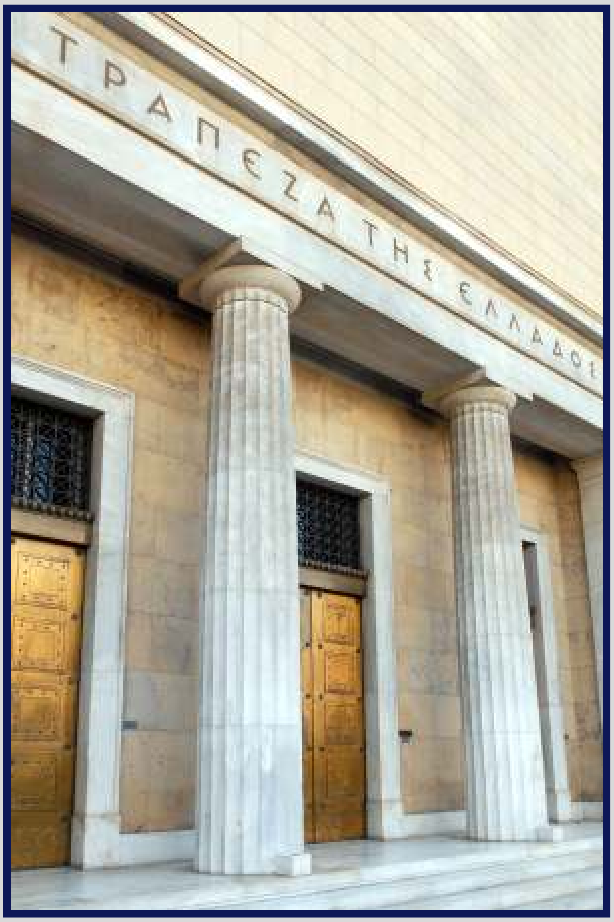
ANNUAL REPORT
2008

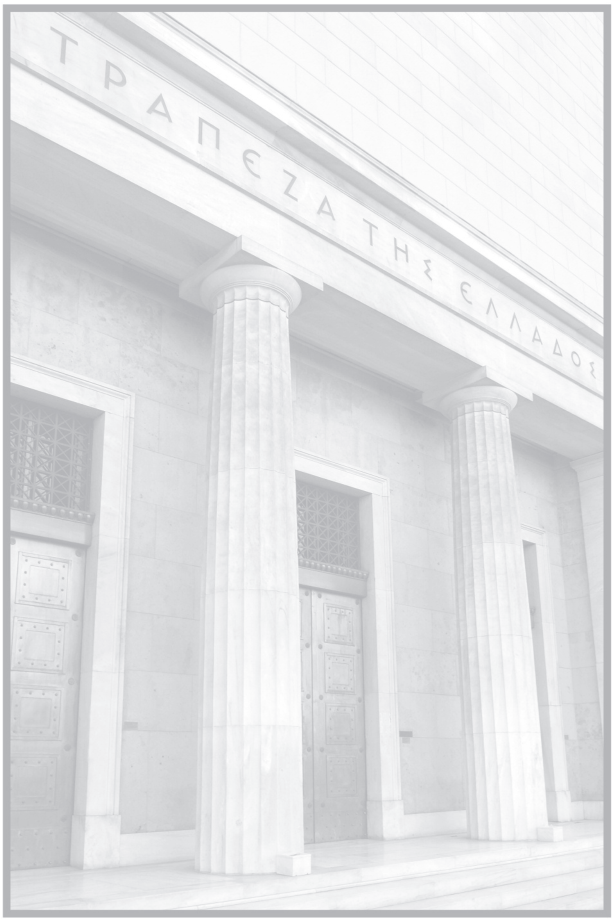


APRIL 2009

BANK OF GREECE
EUROSYSTEM

ANNUAL REPORT
2008

Presented to the 76th General Meeting of Shareholders
on 15 April 2009 by Governor George Provopoulos



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GENERAL COUNCIL

George Provopoulos	**Chairman – Governor**	
Helen Dendrinou – Louri	**Deputy Governor**	
Ioannis Papadakis	**Deputy Governor**	
George Demopoulos	Member of the MPC and Member	
Panayotis Thomopoulos	»	
George Economou	»	
Ioannis Gozadinos	Member	
Georgios Kassimatis	»	
Ulysses Kyriacopoulos	»	
Georgios Mylonas	»	
Christos Polyzogopoulos[1]	»	*Expiry of term of office: 2009*
Michael Chandris	»	
Eleftherios Foukas	Government Commissioner	

1 The term of office of General Council Member Mr Christos Polyzogopoulos, elected by the Annual General Meeting of 27 April 2006, expires at the current Annual General Meeting, in accordance with Article 21 of the Bank's Statute.

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GEORGE PROVOPOULOS

TO THE ANNUAL GENERAL MEETING OF SHAREHOLDERS
BY ORDER OF THE GENERAL COUNCIL

I FINANCIAL RESULTS FOR 2008

The Bank's Profit and Loss Account for 2008 shows total net revenue of €823.5 million and total operating expenses (including depreciation and provisions) of €598.5 million. Net profit thus reached €225.1 million, compared with €284.7 million in 2007.

In accordance with Article 71 of the Bank's Statute regarding profit appropriation, the General Council has decided to propose to the Meeting of Shareholders that €13.3 million or 12% of the Bank's capital be distributed as first dividend and that an amount of €34.4 million be distributed as additional dividend, thus bringing the total dividend to €47.7 million, compared with €50.8 million in 2007. The total dividend per share would thus come to €2.40, compared with €2.56 in 2007 (adjusted to the current number of the Bank's shares). From the balance of net profits —after the allocation of €22.2 million to an increase in the ordinary reserve and the deduction of €15.9 million in income tax on distributed profits— an amount of €139.3 million shall be paid to the State in accordance with Article 71 of the Bank's Statute, compared with €180.9 million in 2007.

In greater detail, the Bank's revenue and expenses in financial year 2008 can be broken down as follows:

Total net income from interest, commission fees and other revenue from domestic and foreign activities, including operations with the European Central Bank (ECB) and other members of the European System of Central Banks (ESCB), decreased by a marginal 0.2% from €825.5 million in 2007 to €823.5 million in 2008.

This result was solely due to the establishment of a new special provision as a buffer against risks related to the Eurosystem's monetary policy operations, which outweighed the significant increase in income from the Bank's regular sources in 2008.

The special provision was established following a decision of the Governing Council of the ECB, prompted by the exceptionally adverse conditions that had prevailed in the money market in 2008 and affected, *inter alia,* Eurosystem's liquidity-providing monetary policy operations. In line with the principle of prudence, the Governing Council deemed it appropriate to establish a buffer of €5,736 million in total against counterparty risks in monetary policy operations. In accordance with the Statute of the ESCB and of the ECB, the provision was funded by all the national central banks (NCBs) of the participating Member States in proportion to their subscribed shares in the capital of the ECB. The share of the Bank of Greece in the total provision came to €149.5 million and negatively affected its net result from the pooling and reallocation of monetary income within the Eurosystem. Net interest income rose to €706.2 million, from €540.9 million in 2007 (+30.6%), due to the high returns on interest-bearing assets.

Net interest income rose by 30.6% to €706.2 million, against €540.9 million in 2007, as a result of the high yields of the Bank's portfolios.

Net income from fees and commissions rose by 9.3% to €144.0 million, compared with €131.7 million in 2007. This income mainly includes fees and commissions received by the Bank in its capacity as the government's fiscal agent and, also, as portfolio manager for public entities and social security organisations.

Income from equity shares and participating interests increased by €34.8 million to €38.2 million, from €3.4 million in 2007. This substantial increase was due to an inflow of €34.5 million from the ECB, corresponding to the Bank of Greece's allotted share in the ECB's seigniorage income and net profit.

Net realised gains from financial operations fell by €67.3 million to €37 million, from

€104.3 million in 2007. Results in 2007 had benefited from non-recurring net realised gains of €93.4 million from swap operations, with which a special provision had been created. It should be noted that 2008 saw higher realised gains from foreign exchange operations and debt securities and significantly lower portfolio valuation losses as at year-end relative to 2007, despite the adverse international financial market environment.

Finally, other income, mainly comprising income from the activities of the Banknote Printing Works (IETA), amounted to €32.9 million, compared with €38.6 million in 2007.

Total expenses in 2008 (excluding the provision against counterparty risk in Eurosystem monetary policy operations) increased by 10.7% to €598.5 million, from €540.8 million in 2007. This development was mainly due to an increase in provisions against future risks and other liabilities of the Bank. More specifically:

Other provisions (further to the aforementioned Eurosystem-related provision) set aside during financial year 2008 rose to €197.4 million, from €148.1 million in 2007 (+33.3%). The largest part of this amount concerns a provision against future counterparty risks arising from the conduct of Eurosystem monetary policy operations.

Operating expenses excluding provisions (staff costs, pensions, administrative and other expenses, depreciation) increased by a mere 2.1% to €401.1 million, from €392.7 million in 2007. The respective increase in the previous financial year had been 9.5%.

In accordance with Cabinet Act No. 8 of 10 June 2008, the Bank's share capital was increased by €22,248,671.20 in financial year 2008, through capitalisation of part of the real estate revaluation gains from financial years 2004 and 2007. This increase was achieved by issuing 3,972,977 new bonus shares of a par value of €5.60 each, allotted to current shareholders in a proportion of one new share for every four existing ones. As required by Articles 10 and 71 of the Bank's Statute, the ordinary reserve was increased by the same amount (from profits for financial year 2008) so as to be equal with the share capital.

The Bank's total number of staff decreased by a further 269 members in the course of 2008, to 2,494 at year-end.

The Bank pressed ahead with organisational adjustments, to meet the increasingly complex challenges arising from the interdependence of financial systems worldwide and to keep up with a rapidly changing macroeconomic environment. More specifically:

The year 2008 saw the creation of a Financial Stability Department. The decision to set up this Department was prompted by the view that the risks to the financial system need to be closely and comprehensively monitored and that the macroeconomic implications of developments in the financial sector need to be carefully examined. This view, which is shared by most Eurosystem central banks, has been gaining ground in the light of the lessons drawn from the probe into the recent financial crisis and of the inherent operational and supervisory weaknesses revealed during this process.

A new organisational unit was created within the Economic Research Department to monitor the economic developments in the countries of South-Eastern Europe and the Mediterranean. The setting-up of this unit was combined with an upgrading of cooperation with other Bank units involved with the region, so as to maximise synergies.

Another new unit was established within the Economic Research Department to undertake the systematic monitoring of the real estate market. In order to enable this new unit to better perform its task, a database has been set up and all credit institutions are now subject to a data reporting requirement. Since early 2009, data has begun to be collected from credit institutions and other entities. In addition, matters pertaining to the real estate market are now part of the Bank's regular research agenda.

2008 saw the Bank of Greece pursue its mission in all its fields of competence and play an active role in the formulation and implementation of monetary policy within the Eurosystem, with a close and systematic eye on economic aggregates as the financial crisis continued to unfold. The Bank intensified its activities in the field of supervision of credit institutions and other entities of the financial sector, as well as in the field of the oversight and operation of payment and securities settlement systems. As in the past, none of this would have been possible without the staff's commitment, dedication and adaptability to new conditions and requirements. I would therefore invite the General Meeting to join me in expressing our commendation to the entire staff.

Throughout 2008, the Bank continued to strengthen its relations with the central banks and banking supervisors of South-Eastern Europe, especially in the countries where Greek banks are present. In this context, visits to the Bank of Greece by several SE European NCB Governors and officials have been scheduled and carried out since early 2009 for talks and consultation on matters of mutual interest, with an emphasis on supervision and financial crisis management.

A notable development in the field of payment systems was the migration from HERMES, Greece's real-time gross settlement (RTGS) system, to the new Trans-European Automated Real-time Gross settlement Express Transfer system TARGET2. The Greek component of TARGET2 became operational on 19 May 2008, after successful preparations and tests with the credit institutions, coordinated by the Bank of Greece.

Throughout 2008, construction, maintenance and remodelling works continued on several of the Bank's premises, with a view to enhancing both working conditions and the physical security of facilities and operations. More specifically, the refurbishment works on the listed neoclassical building that houses the Bank's Thessaloniki branch were completed and the building was reopened by the Bank's Administration in a special event attended by the staff and local officials and distinguished guests from the local community. Meanwhile, work continued on the construction of the Bank's second Cash Processing and Distribution Centre in the area of Pylaia, outside Thessaloniki.

As the terms of office of both Governor Nicholas C. Garganas and Deputy Governor Nicholas D. Paleocrassas were to come to an end on 13 June 2008, the General Council decided on 30 May to recommend me to the Cabinet for the position of Governor and Ms Eleni Louri-Dendrinou for the position of Deputy Governor. Both recommendations were adopted by the Cabinet and the appointments were finalised with the publication of the relevant Presidential Decree in the Government Gazette on 20 June 2008.

Six months later, the General Council, at its meeting of 19 January 2009, nominated Mr Ioannis Papadakis to succeed Mr Panayiotis Thomopoulos whose term of office was to expire on 27 February 2009. The nomination proposal was adopted by the Cabinet and the appointment was finalised with the publication of the relevant Presidential Decree in the Government Gazette on 2 March 2009. By another Presidential Decree, the outgoing Deputy Governor Mr Panayiotis Thomopoulos was appointed member of the Monetary Policy Council, in replacement of Mr Ioannis Papadakis.

By Presidential Decree, Mr Georgios Oikonomou was reappointed member of the Monetary Policy Council for another six-year term, after his first term ended on 10 April 2008. At today's Annual General Meeting and in accordance with Article 21 of the Bank's Statute, the term of office of General Council member Mr Christos Polyzogopoulos expires. The General Meeting will therefore be called upon to elect a new General Council member for a three-year term, i.e. until the Annual General Meeting of 2012. The outgoing General Council member is eligible for re-election.

II THE STATE AND PROSPECTS OF THE GREEK ECONOMY AND ECONOMIC POLICY CHALLENGES

1 INTRODUCTION

The global financial and economic crisis has revealed the macroeconomic imbalances and structural weaknesses of the Greek economy

The global economy is in the midst of its most severe financial and economic crisis since the 1930s. The strong turbulence that started in the United States in August 2007 and spilled over to the rest of the world is continuing for the second year running, with occasional episodes of intensification. The persistence of the financial turmoil has caused the global outlook for output, employment and trade to deteriorate rapidly, especially during the last few months. At the current phase, **developments in the financial and the real sectors of the global economy form a negative feedback loop,** whereby the dysfunctioning of financial markets squeezes activity and, in turn, the fall in economic activity further undermines the capital position of the financial sector and its ability to finance enterprises and households. **Exit from this vicious circle will not be easy or fast.**

The global crisis has negatively affected the Greek economy, especially since its intensification in September 2008. The growth rate of the Greek economy, which had been steadily high since the second half of the 1990s, decelerated markedly in 2008, while **economic activity is projected to stagnate in 2009.** The *financial crisis* is affecting economic activity in Greece in two ways: on the one hand, the tightening of banks' credit standards for lending to enterprises and households is restricting the *supply* of loans and, on the other hand, the significant weakening of consumer and business confidence and the resulting lower propensity to consume and invest in housing and the higher risk aversion are causing credit *demand* by both households and enterprises to decline as well. The world *economic* crisis also has a direct impact on the Greek economy, since the ongoing contraction in global economic activity and the decrease in world trade volumes have hit Greek exports of goods as well as services, notably shipping and tourism.

