for corporate loans improved slightly (see Chart A). However, if the NPL ratios had been calculated on the basis of the new provisions now in force,[3] the ratio of NPLs to total loans would have stood at 4.3% in the first half of 2008, from 4.2% at the end of 2007.[4] At the same time, the coverage ratio of provisions to NPLs declined (June 2008: 48.9%, December 2007: 53.4%) and the ratio of net NPLs[5] to supervisory own funds rose (June 2008: 20.7%, December 2007: 16.8%).

Chart A Ratio of non-performing loans to total loans by Greek commercial banks

(percentages)



Source: Bank of Greece.

The slowdown in the growth of housing loans, which had reached high levels in the past few years, is expected to push up the NPL ratio (this effect[6] is essentially technical, due to a slowdown in the growth rate of these loans). Moreover, it will probably lead to an increase in expected losses from these loans, since it is estimated that the ability of households to service their loans may decline because of increased borrowing costs and slower income growth.[7] This is why banks must keep the housing loan-to-value ratio at reasonable levels. They must also ensure that, when granting new loans, the households' debt-to-income ratio does not exceed the levels recommended by the Bank of Greece.[8]

In addition, the share of foreign-currency-denominated housing loans in total housing loans recorded a further, albeit small increase (July 2008: 8.1%, December 2007: 6.9%). This, in line with the standing

1 Indicatively, assumptions on macroeconomic aggregates, prices and their fluctuation in money and capital markets.
2 However, in the first half of 2008 loan write-offs declined by 33% year-on-year and stood at €348 million.
3 See Law 3601/1 August 2007 and Bank of Greece Governor's Acts 2587-2595 and 2596/20 August 2007 ("Basel II"), in which non-performing housing loans are defined as loans overdue by more than six months.
4 According to estimates, for medium-sized banks in countries that do not apply the International Financial Reporting Standards (IFRS) the NPL ratio stood slightly below 3%.
5 Net NPLs are defined as total NPLs overdue by more than 90 days minus cumulative provisions.
6 Banks must take this effect into account when they determine their targeted NPL ratio.
7 This decline is partly due to an increase in the households' debt-to-income ratio, especially for households in the lowest income brackets. For details, see Box VII.1.
8 See Bank of Greece Governor's Acts 2564 and 2565/11 October 2005.

instructions of the Bank of Greece, makes it imperative for banks to inform their customers in detail not only about the standard features of the loans and the obligations they undertake, but also about the foreign exchange risk inherent in borrowing in foreign currency. Banks should also take these risks into account when setting their pricing and credit policies. A *fortiori*, a similar treatment is required for foreign-currency-denominated loans granted by Greek banks' subsidiaries and branches abroad (which, in this case, make up a significant percentage of total loans).

In conjunction with the implementation of the new capital adequacy framework ("Basel II")[9] and in the face of the continued expansion of Greek banks both in the domestic and in foreign markets, the Bank of Greece has required banks, when planning and updating their policies, to take into consideration the conclusions drawn from the financial turmoil and the ascertained difficulties in managing all bank risks and not only those related to Pillar 1.[10] These points are all the more important in the present conjuncture because of the ongoing strong turmoil in financial markets, as well as the new conditions emerging in the international economic and regulatory environment.[11] Specifically, it should be taken into account that the ability of households and enterprises to service their loans both in Greece and in other countries where Greek banks are active is likely to be adversely affected. This development may result from:

- increased borrowing costs, due to credit risk repricing worldwide, as well as banks' increased costs for raising new capital; and

- the slowdown in the growth of economic activity and incomes.

For activities in countries involving foreign exchange risk, account should also be taken of the volatility of exchange rates, especially in countries with very high current account deficits, as these are also vulnerable to any abrupt exchange rate movements. The Bank of Greece assesses these factors, as well as the Capital Adequacy Ratio margin under Pillar 2, and calls upon banks to adapt their policies in order to minimise the risk of serious adverse effects.

2.2 Liquidity and market risks

In the reviewed period, the Greek banking system's liquidity ratios recorded a small decline but remained at satisfactory levels, implying that the banking system is resilient in the current adverse international conjuncture. At end-June 2008, the liquid asset ratio[12] stood at 21.7% (December 2007: 23.2%) and the asset/liability maturity mismatch ratio[13] at -3.8% (December 2007: -2.8%), compared with regulatory minimums of 20% and -20% respectively.[14] In addition, despite relatively strong credit growth, the loan-to-deposit ratio recorded a small increase only, both at bank level (June 2008: 102.0%, December 2007: 100.1%) and at group level (June 2008: 108.4%, December 2007: 105.6%), remaining well below the corresponding ratio of euro area banking groups (December 2007: 125%). This reflects the fact that Greek commercial banks have focused on

9 For a detailed discussion of this framework, which attaches more significance to the risks assumed, see Bank of Greece, *Monetary Policy 2007-2008*, February 2008 (Chapter III.4 and Box III.1), and *Monetary Policy 2007-Interim Report*, October 2007 (Chapter III.4).
10 Risks not covered by Pillar 1 include bank portfolio interest rate, concentration, liquidity, goodwill and legal risks.
11 These factors also argue in favour of the adaptation of the liquidity management policy.
12 Defined as the ratio of liquid assets with a maturity of up to 30 days to total borrowed funds with a maturity of up to one year.
13 Defined as the ratio of the net difference between assets and liabilities with a maturity of up to 30 days to total borrowed funds with a maturity of up to one year.
14 However, for certain banks, the liquid asset ratio stands slightly below the supervisory minimum and the Bank of Greece has asked them to increase their liquidity. In this connection, account should also be taken of the changes in the relevant regulatory framework, especially those relating to banks' refinancing by the Eurosystem.

attracting deposits since the end of 2007, albeit at higher cost, as shown by the April and July 2008 rounds of the Bank Lending Surveys conducted by the Eurosystem. Especially for liquidity risk, the Bank of Greece conducted a liquidity stress test at the end of 2007.[15] This test was conducted on the basis of a highly unlikely but plausible worst-case scenario and showed that, at system level, the liquid asset ratio falls considerably short of the regulatory minimum of 20% (as is natural given the extremely adverse assumptions of the scenario), but banks continue to be able to meet their short-term obligations. It should also be noted that the assumptions of this scenario do not take into account the ability of banks to resort to the ECB for additional financing by making use of the high-quality collateral they are able to provide. It is expected that banks will decide to integrate the results of these stress tests into the planning of their operational strategy.

Lastly, during the reviewed period, volatility in international money and capital markets was significantly increased and pushed up market risk.[16] At group level, a rise was recorded in risk-weighted assets for market risk in June 2008 compared with end-2007, while a decrease was recorded at bank level.

3. Profitability and capital adequacy

The satisfactory profitability of banks helps them considerably strengthen their capital base and maintain the necessary margin to counter the aforesaid adverse developments.

3.1 Profitability

The pre-tax profits of Athex-listed banks declined considerably in the first half of 2008 compared with the same period of 2007, both at bank (-27.3%) and at group level (-15.7%). This is mainly accounted for by the substantial windfall profits[17] recorded in the first half of 2007 (base effect). For reasons of comparability, if these profits were not taken into account, the decrease in pre-tax profits in the reviewed period would fall to 16.2% at bank and 5.5% at group level. Profitability was adversely affected by (i) net losses from financial operations and the valuation of banks' trading portfolios,[18] (ii) a decrease in the net interest rate margin at bank level (January-June 2008: 2.3%, January-June 2007: 2.6%), reflecting both stronger competition for attracting deposits (mainly time deposits) and higher financing costs in international money and capital markets, and

15 See Bank of Greece, *Annual Report 2007*, Box X.1.
16 This is also confirmed by banks' value-at-risk data reported to the Bank of Greece.
17 Profits from discontinued activities and other investment.
18 Losses from the valuation of this portfolio stem mainly from shares and, to a lesser extent, bonds.

Athens-Exchange-listed Greek commercial banks and groups: profitability ratios and efficiency ratio

(percentages)

	Banking groups		Banks	
	Jan.-June 2008	Jan.-June 2007	Jan-June 2008	Jan.-June 2007
Return on assets (after tax)	1.1	1.7	0.7	1.3
Return on equity (after tax)	15.7	22.5	11.7	20.1
Efficiency ratio	52.8	49.0	53.9	47.7

Source: Bank of Greece.

(iii) a rise in impairment losses (i.e. provisions for credit risk) of 19.2% at bank and 23.9% at group level, a development observed in the euro area banking sector in general. Overall, operating income grew less than operating costs.[19]

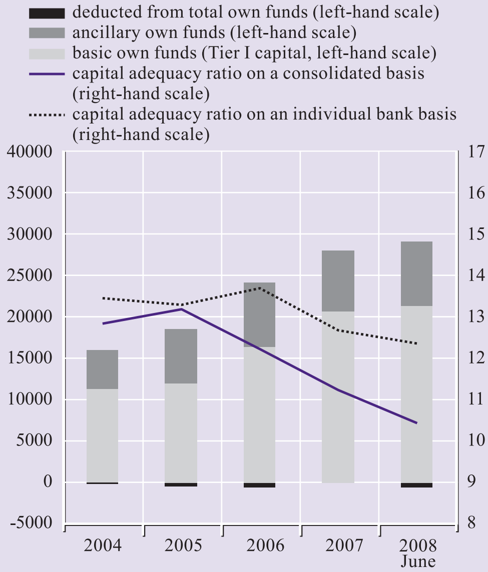
These developments contributed to a decline in profitability ratios (return on equity – ROE —and return on assets— ROA)[20] and the efficiency ratio,[21] both at bank and group level (see the table), a trend also observed in large euro area banking groups for which comparable data are available.

3.2 Capital adequacy

In the reviewed period, the Capital Adequacy Ratio (CAR) and the Tier I capital ratio dropped to 10.4% and 8.7% at end-June 2008, from 11.2% and 9.2% in December 2007 respectively (see Chart B). It should be noted that at end-June the CAR stood close to that of EU banking groups, while the Tier I ratio was higher (11.4% and 8.1%, respectively), implying that the banking system is capable of dealing with external shocks.

Chart B Breakdown of supervisory own funds (on an individual basis) and evolution of capital adequacy of Greek commercial banks

(million euro)



Source: Bank of Greece.

This decline in the CAR and the Tier I ratios was partly due to the implementation of the new supervisory framework "Basel II", since for the first time Greek banks had to calculate capital requirements for operational risk. These capital requirements more than offset the decrease in capital requirements for credit risk.[22] The decline in the CAR and the Tier I ratio is also attributed to the fact that banks that calculate capital requirements on the basis of the "internal ratings-based approach" deducted the "provisioning shortfall " (i.e. the difference between accounting provisions and expected loss) from their supervisory own funds. A decrease in supervisory own funds was also caused by the fact that certain banks purchased treasury shares.[23] At banking group level, "excess capital", i.e. supervisory funds in excess of the supervisory minimum CAR (8%), continued to be substantial and stood at about €6.4 billion at end-June 2008, compared with €7.6 billion at end-2007.