The financial and economic crisis has made the macroeconomic imbalances and structural weaknesses of the Greek economy more visible. First of all, the favourable factors that had supported strong growth rates for a number of years, fostering complacency with regard to the economic outlook, have lost their momentum. In addition, market concerns have heightened, as indicated by the yield spreads between Greek government bonds and the corresponding German securities. In particular, markets are concerned about Greece's fiscal deficit, which has been well in excess of 3% for two consecutive years (triggering a re-initiation of the excessive deficit procedure against Greece), as well as about the country's high public debt-to-GDP ratio (over 95% in 2008) and the failure of successive governments to achieve a sustainable fiscal adjustment, despite the strong growth performance seen since the mid-1990s. Another source of concern are the extremely high levels of the current account deficit, attributed, to a large extent, to the insufficiency of structural measures taken at the time with a view to reforming the public sector and enhancing the production base and productivity. As pointed out in the latest Monetary Policy Report of the Bank of Greece (February 2009), **there is an urgent need for a credible medium-term plan that will include bold but necessary reforms, with fiscal consolidation being the top priority.**

As for the key aggregates of the Greek economy, annual **GDP growth** fell from 4.0% in 2007 to 2.9% in 2008 (and 2.4% in the fourth quarter). According to Bank of Greece estimates, economic activity will stagnate in 2009 and even negative annual rates of change cannot be ruled out in the course of the year, while developments could turn out even worse if global economic conditions deteriorate more than expected (causing a stronger than expected drop in Greek exports). However, Greek GDP increased more than the euro area average in 2008 and, though projected to stagnate in 2009, would fare better than area-wide GDP, which is expected to decrease significantly. **Employment** growth decelerated only slightly in 2008 and the **rate of unemployment** decreased, but in 2009 employment is projected to fall and the rate of unemployment to rise. The average annual **inflation** rate in 2008 rose considerably above the level of 2007 (4.2% compared with 3.0% respectively), but was very volatile in the course of the year, dropping to 2.0% in December, before slowing down further in the first quarter of 2009. The decline in crude oil and food commodity prices is expected to exert a continued dampening effect on the annual rate of inflation, which will level off at an average 1.5% or even less (1.1-1.2%) in 2009. Core inflation, however, which was relatively high in 2008 (3.4%), is expected to decrease less than headline inflation in 2009 and to remain higher than the corresponding euro area measure. Consequently, **the price competitiveness of the Greek economy will erode further.**

2 THE INTERNATIONAL AND THE EUROPEAN ECONOMIC ENVIRONMENT

2.1 DEVELOPMENTS AND PROSPECTS

A decline in world GDP and a sharp decrease in world trade volumes are expected in 2009

After breaking out in the United States in August 2007, the turmoil in the international financial markets developed in the course of 2008 into the most severe financial crisis since the 1930s, with adverse repercussions on global economic activity and world trade. By early 2008, the spread of the financial turmoil to the rest of the world, combined with the further surge in commodity prices (mainly crude oil and food), had led to a slowdown in economic growth in most advanced economies. However, since mid-September 2008, when the global financial crisis intensified after the bankruptcy of a major US investment bank, global economic conditions have deteriorated further at a rapid pace, reflected in a generalised mistrust in the financial system, a shortage of credit supply, a dramatic drop in stock prices and —in some economies— house prices, as well as a sharp deterioration in business and consumer confidence worldwide. Despite **the important and unprecedented measures taken by governments, central banks and international organisations** in order to contain systemic risks and restore financial stability, the financial crisis and its impact on the real economy spread to almost every part of the world. By the end of 2008, most advanced economies were already in or on the brink of recession, while the emerging or developing economies —especially those with substantial macroeconomic imbalances— had also been considerably affected.

Global economic activity contracted further in early 2009, while the forecasts of international organisations have been repeatedly revised downwards. **According to the latest IMF estimates,[1] global GDP will decrease, for the first time since the 1940s, by between 0.5% and 1.0% in 2009, while, according to OECD estimates,[2] world[3] GDP will shrink by 2.7% and world trade growth will plummet (-13.2%).** The IMF also forecasts **a gradual recovery of the global economy in 2010, subject to certain conditions,** such as effective policy action to support financial stability and improve credit conditions, sizeable fiscal stimulus, a starting recovery in the US housing market and continued low levels of oil and other commodity prices. Global inflation was very volatile in 2008, rising sharply in the first half of the year, mainly due to higher food and energy prices, before dropping markedly in the second half as a result of the subsequent fall in these commodity prices and weaker global economic activity. Inflation will continue to decline in 2009, reflecting lower commodity prices and a buildup of spare capacity in the world economy.

- In **the advanced economies**, growth weakened markedly in 2008, dropping to 0.8% from 2.7%

1 IMF, *Global economic policies and prospects,* 19 March 2009, note prepared for the meeting of G20 Finance Ministers and Central Bank Governors of 13-14 March 2009.
2 OECD, *Economic Outlook - Interim Report,* 31 March 2009.
3 OECD countries plus Brazil, Russia, India and China, representing 82% of world GDP.

in 2007. Domestic demand in these economies was adversely affected by worsening credit conditions, the erosion of real incomes as a result of high inflation (roughly until mid-2008, when fuel and food prices started to decline significantly), lower household asset valuations (on account of the substantial fall in equity prices worldwide and in house prices in several economies during 2008), as well as a generalised decline in investor and consumer confidence. External demand was affected too, as most emerging and developing economies also experienced a significant economic downturn in the course of 2008. The macroeconomic outlook for the advanced economies is generally bleak, with economic activity projected by the IMF to contract by between 3% and 3.5% in 2009 (the worst performance in post-war history) and to stagnate or increase only slightly (no more than 0.5%) in 2010. There is a considerable risk of an even stronger decline and then a slower recovery, particularly if the global financial system should experience stronger strains and if consumer and investor confidence were to worsen. (It is worth noting that, according to the OECD, the GDP of its member countries as a whole is projected to contract by 4.3% in 2009 and by 0.1% in 2010). Inflation in the advanced economies is estimated to have increased on average to 3.5% in 2008 from 2.1% in 2007, despite its significant decline during the last months of 2008. In 2009, subdued oil and food prices, combined with sluggish aggregate demand, are expected to contribute to very low or even negative inflation rates. According to the IMF, there is even a risk of a deflation for relatively long periods in certain advanced economies, in particular Japan and the United States.

• In the **euro area**, GDP growth weakened substantially in 2008 to 0.8% (from 2.6% in 2007), as the impact of the global financial crisis became more visible from the second quarter onwards. According to the latest IMF estimates, euro area GDP will shrink by 3.2% in 2009 (by 4.1% according to the OECD), reflecting the collapse in external demand, the impact of housing market corrections in some member states, and tight credit conditions. The impact of falling external demand will be stronger in the euro area than in the United States, and policy stimulus will be more moderate, though “automatic stabilisers” are substantially larger in the euro area. Euro area inflation stood at 1.6% in December 2008 and is expected to fall to lower or even negative levels in the course of 2009 (according to preliminary estimates, 0.6% in March), mainly reflecting the impact of falling fuel and food prices.

• In the **emerging and developing economies**, GDP growth remained relatively strong in 2008 (at 6.1%, down from 8.3% in 2007), but decelerated markedly in the fourth quarter, mainly reflecting the shrinking of these countries’ export markets among advanced economies. The slowdown was more pronounced among the economies that rely largely on the exports of oil and other commodities, the prices of which have plummeted since mid-2008. According to the IMF, the growth rate of emerging and developing economies is projected to recede further to between 1.5% and 2.5% in 2009 (according to the OECD, GDP growth will drop to 6.3% in China and to 4.3% in India, from 9.0% and 6.0% respectively in 2008, while in Russia GDP is projected to contract by 5.6%, after a 5.6% increase in 2008). Inflation in the emerging and developing economies fell as a result of the drop in oil and other commodity prices, remaining, however, considerably higher than in the advanced economies.

• The **emerging economies of Southeastern Europe** —which, in contrast with other emerging economies, have high current account deficits— are more vulnerable to the deteriorating international environment, as they are adversely affected not only by falling external demand, but also by the sharp contraction in capital inflows and higher foreign borrowing costs. These developments have contributed to a decline in investor confidence and to downward pressure on foreign exchange markets and —to a larger extent— on stock market valuations. Particularly affected are Croatia, Romania and Bulgaria. It is encouraging that the International Monetary Fund, the European Bank for Reconstruction and Development and the European Union have already provided financial support to the countries of Southeastern Europe.

2.2 INTERVENTIONS IN THE FINANCIAL SYSTEM AND MACROECONOMIC POLICY MEASURES AT THE INTERNATIONAL LEVEL

The international community has taken coordinated, bold and unprecedented action

The severity of the global crisis has prompted the international community – governments, central banks, supervisors and international organisations – to take coordinated, bold and unprecedented action. These interventions involved, on the one hand, the provision of liquidity and measures to support and consolidate the financial system and, on the other hand, direct demand-enhancing measures, in order to break the vicious circle of developments in the financial and the real sectors of economy. Meanwhile, discussions are intensifying in view of effectively reforming the international financial system so as to ensure financial stability in the future. Important decisions on this issue were adopted at the last G-20 meeting on 2 April.

• **Financial sector measures** have primarily focused on providing liquidity, guarantees and capital injections to the banking system, thus helping to avert a credit crunch and panic among depositors and creditors due to a lack of trust in financial institutions. However, the interventions in the financial system have, at least so far, been direct responses to very severe crisis episodes and to disruptive events in the money, credit and capital markets rather than systematic measures aimed at addressing the deeper problems of financial institutions and at consolidating them on a sustained basis. Thus, a general lack of confidence in the balance sheets of large financial institutions still persists and will dissipate only gradually, after decisive measures for impaired asset relief and recapitalisation have been taken.

• As for the establishment of a **new international financial architecture**, the IMF and the Financial Stability Forum have made important proposals, the implementation of which has been fostered by the decisions of the G-20 summit on 2 April 2009. At the European level, the recommendations contained in the Report of the de Larosière group are particularly worthy of note.[4] The main lines of the proposed reform are the following:[5]

— expanding the scope of regulation and supervision to encompass the entire financial sector, and enhancing transparency;

— strengthening macro-prudential supervision, with a view to averting systemic risks;

— reducing the pro-cyclicality of both the credit system and the regulatory framework of supervision;

— closer supervisory cooperation at the international and the European levels. At the **European level**, the European Central Bank is prepared to assume an enhanced role. At the **international level**, the G-20 leaders decided to set up a Financial Stability Board (FSB) to succeed the Financial Stability Forum, with significantly increased responsibilities and an enlarged composition. The FSB will work with the IMF, whose role and available resources are being reinforced.

• **Measures to support demand** include, first of all, **drastic cuts in the key interest rates of major central banks** to historically low levels (especially after the intensification of the financial crisis in September 2008) and the **effectively**

4 The High-Level Group on Financial Supervision in the EU chaired by Jacques de la Larosière, Report, Brussels, 25 February 2009.
5 See "G-20 Finance Ministers' and Central Bank Governors' Communiqué", 14 March 2009, "Presidency conclusions" of the Brussels European Council, 19-20 March 2009, and "G-20 Final Communiqué", 2 April 2009. See also, Jean-Claude Trichet, "What lessons can be learned from the economic and financial crisis?", 17 March 2009, and Lucas Papademos, "Strengthening macroprudential supervision in Europe", 24 March 2009 (both speeches are available on the ECB's website).

unlimited provision of liquidity. The key interest rate cuts, however, have not fully translated into lower rates for loans to households and businesses, as banks have tightened their credit standards. These difficulties have led several central banks to take "non-standard" measures to boost demand, including interventions in non-bank financial markets and direct financial support to enterprises.

- In the same direction, **fiscal policy stimulus packages** have been introduced by governments in most of the advanced and emerging economies – **of course, those whose low starting levels of deficit and debt allow them to do so.** The discretionary fiscal stimulus provided by governments in advanced economies is estimated by the IMF at 1.6% of their GDP in 2009 and 1.2% in 2010, while in the large emerging economies among G-20 countries the respective percentages should amount to 2.0% and 1.4% (with a sizeable contribution from China). The magnitude of stimulus provided varies significantly across economies. The countries of the EU have generally opted for a smaller fiscal stimulus, partly because the size of their "automatic fiscal stabilisers" is larger compared with countries such as Australia, Canada, Japan and the United States. Overall, the IMF estimates that the government deficits of advanced economies will rise from 4.1% of GDP in 2008 to 6.7%[6] in 2009 and 7.6% in 2010, thus considerably supporting demand. At the same time, most governments have recognised the existence of risks to the sustainability of their fiscal positions and are already preparing for gradual deficit reductions in the context of their medium-term fiscal policy planning, taking into account both the higher expenditure entailed by the crisis and the longer-term budgetary implications of population ageing.

2.3 THE MONETARY POLICY OF THE ECB AND THE INTERVENTIONS OF THE EUROSYSTEM IN THE EURO AREA MONEY MARKET

The monetary policy of the ECB and the provision of liquidity by the Eurosystem have been key to ensuring price stability, supporting economic activity and stabilising the financial system

The Governing Council of the ECB determines the level of key interest rates with a view to achieving the Eurosystem's primary objective of price stability in the euro area over the medium term, defined as an annual inflation rate of below but close to 2%. The progressive withdrawal of monetary accommodation, which had started in December 2005 and involved nine increases in key interest rates by 25 basis points each, lasted until the third quarter of 2008. Since October 2008, **the Governing Council of the ECB,** taking into account the gradual easing of inflationary pressures, **has lowered its interest rate on main refinancing operations on six occasions (by a cumulative 300 basis points),** bringing it to 1.25% on 2 April 2009. Several other central banks also proceeded to a gradual monetary easing during the same period.

Underlying the decisions to reduce the key interest rates was the assessment of the ECB Governing Council that the intensification of the financial turmoil since mid-September 2008 has had considerable negative effects on aggregate demand over an extensive period of time, and has thus contributed to containing inflationary pressures. In addition, declining commodity prices also contribute to the easing of inflationary pressures, while inflation has been on a downward path since August 2008. At the same time, the growth rates of monetary and credit aggregates continue to decline.

Regarding the outlook for price developments, the Governing Council expects that, after the recent reductions in key interest rates, price stability will be maintained over the medium term. According to the latest ECB staff macroeco-

6 According to IMF calculations, the US budget deficit will come to 7.7% of GDP in 2009, excluding the cost of financial sector support measures (estimated at 5.7% of GDP). *Hence, the IMF estimates the total US fiscal deficit at 13.4% in 2009 (and the OECD at 10.2%).* Moreover, according to calculations by the US Congressional Budget Office, the government deficit should reach 13.1% of GDP in 2009 (Congressional Budget Office, *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook,* 20 March 2009).

nomic projections, which, however, were finalised before the last interest rate cuts, average annual inflation should fall to between 0.1% and 0.7% in 2009 and to between 0.6% and 1.4% in 2010. Risks to this outlook are broadly balanced and the inflation rate outcome will depend on developments in economic activity and commodity prices. In any case, the annual inflation rate is expected to decelerate further in the next few months and to turn negative by mid-2009, before picking up again.

Turning to economic activity in the euro area, the Governing Council of the ECB has recently communicated its expectation of a recovery in the course of 2010, reflecting, on the one hand, the effect of the financial sector support packages and, more generally, the expansionary macroeconomic policies implemented worldwide, and, on the other hand, the boosting impact of lower commodity prices on real disposable income and, hence, on private consumption.

Throughout 2008, the euro area interbank market experienced tensions and disruptions, which accentuated after the bankruptcy of Lehman Brothers. Among other developments, the spread between the Euribor and the expected EONIA rate widened significantly, while the volume of interbank transactions contracted. The Eurosystem addressed these developments with interventions in the money market that intensified after mid-September. The aim of these interventions was to provide liquidity to credit institutions which, albeit solvent, faced difficulties in tapping the interbank market due to the prevailing tensions. Lately, however, these disruptions have subsided and tensions in the euro area interbank market are gradually easing.

The Eurosystem's interventions have been decisive in mitigating disruptions and easing tensions. In particular, in October 2008, the Governing Council of the ECB decided, on a temporary basis and until the normal functioning of the interbank market is restored:

– to conduct liquidity-providing operations as fixed rate tenders with full allotment;

– to increase the frequency of longer-term refinancing operations;

– to enlarge the set of eligible collateral accepted in Eurosystem credit operations; and

– to broaden the set of eligible counterparties in quick tender operations.

Moreover, the Eurosystem continued, in cooperation with the Federal Reserve and other central banks, to provide liquidity in US dollars to euro area credit institutions through standard tenders and against assets eligible for monetary policy operations.

Through these interventions, the Eurosystem effectively substituted banks in the interbank market, providing ample liquidity. This development is reflected in the impressive increase in the Eurosystem's total assets by 42% between mid-September 2008 and the end of the year. The higher assets were initially in line with a rise in the outstanding amounts placed in the context of the deposit facility, associated with the temporary narrowing of the corridor formed by the interest rates on the Eurosystem's two standing facilities (i.e. the marginal lending and the deposit facilities) from early October 2008 until late-January 2009. When the narrowing of the corridor was reversed in late January 2009, the outstanding amounts under the deposit facility declined. Finally, **after early October 2008, with the provision of ample liquidity, the EONIA rate fell below the rate on the main refinancing operations.**

More generally, the monetary policy of the ECB and the provision of liquidity by the Eurosystem have been key to addressing the risk of inflation falling (on a more permanent basis) below the level that is consistent with price stability, to supporting economic activity and to stabilising the financial system.[7]

7 See Lucas Papademos, "How to deal with the global financial crisis and promote the economy's recovery and sustained growth", 26 March 2009 (available on the ECB's website).

3 MACROECONOMIC DEVELOPMENTS IN GREECE IN 2008 AND THE OUTLOOK FOR 2009

3.1 ECONOMIC ACTIVITY

The international crisis is affecting the Greek economy – GDP is projected to stagnate in 2009

The dramatic deterioration in the external environment has had an adverse effect on the Greek economy. The GDP growth rate fell to 2.9% in 2008 from 4.0% in 2007, mostly due to a large decline in investment. The growth rate of private consumption fell gradually to 2.2% in 2008, from 3.0% in 2007. However, private consumption remains the most important contributor to GDP growth. By contrast, residential investment shrank (-29.1%) and investment in equipment declined by 9.6%, more than offsetting the positive effect of rising private consumption on domestic demand. The change in domestic demand turned out to be negative, and the rise in GDP was mostly driven by the improved real external balance of goods and services (as imports declined markedly, while exports rose moderately) as well as by the significant (undesired) inventory accumulation. In other words, domestic demand fell, while the sum of domestic and net external demand rose but was outpaced by output, leading to a build-up of unsold stocks.

As national and international short-term indicators do not currently suggest any signs of improvement, **GDP is expected to stagnate in 2009**. Moreover, the high stocks accumulated in 2008, to the extent that they are used to meet demand during this year, could contribute to a decline in domestic output in 2009 (even assuming no change in these stocks, the contribution to GDP growth would again be neutral, in contrast with their positive impact on growth in 2008). Growth forecasts are surrounded by high uncertainty and, as already mentioned, **the evolution of activity could turn out to be even worse,** in the event of a sharper than expected deterioration in global economic conditions that would cause Greek exports to decline more than currently expected.

Reflecting the expected further deceleration in credit expansion to households and enterprises and heightened uncertainty, the growth rate of private consumption should continue to weaken, while private investment in houses, other construction and equipment is expected to decline. Further factors that are likely to dampen private consumption are the (rather small) decline in employment and the subdued rise in incomes. Business investment should be adversely affected by weaker domestic demand and falling external demand, as well as by the drop in profitability in 2008, which is expected to continue in 2009.

Against the backdrop of the expected significant decline in world economic activity and trade volumes, Greek exports of goods, mostly directed to EU countries and non-EU Balkan countries, are expected to shrink. Moreover, a marked drop is expected in travel receipts from visitors originating from Western Europe, the United States, as well as Southeastern Europe and Russia. Transport (shipping) receipts are also projected to drop because of lower freight rates and declining trade volumes.

On the other hand, **there are also some factors that may mitigate the negative effects of the crisis on economic activity in 2009.** In particular:

- Lower oil prices imply a substantial drop in inflation, helping to raise real disposable incomes.

- Average *real* earnings in the whole economy are expected to rise by 2-2.5% (even after taking into account the observed reduction in average working time). If the drop in employment turns out to be only moderate, as anticipated, the *total* wage income should increase by 1-1.5% in real terms, thus supporting a 1% rise in private consumption, provided that household confidence does not decline significantly further.

• The implementation of the liquidity support plan is expected to help raise the rate of credit expansion to households and enterprises above the growth rate of nominal GDP (at current prices), which however will be low. **Clearly, the final outturn of the credit expansion rate will depend not only on supply of loans but also on the respective demand, which has weakened as increased uncertainty has depressed business and household confidence.**

• The large decline in stock prices does not seem to be exerting a significant effect on Greek household consumption. Moreover, although the prices of houses (a major component of household wealth, unlike equity shares) are expected to fall, the change in housing market valuations should not have a significant effect on consumption behaviour.

• The speeding up of the implementation of already approved public-private partnership projects and projects included into the development law but not yet completed, as well as possible large investments in the energy sector, could mitigate the decline in business investment. Moreover, public investment could be curtailed to a lesser extent than envisaged in the budget, if financing can be secured through advance payments of Community resources under the National Strategic Reference Framework or through saving on other government expenditure.

• Finally, as imports of goods and services are expected to fall significantly in 2009, reflecting a weakening in consumption demand and a drop in investment demand, the real external balance should have a neutral contribution to GDP growth (despite a projected strong decline in the exports of goods and services).

3.2 EMPLOYMENT AND UNEMPLOYMENT

Expectations of a relatively limited decline in employment, a small increase in the unemployment rate, but a considerable increase in average hours worked

The total number of employed persons rose at an average annual rate of 1.1% in 2008, compared with 1.3% in 2007. As employment growth outpaced that of the labour force (0.4% year-on-year), the unemployment rate fell to 7.6% in 2008 from 8.3% in 2007.

For 2009, the upward trend of employment is expected to come to a halt and *the number of employed persons* should fall slightly. In contrast, a more marked decline is expected in average hours worked, reflecting both a cut-back on *average overtime work* and a reduction in regular working hours in some firms. It is estimated that the decline in the total number of employed persons will be about 0.5-0.8%, i.e. smaller than the decline in the number of wage and salary earners (-1%). It should be noted that for 35.4% of employed persons, comprising the self-employed or workers in family businesses, weak economic activity typically implies a reduction in working times (i.e. underemployment) and lower income. In this respect, in the second half of 2008 the number of self-employed grew markedly, possibly because weaker economic growth (i) encouraged necessity entrepreneurship among those who cannot find a job, and (ii) discouraged a shift of employment out of agriculture, thus supporting a marginal rise in employment in that sector.

At the current phase, **the most vulnerable groups of workers** are the unskilled and low-skilled, those with temporary employment and immigrants. **Among employers, those facing particular strains as a result of the financial and economic crisis** include construction companies, export-oriented manufacturers, enterprises engaging in import trade (mostly of capital goods and consumer durables) and tourism and financial enterprises. However, the **unemployment rate might not rise by more than 0.5-0.8 percentage point,** as the labour force is expected to show near-zero growth under the impact of a "discouraged worker effect", whereby weak economic activity induces more and more workers to give up searching for a job and drop out of the labour force.

3.3 INFLATION

Headline inflation is expected to drop sharply, but core inflation is expected to fall only slightly

Inflation was very volatile during 2008. In the first seven months of the year, when international oil prices kept rising, the annual inflation rate reached its highest level since 1998. However, with the subsequent sharp declines in the international prices of oil and other commodities, inflation fell substantially, standing at a post-2000 low of 2.2% in December 2008. Owing to developments up until July, the average annual inflation rate in 2008 stood at significantly higher levels than in 2007 (4.2% against 3.0%). Core inflation (i.e. excluding energy and unprocessed food prices) remained at a high level in 2008 (3.4% on average), but rose only slightly compared with 2007, as demand-induced inflationary pressures weakened, while unit labour cost growth accelerated.

The annual inflation rate, as measured by the HICP, continued its downward course in the first months of 2009 (1.5% in March) and is likely to fall to about 1% or lower by mid-2009, before rising again, mostly reflecting the expected year-on-year evolution of international oil prices. **It is estimated that in 2009 the average annual rate of HICP inflation could fall to 1.5% or less (to 1.1-1.2%). Core inflation is projected to remain relatively elevated at about 2.9%,** only slightly lower than in 2008, still exceeding the euro area average. However, conditions are in place that would favour a stronger decline in core inflation. Specifically, the excess demand conditions, having weakened in 2008, will be reversed this year, and the narrowing of profit margins is expected to continue into 2009. Moreover, unit labour cost growth is expected to moderate significantly. Therefore, the inflationary effect of labour costs (as well as that of other cost components) should be weaker than in 2008. However, given that the Greek economy is still characterised by conditions of imperfect competition that distort price formation, core inflation is projected to decline less than could be possible. Of course, these projections are subject to high uncertainty, associated with the evolution, during 2009, of commodity prices, exchange rates and —on the domestic side— demand and unit labour costs. In particular, in the event of a sharper than expected deceleration (or a fall) in domestic demand, a significant decline in core inflation cannot be precluded.

The projected deceleration in the growth of nominal earnings in 2009 and the expected, very limited, decrease in productivity mean that the growth rate of unit labour costs will decelerate and converge substantially towards the corresponding rate for the euro area as a whole, without, however, standing at *lower* levels than the euro area rate. This means that **the erosion of international cost and price competitiveness,** which was substantial during the past eight years, **will continue, even with a much slower rate than up until 2008,** reflecting an almost stable inflation differential between Greece and the euro area as a whole (and Greece's trading partners in general—see Table VIII.2).

3.4 EXTERNAL BALANCE

The current account deficit soared in 2008, but will decline in 2009 against the backdrop of weakening economic activity

The current account deficit widened to 14.4% of GDP in 2008, from 14.2% of GDP in 2007. The deficit of the combined current and capital accounts, which corresponds to the external financing requirements of the economy (i.e. net inflows of loans, portfolio investment and direct investment), stood at 12.7% of GDP in 2008, compared with 12.3% in 2007.

The widening of the current account deficit mostly reflects the increased net fuel bill (despite a sharp fall in international oil prices in the last months of 2008), as well as higher payments for interest, dividends and profits (in order to service the increased external debt). To a much smaller extent, it also reflects a rise in the trade deficit excluding fuel and ships. These developments were only partly offset by an increase in the surpluses of current transfers and services.

The trade deficit excluding fuel and ships continued to rise, but only moderately, in 2009. This growing deficit reflects the continued decline in international price competitiveness and, more generally in recent years, the inadequate responsiveness of domestic supply to the changing composition and growth of domestic and external demand. Nevertheless, despite a weakening in total external demand, export receipts rose considerably (according to Bank of Greece data), chiefly as a result of **Greek firms' export penetration into the countries of Southeastern Europe,** which continued to experience robust growth in 2008. **One factor that has supported this export activity is the extensive networks of Greek banking groups in the region.**

In 2009, the current account deficit will be significantly affected by the deterioration of the international and domestic economic environment, combined with the long-term structural weaknesses of the Greek economy, and **is expected to fall to 12.5-13% of GDP.** Specifically, exports of goods will be adversely affected by the sluggish external demand, in particular the worsened situation of export markets in the Balkans and other countries of Eastern Europe. At the same time, imports will shrink due to a sharp deceleration in the growth of domestic demand. As a net result of these developments and given the relatively higher weight of imports, the trade deficit is expected to decrease. Moreover, developments in international markets will have a significant negative impact on travel receipts, while transport receipts will be hampered by the strong decline in world trade volumes and lower freight rates.

Despite its projected decline, the current account deficit is still high and could start increasing again, once the recovery of the economy is under way, acting as a drag on growth. Therefore, it remains imperative to **implement medium and long-term policy measures, in order to deal with the more permanent factors that drive the deficit to high levels.** As repeatedly pointed out, the persistently high current account deficit in recent years, partly fuelled by the Greek economy's international competitiveness losses, reflects the significant shortfall of national saving relative to domestic investment. **It is thus crucial**, among other things, **to improve international competitiveness through the implementation of structural reforms and the containment of unit labour cost growth, as well as to correct macroeconomic imbalances, primarily through fiscal consolidation.**

The widening of the current account deficit to high levels in the eight years from 2001 to 2008 has led to a significant deterioration in the **negative international investment position of Greece** (i.e. the net financial liabilities of the private and public sectors vis-à-vis non-residents) from -43.4% of GDP at end-2000 to -94.0% at end-2007 and -75.7% of GDP at end-2008. The considerable improvement during 2008 is exclusively attributable to the significant decline in stock prices and the resulting lower valuation mostly of portfolio investment and, to a lesser extent, of direct investment.

4 FISCAL DEVELOPMENTS AND PROSPECTS

4.1 THE GENERAL GOVERNMENT DEFICIT

The deficit exceeded 3% in 2007 and 2008, triggering the initiation of the Excessive Deficit Procedure for Greece

Fiscal policy remained expansionary in 2008. Moreover, in the last two months of the year the impact of the international financial crisis on the Greek economy had negative repercussions on public finances; as a result, the general government deficit (on a national accounts basis) exceeded the reference value of the Maastricht Treaty (3% of GDP) for the second consecutive year. Owing to these developments, **steps have been taken under the**

Excessive Deficit Procedure for Greece, as well as for certain other countries, and an official ECOFIN decision determining the existence of an excessive deficit is expected within April. As recommended by the European Commission, Greece will be invited to implement fiscal adjustment measures and, if these are considered to be adequate, the procedure will remain at the stage referred to in Article 103 (7) of the Maastricht Treaty, allowing time for the measures to yield results.

In 2008, the **general government deficit** was 3.7% of GDP, according to estimates of the Updated Stability and Growth Programme 2008-2011 (USGP) of January 2009. **However, on the basis of more recent data, this figure has subsequently been revised upwards by the National Statistical Service of Greece (NSSG) to above 4% of GDP** (the final figures will be confirmed by Eurostat on 22 April). It should be noted that the deficit target for 2008 was 1.6% of GDP, compared with a 2007 outcome of 3.5% of GDP. The cyclically adjusted deficit exceeded the headline deficit as a percentage of GDP for the third consecutive year. This indicates the size of fiscal adjustment necessary to restore the deficit to levels below 3.0% of GDP. At the same time, the primary surplus of general government (on a national accounts basis) fell from 1.3% of GDP in 2006 to 0.5% in 2007 and was reversed into a primary deficit of 0.5% in 2008.

According to initial USGP estimates, the widening of the deficit is solely attributable to general government, the deficit of which rose by 1.4 percentage points relative to 2007 and stood at 6.3% of GDP. This increase was to some extent offset by the higher consolidated surplus of social security organisations, local authorities and other public sector entities, which improved to 2.6% of GDP in 2008, from 1.4% of GDP in 2007 (2008-2011 USGP estimates). The fact that the general government deficit overshot the target set for 2008 is attributed both to a significant shortfall of revenues and to a marked overrun of expenditure.

According to the 2008-2011 USGP, the general government deficit (on a national accounts basis) is expected to stand at 3.7% of GDP in 2009, before falling to 3.2% in 2010 and 2.6% in 2011. This reduction in the government budget deficit is expected to be achieved through a significant increase in ordinary budget revenue (14.2%), while ordinary budget expenditure will increase by 9.3%, at almost the same rate as in 2008 (or by 12.8% and 6.7% respectively, if for comparability purposes an adjustment is made for sizeable revenue and expenditure items which appeared for the first time in 2009).[8] It should be noted that nominal GDP growth is projected by USGP at 3.8%.

The considerable increase in ordinary budget revenue in 2009 is partly associated with the collection, during this year, of the single tax on real estate (ETAK) for both 2008 and 2009, the equalisation of the excise tax rate on heating fuel with that applying to diesel fuel (a measure first implemented for a whole year), as well as the tax measures announced in August 2008.[9] However, meeting the revenue target is a challenging task, particularly taking into consideration the projected stagnation of economic activity in 2009. It can be reasonably expected that tax revenues, including those from VAT, car registration tax, the excise tax on fuel, the tax on stock exchange transactions and the real estate transfer tax, will be negatively affected by the weakening of economic activity. This weakening, in conjunction with the tight incomes policy in the public sector, will also bring about a decline in revenue from personal and corporate income tax. Against this background, on 5 February 2009 the minimum excise tax on cigarettes, determined on the basis of the cigarettes whose retail price is lower than the price category most in demand, was raised from 75% to 80% and the excise tax

8 The 2009 budget forecasts were revised (downwards in the case of revenue and upwards in the case of expenditure) with the 2008-2011 USGP submitted by Greece to the European Commission on 30 January 2009, implying a general government deficit ratio of 4.9% of GDP for 2009, compared with an initial forecast of 3.5% of GDP.

9 Primarily the settlement of pending tax cases and tax arrears, a 20% increase in road duties, an increase in corporate tax advances, etc.

on alcohol was raised by 20%. Furthermore, on 18 March 2009 an extraordinary one-off tax was imposed on natural persons with a declared income of over €60,000.

As announced by the government in March 2009, primary expenditure savings of up to €500 million (0.2% of GDP) are expected to be achieved through a 10% curtailment of discretionary expenditure (transport, commission fees, operating costs, other expenses and grants). Moreover, the incomes policy in the public sector, according to which there will be no increases in civil servants' basic wages and pensions, except for extraordinary one-off allowances to low-income civil servants and pensioners (i.e. those with a monthly salary or pension of up to €1,700 and €1,100 respectively), is estimated to lead to a net expenditure saving of up to €390 million (0.15% of GDP), while the tightened recruitment policy can save another 0.15% of GDP.

4.2 THE EVOLUTION OF PUBLIC DEBT

The general government debt stood at very high levels

The continued international financial crisis revealed very clearly the risks entailed by a persistently high public debt. In 2008, the consolidated debt of general government (according to estimates included in the 2008-2011 USGP) rose to 95.4% of GDP (as revised by the NSSG), from 94.8% in 2007. **This figure, however, was subsequently revised upwards** with the Excessive Deficit Procedure notification of 31 March 2009. This evolution of the debt reflects the significant widening of the deficit and the reversal of the primary surplus to a primary deficit in 2008. After an increase in 2008, the debt-to-GDP ratio is expected to rise further this year (according to the 2008-2011 USGP).