These factors contributed to a small increase in the number of banking groups with a CAR lower than 10% between end-2007 and end-June 2008. These groups accounted for 18.2% of banking groups' total weighted assets, compared with 13.8% at end-December 2007. Capital adequacy ratios declined less at bank level.

19 At banking group level, operating income grew by 3.5% and operating costs by 11.5%. As regards operating income, interest income rose by 17.2% and commission income by 3.8%.
20 Return on equity (ROE) and return on assets (ROA) are defined as the ratio of profits to own funds and assets, respectively.
21 Operating costs to operating income.
22 This decrease is due to a change in the method of calculation, mainly as regards the retail banking portfolio.
23 Treasury shares are deducted from supervisory own funds.

Because of these developments, all banks must adopt appropriate policies in order to maintain a satisfactory capital adequacy margin.

MONETARY POLICY MEASURES OF THE EUROSYSTEM

10 JANUARY, 7 FEBRUARY, 6 MARCH, 10 APRIL, 8 MAY AND 5 JUNE 2008

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4%, 5% and 3% respectively.

3 JULY 2008

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 4.25%, starting from the operation to be settled on 9 July 2008. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 5.25% and 3.25%, respectively, with effect from 9 July 2008.

7 AUGUST, 4 SEPTEMBER AND 2 OCTOBER 2008

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

JANUARY - SEPTEMBER 2008

The Governing Council of the ECB decides to conduct additional open market operations, apart from the scheduled main and longer-term refinancing operations, in order to normalise the functioning of the euro money market.

GLOSSARY

Community Support Framework (CSF): compiled by the Commission of the European Communities in co-operation with the Member State and approved by the Commission. It includes the country's growth strategy, activity priorities and financing resources (participation of the Community, national public expenditure, participation of the private sector).

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

Deposits redeemable at notice: this instrument comprises savings deposits which the depositor may withdraw once he has given notification thereof within a predetermined time period. At some instances, it is possible to withdraw part of the amount deposited at notice or before, subject to penalty.

Deposits with an agreed maturity (time deposits): deposits with a fixed maturity, which, according to the national practice, are either not convertible into cash before their maturity or are convertible into cash subject to penalty. They include some non-negotiable instruments, such as non-negotiable certificates of (private) deposit.

Effective (nominal/real) exchange rates: nominal effective exchange rates are weighted averages of 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 interest rate prevailing in the euro interbank overnight market, based on transactions.

EURIBOR (euro interbank offered rate): the rate at which a prime bank is willing to lend funds in euro to another prime bank, computed daily for interbank deposits with different maturities of up to 12 months.

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 15 countries: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia 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 through its own activities or through those of 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 27 EU Member States, i.e. it includes, in addition to the members of the Eurosystem, the national central banks of those Member States that have not yet adopted the euro. The ESCB is governed by the Governing Council and the Executive Board, and, as a third decision-making body, by the General Council.

Eurosystem: comprises the ECB and the national central banks of those Member States that have adopted the euro. There are currently 15 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 countries that have adopted the euro.

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

Governing Council: one of the decision-making bodies of the ECB. It comprises all the members of the Executive Board and the governors of the national central banks of the countries that have adopted the euro.

Harmonised Index of Consumer Prices (HICP): a measure of consumer prices which is compiled by Eurostat and harmonised for all EU Member States.

Key ECB interest rates: the interest rates set by the ECB which reflect the monetary policy stance of the ECB. Currently, key ECB interest rates are the minimum bid rate on the main refinancing operations, the interest rate on the marginal lending facility and the interest rate on the deposit facility.

Main refinancing operation: a weekly open market operation conducted by the Eurosystem. The operations are conducted as variable rate tenders with a pre-announced minimum bid rate and have a maturity of one week.

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: a monetary aggregate is the sum total of currency in circulation plus the overdue amounts of certain liabilities of MFIs and central governments which have a high degree of “moneyness” (or liquidity in a broad sense). The narrow monetary aggregate M1, as defined by the Eurosystem, comprises currency in circulation plus overnight deposits which non-MFI euro area residents (other than central government) keep with euro area institutions that issue money. The monetary aggregate M2 comprises M1 plus deposits with an agreed maturity of up to two years plus deposits redeemable at a period of notice of up to three months. The broad monetary aggregate M3 comprises M2 and repurchase agreements (repos), money market fund shares/units, money market paper and debt securities with a maturity of up to two years.

Monetary Financial Institutions (MFIs): financial institutions which together form the money-issuing sector of the euro area. These include the ECB, euro area national central banks, as well as resident credit institutions and money market mutual funds.

Overnight deposits: deposits due on the next working day. This instrument comprises both fully transferable (through cheques etc.) and non-transferable deposits convertible into cash upon request or until the end of the next working day. Particularly for Greece, this instrument includes sight deposits, deposits in current accounts and savings deposits.

Standing facility: a national 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.

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

Period		General index (2005=100)	General index: Percentage change over previous year	Goods (2005=100)	Goods: Percentage change over previous year	Services (2005=100)	Services: Percentage change over previous year	CPI excluding fresh fruit/vegetables and fuel (2005=100)	CPI excluding fresh fruit/vegetables and fuel: Percentage change over previous year	CPI excluding food and fuel (2005=100)	CPI excluding food and fuel: Percentage change over previous year
2004		96.6	2.9	96.7	2.3	96.4	3.8	97.0	3.3	96.9	3.2
2005		100.0	3.5	100.0	3.4	100.0	3.7	100.0	3.1	100.0	3.2
2006		103.2	3.2	103.4	3.4	103.0	3.0	102.7	2.7	102.5	2.5
2007		106.2	2.9	105.9	2.5	106.5	3.5	105.7	2.9	105.5	3.0
2007	I	104.4	2.7	103.7	2.1	105.3	3.4	104.3	3.2	104.1	3.3
	II	106.3	2.6	106.4	1.9	106.2	3.6	105.7	2.9	105.7	3.1
	III	105.7	2.7	104.9	2.0	106.8	3.6	105.3	2.8	105.1	3.0
	IV	108.3	3.6	108.7	3.9	107.8	3.2	107.5	2.8	107.0	2.5
2008	I	108.8	4.3	108.9	5.0	108.8	3.3	107.3	2.9	106.5	2.3
	II	111.4	4.8	112.3	5.6	110.1	3.6	109.5	3.6	108.9	3.0
2006	Jan.	101.7	3.2	101.6	3.3	101.8	3.2	101.3	2.3	101.3	2.0
	Feb.	100.5	3.2	99.7	3.3	101.7	3.2	99.7	2.5	99.2	2.3
	March	102.8	3.3	103.3	3.3	102.1	3.3	102.2	2.9	102.0	2.6
	Apr.	103.6	3.3	104.3	3.6	102.5	2.9	102.5	2.6	102.3	2.3
	May	103.7	3.1	104.7	3.6	102.4	2.6	102.8	2.4	102.6	2.1
	June	103.6	3.2	104.3	3.6	102.7	2.7	103.1	2.6	102.8	2.3
	July	103.0	3.8	103.1	4.6	102.8	2.7	102.2	2.6	101.8	2.3
	Aug.	102.2	3.5	101.5	3.9	103.1	2.9	101.4	2.7	100.8	2.4
	Sept.	103.8	2.9	104.1	3.0	103.5	2.8	103.6	2.7	103.4	2.5
	Oct.	104.4	2.8	104.7	2.7	104.0	3.0	104.3	3.0	104.2	2.8
	Nov.	104.3	2.9	104.3	2.8	104.2	3.2	104.4	3.0	104.3	2.8
	Dec.	104.8	2.9	104.7	2.7	104.9	3.2	104.8	3.0	104.8	2.9
2007	Jan.	104.5	2.7	103.9	2.3	105.2	3.3	104.5	3.1	104.4	3.1
	Feb.	103.2	2.7	101.7	2.0	105.2	3.4	103.1	3.3	102.6	3.5
	March	105.5	2.6	105.5	2.1	105.5	3.4	105.3	3.1	105.2	3.2
	Apr.	106.2	2.5	106.2	1.8	106.1	3.5	105.6	3.0	105.6	3.2
	May	106.5	2.6	106.7	1.9	106.1	3.6	105.7	2.9	105.7	3.1
	June	106.3	2.6	106.3	1.9	106.4	3.6	105.9	2.8	105.9	3.0
	July	105.5	2.5	104.8	1.6	106.6	3.7	105.1	2.9	105.0	3.2
	Aug.	104.8	2.5	103.3	1.7	106.8	3.6	104.3	2.9	103.9	3.1
	Sept.	106.9	2.9	106.7	2.6	107.0	3.4	106.4	2.7	106.3	2.8
	Oct.	107.6	3.1	107.8	3.0	107.3	3.3	107.0	2.7	106.7	2.5
	Nov.	108.4	3.9	109.0	4.5	107.6	3.2	107.4	2.9	106.9	2.5
	Dec.	108.8	3.9	109.2	4.3	108.4	3.3	107.9	3.0	107.4	2.5
2008	Jan.	108.6	3.9	108.4	4.3	108.8	3.4	107.2	2.6	106.5	2.0
	Feb.	107.7	4.4	107.1	5.3	108.6	3.3	106.1	3.0	105.1	2.4
	March	110.2	4.4	111.2	5.3	108.9	3.2	108.6	3.1	107.9	2.5
	Apr.	110.9	4.4	111.9	5.4	109.5	3.2	109.0	3.2	108.3	2.6
	May	111.7	4.9	112.7	5.6	110.3	3.9	109.7	3.8	109.1	3.1
	June	111.6	4.9	112.3	5.7	110.5	3.9	109.8	3.6	109.2	3.1
	July	110.7	4.9	110.5	5.4	111.0	4.1	109.0	3.7	108.3	3.2
	Aug.	109.7	4.7	108.6	5.2	111.1	4.0	108.1	3.6	107.2	3.2

Source: Calculations based on NSSG data.

Table 2 Harmonised index of consumer prices: general index and basic sub-indices

Period		General index		Unprocessed food		Processed food		Non-energy industrial goods	
		(2005=100)	Percentage change over previous year	(2005=100)	Percentage change over previous year	(2005=100)	Percentage change over previous year	(2005=100)	Percentage change over previous year
2004		96.6	3.0	101.5	-2.9	97.2	4.8	97.3	2.3
2005		100.0	3.5	100.0	-1.5	100.0	2.8	100.0	2.8
2006		103.3	3.3	101.9	1.9	105.2	5.2	101.6	1.6
2007		106.4	3.0	104.2	2.2	109.1	3.7	103.8	2.2
2007	I	104.5	2.9	104.0	0.7	107.7	5.0	101.9	2.9
	II	106.6	2.6	104.2	1.4	108.4	3.7	105.1	2.0
	III	105.9	2.8	103.0	4.3	108.7	2.5	102.0	2.3
	IV	108.6	3.6	105.5	2.5	111.8	3.7	106.2	1.8
2008	I	109.0	4.3	108.3	4.1	113.6	5.4	103.2	1.3
	II	111.7	4.8	108.9	4.5	115.2	6.3	107.4	2.2
2006	Jan.	101.7	3.0	101.2	-0.4	102.1	4.1	100.4	0.1
	Feb.	100.1	3.1	104.5	0.3	102.4	4.4	94.7	0.7
	March	102.8	3.3	104.2	-0.2	103.2	4.9	102.1	1.6
	Apr.	103.8	3.5	105.4	1.5	103.4	4.5	102.6	1.8
	May	104.0	3.3	103.3	-0.7	104.5	4.9	103.3	1.9
	June	103.9	3.4	99.5	0.3	105.6	5.4	103.4	1.9
	July	103.0	3.9	98.0	5.2	105.7	5.0	99.8	1.6
	Aug.	102.0	3.4	98.4	3.0	105.7	5.0	96.2	1.1
	Sept.	104.1	3.1	99.9	3.4	106.6	5.5	103.3	1.9
	Oct.	104.7	3.1	103.0	4.3	107.9	6.7	104.2	2.0
	Nov.	104.6	3.2	102.1	3.3	107.9	6.4	104.3	2.0
	Dec.	105.2	3.2	103.5	3.6	107.7	5.8	104.4	2.0
2007	Jan.	104.8	3.0	104.8	3.5	107.8	5.6	103.0	2.5
	Feb.	103.1	3.0	103.2	-1.2	107.5	5.0	98.0	3.5
	March	105.7	2.8	104.2	0.0	107.9	4.5	104.8	2.7
	Apr.	106.5	2.6	105.6	0.2	108.3	4.7	104.8	2.1
	May	106.7	2.6	104.9	1.6	108.3	3.6	105.3	1.9
	June	106.6	2.6	102.0	2.6	108.5	2.8	105.4	1.9
	July	105.8	2.7	101.3	3.4	108.4	2.5	102.4	2.6
	Aug.	104.8	2.7	102.9	4.6	108.5	2.7	98.3	2.2
	Sept.	107.1	2.9	104.8	4.9	109.2	2.4	105.4	2.0
	Oct.	107.9	3.0	105.7	2.6	110.8	2.7	106.1	1.8
	Nov.	108.7	3.9	105.0	2.8	112.2	4.0	106.2	1.8
	Dec.	109.2	3.9	105.8	2.2	112.4	4.3	106.4	1.8
2008	Jan.	108.9	3.9	108.8	3.8	112.7	4.5	103.3	0.3
	Feb.	107.8	4.5	108.2	4.8	113.6	5.7	99.6	1.6
	March	110.3	4.4	108.0	3.7	114.3	6.0	106.8	1.9
	Apr.	111.2	4.4	111.0	5.2	114.9	6.1	107.0	2.2
	May	112.0	4.9	109.7	4.5	115.6	6.7	107.6	2.3
	June	111.9	4.9	105.8	3.7	115.0	6.1	107.7	2.2
	July	111.1	4.9	103.8	2.4	115.0	6.1	104.6	2.2
	Aug.	109.8	4.8	104.3	1.3	114.8	5.8	100.8	2.5

Source: Calculations based on NSSG data.

Table 2 Harmonised index of consumer prices: general index and basic sub-indices *(continued)*

Period		Energy (2005=100)	Energy: Percentage change over previous year	Services (2005=100)	Services: Percentage change over previous year	HICP excluding unprocessed food and energy (2005=100)	HICP excluding unprocessed food and energy: Percentage change over previous year
2004		88.0	6.4	96.5	3.8	96.9	3.4
2005		100.0	13.6	100.0	3.6	100.0	3.2
2006		109.4	9.4	103.1	3.1	102.9	2.9
2007		111.8	2.1	106.9	3.7	106.2	3.2
2007	I	103.4	-2.4	105.6	3.7	104.7	3.7
	II	112.3	-0.5	106.7	3.7	106.4	3.1
	III	112.2	-1.8	107.2	3.9	105.7	3.2
	IV	119.3	14.0	108.1	3.3	108.0	2.8
2008	I	125.4	21.2	108.9	3.1	107.7	2.9
	II	133.8	19.2	110.5	3.6	110.2	3.6
2006	Jan.	105.4	18.6	101.9	3.2	101.4	2.2
	Feb.	105.1	14.4	101.5	3.1	99.2	2.5
	March	107.5	11.8	102.0	3.3	102.2	3.0
	Apr.	112.0	12.3	103.0	3.3	103.0	3.0
	May	113.4	14.3	102.6	2.6	103.2	2.7
	June	113.2	12.0	102.9	3.0	103.5	3.0
	July	116.7	14.8	103.1	3.0	102.3	2.8
	Aug.	116.0	12.3	103.2	3.0	101.1	2.7
	Sept.	110.0	4.1	103.5	2.9	103.9	3.0
	Oct.	106.2	-0.6	104.1	3.3	104.8	3.4
	Nov.	103.7	1.2	104.3	3.4	104.9	3.4
	Dec.	104.2	1.1	105.4	3.5	105.4	3.4
2007	Jan.	101.4	-3.8	105.7	3.7	105.1	3.6
	Feb.	102.6	-2.3	105.4	3.8	103.2	4.0
	March	106.2	-1.2	105.8	3.7	105.8	3.5
	Apr.	110.3	-1.5	106.7	3.5	106.3	3.2
	May	113.2	-0.2	106.5	3.8	106.4	3.1
	June	113.3	0.1	106.8	3.8	106.6	2.9
	July	112.9	-3.2	107.2	4.0	105.7	3.3
	Aug.	111.6	-3.7	107.2	3.9	104.4	3.3
	Sept.	112.0	1.7	107.3	3.7	107.0	2.9
	Oct.	114.4	7.7	107.6	3.3	107.6	2.6
	Nov.	121.9	17.6	107.8	3.4	108.0	2.9
	Dec.	121.7	16.8	108.8	3.2	108.5	2.9
2008	Jan.	123.1	21.4	109.1	3.3	107.7	2.5
	Feb.	124.8	21.6	108.7	3.2	106.4	3.1
	March	128.2	20.7	109.0	3.0	109.1	3.1
	Apr.	130.1	17.9	109.9	3.0	109.7	3.2
	May	134.3	18.7	110.7	3.9	110.4	3.8
	June	137.0	20.9	111.0	4.0	110.5	3.7
	July	138.0	22.2	111.3	3.9	109.6	3.7
	Aug.	135.2	21.1	111.4	3.9	108.4	3.8

Source: Calculations based on NSSG data.

Table 3 Industrial producer price index (PPI) for the domestic market: general index and basic sub-indices

Period		General index		Energy (total)		Fuels		General index excl. energy	
		(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year
2004		112.3	3.5	105.0	4.0	95.6	4.3	115.4	4.7
2005		118.9	5.9	118.9	13.2	119.5	25.1	118.9	3.0
2006		127.1	6.9	128.5	8.1	135.0	12.9	126.5	6.3
2007		131.3	3.3	135.4	5.3	142.1	5.3	129.5	2.4
2007	I	126.3	0.7	125.2	-1.4	124.7	-6.9	126.8	1.6
	II	130.3	1.9	133.9	2.4	139.6	-1.1	128.8	1.6
	III	132.1	2.6	136.8	4.0	144.5	3.1	130.0	2.0
	IV	136.4	8.0	145.5	16.7	159.5	27.9	132.5	4.4
2008	I	139.8	10.6	150.3	20.1	164.9	32.3	135.3	6.7
	II	145.0	11.2	161.4	20.5	187.3	34.2	137.9	7.1
2006	Jan.	124.9	9.9	126.0	17.8	132.0	36.2	124.4	6.9
	Feb.	125.4	9.5	126.8	16.2	133.6	32.0	124.9	6.8
	March	126.1	8.3	128.2	12.3	136.1	22.7	125.2	6.6
	Apr.	127.8	8.6	131.1	12.4	142.0	22.5	126.3	7.0
	May	128.0	9.3	130.8	14.0	141.0	25.9	126.8	7.3
	June	128.0	8.0	130.5	9.7	140.4	16.7	127.0	7.2
	July	129.1	8.3	133.4	10.6	146.3	18.2	127.2	7.3
	Aug.	129.5	7.7	133.6	8.2	143.2	10.9	127.7	7.4
	Sept.	127.6	4.5	127.6	-0.3	130.8	-3.8	127.6	6.8
	Oct.	126.7	3.0	125.2	-2.1	126.0	-7.4	127.3	5.3
	Nov.	126.1	3.4	124.5	1.3	124.2	-1.2	126.7	4.3
	Dec.	126.1	2.7	124.4	1.0	123.9	-1.9	126.8	3.4
2007	Jan.	125.4	0.4	122.6	-2.7	119.6	-9.4	126.6	1.8
	Feb.	126.1	0.6	125.0	-1.4	124.5	-6.8	126.6	1.4
	March	127.5	1.1	128.0	-0.2	129.9	-4.6	127.3	1.7
	Apr.	129.9	1.7	132.6	1.1	136.8	-3.6	128.7	1.9
	May	130.4	1.9	134.2	2.6	140.1	-0.7	128.8	1.6
	June	130.6	2.0	135.0	3.4	141.9	1.1	128.7	1.4
	July	131.3	1.7	136.3	2.2	144.7	-1.1	129.2	1.5
	Aug.	131.7	1.7	136.1	1.8	142.5	-0.5	129.8	1.7
	Sept.	133.2	4.4	138.1	8.2	146.4	11.9	131.1	2.8
	Oct.	134.7	6.4	140.9	12.5	152.2	20.8	132.1	3.8
	Nov.	137.1	8.7	147.4	18.3	164.8	32.7	132.7	4.7
	Dec.	137.4	9.0	148.4	19.3	161.4	30.2	132.7	4.7
2008	Jan.	138.2	10.2	148.6	21.2	161.5	35.1	133.7	5.6
	Feb.	139.8	10.8	150.0	20.0	164.4	32.0	135.4	7.0
	March	141.4	10.9	152.4	19.1	169.0	30.1	136.7	7.4
	Apr.	142.7	9.8	155.3	17.2	174.9	27.8	137.3	6.6
	May	145.1	11.3	162.3	20.9	189.1	35.0	137.7	7.0
	June	147.1	12.6	166.6	23.4	197.9	39.5	138.7	7.7
	July	149.3	13.7	172.8	26.7	201.3	39.2	139.3	7.8
	Aug.	147.6	12.0	166.8	22.5	189.1	32.7	139.3	7.3

Source: Calculations based on NSSG data.