Over the last 15 years, public debt as a percentage of GDP has remained persistently high, being currently the second highest in the EU, although the conditions that prevailed from the second half of the 1990s through to 2007 (i.e. strong growth performance, a substantial fall in interest rates up to 2005, high primary surpluses up to 2001 and significant proceeds from privatisation) were very favourable for its reduction. It should be noted **that the debt remained high not only due to annual deficits, but also owing to significant "deficit-debt adjustments"** (see Table VII.9). These are financial transactions of the government which, according to the applicable rules, are not recorded in the deficit, but increase public debt.

Public debt is thus a major source of financial vulnerability for the economy. Moreover, it is the main factor underlying the large widening of the yield spread between Greek and German government bonds, particularly from the latter part of 2008 onwards, which implies higher cost of government borrowing. The weighted average borrowing cost of the Greek government rose from 3.8% in 2006 to 4.4% in 2007 and 4.6% in 2008, while it stood at 5.0% in the first quarter of 2009. More recently, it fell to 4.7% in early April, but this was solely due to a shift to the issuance of short-term securities which carry very low interest rates.

4.3 THE EXCESSIVE DEFICIT PROCEDURE FOR GREECE

The ECOFIN recommendation for the correction of the excessive deficit of Greece is expected on 24 April

As already mentioned, the Excessive Deficit Procedure has already been initiated for Greece. On 24 March 2009 the European Commission concluded that Greece, among other countries, was running an excessive deficit and recommended to the ECOFIN Council to adopt a recommendation for bringing this situation to an end. Underlying the assessment of the European Commission were estimates that the general government deficit of Greece had been in excess of the 3% reference value in 2007 and in 2008 for reasons not associated with the ongoing international crisis and was expected to remain above 3% in

2009 and to exceed 4% in 2010 on a no-policy-change basis.

In view of the existing macroeconomic imbalances and the ongoing re-pricing of risks in the financial markets, which put further pressure on the high debt burden, the Commission noted that a rapid correction of the deficit by 2010 seemed appropriate, sooner than envisaged by the 2008-2011 USGP (and also sooner than the deadlines proposed by the Commission for other countries with excessive deficits). Thus, the Commission recommended to the Council that Greece strengthens the fiscal adjustment in 2009 through permanent expenditure restraint. Thereafter, the country should implement additional permanent measures in 2010 in order to bring the headline deficit clearly below the 3% of GDP reference value, with a view to recovering competitiveness losses and addressing the existing external imbalances. Greece should also pursue efforts to control factors other than net borrowing, which contribute to the change in debt levels, and improve the collection and processing of economic and, in particular, general government data. Finally, Greece is invited to improve the quality and sustainability of its public finances and, with a view to recovering competitiveness losses and addressing the existing external imbalances, to urgently implement bold structural reforms. The adoption of the relevant ECOFIN Recommendation is expected on 24 April.

After the announcement of the assessment of the European Commission, the Minister of Economy and Finance confirmed the government's intention to reduce the deficit to below 3% in 2010 in a credible and sustainable manner. In particular, the Minister assured of the government's commitment to promoting the fiscal consolidation plan, as required by the Commission, through clearly defined and permanent expenditure restraint measures, including a prudent incomes policy in the public sector, and to fully implementing the healthcare and social security system reforms already under way.

5 MONEY, CREDIT AND CAPITAL MARKETS IN GREECE

5.1 BANK FINANCING

The annual growth rate of the outstanding balance of the total financing of the economy continued to accelerate up to September 2008

After having accelerated in the period between January and September 2008, the annual growth rate of the outstanding balance of the total financing of the economy by domestic Monetary Financial Institutions (MFIs)[10] weakened later in the year (fourth quarter 2008: 16.6%, fourth quarter 2007: 13.5%) and in the first two months of 2009, standing at 14.2% in February. This moderation reflected a marked slowdown in credit expansion to the private sector over the same period. By contrast, the annual growth rate of the outstanding balance of MFI credit to general government continued to accelerate (February 2009: 21.3%. fourth quarter 2008: 8.1%, fourth quarter 2007: -16.1%), partly reflecting higher MFI investment in government paper. (However, it should be noted that a sale of portfolio assets by one domestic MFI to an MFI of another euro area country has had a downward effect on the rate of credit expansion to the whole economy and to the private sector for the first two months of 2009.)

The annual growth rate of credit to businesses and households slowed down in 2008 and will continue to decelerate in 2009

The recent slowdown in credit expansion to the private sector (non-financial corporations and households) reflected the deceleration of credit expansion to both businesses and house-

10 Total financing of the economy by domestic MFIs comprises: MFI loans to enterprises, households and general government; government securities and corporate bonds held by MFIs; and the outstanding balances of securitised loans and corporate bonds. The valuation differences arising when loans denominated in foreign currency are valued in euro, as well as write-offs effected by banks during the reference period, are taken into account in the calculation of the rate of change in total financing.

holds. This development is attributable to the impact of the financial crisis feeding into the real sector of the economy, as well as to the unfavourable outlook for economic activity. These factors add to the uncertainty of households and businesses with regard to the evolution of their incomes and profits respectively; they also increase the uncertainty of MFIs about the future creditworthiness of borrowers. It should be noted that since November 2008, based on seasonally adjusted data, the annualised monthly rate of credit expansion to the private sector has been significantly lower than the respective twelve-month rate. Furthermore, in the fourth-month period from November 2008 to February 2009, new deposits of the private sector with domestic MFIs declined by around 30% compared with one year earlier, while the ratio of net flow of financing to new deposits fell even more strongly (from 142% to 32%).

In particular, the annual rate of **credit expansion to non-financial corporations,** which had followed an upward trend since the second half of 2005, slowed down considerably from November 2008 onwards to 21.6% in the fourth quarter of 2008 and 15.3% in February 2009 (fourth quarter 2007: 20.1%). Figures for the first two months of 2009 reflect the downward impact of a sale of a corporate bond portfolio by one domestic MFI to an MFI of another euro area country; excluding this sale, the rate of credit expansion to businesses would have been 18.3% in January and 16.6% in February. The weaker credit expansion to non-financial corporations was due to a tightening in MFIs' credit standards for lending to enterprises, while demand for business loans remained virtually unchanged. The weakening is likely to continue, as banks' expectations of an increase in non-performing loans in the future should constrain the supply of new business loans, possibly also leading to the non-renewal of existing credit lines.

The annual growth rate of **credit from domestic MFIs to households** exhibited a sharp downward trend in 2008, which continued into the first two months of 2009 and stood at 10.3% in February (fourth quarter 2008: 14.8%, fourth quarter 2007: 23.6%). The deceleration was more pronounced in the fourth-month period from November 2008 to February 2009, as the net flow of financing[11] fell by 72% compared with one year earlier. In particular, the net flow of housing loans in the November 2008 to February 2009 period fell by 67% year-on-year, and the net flow of consumer loans dropped by 78%. The observed slowdown is attributable to, among other things, a weakening of demand for bank loans as a result of a decrease in expenditure for house purchases or repairs, and to increased cautiousness of consumers in the face of uncertainty about the evolution of their incomes.

As a percentage of GDP, total MFI financing of households (including securitised loans) stood at 48.2% in December 2008 (December 2007: 45.6%). Excluding securitised loans, household indebtedness reached 39.9% of GDP at the end of 2008, compared with 53.2% in the euro area.

The decline in the rate of increase in the outstanding balance of MFI loans to the private sector is expected to continue. On the loan supply side, the tightening of credit standards by banks, in their effort to avert an increase in non-performing loans on account of the further weakening in economic activity and maintain a high degree of liquidity, should probably be a constraining factor. By contrast, the so far satisfactory participation of Greek banks in the government's liquidity support plan is expected to have a positive effect on the supply of loans. In addition, domestic MFIs are continuing to strengthen their liquidity through the Eurosystem's liquidity-providing operations, taking advantage of additional collateral available through loan securitisation activity, which

11 The net flow of financing includes the change in the outstanding balance of financing (loans, corporate bonds, securitised loans and securitised corporate bonds). It also includes the valuation differences arising when loans denominated in foreign currency are valued in euro, as well as write-offs effected by banks during the reference period.

appears to have increased considerably, as is also the case in the euro area as a whole.

On the demand side, households' uncertainty about their future incomes and the economic downturn are expected to continue to negatively affect the willingness of non-financial corporations and households to increase their indebtedness. This should contribute to a further deceleration in the rate of credit expansion to the private sector in 2009. However, this rate is expected to remain higher than nominal GDP growth, thus providing ongoing support to domestic economic activity.

5.2 BANK LENDING AND DEPOSIT RATES – THE INTEREST RATE SPREAD

Bank lending and deposit rates have been declining in recent months – The interest rate spread has also been narrowing

In 2008, interest rates on **deposits** by households with a maturity of up to one year rose substantially, while interest rates on households' overnight deposits remained broadly unchanged. Developments in deposit rates in the course of 2008 were associated with the fact that Greek banks offered high interest rates for deposits with longer maturities in order to strengthen their deposit base. By contrast, in the first two months of 2009 the interest rates on both categories of deposits declined, as funding conditions for banks improved (partly thanks to the provision of liquidity by the Eurosystem). During 2008, the larger rise in the interest rate on time deposits relative to other categories of deposits encouraged a shift from more liquid deposits to time deposits. Thus, although the growth rate of time deposits moderated, it remains high; as a result, the share of these deposits in M3 increased. By contrast, overnight deposits continued to decline, which reduced their share in M3.

Developments in interest rates on bank **loans** to the private sector in Greece were not uniform in 2008. Interest rates on new loans showed a broadly-based decline in the last two months of 2008, which continued into the first two months of 2009. This, however, masked divergent developments in individual components, as interest rates on new loans to households were higher in December 2008 than in December 2007 and those on loans to non-financial corporations were lower. The overall decline in the interest rates of loans to businesses in 2008, which fell short of the decline in interbank market rates, was offset by an increase in interest rates in all categories of loans to households. Thus, the average interest rate on total new loans rose marginally in 2008.

The above developments mainly reflected the fact that **banks, facing difficulties in tapping the interbank market, sought to secure liquidity by offering high interest rates on time deposits, which implied that they had to keep their lending rates high as well.** Also, the credit conditions faced by Greek banks were negatively affected by an increase in the yield spread of Greek government bonds vis-à-vis German bonds. The cuts in the key ECB rates and the fall in interbank market rates did not translate into significantly lower interest rates on new loans, as their impact was partly offset by the higher risk premia required by Greek banks in the context of increased non-performing loans. By contrast, a marked debt reduction was achieved in the case of existing loans carrying floating rates.

In the **euro area,** interest rates on bank loans to households at the end of 2008 stood at a lower level than at the end of 2007, by contrast with the respective Greek rates. During the same period, interest rates on most categories of bank loans to non-financial corporations declined more strongly than in Greece. Due to these developments, the interest rate spread between Greece and the euro area widened in both categories and increased further in January 2009, primarily in loans to non-financial corporations and, to a lesser extent, in loans to households. In general, interest rates in Greece remain higher than the euro area average due to structural factors, with the largest differentials observed in the rates on consumer loans, which nevertheless are not among the highest in the euro area.

The **interest rate spread,** i.e. the difference between the weighted average interest rate of new bank loans and the corresponding rate on new deposits in Greece, narrowed by 70 basis points in 2008 (December 2007-January 2009: 75 basis points), because of a larger increase in the deposit rate than in the lending rate. The corresponding spread contracted by 45 basis points in 2008 in the euro area. The interest rate spread in Greece, despite falling more than the average figure for the euro area, remains at a higher level than the euro area average. This situation is attributable to some inherent characteristics of the domestic banking system, e.g. the relatively large number of small depositors and borrowers, the higher borrowing costs of Greek banks in the interbank market, the higher ratio of non-performing loans to total loans and the longer time needed for the realisation of collateral. Another important factor is the different composition[12] of both deposits and loans in Greece and in the euro area.

5.3 THE PRIMARY AND SECONDARY MARKETS FOR GOVERNMENT PAPER

Government borrowing costs increased in recent months up to March, before declining slightly in early April

The adverse impact of the international financial crisis, which became more strongly felt in the world economy during the last months of 2008, also affected the conditions that prevailed in the primary and secondary markets for government paper. **The primary market in 2008 was mainly characterised by the upward trend in interest rates and the significant increase in funds raised,** in the context of a growing government deficit and higher interest payments. The rise in government borrowing rates in the primary market continued more strongly in the first quarter of 2009 (as already mentioned, average borrowing costs decreased slightly in early April). This development is attributable to the fact that, due to the international crisis, investors were cautious with regard to the Greek economy and some other economies with significant macroeconomic imbalances and structural weaknesses. **The rise in the interest rates on government paper negatively affects the servicing costs of new securities issuance and represents an additional burden to the entire economy,** insofar as these rates influence the rates at which banks and other enterprises are financed from markets. However, despite the overall adverse environment, **in 2008 and in the first quarter of 2009 no difficulties were encountered in the implementation of the government borrowing plan.**

In the **secondary market** for government securities, i.e. the Electronic Secondary Securities Market (HDAT), developments in 2008 were particularly negative, mainly characterised by a rise in yields and high volatility, as well as a considerable decline in transaction volumes. In the last quarter of the year, high uncertainty in international money and capital markets led to an upward reappraisal of risks and, in the euro area, flight-to-safety shifts to German bonds. Consequently, yields in the Greek secondary market rose amid high volatility, by contrast with German bond yields which fell to historically low levels. These developments were reflected also in the yield spread between Greek and German government bonds, which widened significantly for all maturities, reaching at the end of 2008 the highest levels since Greece joined EMU. In particular, the yield spread between the ten-year Greek government bond and the corresponding German bond at the end of December 2008 stood at 228 basis points, compared with only 29 basis points at the end of December 2007; in the first quarter of 2009, this spread initially widened further and then fluctuated to reach 243 basis points on 6 April. The yield spread widened markedly, albeit to a lesser extent, in bonds of other euro area countries, such as Ireland, Italy, Belgium, Portugal and Spain. These developments reflected variations in investor behaviour depending on each country's credit risk and fiscal position.

12 The share of household overnight deposits is relatively higher in Greece compared with the euro area. Within loans, the share of loans through credit cards is higher in Greece, whereas this category is not so important in the euro area.

5.4 THE STOCK MARKET

A large decline in stock prices in 2008 and in the first quarter of 2009 – Lower participation of foreign investors – Funds raised through the stock market decreased considerably

The downward trend in the Athens Exchange (Athex) composite index that started in November 2007 continued at a fast pace in 2008; in the first quarter of 2009 this index fell slightly. The decline in the Athex composite index was larger than that in the Dow Jones EURO STOXX broad index. **Reflecting falling Athex stock prices, total stock market capitalisation as a percentage of GDP at the end of 2008 stood at one third of its end-2007 level** (December 2008: 28%, December 2007: 86%).

The Greek stock market was adversely affected mainly by developments in international stock markets due to increasing uncertainty among investors about the extent and duration of the financial crisis, as well as its impact on corporate profitability and on the real economy. Additional pressures on Athex stock prices came from disinvestment by foreign investors, which was partly due to repatriation of funds in order to meet obligations in their home countries. **Since October 2008 and for the first time after March 2007, the share of foreign investors in the Athex total market capitalisation has been below 50%.**

The above developments are reflected in declines both in transactions and in the amounts of funds raised. Specifically, **funds raised by enterprises were very limited in 2008, down by around 94% compared with 2007.**

6 THE STABILITY OF THE BANKING SYSTEM

The key aggregates of the Greek banking system remain fundamentally sound

The dysfunctioning of international money and capital markets throughout 2008, which led to a deterioration in the international and domestic macroeconomic environment in particular after September 2008, has had a negative impact on the determinants of the stability of the Greek banking system. **At end-2008, banks' profitability and capital adequacy ratios were lower than at the end of 2007, but still stood higher than those of banks in the EU as a whole. In addition, there was a small decline in the quality of banks' portfolios and in liquidity ratios during 2008. However, the relevant ratios remain at satisfactory levels, above the regulatory minimums, while the tightening of banks' credit standards and the intensive supervisory controls by the Bank of Greece have helped maintain the soundness of the key aggregates of the Greek banking system.**

Specifically, **after tax profits** of banking groups dropped substantially in 2008 (by 42.8%) to €2.6 billion; excluding the non-recurrent profits recorded in 2007, the decline in profits was 34.6%. Underlying this drop in profits were the more than doubling of provisions for credit risk, the increased cost of funding and lower profits from financial operations and from investment portfolios. These developments inevitably affected return on risk-weighted assets (2008: 1%, 2007: 2.1%), return on equity (2008: 10.1%, 2007: 17.9) and the efficiency ratio (2008: 56%, 2007: 52.7%). The net interest rate margin deteriorated only slightly (2008: 2.9%, 2007: 3%). However, Greek banking groups performed better in terms of these ratios than their large euro area counterparts, which saw a sharper deterioration.

Declines were also seen in the **capital adequacy ratio** (2008: 9.5%, 2007: 11.2%) and the Tier I ratio (2008: 7.9%, 2007: 9.2%). These ratios were affected by valuation losses recognised in own funds, purchases of own shares by banks, write-downs on participations held by Greek banking groups due to foreign exchange valuation differences, the calculation for the first time —under the "Basel II" framework— of capital requirements for operational risk, and an increase in credit risk-weighted assets, which more than offset a decline in market risk-weighted assets. **Nevertheless, the leverage ratio**

of Greek banking groups, despite having picked up, remained relatively low (2008: 17.6, 2007: 13.2). **Furthermore, capital adequacy remains higher than the supervisory minimum level and is expected to improve, mainly through the issuance of preference shares under Law 3723/2008 and through capital injections to subsidiaries of foreign banks in Greece by their parent banks.**

Regarding the quality of bank loan portfolios in Greece, **the ratio of non-performing loans (NPL)** rose to 5.0% at end-2008, from 4.5% at end-2007. This development stemmed exclusively from loans to households, with increased NPL ratios for both housing and consumer loans. A small improvement was seen in the NPL ratio for loans to businesses. The NPL ratio increased with respect to loans to the countries of Southeastern Europe (including Turkey), especially in the second half of 2008. At the same time, the provision coverage ratio (i.e. the ratio of accumulated provisions for credit risk to non-performing loans) in Greece fell to 48.9% in 2008, compared with 53.4% in December 2007; the coverage ratio was unchanged, at about 100%, for Greek banks' branches and subsidiaries abroad. **The above coverage ratios and the maintenance of capital adequacy above the supervisory minimum level are expected to largely offset the impact on the quality of Greek banks' portfolios from the deterioration of the macroeconomic environment in the domestic and foreign markets where Greek banks are active.**

The lower availability of funding sources and the high cost involved caused banks' **liquidity ratios** to deteriorate. Despite increased volatility in international money and capital markets, market risk-weighted assets declined at bank and banking group level, mainly because of partial unwinding of positions entailing market risk.

The liquidity support plan is being implemented gradually

The above factors need to be viewed in the context of emerging developments and prospects, as well as of policy measures taken at both the national and the international level aimed at restoring confidence and absorbing shocks from the slowdown in economic activity. In this respect, the Greek plan to support liquidity in the economy (Law 3723/2008) is gradually being implemented and is expected to further strengthen the liquidity and capital adequacy ratios of banks.

It should be recalled that Law 3723/2008 includes three measures:

- a recapitalisation scheme, whereby an amount of up to €5 billion will be injected to eligible banks, in exchange for preference shares to be acquired by the Greek State;

- a guarantee scheme (up to €15 billion), covering against remuneration new debt with a maturity between three months and three years, issued by 31 December 2009 at the latest; and

- a securities scheme, i.e. the issuance, by 31 December 2009, of special government bonds (up to €8 billion) to be provided to eligible credit institutions enabling them to enhance their access to liquidity, in particular through financing from the Eurosystem or from the interbank market.

By an amendment to the above-mentioned law it was stipulated that, for as long as the support measures are in place, beneficiary institutions may not purchase own shares. Also, any dividend to be distributed by institutions benefiting from the recapitalisation/issuance of preference shares scheme may only be in the form of shares.

The total amount corresponding to the above measures, namely €28 billion, represents 11.5% of Greek GDP in 2008. This percentage is lower than that of the *euro area as a whole* (26.5% of GDP in 2008) and of the *EU-27* (around 23% of GDP in 2008), where significant variations are observed across countries and where many banks faced serious problems, which was not the case in Greece.

With regard to the implementation of this law so far, the shareholder meetings of twelve banks have approved the issuance of preference shares totalling €4.1 billion, eight banks have raised €4.4 billion through the issuance of special Greek government securities (while an amount of €1 billion has been approved for another three banks) and two banks have made use of the government guarantee scheme for loans totalling €1 billion.

The full exploitation of the possibilities offered by the plan is expected to mitigate the impact of the financial crisis on the real economy (contributing, along with the cuts in ECB rates, to a gradual reduction in banks' funding costs and supporting the supply of credit to households and businesses) and to bolster the stability of the banking system, in conjunction with the implementation of corresponding measures at the EU and Southeastern Europe level.

The pace of implementation of the plan is similar to the one observed in the euro area as a whole, where by late March only one third of the commitments for capital injections had been used and about 12% of the commitments to guarantee new bank debt had been called upon. In the ECB's view, the limited use of these guarantees may reflect a decline in credit demand or banks' desire to continue deleveraging their balance sheets. However, there are certain disincentives associated with the provision or pricing of these debt guarantees, which need to be addressed, so as to help banks finance additional lending to the private sector.[13]

In view of the increased risks associated with the weak economic environment, the high uncertainty in money and capital markets and the prevailing conditions of low liquidity and reduced profitability, the Bank of Greece continues to call upon banks to pursue appropriate policies for promoting financial stability. In this respect, banks are encouraged to make use of the liquidity support plan in order to strengthen their capital base and prevent a credit crunch. At the same time, the Bank of Greece is closely monitoring developments on a consolidated basis (i.e. taking into account subsidiaries operating abroad) and has recommended that Greek banks with activities in the countries of Southeastern Europe (including Turkey), which are currently facing increasing risks, should carefully assess local economic conditions and the possibility of finding themselves exposed to both credit risk and exchange rate risk. Finally, the Bank of Greece has, in a timely manner, pointed out the need for increased loan loss provisioning and restraint on manager bonuses.

7 MEDIUM- AND LONG-TERM ECONOMIC PROSPECTS AND POLICY CHALLENGES

7.1 GROWTH PROSPECTS, STRUCTURAL WEAKNESSES AND MACROECONOMIC IMBALANCES

The factors that supported growth have lost momentum – In the current circumstances in Greece, a *prima facie* restrictive fiscal policy could have an expansionary effect – There are ways to support economic activity without fiscal relaxation

The growth model of the Greek economy since its entry into the euro area was not sustainable. This has become clearer after the recent worsening of the international environment. The high growth rates of the past eight years (4.1% on average in 2001-2008) were primarily driven by the benefits of euro area participation and the generally favourable international economic environment, rather than by the strengthening of the domestic production base. The strong growth performance, along with a decline in inflation (compared to the preceding period) and low medium-term inflation expectations, supported by the credibility of the monetary policy of the ECB, created in Greece a climate of certainty and security, ultimately fostering complacency. In this context,

13 See Lucas Papademos, "How to deal with the global financial crisis and promote the economy's recovery and sustained growth", 26 March 2009 (available on the ECB's website).

the declines in interest rates and the deregulation of the domestic credit system led to rapid credit expansion, thus boosting domestic demand. Furthermore, the participation of Greece in a strong currency area effectively eliminated exchange rate risk, which led to an improvement in foreign borrowing conditions and encouraged the inflow of funds from abroad. However, with the growth of domestic demand outpacing that of domestic supply for a number of years, inflation remained persistently above the euro area average, the current account deficit continued to widen and the external debt of both the private and the public sectors kept growing. The size and persistence of these imbalances suggested that the structural reforms implemented have not been sufficient, perhaps partly because of the complacency mentioned above.

In the current circumstances, **the deterioration of the international environment has obviously weakened further the factors that had supported economic growth in Greece. Now that the world crisis has hit the Greek economy too, there is absolutely no room for complacency.** During the period of fast growth Greece failed to implement the reforms that would have allowed its economy to deal with the current situation from a more favourable position. Therefore, a multi-annual plan must be adopted, which will include all necessary reforms that were not implemented in the past 15 years, with fiscal consolidation being the first priority. This is the only way to convince international markets of Greece's positive growth prospects, to secure reasonable terms of borrowing for both the public and the private sectors and to create the conditions for setting the growth process safely in motion once the global economy starts to recover.

In greater detail, the macroeconomic imbalances and structural weaknesses will have to be addressed with resolve by the competent authorities, in order to safeguard the prospects for long-term growth, based on a model that will rely on the strengthening of the production base and productivity through investment and structural reforms. This presupposes, first and foremost, fiscal consolidation and wage and pricing policies that are consistent with price stability, so as to ensure macroeconomic stability. Wage and pricing policies should also contribute to improving the international price competitiveness, which is a necessary but not sufficient condition for drastically reducing the current account deficit and supporting growth and employment. In order to achieve these end-objectives, bold structural reforms are needed, aimed at improving the productivity and adaptability of the economy.

The current conditions —on the one hand, the high levels of the fiscal deficit and public debt and, on the other, the ongoing re-pricing of risks in world markets that has led to a sharp increase in the public sector's cost of borrowing— point to the urgent need to effectively correct fiscal imbalances in order to considerably reduce the debt-to-GDP ratio. Fiscal adjustment is also warranted in view of Greece's adverse demographic developments and prospects, which will put additional pressure on public finances from 2015 onwards. As already noted, fast fiscal adjustment is also needed in order to correct the excessive deficit situation, in line with the European Commission's recommendation, which is expected to be endorsed by the ECOFIN Council on 24 April.

Given that Greece has no room for fiscal relaxation, economic activity can, in the current adverse circumstances, only be supported by a reallocation of government spending towards more efficient uses, in order to:

- support, through targeted interventions, vulnerable social groups that are the most directly hit by the crisis (see Box VI.1); and

- enhance public investment, which is more growth-generating than other government expenditure components.

At the same time, by increasing the efficiency of government expenditure and by implementing policies conducive to a gradual elimination of fiscal imbalances, Greece can gain the confidence of international markets and domestic economic agents.

Thus, a *prima facie* restrictive fiscal policy could in fact have an expansionary effect. Conversely, in the current circumstances, a *prima facie* expansionary fiscal policy would entail multiple fiscal costs —directly and in the medium run— so it would ultimately turn out to be restrictive. This circumstance must be understood by those who believe that large fiscal deficits can be a growth-inducing factor. In fact, there has never been a country that achieved sustainable growth based on chronic fiscal deficits. On the contrary, there are numerous examples of countries in which high deficit and debt levels have hampered economic growth. Moreover, in those countries that are currently implementing policies of strong fiscal stimulus —because, unlike Greece, they have the room to do so— the purpose is clearly *counter-cyclical. The same countries are already considering fiscal exit strategies for reducing their deficits once the recovery is under way.* In the current circumstances, however, any increase in Greece's fiscal deficit *would not even have a counter-cyclical effect,* since it would lead to an outright increase in the costs of borrowing for both the public and the private sectors, thereby undermining the recovery.

A positive contribution to growth could also come from the speedy implementation of other reforms that do not entail budgetary costs but directly help to improve productivity. Notable examples are reducing red tape and strengthening competition. The European Economy Recovery Plan, which has been adopted by the European Council and has an EU-wide scope, identifies ten policy orientations for structural interventions of a direct effect (within a period of two years), which can enhance demand and support the resilience of economies. These orientations are particularly useful to Greece.

It is clear that fiscal consolidation, which will contribute to bolstering confidence in the prospects of the economy and to reducing the cost of government borrowing, the freeing-up of resources that can be used to support the more vulnerable social groups and to enhance public investment, and structural reforms that have a quick effect and zero budgetary cost can help to mitigate the effects of the crisis and speed up recovery. For this reason, these measures must have top priority in the context of the much needed multi-annual national strategy.

7.2 CORRECTING FISCAL IMBALANCES

A medium-term strategy focusing on fiscal adjustment and consolidation is required – The Bank of Greece has repeatedly submitted its proposals

The ongoing financial crisis has clearly revealed the budgetary problems of the Greek economy. As mentioned above, since September 2008 there has been a **sharp widening in the yield spread between Greek and German bonds** (in all maturities). In the first quarter of 2009 the spread widened further and then fluctuated, before narrowing somewhat more recently. It should be noted that other countries are expected to run higher fiscal deficits than Greece in the period 2008-2010, but their bond yield spreads over Germany are smaller, as these economies are already in recession and their deficits are essentially of a cyclical nature, while their public debt is much lower.[14] The widening of the spread reflects market concerns about Greece's very high public debt-to-GDP ratio (the second highest in the EU) and failure to control fiscal deficits and achieve a sustainable fiscal position, despite the high growth rates of the past decade. It also reflects the heightened market concern about the very large external deficit, which has been rising since 2004 and is further exacerbated by the budgetary deficit, and also market disappointment about the delays in implementing structural reforms. Finally, international organisations keep on stressing the problems caused by the repeated revisions of statistical

14 For instance, in the case of Ireland, which is in a recession, the debt-to-GDP ratio at end-2007 was 24.8%.

data (especially those on fiscal aggregates) and by the fact that important categories of public sector liabilities (e.g. of public hospitals) are not fully accounted for.

The high level of public debt causes serious problems, especially when combined with other features that hamper the economy. A high public debt (a) renders public finances vulnerable to a rise in the interest rates on government borrowing; (b) considerably reduces the scope for a counter-cyclical fiscal policy; and (c) leads to a higher cost of debt refinancing. However, the worst consequence is the strengthening of debt dynamics, when a high public debt is accompanied by a rise in real interest rates and weakening economic growth, as is the case today (and was also in the 1990-1993 period). At such times, the debt-to-GDP ratio tends to increase, thus acting as a drag on growth. It is therefore very important to contain the debt dynamics immediately, because, if the debt-to-GDP ratio starts to rise again, the yield spread between Greek and German bonds could widen even more and cause additional problems to the Greek economy and further strengthen the debt dynamics.

In the medium term, **the containment of fiscal imbalances requires sizeable primary surpluses (of 4.5-5% of GDP,** according to indicative calculations), in order to achieve a drastic reduction in the debt-to-GDP ratio to below the Maastricht Treaty reference value of 60% within a reasonable period of time, e.g. within the next ten years. This is necessary in view of the future budgetary implications of population ageing. The medium-term planning should make it clear that sustainable fiscal adjustment is pursued with a view to changing the public finance landscape and the role of the public sector in Greece (it is worth noting that Germany is even ready to amend its Constitution to send a clear signal to the markets that, in the current conjuncture, any budgetary deviation will be temporary and will be corrected as soon as possible). A policy of sustainable fiscal adjustment will support economic growth —mainly through strengthened confidence, lower interest rates and a change in expectations about the tax burden in the future— and will thus prove to be "expansionary", as mentioned above. **A fiscal adjustment of such scope is feasible, provided that a part of the huge amounts of evaded tax is recovered, waste in government spending is drastically reduced and public resources are used more efficiently.**

Turning to the role of **expenditure** in fiscal adjustment, international and national experience has shown that sustainable fiscal adjustment is more likely to be achieved in a sustainable manner if it relies on a permanent containment of primary expenditure, which typically involves an increase in efficiency. At the same time, public spending should be reallocated in favour of growth-promoting components, such as education, research and development, and infrastructure. In recent years, the shares of these expenditure components in GDP, especially the share of public investment, have declined. This reallocation will improve the "quality" of public finances.

As repeatedly stressed in previous reports by the Bank of Greece, a very useful measure for controlling and containing public expenditure is to **establish numerical fiscal rules** (preferably by a law of superior status) as regards the level (either in absolute terms or in relation to GDP) or the annual growth rate of public expenditure. Such national rules complement and reinforce the respective rules contained in the Maastricht Treaty and the Stability and Growth Pact. Greece is the only EU Member State that has not enacted rules of this type.

The effectiveness of these rules is closely related with **transparency**. The targeted fiscal variables should be clearly specified, their evolution should be systematically monitored and outcomes should be measurable. The rules must be considered permanent and cover all the sectors of general government (e.g. central government, hospitals, local authorities, universities etc.), while the annual targets must be linked to corresponding medium-term targets. Furthermore, an appropriate institutional framework for the operation of these rules is of crucial importance. Measures that fall within this category include: multi-annual budgeting, the establishment of systems for the evaluation of public expenditure during the budget process (e.g. a zero-based budget approach), timely preparation of the budget and its submission to Parliament together with all necessary information, as well as the restructuring of the budget and establishment of additional budgets for the remaining sectors of general government (social security organisations, local authorities, public hospitals, universities etc.). Another useful step would be to set up an independent body whose tasks would be to analyse and assess the budget, monitor its execution during the year and submit frequent regular reports to Parliament. In the case of local authorities, which have registered large deficits over the last fifteen years, an "internal stability and growth pact" should be established between such authorities and central government and, at the same time, effective control mechanisms should be put in place.

Together with the containment of expenditure, the hardest possible effort must be made in order to **curb tax evasion**. The size, intensity and the social repercussions of this phenomenon are so huge that a drastic cource of action is imperative. Curbing tax evasion could substantially increase government revenue and thus help reduce deficits. The tax evasion problem is of a structural nature and its resolution requires systematic efforts, consistency and continuity, a broader social consensus and cooperation among many agencies and government services. Tax evasion can take various forms, depending on the category of tax, the type or scale of economic activity (e.g. small or large enterprises) or on the taxpayer's employment status (e.g. salaried worker, self-employed, etc.). This is why the problem cannot be addressed by any single measure alone. Rather, it requires a whole set of measures, as well as the cooperation of all the parties involved.