Table 4 Industrial producer price index (PPI) for the external market and import price index in industry

Period		PPI – external market				Import price index		Import price index excl. energy	
		General index		General index excl. energy					
		(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year	(2000=100)	Percentage change over previous year
2004		106.6	5.0	106.3	1.8	107.4	3.1	105.2	0.8
2005		110.6	3.7	106.6	0.3	116.9	8.8	106.5	1.2
2006		115.2	4.2	109.5	2.7	122.0	4.4	109.5	2.8
2007		117.3	1.8	111.6	1.9	125.6	3.0	113.0	3.2
2007	I	113.8	-0.8	110.5	1.6	121.0	-0.4	111.7	3.5
	II	116.9	0.9	111.5	2.0	124.6	1.2	112.9	3.3
	III	117.7	1.3	111.8	1.8	126.6	3.3	113.4	3.1
	IV	120.6	5.9	112.5	2.4	130.4	7.8	113.8	2.7
2008	I	122.0	7.2	113.7	2.9	131.3	8.5	114.7	2.7
	II	126.6	8.3	114.5	2.7	137.7	10.5	115.7	2.5
2006	Jan.	114.2	7.5	108.3	2.5	120.8	8.8	107.6	1.7
	Feb.	114.6	7.2	108.8	2.7	121.4	7.4	108.0	1.8
	March	115.4	6.4	109.1	3.0	122.1	6.8	108.2	2.0
	Apr.	116.0	6.3	109.3	3.1	122.9	7.4	108.8	2.4
	May	115.8	6.2	109.3	2.8	123.1	8.1	109.2	2.7
	June	115.8	5.2	109.3	2.7	123.3	5.0	109.7	3.0
	July	116.3	4.3	109.3	2.4	123.3	3.8	109.8	3.0
	Aug.	117.3	4.2	110.1	3.0	122.8	2.3	110.0	3.3
	Sept.	115.0	1.0	110.2	2.9	121.5	2.1	110.2	3.1
	Oct.	114.3	0.6	110.1	2.8	121.3	1.2	110.6	3.3
	Nov.	114.0	0.8	110.1	2.5	121.0	0.6	110.9	3.4
	Dec.	113.5	0.9	109.6	1.7	120.4	0.2	110.9	3.4
2007	Jan.	112.7	-1.3	110.1	1.7	119.6	-1.0	111.4	3.6
	Feb.	113.9	-0.6	110.4	1.5	120.9	-0.4	111.7	3.4
	March	114.9	-0.5	110.9	1.7	122.4	0.3	112.1	3.6
	Apr.	116.8	0.7	111.6	2.1	123.9	0.8	112.5	3.4
	May	116.7	0.8	111.3	1.8	124.6	1.3	112.9	3.4
	June	117.1	1.1	111.5	2.0	125.2	1.5	113.3	3.3
	July	117.7	1.2	111.6	2.1	126.6	2.6	113.4	3.3
	Aug.	117.1	-0.2	111.6	1.4	126.0	2.6	113.3	3.0
	Sept.	118.3	2.9	112.1	1.8	127.2	4.7	113.6	3.2
	Oct.	119.5	4.6	112.6	2.3	129.1	6.4	113.7	2.8
	Nov.	121.4	6.5	112.4	2.1	131.4	8.6	113.8	2.6
	Dec.	121.0	6.6	112.6	2.7	130.5	8.4	113.9	2.7
2008	Jan.	121.1	7.4	113.1	2.7	130.3	8.9	114.3	2.6
	Feb.	122.0	7.1	113.8	3.1	131.4	8.7	114.8	2.8
	March	122.9	7.0	114.2	2.9	132.2	7.9	115.0	2.6
	Apr.	124.2	6.3	114.2	2.4	134.3	8.4	115.3	2.5
	May	126.6	8.5	114.3	2.7	137.7	10.5	115.6	2.4
	June	128.9	10.1	114.8	3.0	141.0	12.6	116.2	2.5
	July	129.6	10.1	115.0	3.0	142.8	12.8	116.4	2.7
	Aug.	127.6	8.9	115.1	3.1				

Source: Calculations based on NSSG data.

Table 5 Employed persons of 15 years and over, by branch of economic activity

(thousands)

	Q2 2008	
	Total employed persons	Salaried employees
Total	**4,582.1**	**2,974.4**
Agriculture, forestry and fishing	518.5	40.0
Mining and quarrying	18.0	16.4
Manufacturing	538.8	400.6
Electricity, gas, steam and air conditioning supply	36.1	35.2
Water supply, sewerage, waste management and remediation activities	30.0	28.9
Construction	399.1	281.5
Wholesale and retail trade; repair of motor vehicles and motorcycles	832.6	439.3
Transportation and storage	215.4	154.3
Accommodation and food service activities	325.5	191.2
Information and communication	73.9	66.8
Financial and insurance activities	121.0	108.6
Real estate activities	9.2	1.5
Professional, scientific and technical activities	221.6	102.7
Administrative and support service activities	77.8	64.3
Public administration and defence; compulsory social security	381.9	381.9
Education	323.7	298.5
Human health and social work activities	231.1	196.4
Arts, entertainment and recreation	59.0	43.4
Other service activities	94.0	53.0
Activities of households as employers;	73.4	68.1
Activities of extraterritorial organisations and bodies	1.7	1.7

Source: NSSG, Labour Force Survey.

Table 6 Balance of payments

(million euro)

			January-July			July		
			2006	2007	2008	2006	2007	2008
I	**CURRENT ACCOUNT BALANCE** (I.A+I.B+I.C+I.D)		**-14,832.8**	**-19,063.2**	**-21,483.8**	**-481.3**	**-2,305.4**	**-2,348.0**
I.A	***TRADE BALANCE*** *(I.A.1–I.A.2)*		***-20,210.6***	***-23,279.3***	***-26,857.4***	***-2,482.8***	***-4,247.9***	***-4,080.0***
	Oil trade balance		-4,882.8	-4,971.2	-7,180.2	-547.5	-959.2	-1,223.1
	Non-oil trade balance		-15,327.8	-18,308.1	-19,677.2	-1,935.3	-3,288.7	-2,856.9
	Ship balance		-1,838.1	-2,900.3	-2,973.9	-114.7	-636.5	-426.5
	Trade balance excl. oil and ships		-13,489.7	-15,407.8	-16,703.3	-1,820.6	-2,652.2	-2,430.4
	I.A.1	*Exports of goods*	*9,434.6*	*9,766.9*	*11,394.6*	*1,398.6*	*1,527.2*	*1,876.9*
		Fuel	1,880.0	1,604.9	2,370.5	276.9	282.9	312.0
		Ships (receipts)	987.0	1,206.4	1,099.5	144.1	225.8	167.8
		Other goods	6,567.6	6,955.6	7,924.6	977.6	1,018.5	1,397.1
	I.A.2	*Imports of goods*	*29,645.2*	*33,046.2*	*38,251.9*	*3,881.4*	*5,775.2*	*5,956.9*
		Fuel	6,762.8	6,576.1	9,550.7	824.4	1,242.1	1,535.1
		Ships (payments)	2,825.1	4,106.7	4,073.4	258.8	862.3	594.3
		Other goods	20,057.3	22,363.4	24,627.8	2,798.2	3,670.8	3,827.5
I.B	***SERVICES BALANCE*** *(I.B.1–I.B.2)*		***7,851.8***	***8,450.8***	***9,416.5***	***2,612.8***	***2,692.5***	***3,130.4***
	I.B.1	*Receipts*	*15,249.4*	*16,554.6*	*19,227.6*	*3,698.8*	*4,088.6*	*4,678.4*
		Travel	5,566.4	5,645.6	5,977.7	2,241.4	2,296.0	2,350.5
		Transport	8,193.2	9,199.8	11,431.3	1,200.1	1,508.8	2,025.1
		Other services	1,489.8	1,709.2	1,818.6	257.2	283.7	302.8
	I.B.2	*Payments*	*7,397.6*	*8,103.8*	*9,811.1*	*1,086.0*	*1,396.1*	*1,548.1*
		Travel	1,335.1	1,333.1	1,467.1	215.9	199.1	190.0
		Transport	3,987.9	4,303.7	5,522.5	549.1	727.9	905.8
		Other services	2,074.5	2,467.0	2,821.4	321.0	469.2	452.3
I.C	***INCOME BALANCE*** *(I.C.1–I.C.2)*		***-4,294.2***	***-5,584.2***	***-6,477.5***	***-756.7***	***-1,140.5***	***-1,449.4***
	I.C.1	*Receipts*	*1,942.4*	*2,663.9*	*3,296.9*	*335.0*	*363.8*	*498.8*
		Wages, salaries	181.3	210.5	213.4	25.7	35.9	29.8
		Interest, dividends, profits	1,761.1	2,453.5	3,083.5	309.3	327.9	469.0
	I.C.2	*Payments*	*6,236.7*	*8,248.1*	*9,774.4*	*1,091.7*	*1,504.4*	*1,948.2*
		Wages, salaries	160.6	186.4	200.0	21.5	26.4	34.7
		Interest, dividends, profits	6,076.0	8,061.7	9,574.4	1,070.2	1,477.9	1,913.5
I.D	***CURRENT TRANSFERS BALANCE*** *(I.D.1–I.D.2)*		***1,820.1***	***1,349.5***	***2,434.5***	***145.3***	***390.7***	***51.1***
	I.D.1	*Receipts*	*3,868.8*	*3,775.8*	*4,694.3*	*388.8*	*676.7*	*325.5*
		General government (mainly transfers from the EU)	2,482.0	2,533.7	3,367.8	171.1	490.2	114.1
		Other sectors (emigrants' remittances etc.)	1,386.8	1,242.1	1,326.5	217.7	186.5	211.4
	I.D.2	*Payments*	*2,048.7*	*2,426.3*	*2,259.8*	*243.5*	*286.0*	*274.4*
		General government (mainly payments to the EU)	1,569.9	1,792.0	1,495.2	171.2	185.1	160.2
		Other sectors	478.8	634.3	764.6	72.3	100.9	114.2
II	**CAPITAL TRANSFERS BALANCE** (II.1– II.2)		**2,002.9**	**2,490.4**	**2,585.4**	**494.6**	**153.1**	**401.5**
	II.1	*Receipts*	*2,159.3*	*2,679.0*	*2,959.9*	*520.2*	*192.6*	*432.5*
		General government (mainly transfers from the EU)	2,050.2	2,540.3	2,770.5	503.1	167.3	418.0
		Other sectors	109.1	138.8	189.4	17.1	25.3	14.6
	II.2	*Payments*	*156.4*	*188.7*	*374.5*	*25.7*	*39.4*	*31.1*
		General government (mainly payments to the EU)	18.2	16.8	181.1	6.4	2.3	1.6
		Other sectors	138.2	171.9	193.3	19.3	37.1	29.5
III	**CURRENT ACCOUNT AND CAPITAL TRANSFERS BALANCE** (I+II)		**-12,829.9**	**-16,572.9**	**-18,898.4**	**13.2**	**-2,152.2**	**-1,946.6**
IV	**FINANCIAL ACCOUNT BALANCE** (IV.A+IV.B+IV.C+IV.D)		**12,747.9**	**16,453.3**	**18,815.1**	**-499.0**	**1,842.0**	**1,764.9**
	IV.A	***DIRECT INVESTMENT*** [1]	***969.5***	***-2,002.5***	***1,511.7***	***-40.4***	***189.5***	***-37.9***
		By residents abroad	-494.5	-2,894.9	-1,292.3	-152.9	-155.2	-125.9
		By non-residents in Greece	1,463.9	892.4	2,804.1	112.6	344.7	88.0
	IV.B	***PORTFOLIO INVESTMENT*** [1]	***2,541.7***	***15,432.9***	***8,388.9***	***427.8***	***2,222.1***	***8,072.9***
		Assets	-6,197.2	-9,567.8	-7,716.2	-1,024.6	-1,188.6	386.2
		Liabilities	8,738.9	25,000.7	16,105.1	1,452.4	3,410.7	7,686.8
	IV.C	***OTHER INVESTMENT*** [1]	***9,475.7***	***3,072.9***	***8,832.5***	***-910.4***	***-446.6***	***-6,253.1***
		Assets	-4,070.8	-9,917.9	-15,551.8	-4,370.0	-1,148.2	-6,664.4
		Liabilities	13,546.5	12,990.8	24,384.3	3,459.6	701.6	411.3
		(General government loans)	*-148.2*	*-1,884.4*	*-399.3*	*218.4*	*-117.1*	*-59.0*
	IV.D	***CHANGE IN RESERVE ASSETS*** [2]	***-239.0***	***-50.0***	***82.0***	***24.0***	***-123.0***	***-17.0***
V	**ERRORS AND OMISSIONS**		**82.1**	**119.6**	**83.3**	**485.7**	**310.3**	**181.6**
	RESERVE ASSETS [3]					***2,184.0***	***2,219.0***	***2,410.0***