The size of tax evasion is determined, apart from the marginal tax rate faced by taxpayers, by two further factors: the chances of being caught and the severity of the penalty imposed in such cases. Both factors are within the control of the tax authorities. In Greece, penalties for tax evasion are high and sometimes disproportionate to the amount of tax evaded. It would seem appropriate to restore some sort of proportionality between the seriousness of the infringement and the relevant penalty. However, the problem is that the likeliness of tax evasion cases being detected and punished is almost zero, owing to the inefficiency of the relevant services and to the complexity of tax regulations, which favours non-transparent practices. Furthermore, some tax evaders argue that the tax system is unfair or that tax revenue is not properly managed. These perceptions favour extensive tax evasion.

Any attempt to combat tax evasion should start by improving the tax-collecting mechanism and by introducing tighter tax controls. The chances of tax evasion cases being detected and punished must by all means be increased. This requires, among other things, the abolition of the continuous "arrangements" for the settlement of pending tax cases and other tax amnesty measures, as non-compliers tend to incorporate this practice into their expectations. Dealing with tax evasion and successfully restraining expenditure would enable the creation of a stable tax system, thereby contributing to a better business environment. It should be noted that the extremely extensive tax evasion poses obstacles not only to the execution of the budget but also to the pursuit of a proper and fair tax policy. Designing an effective tax system that would distribute the tax burden in an equitable manner among taxpayers *presupposes that there is no tax evasion.* Otherwise, and as long as tax evasion remains unaddressed, this situation often leads to tax measures of a short-term revenue-enhancing scope which are met with opposition as they fail to deal with the real problem, which is the inefficiency of the tax collecting mechanism. As already stressed[15] by the Bank of Greece, *no tax measure can substitute for a sound and efficient tax-collecting mechanism.*

Alongside efforts to reduce tax evasion, there is a need for a programme to deal with **social security contribution evasion**. As in the case of tax evasion, measures to combat contribution evasion should seek to improve the contribution-collection mechanism. However, the most important step towards reducing contribution evasion is **linking contributions and benefits more closely**, in order to strengthen the incentives for paying contributions.

7.3 ADDRESSING THE FUTURE IMPLICATIONS OF POPULATION AGEING – THE PENSION SYSTEM

A comprehensive and effective reform of the social security system is a very complex and challenging task with important social implications – The international experience is valuable in this respect

Apart from the extensive contribution evasion, which must be dealt with as soon as possible, another important issue refers to the budgetary impact of population ageing. This impact is expected to be particularly strong in the case of Greece, because of its adverse demographic developments and prospects and certain features of its pension system. It is estimated that the future (implicit) liabilities of the pension system exceed the current level of nominal GDP. **The measures taken in 2008** focused on the unification of the numerous pension funds and **are an important step** towards a reform of the system. Clearly, the social security issue is a complex problem not directly related to the ongoing financial crisis; it is of a structural nature and calls for a comprehensive, far-reaching approach.

According to national accounts data, pension outlays **in 1970 corresponded to 6.2% of GDP, rising to 6.7% by 1980 and 10.4% by 1990.[16] Furthermore, according to the new projections of the National Actuarial Authority (which are included in the Updated Stability and Growth Programme of January 2009), this percentage, from 11.7% in 2007, will reach 13.2% in 2020, 17.1% in 2030, 21.4% in 2040 and 24.0% in 2050.**[17] Meanwhile, according to the demographic projections of the NSSG,[18] **the number of people aged 65 and over as a ratio to people aged 15-64 was 26.8% in 2006 and is expected to reach 32.1% in 2010, 37.9% in 2030 and 58.6% in 2050.**

It is obvious that these prospects call for a comprehensive reform of the social security system, in order to ensure expenditure control and medium-term fiscal sustainability, on the one hand, and to secure adequate pensions (and health care) in the future for a growing part of the population, on the other. At the same time, the reform should contribute to supporting economic growth and increasing the labour force.

The reform of social security, and of the pension system in particular, is not an easy task, given the system's interactions with the labour market, the capital market, income (re)distribution, economic growth and public finances. This is why a comprehensive reform will have to take into consideration and address a wide range of issues.[19]

- Regarding the **labour market**, account has to be taken of the effects of the reform on labour supply, workers' retirement decisions, labour mobility, as well as the impact on investment in human capital and productivity growth. Another crucial question is whether a higher statutory retirement age would lead to a higher effective retirement age. **It is well-known that the average effective retirement age is well below the statutory retirement one.**

15 Bank of Greece, *Monetary Policy 2008-2009*, February 2009, Box I.1.
16 These estimates are partly based on data from the Social Budget 2006.
17 The USGP notes that "the projections for pension outlays do not take into consideration a large part of the provisions of the recent reform of the pension system (Law 3655/2008), due to methodology, data and time limitations". Therefore "the projections do not fully reflect the effect of the legislation in force and may overstate the increase in pension outlays". More detailed information on the positive effect of the reform of the pension system will be available by end-2010.
18 NSSG, Vital statistics of Greece (Births – Marriages – Deaths), Life Tables, Demographic Projections in http://www.statistics.gr/.
19 This section draws partly on papers presented at the conference "Pension Reform, Fiscal Policy and Economic Performance" held by the Banca d'Italia in Perugia (26-28 March 2009).

• A social security reform will influence workers' saving and investment decisions (and options) and thereby the **capital market**. Furthermore, the issues entailed by a potential shift towards a funded pension system, e.g. the need for efficient management and high returns, enhanced supervision of funds, etc., will have to be dealt with. A question increasingly raised lately is whether the ongoing financial crisis has weakened the arguments in favour of funded-type systems.

• As regards **income redistribution**, it is worth exploring whether the reform will have intra-generational or cross-generational redistributive effects. Policy options in this respect involve choices concerning the relationship between "effort" and "reward", i.e. contributions and pension benefits respectively, and the relative importance of the "pay-as-you-go" and the "welfare" component of the pension. As mentioned in a previous report by the Bank of Greece,[20] a closer link between the insurance effort and the level of pension will automatically reduce contribution evasion, especially in certain sectors and occupations. Each insured person should have an "account", the balance of which would be communicated to him/her regularly (e.g. biannually). It should be clear to all insured persons, from the beginning of their working lives, that the higher the balance on their account, the higher their pension. In this context, the welfare component of the pension should stop being paid by the insurance funds and should instead be covered by the budget. However, this welfare component should not act as a disincentive for the insurance effort. This would improve the transparency of the system and the sense of justice, thus further reducing contribution evasion, while the insured persons will have an incentive to stay in the labour market longer (which, in turn, considerably supports the sustainability of the system) and be more productive. Such a development would have a beneficial effect on long-term economic growth.

The above considerations confirm the view that the reform of the system is an extremely complex and challenging task, with very serious social implications. International experience offers valuable lessons regarding the factors and the conditions for a successful reform of the social security system. The most important are the following:

• The more the reform is delayed, the more painful the measures will be for the insured.[21]

• The successive piecemeal reforms create expectations of further changes, resulting in high uncertainty for the future, "reform fatigue" and, in a counter-productive manner, lower labour force participation among persons aged over 55. Workers who are close to retirement age opt for early retirement, so as to avoid the risk of losing certain benefits.

• Interplay with the labour market, the capital market and growth prospects have to be taken seriously into consideration.

• It is important that reliable and transparent measurements and projections regarding demographic trends and social security statistics become available regularly and frequently. Awareness of the size and complexity of the problems makes the necessity of reforms more understandable.

• If it is decided to develop a second and a third pillar[22] (with mostly funded characteristics), the interactions between the pillars will have to be taken into consideration. The high compulsory contributions under the (perhaps unfunded) first pillar limit the possibilities and the desire of the insured to participate in the second pillar.

• An increase in the effective average retirement age, which is undoubtedly the most effective parametric change, requires a greater flex-

20 See Bank of Greece, *Monetary Policy 2008-2009*, February 2009, Box II.1.
21 See Bank of Greece, *Monetary Policy 2007-2008*, February 2008, p. 154.
22 The first pillar is that of the main pension. The second pillar concerns the pensions that are related to the form of employment, and its funding comes exclusively from the insured and their employers. The third pillar concerns the individual saving choices of the insured and funding is effected through insurance firms, e.g. through individual insurance programmes or individual pension accounts with clearly funded characteristics.

ibility in the labour market and other incentives for older workers to remain in the labour force. These measures include: more favourable working time arrangements, a higher marginal increase in the level of pension for each additional year of work, etc. At the same time, any changes to the retirement age limits should be accompanied by appropriate policies aimed at retraining employees and reducing the cost for employers, in order to encourage demand for older workers.

It goes without saying that such a serious reform, which has a profound impact on the lives of the insured, will require the **widest possible social consensus**. For this reason, the public should be given the full truth about the problems facing the social security system and, consequently, the need for an extensive reform. The objectives, specific measures, timing, extent and implications of any change will have to be made publicly known, as accurately and as transparently as possible. Furthermore, any parametric changes to the system have to be phased in over a transition period as appropriate, in order not to invalidate the planning of workers who had based their decisions on the current system and —due to age constraints— do not have sufficient time to adjust their decisions to the new conditions.

7.4 STRUCTURAL REFORMS FOR INCREASING THE EMPLOYMENT RATE AND IMPROVING PRODUCTIVITY AND COMPETITIVENESS

Reforms should be aimed at long-term sustainable development – Structural problems can also be tackled by following the broad guidelines of the Lisbon Strategy

The far-reaching reforms that the Greek economy needs should contribute to effectively improving productivity and competitiveness and raising the employment rate, and should facilitate full consolidation of public finances. Moreover, reforms should be aimed at long-term sustainable development – i.e. development that does not destroy, but respects and protects the environment.

In recent years, the gap between per capita income in Greece and the fifteen older EU Member States (EU-15) has narrowed considerably. However, there still is a gap, which is attributable to Greece's lower employment rate and lower productivity per employee.

The **employment rate** differential between Greece and the EU-15 reflects lower employment rates for the young, women and older persons. Specifically, the employment rate:

- regarding the **young**, is partly associated with the longer time spent in tertiary education;

- regarding **women**, is also associated with inadequate childcare facilities and arrangements that help reconcile work and family; moreover, it reflects early retirement arrangements (which, however, tend to be reduced); and

- regarding **older persons**, reflects early retirement arrangements (in particular for those engaging in arduous and unhygienic occupations).

It should be noted that the employment rate, which is lower than in the EU-15, is measured on the basis of the *number of employed persons*. By contrast, average hours worked in Greece are more than in the EU-15, both because part-time employment is less common and because the average working hours of full-timers are longer. The latter phenomenon is partly attributable to the composition of economic activity and the organisation of firms (the relatively large number of small firms, in particular in the tourist sector, which are based on family employment).

The **productivity** differential is particularly high when measured on the basis of productivity per hour worked (about 30% lower in Greece) and is attributable to the different composition of output (lower share of high-technology and high-added value activities in total output) and lower productivity of individual sectors, relative to the EU-15.

The factors that contribute to **lower productivity** include:

- the lower penetration of new technologies in most subsectors;
- low vocational and on-the-job training; and
- the inefficiency of public administration.

With particular regard to the **penetration of new technologies**, **Eurostat** data show than only 68% of small firms (with 10-49 employees) in Greece have access to broadband networks (84% in the EU-15), while only 10% of firms using computers train their staff in the use of new technologies (18% in the EU-15). Besides, the broadband penetration rate remains low in Greece: the number of broadband network subscribers as a percentage of the total population lags behind the corresponding figures for all the other EU-15 countries as well as for other countries with lower per capita income (such as Hungary or the Czech Republic). Finally, broadband networks in Greece are almost exclusively based on ADSL technology, while the use of optic fibres, which offers clear advantages, is at an early stage in Greece.

Regarding on-the-job and vocational training, Eurostat data show that the hours spent for on-the-job training in Greek firms (irrespective of size) are less than in all the other EU-15 countries.

Finally, concerning the **inefficiency of public administration**, according to a **World Bank** survey and on the basis of the arrangements in force until mid-2008, Greece ranks 96th among 181 countries in terms of the "ease of doing business" index. In fact, it is the last among the OECD countries and lags considerably behind the other EU Member States.[23] This index measures the procedures and costs required in various stages of business activity. The procedures that are recorded in this survey and concern the setting-up and the operation of businesses include some that could be simplified at no cost. An interesting attempt to map "maladministration" was made in the latest annual report of the **Greek Ombudsman**.[24]

Tackling the aforementioned structural problems can be achieved by taking into account the broad policy guidelines of the **Lisbon Strategy**, which is binding upon all EU Member States. The central objective of this strategy is to enhance the competitiveness of European economies. The main policy orientations of the strategy are:

- **Consolidating the public sector and increasing its efficiency.** The European Commission, in its recent annual recommendations to the EU Member States[25] on the implementation of the Lisbon Strategy structural reforms, recommends that Greece should —in addition to promoting fiscal consolidation— implement reforms in order to (a) modernise its public administration by building up effective regulatory, control and enforcement capacities; and (b) cut red tape and simplify the regulatory environment of business firms. Last October, in its ***Monetary Policy – Interim Report***, the Bank stressed that improving the business environment and the tax collecting mechanism is also directly connected to combatting corruption. It is obvious that these reforms can contribute to improving productivity.

- **Enhancing the productive base through investment.** In addition to increasing public administration efficiency, cutting red tape and simplifying the business environment, an improvement in the quality and efficiency of investment could also be achieved through reforms aimed to support research and development and through a more efficient use of resources available from the Structural Funds. Strengthening competition can also help in this direction (see below).

23 See World Bank, *Doing Business 2009*, September 2008, Table 1.3.
24 Press release of 26 March 2009. For the full text (Ombudsman, *Annual Report 2008*), see www.synigoros.gr.
25 European Commission, *Implementation of the Lisbon Strategy Structural Reforms in the context of the European Economic Recovery Plan – Annual country assessments: Recommendation for a Council Recommendation on the 2009 update of the broad guidelines for economic policies of the Member States and the Community and on the implementation of Member States' employment policies*, COM(2009) 34/2, 28 January 2009.

• **Raising the employment rate and constantly improving the quality of human capital.** According to the **European Commission**, priorities include strengthening active labour market policies, tackling undeclared work, reducing the tax burden on labour, modernising the employment protection legislation, speeding up reforms on education and lifelong learning and allowing for a smooth transition into employment. Similar recommendations on education are contained in the **OECD's** recent report.[26] The OECD recommends that the government should reduce over the medium term (when fiscal conditions allow) the tax wedge, i.e. employer and employee social security contributions and income tax on wages. (The bigger the tax wedge, the bigger the gap between the wages offered by employers and the wages demanded by job seekers, leading to lower employment.) The OECD recommends that this policy be financed by cutting public spending and combatting tax evasion. Furthermore, in this **Annual Report** (see Box V.1), the Bank of Greece recommends that active employment policies be strengthened, so as to complement the existing legislation. Specifically, it is proposed —in line with the experience of other European countries, such as France, Italy and Germany— that the "suspension" system (in place since 1955) be modernised, so that employees who face reductions in working times and wages but do not lose their jobs can also benefit from employment subsidisation. Besides, last October, in its ***Interim Report***, the Bank pointed out that improving childcare systems, promoting equal employment opportunities for men and women and eliminating tax disincentives can contribute to the labour market inclusion of population groups with relatively low participation rates, especially women and older persons.

• **Strengthening competition across markets.** Enhancing competition in professional services is ranked as a priority by the **European Commission**. Action to strengthen competition is required in other sectors too (e.g. energy or road transport), as stressed in the Bank's ***Interim Report*** of last October. The aforementioned recent report of the **OECD** recommends enhancing competition and deregulating the electricity, telecommunications and road transport sectors.

• **Changing the current energy production and consumption patterns.** The Greek economy is highly energy-consuming and its oil import dependence remains strong, despite the use of renewable energy sources (hydroelectric and wind energy), as well as lignite. Moreover, according to available estimates, Greece, as a Mediterranean country, will suffer more from the impact of climate change. The new European policy on energy and climate change gradually adopted by the **European Council** over the last two years has set a goal for all Member States to reduce greenhouse gas emissions, improve energy efficiency and increase the use of renewable energy sources (see Chapter X). In implementation of this policy, Greece should, *inter alia*, better organise both production, by introducing less energy-consuming technology, and life in the cities. The latter involves streamlining the public transport network and reducing the use of energy-consuming means of transport, as well as promoting new energy technologies and alternative energy sources for the insulation and heating of houses and other buildings. The implementation of these reforms will require proper planning and appropriate incentives. Progress towards achieving these European policy goals is crucial for Greece and is not only dictated by climate change and life quality considerations; it can also lead to large-scale investments, stronger competition in the energy sector and the creation of new businesses and jobs and can contribute to reducing the country's energy dependence and thereby the current account deficit. The current conjuncture should not be viewed as an obstacle to such developments. On the contrary, investment in energy and the so-called "green" investment could give impetus to economic recovery, as pointed out in the European Economic Recovery Plan.

26 OECD, *Economic Policy Reforms: Going for Growth 2009 – Structural Policy Indicators, Priorities and Analysis,* 3 March 2009.

8 CONCLUSION

There are policies that can foster not only an exit from the crisis as soon as possible, but also a return to sustainable growth rates

The preceding analysis points out some key policy guideposts for the implementation of a credible medium-term plan. These guideposts can foster not only an exit from the crisis as soon as possible, but also a return to sustainable growth rates. At the same time, it is clear that an appropriate policy mix can restore the confidence of foreign investors, international markets and domestic firms and households in the prospects of the Greek economy. The action plan should aim at putting firmly in place conditions for setting in motion a far-reaching, more outward-looking, dynamic and sustainable growth process – i.e. one that will respect and protect the environment. Such a policy can secure additional resources to be used for strengthening social cohesion and will be all the more effective if it is supported by a strong social consensus. Consensus-building will require an open public dialogue on the equitable allocation of burdens, that is the sacrifices that will be needed in the short term, and the broadest possible diffusion of benefits so that the whole of society wins.

III THE SINGLE MONETARY POLICY AND THE EUROSYSTEM'S INTERVENTIONS IN THE MONEY MARKET

1 MONETARY POLICY DECISIONS OF THE GOVERNING COUNCIL OF THE ECB[1]

The Governing Council determines the key ECB interest rates with a view to achieving the Eurosystem's primary objective of price stability in the euro area over the medium term, i.e. maintaining annual inflation rates below but close to 2%. In this respect, particular emphasis is given on keeping medium to longer-term inflation expectations anchored at levels in line with price stability. Against this background, during 2008 the interest rate on the main refinancing operations of the Eurosystem was raised once, in July, by 25 basis points, thereby concluding the withdrawal of monetary accommodation in the euro area, which had began in December 2005 and comprised 9 key interest rate increases, by 25 basis points on each occasion. Subsequently, given the gradual moderation of inflation pressures, **the interest rate on the main refinancing operations was lowered by a total of 300 basis points between October 2008 and April 2009, to 1.25%** (see Table III.1 and Chart III.1).

1 According to the introductory statements of the President of the ECB to the press conferences following the firstGoverning Council meetings in each month – in which monetary policy is discussed – in 2008 and the first four months of 2009.

Table III.1 Changes in key ECB interest rates

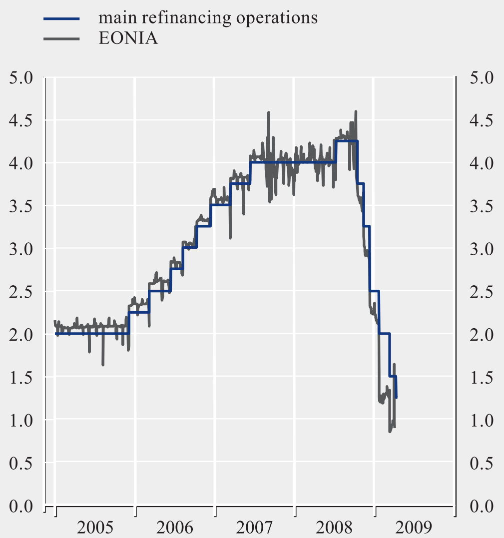
(percentages per annum)

Date of interest rate change[1]	Deposit facility	Main refinancing operations		Marginal lending facility
		Fixed-rate tenders (fixed rate)	Variable rate tenders (minimum bid rate)	
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
8 October 2008	2.75	-	-	4.75
9 October 2008	3.25	-	-	4.25
15 October 2008	3.25	3.75	-	4.25
12 November 2008	2.75	3.25	-	3.75
10 December 2008	2.00	2.50	-	3.00
21 January 2009	1.00	2.00	-	3.00
11 March 2009	0.50	1.50	-	2.50
8 April 2009	0.25	1.25	-	2.25

Source: ECB.
1 From 10 March 2004 onwards, with the exception of the interest rate changes of 8 and 9 October 2008, changes in all three key ECB interest rates are effective from the first main refinancing operation following the Governing Council decision, not the date of the Governing Council meeting at which this decision is made.

Chart III.1 Interest rate on the Eurosystem's main refinancing operations and the euro overnight index average (EONIA)

(percentages per annum, daily data)



Source: ECB.

In greater detail, in the first seven months of 2008, the Governing Council of the ECB recognised the existence of upside risks to price stability. Particular concerns were expressed about potential second-round effects[2] on wage- and price-setting behaviour, stemming from past increases in oil and other commodity prices. This was all the more likely taking into account, on the one hand, tight labour market conditions and relatively high capacity utilisation and, on the other hand, the existence (in certain euro area countries) of indexation schemes of nominal wages to consumer prices. The Governing Council repeatedly pointed out that the existence of such schemes may lead to a wage-price spiral. In addition, wage growth was already on the rise and, coupled with a cyclical slowdown in labour productivity growth, led to a higher rate of increase in unit labour costs. The fact that the risks to price stability lay on the upside was also confirmed by the fact that "underlying" monetary growth[3] remained very vigorous. Since there was uncertainty as to the extent of the dampening effect of the financial crisis on global and euro area demand, it was not possible to make an accurate estimate of its offsetting impact on inflationary pressures stemming from higher commodity prices. However, in June 2008 it became clear that inflationary risks had increased further, thereby prompting an increase in key interest rates in July.

Between July and September 2008, the Governing Council of the ECB underlined that, given the said interest rate increase, the monetary policy stance was appropriate for contributing to achieving price stability over the medium term, but inflationary risks persisted.

In October 2008, according to the ECB Governing Council's assessment, inflationary risks had started to moderate, mainly because the intensification of the financial turmoil in mid-September would dampen global and euro area demand, which had already begun its cyclical decline. In addition, the decrease in commodity prices, which had begun in mid-July 2008, had gone on for a protracted period of time and its extent was significant. The continued decline in both M3 growth and in the increase in credit supply to companies and households, as well as the subsequent slowdown in underlying monetary growth confirmed that inflationary risks had moderated. As a result, the Governing Council of the ECB lowered the interest rate on the main refinancing operations on 6 occasions between October 2008 and April 2009.

Turning to the outlook of economic activity in the euro area, **the Governing Council of the ECB has recently stated that it anticipates a gradual recovery in 2010,** on the one hand

2 See Bank of Greece, *Monetary Policy 2004-2005*, February 2005, Box III.1, and ECB, *Monthly Bulletin*, July 2004, pp. 28-30.
3 Underlying monetary growth is calculated by the ECB using various alternative methods (see ECB, *Monthly Bulletin*, May 2008, Box 1, p. 15), although the measures thus derived are not published. This concept is seen as more closely related to the evolution of inflation (taking into account the associated time lags) than the headline growth rate of M3.

because of the effects of the measures to restore the functioning of the financial sector and the overall macroeconomic stimulus measures taken around the world and, on the other hand, because the fall in commodity prices supports real disposable income and thus consumption.

As regards price prospects, following the latest interest rate cut (April 2009), **the Governing Council of the ECB expects price stability to be maintained over the medium term**. However, according to the most recent Eurosystem staff projections (which were published in May but do not take into account the latest key rate cuts), the inflation rate is expected to stand between 0.1% and 0.7% in 2009 and between 0.6% and 1.4% in 2010. These projections reflect lower global commodity prices and domestic inflationary pressures because of the marked slowdown in euro area economic activity. The risks to these projections are balanced and the outcome will depend on the course of economic activity and commodity prices. **In any event, the annual inflation rate in the coming months is expected to slow down further and turn negative in mid-2009, before increasing again later.**[4]

2 INTERVENTIONS OF THE EUROSYSTEM IN THE MONEY MARKET

The euro area interbank market[5] saw tensions and disruptions (including declines in the volume of transactions) throughout 2008, which worsened after the bankruptcy of Lehman Brothers (15 September 2008). The Eurosystem responded by interventions in the money market, which increased since mid-September. These interventions basically aimed at providing liquidity to liquidity-constrained solvent credit institutions. It should be noted that key interest rates are set by the Governing Council of the ECB with the single purpose of achieving the Eurosystem's primary objective (i.e. price stability). Therefore, their cuts since October 2008 did not aim at counteracting money market tensions but, as already mentioned, were motivated by declining inflationary pressures.

The spread between the three-month Euribor and the EONIA fixed rate on overnight index swaps of comparable maturity[6] reflects banks' reluctance to grant interbank loans and is a measure of tensions on the money market. As shown in Chart III.2, **tensions have receded compared with the third quarter of 2008, but remain somewhat stronger than before the bankruptcy of Lehman Brothers and much stronger than before the interbank market began to be affected by the financial turmoil (i.e. before August 2007). The volume of transactions on the interbank market has been gradually rising, at least in overnight operations**.

In greater detail, **between January and September 2008,** in the context of its intervention policy, the Eurosystem continued:

- To provide the bulk of liquidity through longer-term refinancing operations rather than main refinancing operations. Thus, the share of the main refinancing operations in total liq-

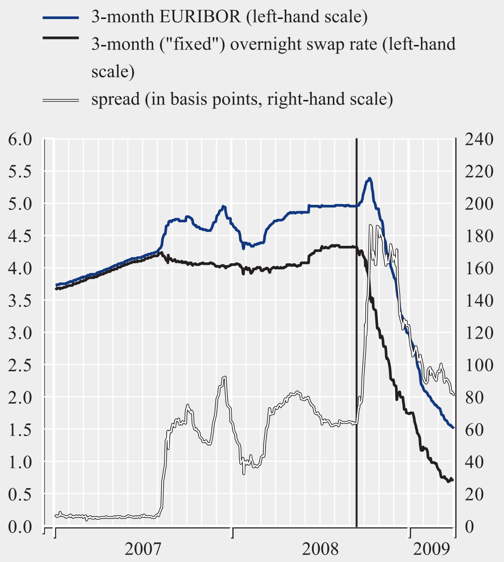
4 As the decrease in crude oil prices began in mid-July 2008, energy prices until mid-July should be much lower than last year, leading to very low consumer inflation rates until around mid-2009. However, because energy prices in August-December 2009 would only be relatively lower than the last year's corresponding prices, the inflation rate will not be extremely low in the second half of 2009.

5 The market for *unsecured* short-term loans in euro between euro area credit institutions.

6 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, the 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 (three months). 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). It is reasonable to consider that these transactions involve negligible risk compared with *unsecured* 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. The premium reflects the risk of non-repayment of the interbank loan or, in case the lending bank urgently needs to replenish the funds placed in the interbank loan, to achieve this at a high cost or not at all, because of the situation in the money market or the unavailability of collateral. See "The Eurosystem's open market operations during the recent period of financial market volatility", ECB, *Monthly Bulletin*, May 2008, Box 2, p. 93, and "Liquidity risk premia in money market spreads", ECB, *Financial Stability Review*, December 2008, Special Feature D.

Chart III.2 Spread between the 3-month Euribor and the 3-month "fixed rate" on overnight-indexed swaps

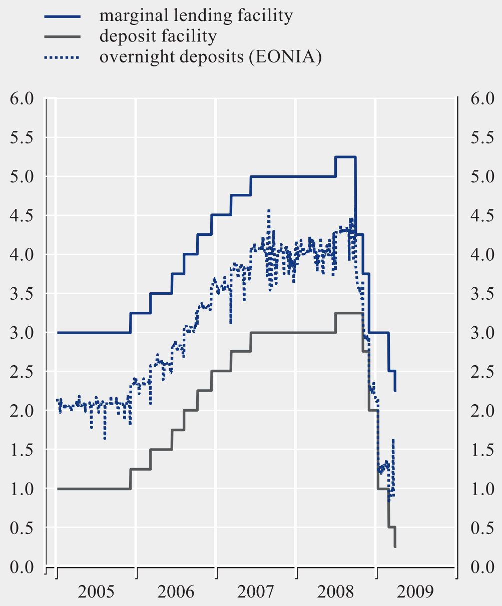
(percentages per annum and basis points, daily data)



Sources: ECB and European Banking Federation.
The vertical line marks the date of the Lehman Brothers bankruptcy on 15 September 2008.

Chart III.3 Interest rates on Eurosystem's facilities and overnight deposit rate in the interbank market (EONIA)

(percentages per annum, daily data)



Source: ECB.

uidity provided remained at approximately 40%. In this connection, operations with a maturity of six months were introduced, while the supplementary three-month operations launched in 2007 were renewed. However, the average supply of liquidity provided to credit institutions over the entire maintenance period was not increased.

- To increase, in main refinancing operations, the supply of liquidity at the beginning of each maintenance period[7] and reduce it towards its end (frontloading), in order to facilitate credit institutions to fulfil their requirements somewhat earlier in the maintenance period. The Eurosystem absorbed any excess liquidity at the end of the maintenance period through fine-tuning operations, thereby containing the fluctuation of very short-term interest rates around the rate on the main refinancing operations.

- To provide US dollar liquidity to (euro area) credit institutions through regular auctions, against collateral eligible for monetary policy operations, via swap lines with the US Federal Reserve and other central banks.[8]

Since **October 2008**, in order for the Eurosystem to deal with the **intensification of the financial turmoil**, it became necessary:

- to conduct all open market operations as fixed-rate tenders will full allotment (subject to provision of eligible collateral);

- to increase the frequency of longer-term refinancing operations; it should be noted that special-term refinancing operations have been conducted since late September 2008 with

7 The maintenance period lasts approximately 30 days. By the end of this period, every credit institution must fulfil its reserve requirement on the basis of its average reserve holdings with the respective national central bank. However, credit institutions' daily reserve holdings may vary. Faced with the turmoil, credit institutions appeared to develop a preference for the early fulfilment of reserve requirements. Underlying this behaviour is apparently an effort by credit institutions to protect themselves against potential liquidity shortages towards the end of the maintenance period.

8 In addition to being instrumental for dealing with the financial turmoil, these operations also contribute indirectly to containing pressures in the euro area interbank market.

a maturity equal to that of the maintenance period (about one month);

- to expand the list of eligible collateral against which the Eurosystem provides liquidity.[9]

These policy measures led to a significant increase in the Eurosystem's total assets – of 42% from mid-September 2008 to the end of the year.[10] This was in line with a rise in the outstanding balance of deposits in the context of the deposit facility, which was consistent with a reduction of the corridor formed by the two standing facilities of the Eurosystem (the marginal lending facility and the deposit facility) between early October 2008 and late January 2009 (see Chart III.3). When this narrowing was reversed in late January 2009, the outstanding balance of deposits decreased. Finally, **the provision of ample liquidity contributed to the EONIA rate standing below the interest rate on main refinancing operations since early October 2008**.

9 It should be noted that in September 2008 and in February 2009, it was decided to review the risk control measures applied to collateral against which liquidity is provided, in order to reduce Eurosystem's exposure to financial risk. In addition, the list of credit institutions eligible as counterparties in special open market operations was expanded in September 2008.

10 Total Eurosystem assets between 12 September and 31 December 2008 are compared, in accordance with the corresponding balance sheets.

IV ECONOMIC ACTIVITY IN GREECE

The growth rate of the Greek economy started decelerating in the fourth quarter of 2007. In the course of 2008, the decline in economic activity gradually became stronger, affecting all economic sectors. In 2008, average GDP growth dropped to 2.9%, from 4% in 2007, while activity is expected to be stagnant in 2009.

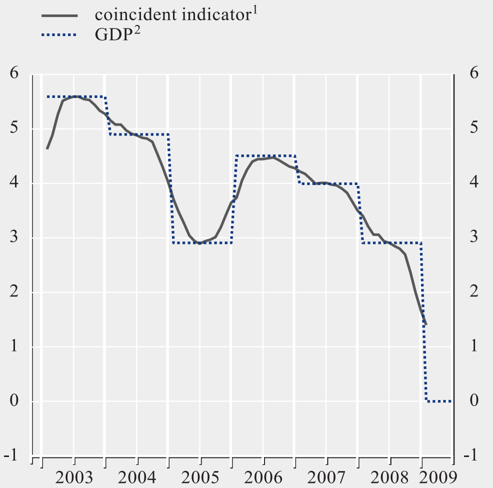
The gradual economic slowdown in Greece throughout 2008, to rates clearly lower than medium-term potential GDP growth, is due to the weakening of a number of factors that had been favourably affecting the Greek economy in the past years. It is also attributable to the lagged impact on Greece of the world financial turmoil (which grew into a crisis), especially since the second half of 2008.