Source: Bank of Greece.
1 (+) net inflow, (-) net outflow.
2 (+) decrease, (-) increase.
3 Following Greece's entry into the euro area in January 2001, reserve assets, as defined by the European Central Bank, comprise monetary gold, the "reserve position" in the IMF, "Special Drawing Rights", and Bank of Greece's claims in foreign currency on non-euro area residents. Excluded are euro-denominated claims on non-euro area residents, claims (in foreign currency and in euro) on euro area residents, and the Bank of Greece share in the capital and reserves of the ECB.

Table 7 Monetary aggregates of the euro area[1]

(outstanding balances in billion euro, not seasonally adjusted)

End of period		Currency in circulation (1)	Overnight deposits (2)	M1 (3)=(1)+(2)	Deposits with agreed maturity up to two years (4)	Deposits redeemable at notice up to three months (5)	M2 (6)=(3)+(4)+(5)	Repurchase agreements (7)	Money market fund shares/units (8)	Money market paper and debt securities up to two years (9)	M3[2] (10)=(6)+(7)+(8)+(9)
2003		397.9	2,329.2	2,727.1	1,039.2	1,529.6	5,295.8	208.7	581.5	92.7	6,178.7
2004		468.4	2,480.5	2,948.9	1,040.5	1,642.9	5,632.2	229.7	604.9	102.3	6,568.2
2005		532.8	2,946.8	3,479.6	1,123.6	1,549.6	6,152.9	221.9	615.8	126.2	7,116.8
2006		592.2	3,164.3	3,756.5	1,414.8	1,557.1	6,728.4	248.0	614.1	198.7	7,789.3
2007		638.5	3,262.0	3,900.5	1,984.9	1,539.7	7,425.1	283.0	660.4	316.2	8,684.8
2006	Jan.	520.8	2,922.2	3,443.1	1,113.7	1,565.7	6,122.5	237.0	608.4	143.4	7,111.3
	Feb.	524.8	2,917.2	3,442.0	1,134.8	1,569.2	6,146.1	235.0	610.2	152.7	7,143.9
	March	532.3	2,936.0	3,468.2	1,162.0	1,570.9	6,201.2	235.9	603.1	163.1	7,203.3
	Apr.	540.3	2,992.0	3,532.3	1,201.5	1,569.3	6,303.1	249.7	613.1	163.9	7,329.7
	May	543.6	3,006.5	3,550.1	1,189.1	1,568.5	6,307.7	258.2	621.6	173.7	7,361.2
	June	553.7	3,044.4	3,598.1	1,208.7	1,565.7	6,372.5	245.1	616.5	161.8	7,395.9
	July	562.7	3,009.8	3,572.5	1,232.9	1,562.6	6,368.0	250.5	627.4	160.3	7,406.2
	Aug.	559.0	2,956.9	3,515.9	1,267.8	1,562.6	6,346.3	264.9	639.7	179.1	7,430.0
	Sept.	563.2	3,018.2	3,581.4	1,304.8	1,558.9	6,445.1	263.8	645.6	178.7	7,533.2
	Oct.	567.1	2,996.5	3,563.5	1,341.7	1,551.8	6,457.1	261.2	644.7	194.3	7,557.3
	Nov.	571.5	3,038.2	3,609.7	1,367.3	1,543.5	6,520.5	260.8	636.9	199.4	7,617.6
	Dec.	592.2	3,164.3	3,756.5	1,414.8	1,557.1	6,728.4	248.0	614.1	198.7	7,789.3
2007	Jan.	575.6	3,106.1	3,681.8	1,446.4	1,558.4	6,686.5	262.3	641.5	220.7	7,811.3
	Feb.	578.7	3,095.3	3,674.0	1,469.6	1,547.1	6,690.7	268.8	651.9	231.7	7,843.0
	March	588.5	3,146.9	3,735.4	1,534.1	1,544.8	6,814.3	282.0	666.2	239.8	8,002.3
	Apr.	594.7	3,160.7	3,755.4	1,567.8	1,537.1	6,860.3	281.6	681.7	241.6	8,065.3
	May	597.6	3,179.4	3,777.0	1,599.7	1,533.4	6,910.1	285.2	702.3	254.3	8,152.0
	June	604.9	3,240.3	3,845.2	1,634.3	1,526.3	7,005.8	282.2	698.9	241.7	8,228.7
	July	612.9	3,218.0	3,830.9	1,694.8	1,516.1	7,041.8	287.1	712.4	239.1	8,280.4
	Aug.	610.6	3,137.8	3,748.4	1,765.4	1,508.1	7,022.0	297.6	705.9	259.9	8,285.5
	Sept.	610.4	3,212.2	3,822.6	1,795.6	1,501.6	7,119.9	295.4	682.2	281.5	8,378.9
	Oct.	613.5	3,176.1	3,789.6	1,890.9	1,525.1	7,205.7	293.5	684.0	297.9	8,481.2
	Nov.	618.6	3,210.9	3,829.5	1,916.0	1,518.8	7,264.3	301.8	696.7	312.4	8,575.2
	Dec.	638.5	3,262.0	3,900.5	1,984.9	1,539.7	7,425.1	283.0	660.4	316.2	8,684.8
2008	Jan.	623.1	3,227.6	3,850.7	2,040.1	1,545.7	7,436.5	307.4	737.1	297.6	8,778.6
	Feb.	628.7	3,171.2	3,799.9	2,115.9	1,542.9	7,458.7	314.4	749.9	276.0	8,799.0
	March	632.9	3,218.0	3,850.9	2,130.5	1,548.4	7,529.8	314.0	742.2	282.4	8,868.4
	Apr.	641.3	3,194.0	3,835.3	2,227.2	1,546.6	7,609.2	329.0	752.0	268.2	8,958.4
	May	645.7	3,220.8	3,866.5	2,260.7	1,542.5	7,669.8	333.4	755.8	289.5	9,049.1
	June	652.1	3,261.1	3,913.2	2,264.4	1,538.8	7,716.4	330.3	733.1	288.1	9,067.8
	July	658.7	3,187.1	3,836.8	2,365.3	1,528.6	7,730.7	333.2	742.6	288.0	9,104.5
	Aug.	656.1	3,133.4	3,789.5	2,424.5	1,526.2	7,740.3	343.0	756.9	280.1	9,120.2

Source: ECB.
* Provisional data.
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 non-residents' holdings of money market fund shares/units and debt securities of up to two years.

Table 8 The Greek contribution to the main monetary aggregates of the euro area

(outstanding amounts in billion euro, not seasonally adjusted)

End of period		Overnight deposits (1)	Sight deposits and current accounts (1.1)	Savings deposits (1.2)	Deposits with an agreed maturity up to two years (2)	Deposits redeemable at notice up to three months[1] (3)	Repurchase agreements (repos) (4)	Money market fund shares/units (5)	Debt securities up to two years[2] (6)	Total[3] (M3 excluding currency in circulation) (7)=(1)+(2)+ +(3)+(4)+ +(5)+(6)
2003		79.5	17.6	61.9	32.3	2.0	10.8	15.7	0.5	140.8
2004		91.7	20.7	71.0	33.4	1.9	9.5	15.2	0.5	152.3
2005		99.2	24.8	74.4	51.8	4.4	2.7	4.9	0.4	163.4
2006		100.1	26.0	74.1	69.3	2.9	1.6	5.8	0.5	180.2
2007		98.8	28.2	70.6	97.6	2.3	0.7	7.9	–1.6	205.7
2006	Jan.	95.8	22.7	73.1	53.8	4.4	2.6	4.7	0.4	161.7
	Feb.	95.3	22.6	72.7	55.1	4.5	2.5	4.7	0.4	162.5
	March	95.3	22.7	72.6	56.8	4.1	2.5	4.6	0.5	163.9
	Apr.	95.6	22.3	73.3	57.9	4.0	2.4	4.6	0.6	165.1
	May	95.8	22.6	73.2	59.0	3.7	2.4	4.9	0.6	166.5
	June	99.2	25.1	74.0	60.4	3.6	2.5	5.2	0.6	171.5
	July	98.0	24.2	73.8	61.7	3.5	2.1	5.3	0.6	171.1
	Aug.	97.0	23.4	73.6	63.3	3.4	2.0	5.4	0.6	171.7
	Sept.	96.8	23.4	73.3	63.7	3.3	2.1	5.5	0.5	171.9
	Oct.	95.3	23.1	72.3	65.4	3.2	1.9	5.6	0.5	171.9
	Nov.	95.3	23.4	71.9	66.8	3.0	1.6	5.7	0.5	173.0
	Dec.	100.1	26.0	74.1	69.3	2.9	1.6	5.8	0.5	180.2
2007	Jan.	95.5	23.9	71.7	72.9	2.9	1.5	5.9	0.4	179.1
	Feb.	95.0	24.0	71.0	73.7	2.8	1.4	6.2	0.3	179.5
	March	96.7	25.3	71.4	76.0	2.7	1.2	6.5	0.3	183.4
	Apr.	96.2	24.4	71.8	77.3	2.7	1.1	6.7	0.2	184.2
	May	94.3	24.4	69.8	79.4	2.7	1.3	7.0	-0.5	184.2
	June	99.8	27.5	72.2	80.8	2.7	1.4	7.5	-1.1	191.0
	July	96.7	25.3	71.4	87.8	2.6	1.0	7.6	-1.8	194.0
	Aug.	96.5	25.4	71.1	88.4	2.6	0.9	7.8	-1.9	194.3
	Sept.	96.1	25.3	70.8	89.1	2.5	0.8	7.8	-1.7	194.6
	Oct.	94.3	25.3	69.0	92.0	2.4	0.9	8.0	-1.8	195.8
	Nov.	94.6	26.5	68.1	94.9	2.3	0.8	8.1	-1.6	199.0
	Dec.	98.8	28.2	70.6	97.6	2.3	0.7	7.9	-1.6	205.7
2008	Jan.	93.7	25.7	68.0	102.9	2.1	0.7	7.7	-1.1	206.1
	Feb.	91.1	24.7	66.4	106.3	2.2	0.6	7.8	-0.5	207.6
	March	93.3	27.2	66.2	107.1	2.1	0.6	7.8	0.2	211.2
	Apr.	92.2	25.4	66.8	110.6	2.1	0.5	7.6	0.4	213.4
	May	90.2	24.4	65.8	114.9	2.0	0.6	7.4	0.6	215.8
	June	94.0	27.4	66.5	115.6	2.0	0.6	7.3	1.4	220.9
	July	90.6	24.8	65.8	119.2	1.9	0.5	6.9	1.9	221.0
	Aug.	89.5	24.4	65.1	124.2	1.9	0.5	6.8	2.2	225.1

Source: Bank of Greece.
1 Including savings deposits in currencies other than the euro.
2 This aggregate is calculated on a consolidated basis with the other euro area countries and thus does not include domestic MFIs' holdings of debt securities up to two years issued by euro area MFIs.
3 As in all other euro area countries, Greece's M3 can no longer be calculated accurately, since part of the quantity of euro banknotes and coins in circulation in each country is held by residents of other euro area countries (as well as non-euro area residents). Owing to these technical problems, the compilation of the Greek M0, M1, M2 and M3 was discontinued in January 2003.

Table 9 Greece: deposits of domestic firms and households with OMFIs,[1] by currency and type

(outstanding balances in million euro, not seasonally adjusted)

End of period		Total deposits	Breakdown by currency: In euro	Breakdown by currency: In other currencies	Breakdown by type: Sight deposits	Breakdown by type: Savings deposits	Breakdown by type: Time deposits[2]
2003		115,750.0	98,119.3	17,630.8	15,395.8	65,141.1	35,213.2
2004		128,424.6	110,206.7	18,217.9	18,274.2	73,954.2	36,196.1
2005		156,857.7	135,797.3	21,060.4	22,180.2	79,800.8	54,876.1
2006		173,370.4	151,321.5	22,048.9	23,525.0	77,858.2	71,987.2
2007		197,233.6	173,493.8	23,739.8	25,014.1	73,561.9	98,657.6
2006	Jan.	155,334.6	134,509.7	20,824.9	20,097.8	78,361.8	56,875.1
	Feb.	156,125.0	134,733.6	21,391.4	19,797.5	78,114.4	58,213.2
	March	157,740.9	136,352.9	21,388.0	20,229.3	77,611.2	59,900.5
	Apr.	158,730.2	137,689.9	21,040.3	19,707.4	78,160.7	60,862.1
	May	159,942.6	138,812.0	21,130.6	20,063.9	77,829.2	62,049.5
	June	164,328.3	143,200.3	21,128.0	22,398.5	78,543.2	63,386.6
	July	164,473.3	143,231.3	21,242.0	21,667.6	78,137.8	64,667.9
	Aug.	164,706.1	143,088.1	21,618.0	20,710.6	77,844.8	66,150.8
	Sept.	164,750.2	143,309.9	21,440.3	20,693.0	77,479.1	66,578.1
	Oct.	164,848.2	143,096.0	21,752.3	20,410.6	76,266.5	68,171.1
	Nov.	166,195.3	144,335.6	21,859.7	21,116.2	75,520.4	69,558.6
	Dec.	173,370.4	151,321.5	22,048.9	23,525.0	77,858.3	71,987.2
2007	Jan.	171,937.9	149,321.7	22,616.2	20,943.4	75,322.8	75,671.7
	Feb.	172,166.2	150,424.2	21,742.0	21,109.9	74,619.3	76,437.1
	March	176,068.3	154,217.8	21,850.5	22,393.4	74,931.5	78,743.4
	Apr.	177,261.9	155,599.4	21,662.5	21,878.6	75,236.8	80,146.5
	May	177,486.2	154,859.0	22,627.2	21,160.9	73,954.4	82,370.9
	June	184,148.2	161,027.9	23,120.2	24,695.0	75,647.6	83,805.6
	July	188,181.4	164,079.4	24,102.0	22,986.4	74,519.2	90,675.9
	Aug.	188,054.4	163,993.2	24,061.2	22,398.6	74,358.8	91,297.0
	Sept.	188,469.8	164,667.0	23,802.8	22,697.5	73,977.4	91,794.9
	Oct.	187,503.6	163,407.0	24,096.6	22,480.6	72,098.4	92,924.6
	Nov.	190,515.3	166,375.1	24,140.1	23,484.5	71,094.6	95,936.3
	Dec.	197,233.6	173,494.0	23,739.8	25,014.1	73,562.0	98,657.6
2008	Jan.	196,029.3	171,471.0	24,558.4	21,730.7	70,740.5	103,558.2
	Feb.	197,402.8	172,633.7	24,769.0	21,120.5	69,152.9	107,129.4
	March	200,449.4	176,402.8	24,046.5	23,638.8	68,859.6	107,950.9
	Apr.	202,569.8	177,766.0	24,803.9	22,180.8	69,469.5	110,919.5
	May	204,884.2	179,218.0	25,666.2	21,494.7	68,386.4	115,003.1
	June	209,079.3	183,406.2	25,673.0	23,992.6	69,113.2	115,973.4
	July	209,789.6	182,926.7	26,862.8	21,779.6	68,266.6	119,743.4
	Aug.	209,079.2	183,406.2	25,672.9	23,992.6	69,113.2	115,973.4

Source: Bank of Greece.
1 Other Monetary Financial Institutions (OMFIs) comprise credit institutions (other than the Bank of Greece) and money market funds.
2 Including blocked deposits.

Table 10 Key ECB interest rates

(percentages per annum)

With effect from:[1]		Deposit facility	Main refinancing operations	Marginal lending facility
1999	1 January	2.00	3.00	4.50
	4 January	2.75	3.00	3.25
	22 January	2.00	3.00	4.50
	9 April	1.50	2.50	3.50
	5 November	2.00	3.00	4.00
2000	4 February	2.25	3.25	4.25
	17 March	2.50	3.50	4.50
	28 April	2.75	3.75	4.75
	9 June	3.25	4.25	5.25
	28 June	3.25	4.25	5.25
	1 September	3.50	4.50	5.50
	6 October	3.75	4.75	5.75
2001	11 May	3.50	4.50	5.50
	31 August	3.25	4.25	5.25
	18 September	2.75	3.75	4.75
	9 November	2.25	3.25	4.25
2002	6 December	1.75	2.75	3.75
2003	7 March	1.50	2.50	3.50
	6 June	1.00	2.00	3.00
2005	6 December	1.25	2.25	3.25
2006	8 March	1.50	2.50	3.50
	15 June	1.75	2.75	3.75
	9 August	2.00	3.00	4.00
	11 October	2.25	3.25	
	13 December	2.50	3.50	4.50
2007	14 March	2.75	3.75	4.75
	13 June	3.00	4.00	5.00
2008	9 July	3.25	4.25	5.25

Source: ECB.
1 From 1 January 1999 to 9 March 2004, the date refers to the deposit and marginal lending facilities. For main refinancing operations, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day. From 10 March 2004 onwards, the date refers to the deposit and marginal lending facilities and to the main refinancing operations (changes effective from the first main refinancing operation following the Governing Council decision), unless otherwise indicated.

Table 11 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]
2003		2.32	2.35	2.33	2.31	2.31	2.34
2004		2.05	2.08	2.11	2.15	2.20	2.27
2005		2.09	2.14	2.18	2.23	2.28	2.33
2006		2.84	2.94	3.08	3.23	3.35	3.44
2007		3.86	4.08	4.28	4.35	4.41	4.45
2006	Jan.	2.33	2.39	2.51	2.65	2.75	2.83
	Feb.	2.35	2.46	2.60	2.72	2.83	2.91
	March	2.52	2.63	2.72	2.87	3.00	3.11
	Apr.	2.63	2.65	2.79	2.96	3.11	3.22
	May	2.58	2.69	2.89	3.06	3.20	3.31
	June	2.70	2.87	2.99	3.16	3.29	3.40
	July	2.81	2.94	3.10	3.29	3.43	3.54
	Aug.	2.97	3.09	3.23	3.41	3.53	3.62
	Sept.	3.04	3.16	3.34	3.53	3.64	3.72
	Oct.	3.28	3.35	3.50	3.64	3.74	3.80
	Nov.	3.33	3.42	3.60	3.73	3.81	3.86
	Dec.	3.50	3.64	3.68	3.79	3.87	3.92
2007	Jan.	3.56	3.62	3.75	3.89	3.99	4.06
	Feb.	3.57	3.65	3.82	3.94	4.03	4.09
	March	3.69	3.84	3.89	4.00	4.06	4.11
	Apr.	3.82	3.86	3.98	4.10	4.19	4.25
	May	3.79	3.92	4.07	4.20	4.30	4.37
	June	3.96	4.10	4.15	4.28	4.40	4.51
	July	4.06	4.11	4.22	4.36	4.47	4.56
	Aug.	4.05	4.31	4.54	4.59	4.63	4.67
	Sept.	4.03	4.43	4.74	4.75	4.73	4.72
	Oct.	3.94	4.24	4.69	4.66	4.65	4.65
	Nov.	4.02	4.22	4.64	4.63	4.62	4.61
	Dec.	3.88	4.71	4.85	4.82	4.80	4.79
2008	Jan.	4.02	4.20	4.48	4.50	4.50	4.50
	Feb.	4.03	4.18	4.36	4.36	4.35	4.35
	March	4.09	4.30	4.60	4.59	4.59	4.59
	Apr.	3.99	4.37	4.78	4.80	4.81	4.82
	May	4.01	4.39	4.86	4.90	4.94	4.99
	June	4.01	4.47	4.94	5.09	5.23	5.36
	July	4.19	4.47	4.96	5.15	5.25	5.39
	Aug.	4.30	4.49	4.97	5.16	5.23	5.32
	Sept.	4.27	4.66	5.02	5.22	5.29	5.38

Source: Bloomberg.
1 Euro overnight index average (EONIA).
2 Euro interbank offered rates (EURIBOR).

Table 12 Greek government paper yields

(percentages per annum, period averages)

Period		Yield on one-year Treasury bills	Bond yields						
			3-year	5-year	7-year	10-year	15-year	20-year[1]	32-year
2003		2.34	2.82	3.37	3.83	4.27	4.32	4.91	, , ,
2004		2.27	2.87	3.37	3.81	4.26	4.53	4.77	, , ,
2005		2.33	2.65	2.92	3.22	3.59	3.80	3.92	4.14
2006		3.44	3.58	3.72	3.87	4.07	4.16	4.23	4.42
2007		4.45	4.21	4.30	4.34	4.50	4.67	–	4.81
2006	Jan.	2.84	2.99	3.17	3.32	3.60	3.71	3.79	3.98
	Feb.	2.91	3.09	3.30	3.50	3.77	3.86	3.94	4.14
	March	3.11	3.38	3.50	3.74	3.95	4.02	4.11	4.29
	Apr.	3.22	3.61	3.72	4.01	4.23	4.32	4.41	4.60
	May	3.31	3.63	3.80	4.05	4.30	4.38	4.48	4.69
	June	3.41	3.70	3.93	4.07	4.31	4.41	4.50	4.72
	July	3.54	3.78	3.98	4.10	4.33	4.42	4.50	4.72
	Aug.	3.61	3.72	3.88	3.98	4.19	4.29	4.37	4.58
	Sept.	3.72	3.71	3.81	3.89	4.06	4.15	4.21	4.39
	Oct.	3.80	3.77	3.87	3.93	4.08	4.15	4.21	4.35
	Nov.	3.87	3.77	3.82	3.86	3.98	4.05	4.09	4.23
	Dec.	3.92	3.84	3.89	3.93	4.04	4.12	4.17	4.30
2007	Jan.	4.06	4.01	4.08	4.13	4.28	4.33	4.38	4.51
	Feb.	4.09	4.03	4.09	4.14	4.30	4.35	4.40	4.54
	March	4.11	4.00	4.04	4.08	4.20	4.27	4.33	4.49
	Apr.	4.25	4.17	4.24	4.28	4.40	4.46	4.52	4.70
	May	4.37	4.31	4.37	4.40	4.51	4.59	–	4.77
	June	4.51	4.52	4.65	4.68	4.80	4.97	–	5.05
	July	4.56	4.54	4.64	4.67	4.79	4.96	–	5.02
	Aug.	4.67	4.28	4.41	4.47	4.62	4.85	–	4.91
	Sept.	4.72	4.20	4.34	4.39	4.56	4.82	–	4.92
	Oct.	4.65	4.19	4.34	4.39	4.58	4.82	–	4.92
	Nov.	4.61	4.08	4.16	4.20	4.43	4.73	–	4.88
	Dec.	4.80	4.16	4.28	4.29	4.53	4.83	–	4.97
2008	Jan.	4.50	3.88	4.02	4.17	4.40	4.76	–	4.95
	Feb.	4.35	3.68	3.83	4.09	4.36	4.79	–	4.99
	March	4.67	3.92	4.10	4.24	4.42	4.95	–	5.16
	Apr.	4.81	4.15	4.31	4.32	4.54	5.05	–	5.20
	May	4.99	4.35	4.46	4.46	4.74	5.08	–	5.21
	June	5.36	4.97	5.08	4.96	5.17	5.37	–	5.40
	July	5.39	4.94	5.04	4.98	5.15	5.38	–	5.44
	Aug.	5.32	4.53	4.64	4.63	4.87	5.15	–	5.25
	Sept.	5.38	4.42	4.65	4.65	4.88	5.26	–	5.36

Source: Bank of Greece.
1 As of May 2007, there is no bond in the market with a residual maturity close to 20 years.

Table 13 Greece: domestic MFI loans to domestic firms (by branch of economic activity) and households

(balances in million euro)

End of period		Grand total	Firms: Total	Firms: Agriculture	Firms: Industry[1]	Firms: Trade	Firms: Tourism	Firms: Other	Households: Total	Households: Housing	Households: Consumer credit	Households: Other
2000		59,330.0	42,360.3	3,884.9	11,823.7	12,374.2	1,814.3	12,463.2	16,969.7	11,271.9	5,511.3	186.5
2001		74,027.4	50,198.7	3,724.2	12,614.9	15,524.3	2,171.3	16,164.0	23,828.7	15,652.2	7,852.0	324.5
2002		86,510.5	55,012.2	3,224.7	14,364.0	15,670.8	2,903.2	18,849.5	31,498.3	21,224.7	9,755.4	518.2
2003		101,178.1	60,979.3	3,082.7	15,865.1	16,514.4	3,488.2	22,028.9	40,198.8	26,534.2	12,409.6	1,255.0
2004		117,201.7	65,566.3	3,248.0	15,675.6	18,821.6	4,040.0	23,781.1	51,635.4	33,126.8	17,053.8	1,454.8
2005		136,981.1	71,282.9	2,954.0	15,753.8	19,958.4	4,189.8	28,426.9	65,698.2	43,199.4	20,850.0	1,648.8
2006		156,896.4	76,659.8	3,051.0	16,371.4	20,572.0	4,194.1	32,471.3	80,236.6	52,502.5	25,599.2	2,134.9
2007		183,722.2	89,755.1	3,228.1	17,347.0	23,603.7	4,637.7	40,938.6	93,967.1	63,613.1	27,543.3	2,810.7
2005	Jan.	118,387.3	65,985.6	3,237.8	15,645.2	18,921.1	4,079.3	24,102.2	52,401.7	33,672.4	17,275.8	1,453.5
	Feb.	118,906.4	65,521.9	3,161.6	15,623.8	19,104.7	4,129.9	23,501.9	53,384.5	34,281.6	17,610.7	1,492.2
	March	120,704.9	66,096.9	3,079.3	15,565.9	19,309.8	4,180.8	23,961.1	54,608.0	35,091.5	17,995.6	1,520.9
	Apr.	123,037.2	67,097.9	3,059.3	15,926.1	19,565.9	4,211.2	24,335.4	55,939.3	35,878.7	18,550.0	1,510.6
	May	124,228.8	67,257.5	3,038.1	15,872.9	19,520.5	4,225.7	24,600.3	56,971.3	36,610.2	18,896.4	1,464.7
	June	125,452.3	68,474.1	3,096.1	15,918.8	20,142.8	4,293.7	25,022.7	56,978.2	36,102.8	19,386.6	1,488.8
	July	127,215.3	69,613.6	3,119.2	16,123.2	20,352.3	4,135.7	25,883.2	57,601.7	37,238.6	18,897.0	1,466.1
	Aug.	127,788.5	69,212.3	3,123.3	15,838.2	20,027.5	4,110.4	26,112.9	58,576.2	37,850.0	19,245.1	1,481.1
	Sept.	129,507.9	69,305.5	2,939.4	15,674.2	19,985.6	4,073.7	26,632.6	60,202.4	39,022.1	19,628.5	1,551.8
	Oct.	131,111.7	69,462.4	2,884.1	15,757.2	19,905.6	4,089.4	26,826.1	61,649.3	40,000.4	20,080.7	1,568.2
	Nov.	133,136.0	69,791.5	2,919.6	15,712.5	19,717.1	4,184.2	27,258.1	63,344.5	41,244.2	20,511.7	1,588.6
	Dec.	136,981.1	71,282.9	2,954.0	15,753.8	19,958.4	4,189.8	28,426.9	65,698.2	43,199.4	20,850.0	1,648.8
2006	Jan.	137,731.3	70,999.2	2,948.7	15,690.0	19,672.8	4,205.7	28,482.0	66,732.1	44,010.6	21,047.7	1,673.8
	Feb.	139,714.7	71,491.8	2,957.3	15,747.6	19,389.1	4,248.8	29,149.0	68,222.9	44,873.8	21,637.5	1,711.6
	March	142,633.3	72,960.5	3,086.1	15,955.2	19,843.2	4,356.4	29,719.6	69,672.8	45,919.6	22,045.2	1,708.0
	Apr.	144,593.1	73,944.8	3,098.7	16,399.3	20,160.3	4,352.3	29,934.2	70,648.3	46,612.7	22,344.3	1,691.3
	May	145,477.5	74,372.3	3,105.7	16,661.9	19,876.8	4,377.7	30,350.2	71,105.2	46,539.9	22,815.5	1,749.8
	June	148,322.9	76,259.8	3,192.4	16,900.2	20,531.4	4,416.8	31,219.0	72,063.1	46,929.0	23,275.7	1,858.4
	July	150,012.0	76,374.7	3,203.6	16,706.6	20,573.2	4,350.0	31,541.3	73,637.3	48,165.4	23,610.7	1,861.2
	Aug.	150,031.2	76,033.8	3,204.1	16,658.0	20,371.5	4,301.8	31,498.4	73,997.4	48,138.4	23,956.0	1,903.0
	Sept.	152,943.1	77,450.6	3,239.2	16,769.4	20,916.6	4,337.6	32,187.8	75,492.5	49,140.0	24,394.4	1,958.1
	Oct.	153,584.8	76,893.8	3,226.8	16,627.6	20,662.5	4,346.0	32,030.9	76,691.0	49,923.5	24,709.6	2,057.9
	Nov.	152,551.9	74,519.8	3,141.2	16,223.8	19,823.8	4,213.5	31,117.5	78,032.1	50,672.3	25,283.7	2,076.1
	Dec.	156,896.4	76,659.8	3,051.0	16,371.4	20,572.0	4,194.1	32,471.3	80,236.6	52,502.5	25,599.2	2,134.9
2007	Jan.	157,445.6	75,917.1	3,021.6	16,099.9	20,119.0	4,218.6	32,458.0	81,528.5	53,517.4	25,881.3	2,129.8
	Feb.	159,987.8	77,080.3	3,039.1	16,168.8	20,500.8	4,327.7	33,043.9	82,907.5	54,619.9	26,114.4	2,173.2
	March	164,281.1	79,285.9	3,049.5	16,366.8	21,120.2	4,355.7	34,393.7	84,995.2	56,200.1	26,572.7	2,222.4
	Apr.	165,479.2	79,008.3	3,005.9	16,364.7	21,008.8	4,361.1	34,267.8	86,470.9	57,218.4	27,071.9	2,180.6
	May	168,128.9	79,941.2	3,034.2	16,706.6	21,238.3	4,380.6	34,581.5	88,187.7	58,277.3	27,714.2	2,196.2
	June	173,093.9	84,391.7	3,206.8	17,077.7	22,083.4	4,439.4	37,584.4	88,702.2	58,156.5	28,101.5	2,444.2
	July	173,441.0	84,073.0	3,216.2	16,876.8	22,117.2	4,388.6	37,474.2	89,368.0	58,169.6	28,596.5	2,601.9
	Aug.	175,889.4	85,133.8	3,276.4	16,979.5	22,211.6	4,346.8	38,319.5	90,755.6	59,067.4	29,055.8	2,632.4
	Sept.	178,821.4	86,275.4	3,287.6	17,211.2	22,677.0	4,386.2	38,713.4	92,546.0	60,119.2	29,466.4	2,960.4
	Oct.	180,197.8	86,146.6	3,310.4	17,098.1	22,685.0	4,420.3	38,632.8	94,051.2	61,052.5	30,101.9	2,896.8
	Nov.	179,873.5	87,830.9	3,320.9	17,420.5	22,932.6	4,466.7	39,690.2	92,042.6	62,158.7	27,128.2	2,755.7
	Dec.	183,722.2	89,755.1	3,228.1	17,347.0	23,603.7	4,637.7	40,938.6	93,967.1	63,613.1	27,543.3	2,810.7
2008	Jan.	185,746.7	90,623.4	3,300.7	17,447.4	23,749.0	4,673.8	41,452.5	95,123.3	64,361.2	27,995.2	2,766.9
	Feb.	187,446.5	91,656.1	3,464.6	17,708.8	23,917.3	4,772.6	41,792.8	95,790.4	64,142.7	28,835.5	2,812.2
	March	191,179.8	94,055.5	3,496.6	17,955.6	24,688.4	4,890.2	43,024.7	97,124.3	65,042.9	29,193.5	2,887.9
	Apr.	191,848.4	94,548.9	3,560.3	18,030.0	24,968.9	4,935.9	43,053.8	97,299.5	64,928.0	29,597.8	2,773.7
	May	194,575.9	95,836.7	3,631.2	18,625.6	25,364.4	4,969.7	43,245.8	98,739.2	65,704.6	30,195.4	2,839.2
	June	199,435.2	98,933.1	3,703.3	18,926.8	26,187.2	5,134.9	44,980.9	100,502.1	66,878.5	30,675.5	2,948.1
	July	197,628.9	99,588.0	3,719.7	19,194.5	26,329.8	5,121.1	45,222.9	98,040.9	64,448.0	30,646.3	2,946.6
	Aug.	200,739.7	101,911.9	3,762.5	19,374.0	26,575.9	5,171.5	47,028.0	98,827.8	64,854.2	31,051.3	2,922.3

Source: Bank of Greece.
1 Comprising manufacturing and mining.

Table 14 Greece: bank rates on new euro-denominated deposits of euro area residents

(percentages per annum, period averages unless otherwise noted)

Period		Deposits by households			Deposits by non-financial corporations		Repurchase agreements (repos)
		Overnight deposits[1,2]	Savings deposits[2]	Deposits with agreed maturity up to one year	Overnight deposits[1,2]	Deposits with agreed maturity up to one year	
2003		0.93	0.92	2.48	0.63	2.49	2.24
2004		0.91	0.90	2.29	0.55	2.17	1.98
2005		0.91	0.88	2.23	0.60	2.09	2.00
2006		1.02	0.98	2.86	0.79	2.81	2.67
2007		1.22	1.14	3.95	1.03	3.94	3.70
2006	Jan.	0.93	0.90	2.44	0.69	2.33	2.23
	Feb.	0.93	0.90	2.45	0.65	2.35	2.25
	March	0.99	0.95	2.58	0.73	2.57	2.42
	Apr.	0.98	0.95	2.63	0.73	2.61	2.50
	May	0.98	0.95	2.66	0.73	2.57	2.47
	June	1.02	0.98	2.76	0.75	2.70	2.60
	July	1.02	0.98	2.84	0.74	2.79	2.60
	Aug.	1.04	1.00	2.95	0.83	2.96	2.74
	Sept.	1.05	1.00	3.03	0.83	2.97	2.85
	Oct.	1.11	1.06	3.24	0.93	3.15	3.02
	Nov.	1.09	1.04	3.26	0.89	3.24	3.09
	Dec.	1.14	1.09	3.47	0.92	3.48	3.30
2007	Jan.	1.16	1.10	3.50	0.91	3.49	3.32
	Feb.	1.16	1.10	3.51	0.87	3.54	3.35
	March	1.18	1.11	3.64	0.99	3.73	3.53
	Apr.	1.20	1.13	3.74	0.98	3.81	3.60
	May	1.20	1.13	3.74	1.05	3.81	3.63
	June	1.24	1.15	3.95	1.05	4.01	3.80
	July	1.24	1.16	4.00	1.15	4.03	3.86
	Aug.	1.24	1.16	4.09	1.12	4.10	3.87
	Sept.	1.25	1.17	4.24	1.08	4.20	3.93
	Oct.	1.25	1.17	4.26	1.01	4.04	3.88
	Nov.	1.25	1.17	4.25	1.07	4.20	3.91
	Dec.	1.23	1.16	4.52	1.05	4.33	3.76
2008	Jan.	1.24	1.16	4.35	1.09	4.13	3.87
	Feb.	1.25	1.16	4.30	1.12	4.19	3.88
	March	1.25	1.17	4.42	1.06	4.44	4.01
	Apr.	1.25	1.17	4.68	1.06	4.41	3.98
	May	1.24	1.16	4.73	1.07	4.39	3.99
	June	1.25	1.17	4.85	1.06	4.51	4.44
	July	1.26	1.17	5.09	1.15	4.59	4.20
	Aug.	1.26	1.18	4.99	1.13	4.69	4.22

Source: Bank of Greece.
1 Weighted average of the current account rate and the savings deposit rate.
2 End-of-month interest rate.

Table 15 Greece: bank rates on new euro-denominated loans to euro area residents

(percentages per annum, period averages unless otherwise noted)

Period		Loans to households[1]					Loans to non-financial corporations[1]		
			Consumer loans		Housing loans			With a floating rate or an initial rate fixation of up to one year	
		Loans without defined maturity[2,3]	With a floating rate or an initial rate fixation of up to one year	Average rate on total consumer loans	With a floating rate or an initial rate fixation of up to one year	Average rate on total housing loans	Loans without defined maturity[3,4]	Up to €1 million	Over €1 million
2003		14.41	10.57	10.47	4.51	4.78	6.86	5.29	3.98
2004		13.81	9.55	9.86	4.30	4.51	7.01	4.98	3.67
2005		13.36	8.47	9.06	4.06	4.15	6.90	5.08	3.62
2006		13.45	7.89	8.58	4.24	4.30	7.18	5.76	4.37
2007		14.09	7.71	8.47	4.57	4.45	7.54	6.57	5.32
2006	Jan.	13.18	7.77	8.30	3.92	4.00	6.94	5.26	3.70
	Feb.	13.18	8.06	8.51	3.89	3.97	6.99	5.44	3.74
	March	13.22	8.09	8.44	3.92	4.02	7.13	5.50	4.15
	Apr.	13.24	7.82	8.48	3.93	4.08	7.09	5.57	3.92
	May	13.22	7.84	8.66	4.00	4.15	7.10	5.61	4.17
	June	13.45	8.09	8.75	4.22	4.32	7.18	5.65	4.41
	July	13.41	7.85	8.59	4.28	4.36	7.19	5.70	4.40
	Aug.	13.60	7.99	8.77	4.51	4.53	7.26	5.88	4.27
	Sept.	13.58	8.03	8.85	4.50	4.54	7.26	5.91	4.72
	Oct.	13.72	8.15	8.87	4.66	4.62	7.37	6.14	4.83
	Nov.	13.81	8.19	8.86	4.69	4.59	7.25	6.15	4.94
	Dec.	13.80	6.82	7.82	4.36	4.41	7.35	6.30	5.16
2007	Jan.	13.87	7.35	8.30	3.92	4.29	7.32	6.27	5.22
	Feb.	13.86	7.53	8.40	3.80	4.24	7.34	6.36	5.01
	March	13.88	7.60	8.23	4.00	4.28	7.45	6.38	5.08
	Apr.	13.97	7.72	8.36	4.45	4.37	7.50	6.45	5.12
	May	13.92	8.18	8.74	4.46	4.41	7.47	6.51	5.06
	June	14.09	7.82	8.61	4.90	4.52	7.56	6.48	5.32
	July	14.12	8.00	8.70	5.01	4.53	7.56	6.44	5.12
	Aug.	14.15	8.38	8.78	5.00	4.58	7.74	6.76	5.48
	Sept.	14.14	7.50	8.54	4.93	4.64	7.68	6.78	5.68
	Oct.	14.13	7.22	8.08	4.96	4.63	7.62	6.75	5.50
	Nov.	14.50	7.54	8.47	4.68	4.53	7.65	6.81	5.50
	Dec.	14.47	7.66	8.40	4.76	4.45	7.56	6.83	5.79
2008	Jan.	14.48	8.15	8.52	4.61	4.39	7.50	6.66	5.48
	Feb.	14.48	8.36	8.63	4.67	4.40	7.50	6.62	5.32
	March	14.46	8.64	8.62	4.77	4.47	7.55	6.65	5.68
	Apr.	14.52	8.87	8.75	4.83	4.50	7.62	6.79	5.66
	May	14.48	8.82	8.92	4.94	4.57	7.62	6.83	5.64
	June	14.49	8.52	8.84	5.05	4.68	7.59	6.91	5.82
	July	14.98	9.21	9.06	5.30	4.83	7.79	7.03	6.05
	Aug.	15.16	8.82	9.03	5.34	4.98	7.78	7.11	5.82

Source: Bank of Greece.
1 Associated costs are not included.
2 Weighted average of the rates on loans to households through credit cards, on open account loans and on overdrafts from current accounts.
3 End-of-month interest rate.
4 Weighted average of the rates on corporate loans via credit lines and on overdrafts from sight deposit accounts.