In greater detail, strong economic growth in the past years was largely due to an overoptimism inspired by the entry of Greece into the euro area and the ensuing sentiment of macroeconomic stability. This optimism was translated into active demand by businesses and households, clearly boosted by the then favourable financing conditions – i.e. low interest rates and availability of ample credit. In the past five years the Greek economy, chiefly driven by domestic demand (mainly consumption and residential investment), registered growth rates that were not compatible with the medium-term potential growth rate. Hence, a certain slowdown was expected for 2008, as pointed out in previous Bank of Greece Annual Reports.[1]

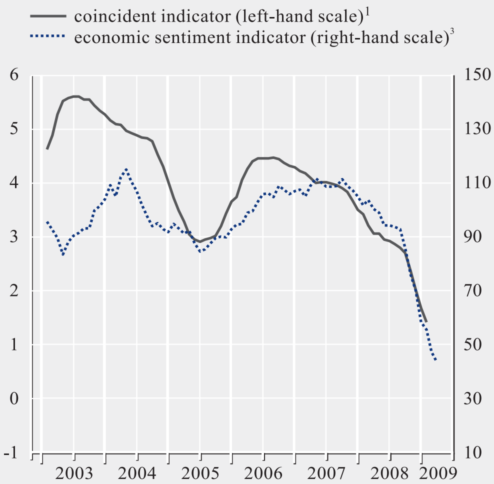
Available data on activity in individual economic sectors and subsectors, as well as the results of conjunctural surveys (which capture business and household confidence and estimates) showed an increasingly stronger decline throughout 2008 and in the first quarter of 2009. The Economic Sentiment Indicator[2] fell in the course of 2008, at a very steep rate since October. The indicator kept on declining in the first months of 2009 and reached historical lows in March. The increase in the coincident indicator of economic activity (which is compiled by the Bank of Greece and adequately summarises eco-

Chart IV.1 Economic activity indicators

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



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



Sources: Bank of Greece (coincident indicator, as well as GDP for 2009), NSSG (GDP 2003-2008) and European Commission (economic sentiment indicator).

1 Annualised monthly percentage changes.
2 Annual rate of change.
3 Monthly data.

1 For example, *Annual Report 2007.*
2 Compiled by the European Commission for all EU countries.

Table IV.1 Gross expenditure of the economy and gross domestic product

(constant market prices of 2000)

	Value in million euro	Annual percentage changes						
	2000	2002	2003	2004	2005	2006	2007	2008
1. Private consumption	98,627	4.7	3.3	3.7	4.3	4.8	3.0	2.2
2. Public consumption	24,271	7.2	-1.0	2.9	1.2	0.0	7.7	3.2
3. Gross fixed capital formation	29,450	9.5	13.2	1.9	-0.5	9.2	4.9	-11.5
3.1a By investor: general government	...	...	...	...	...	...	...	...
3.1b other sectors	...	...	...	...	...	...	...	...
3.2a By type: construction	17,944	-1.6	23.2	-5.6	0.6	5.8	1.6	-14.6
3.2b equipment	10,416	28.5	1.7	12.7	-1.0	14.2	9.1	-9.6
3.2c other investment	1,090	25.1	-13.0	26.7	-11.1	7.8	9.4	11.9
4. Domestic final demand[1]	152,348	6.0	4.6	3.2	2.8	5.0	4.1	-0.6
5. Change in inventories and statistical discrepancy (% of GDP)	2,328	-0.2	0.6	0.1	-0.6	-0.9	0.2	1.6
6. Exports of goods and services	33,882	-8.4	3.5	13.9	4.2	10.9	3.1	2.2
6.1 Exports of goods	14,253	-6.8	10.0	3.1	11.1	20.1	-7.3	-1.1
6.2 Exports of services	19,629	-9.5	-1.1	22.1	-0.3	4.5	11.8	4.4
7. Final demand	188,558	2.2	5.1	4.5	2.5	5.8	4.7	1.0
8. Imports of goods and services	52,277	-1.3	3.4	3.3	1.4	9.7	6.7	-4.4
8.1 Imports of goods	40,730	4.4	6.9	3.0	-5.4	10.3	6.7	-7.3
8.2 Imports of services	11,547	-19.2	-11.5	4.5	34.6	7.0	6.9	10.4
GDP at market prices	**136,281**	**3.4**	**5.6**	**4.9**	**2.9**	**4.5**	**4.0**	**2.9**
		Contribution to GDP change (percentage points)						
1. Private consumption		3.5	2.4	2.7	3.1	3.5	2.2	1.6
2. Public consumption		1.2	-0.2	0.5	0.2	0.0	1.2	0.5
3. Gross fixed capital formation		2.1	3.0	0.5	-0.1	2.1	1.2	-2.8
3.1a By investor: general government		...	...	...	...	...	...	...
3.1b other sectors		...	...	...	...	...	...	...
3.2a By type: construction		-0.2	3.0	-0.8	0.1	0.8	0.2	-1.9
3.2b equipment		2.1	0.2	1.1	-0.1	1.3	0.9	-1.0
3.2c other investment		0.2	-0.1	0.2	-0.1	0.1	0.1	0.1
4. Domestic final demand [1]		6.8	5.3	3.6	3.2	5.6	4.6	-0.7
5. Inventories and statistical discrepancy		-1.8	0.8	-0.4	-0.7	-0.3	1.0	1.5
6. Exports of goods and services		-2.0	0.7	2.9	0.9	2.5	0.8	0.5
6.1 Exports of goods		-0.7	0.9	0.3	1.0	2.0	-0.8	-0.1
6.2 Exports of services		-1.3	-0.1	2.5	0.0	0.6	1.5	0.6
7. Final demand		3.0	6.9	6.1	3.4	7.8	6.4	1.4
8. Imports of goods and services		0.5	-1.2	-1.1	-0.5	-3.3	-2.4	1.6
8.1 Imports of goods		-1.2	-2.0	-0.9	1.5	-2.7	-1.8	2.1
8.2 Imports of services		1.7	0.8	-0.3	-2.0	-0.5	-0.5	-0.8
9. External balance of goods and services		-1.5	-0.4	1.7	0.5	-0.8	-1.6	2.1
GDP at market prices		**3.4**	**5.6**	**4.9**	**2.9**	**4.5**	**4.0**	**2.9**

Source: NSSG, National Accounts, provisional estimates for 2003-2008, March 2009.
1 Excluding inventories and statistical descrepancy.

nomic activity) has been gradually decelerating since the beginning of 2008 and its annual rate was 1.7% in December (1.4% in January 2009 – see Chart IV.1).

For the first time since Greece joined the euro area, **domestic final demand** decreased (by 0.6%) in 2008, thereby contributing -0.7 percentage point to the GDP growth rate. In greater detail, the negative contribution (2.8 percentage points) of the decline in fixed capital formation more than offset the positive contribution (2.1 percentage points) of the increase in private and public consumption. The shrinking of residential investment (by 29.1%) largely determined the negative evolution of domestic demand. By contrast, the change in the real external balance (on a national accounts basis) made a positive contribution of 2.1 percentage points to GDP growth, exclusively because of a considerable decrease in imports. Higher inventories also supported GDP growth (by 1.5 percentage point – see Table IV.1). In other words, domestic demand declined, but combined domestic and external demand increased, though less than output, resulting in a build-up of unsold stocks.

Indicators of **consumer demand** (see Table IV.2 and Chart IV.2) registered a steady decline throughout 2008[3] and the same applies to investment demand indicators (see Table IV.3).[4]

Private consumption growth decelerated gradually in the course of 2008 and stood at 2.2% for the year as a whole, compared with 3.0% in 2007. Nevertheless, it remained the most important component of the growth rate of the Greek economy. The increase in private consumption in 2008 was supported by the higher real disposable income of households, as well as consumer credit growth, which remained strong on an annual basis, despite decelerating in the last quarter of 2008. The improvement in households' disposable income mainly reflects a considerable increase in average pre-tax earnings, a rise in

3 Retail trade dropped by 1.4% in 2008, compared with a 2.3% increase in 2007. In January 2009, the annual rate of *decrease* was 5.8% (*excluding* petrol and lubricants – revised index). New passenger car registrations fell by 7.0% in 2008; in the first quarter of 2009, they declined further by 38.7%.

4 Private building activity on the basis of permits issued dropped by 17.1% in 2008 (2007: -5.0%). Furthermore, cement production declined by 3.1%. Moreover, according to the IOBE investment survey (October-November 2008), industrial firms (both private and public) estimated that their investment expenditure had dropped by 20.9% in 2008 and that it would further decrease by 5.4% in 2009.

Table IV.2 Indicators of consumer demand

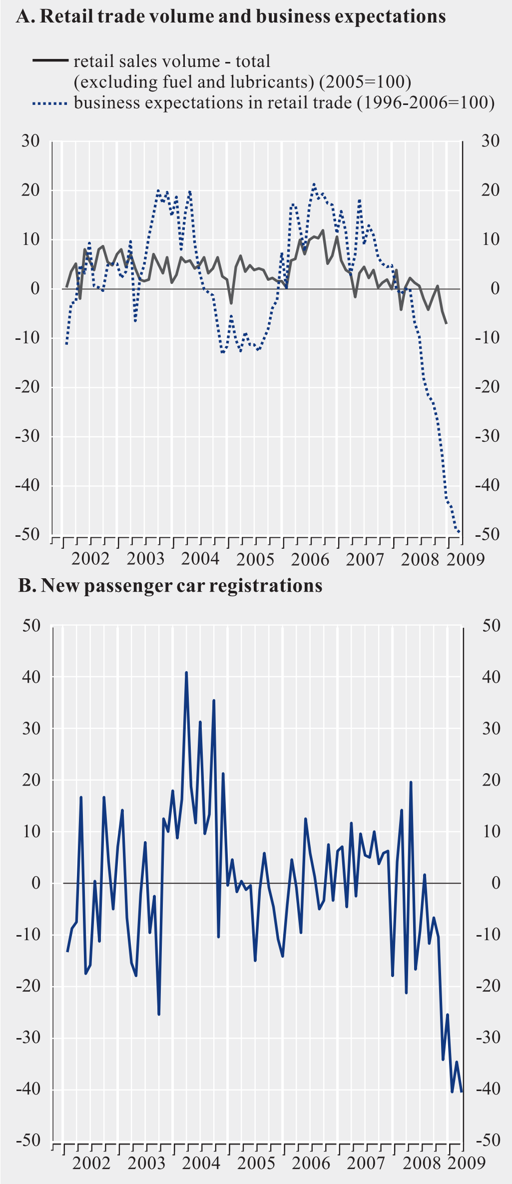
(annual percentage changes)

	2007	2008	2009 (available period)
Volume of retail sales (excluding fuel and lubricants)[1]	2.3	-1.4	-5.8 (Jan.)
Food-beverages-tobacco[2]	0.9	-0.1	-4.1 »
Clothing-footwear	1.1	-5.5	12.1 »
Furniture-electrical appliances-household equipment	6.7	-4.3	-15.5 »
Books-stationery-other	6.7	-1.3	-24.8 »
Revenue from VAT (constant prices)	6.8	0.8	...
Retail trade business expectations index	9.0	-15.3	-47.4 (Jan.-March)
New passenger car registrations	4.3	-7.0	-38.7 »
Tax revenue from mobile telephony[3]	114.2	5.3	3.1 (Jan.-Feb.)
Outstanding balance of total consumer credit extended by banks[4]	22.4 (Dec.)	16.0 (Dec.)	12.3 (Feb.)

Sources: NSSG (retail sales, cars), Bank of Greece (consumer credit), IOBE (expectations), Ministry of Economy and Finance (VAT revenue and tax revenue from mobile telephony).
1 Revised index 2005=100.
2 Including large food stores and specialised food-beverages-tobacco stores.
3 Adjusted rates apply as from 1 November 2006.
4 Taking into account securitised loans and loan write-offs.

Chart IV.2 Consumer demand

(annual percentage changes)



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

employment, the observed shortfall in revenue from income tax on natural persons and a considerable hike in social transfers to certain vulnerable population groups. Furthermore, towards the end of the year, households' incomes benefited from lower inflation. Increased uncertainty connected with the financial crisis led to a small increase in the saving rate.

Public consumption growth (on a national accounts basis and at constant prices) remained strong in 2008 (3.2%), despite decelerating in comparison with 2007 (7.7%).

The large decrease in demand for investment goods in 2008 (by 11.5%, compared with a 4.9% increase in 2007) is mainly attributable to the collapse in **residential investment**, as well as a 9.6% drop in **investment in equipment** (compared with a 9.1% rise in 2007). It should be noted that the considerable slowdown in the rate of increase in the outstanding balance of housing loans negatively affected the absorption of the unsold stock of newly built and older dwellings and discouraged new investment (see also Box IV.1). However, **non-residential investment** rose by 8.7% in 2008, thereby limiting the decrease in total construction investment to -14.6%. On the other hand, **public investment** remained almost unchanged, compared with a 2% increase in 2007, while business investment declined, partly reflecting delayed or postponed investment plans.

Exports of goods and services rose by 2.2% in 2008 (on a national accounts basis), reflecting considerably higher transport (shipping) receipts up to October. In the fourth quarter of the year, however, the annual rate of change in services exports turned negative. Exports of goods maintained their downward course in 2008, though at a clearly weaker pace (-1.1% compared with -7.3% in 2007). This is attributable to the continued decline in competitiveness. **Imports of goods and services** dropped markedly by 4.4% in 2008, compared with a 6.7% increase in 2007. This reversal reflects subdued domestic demand, in particular a slower increase in private consumption and a decrease in investment demand.

Turning to **supply**, according to provisional national accounts data published by the NSSG in March 2009, the average annual rate of

Table IV.3 Indicators of investment demand

(annual percentage changes)[1]

	2007	2008	2009 (available period)
Capital goods output[2]	-1.0	-6.8	-17.9 (Jan.)
Capacity utilisation rate in the capital goods industry	(80.4)	(77.5)	74.3 (Jan.-March)
Outstanding balance of loans to non-financial corporations with a maturity of over one year[3]	25.7 (Dec.)	21.4 (Dec.)	19.4 (Feb.)
Disbursements out of the Public Investment Programme	7.6	9.3	272.8 (Jan.-March)
Volume of private construction activity (on the basis of permits issued)	-5.0	-17.1	...
Cement production	-9.2	-3.1	-37.0 (Jan.)
Construction business expectations index	1.5	3.0	-31.8 (Jan.-March)
Outstanding balance of total bank credit to housing[4]	21.9 (Dec.)	11.4 (Dec.)	9.6 (Feb.)

Sources: NSSG (capital goods output, volume of private construction activity, cement production), IOBE (capacity utilisation rate, business expectations) and Bank of Greece (loans to non-financial corporations, disbursements under the public investment programme, housing loans).
1 Except for the capacity utilisation rate in the capital goods industry, which is measured in percentages.
2 Revised index 2005=100.
3 Adjusted for the amount of loan write-offs.
4 Taking into account securitised loans and loan write-offs.

increase in gross value added (GVA) at basic prices was 3.6% in 2008, from 4.0% in 2007. The rise stems from the higher output of both the primary and the tertiary sector, while the output of the secondary sector declined.

Gross value added in the **primary sector** (at 2000 constant prices), as registered in the National Accounts by the NSSG, rose by 5.2% in 2008, compared with large decreases in the previous years (10.8% in 2007 and 18.0% in 2006 – see also Table IV.4). However, due to an increase in production costs,[5] real agricultural income[6] per full-time employee fell by 7.1% in 2008, according to Eurostat data, compared with a 4.3% decrease in the EU-27. It should be noted that the chronic pathogenies of the agricultural sector in our country,[7] coupled with increasingly stronger competition in world markets, threaten the very survival of today's agricultural development model. This model is characterised by, *inter alia*, a lack of investment initiatives, excessive reliance of agricultural income on Community subsidies,[8] a worsening of the agricultural balance of the country and environmental downgrading of the countryside.

Value added in the **secondary sector** (industry, energy, construction), at constant prices, dropped by 2.4% in 2008, compared with a 3.8% increase in 2007, due to a large decline in construction (-9.4%).[9] Besides, according to available short-term indices compiled by the NSSG (see Table IV.6), total industrial and manufacturing output, which had risen in 2006-2007, demonstrated a considerable decrease in the course of 2008, which intensified in the last quarter of the year. In greater detail, total industrial output fell by 4.0% in 2008 (2007: +2.6%) and manufacturing output by 4.6% (2007: +2.6%), owing to a large decline in all major industrial groupings, especially inter-

5 Compared with the increase in agricultural production input prices, which reached 12.1%, up from 7.4% in 2007, the rise in producer prices (excluding subsidies) was disproportionately small; it did not exceed 1%, mainly due to considerably lower grain prices (see Table IV.5).
6 Agricultural income is equal to primary sector output minus the cost of taxes, intermediate consumption and capital use, plus subsidies.
7 For instance, specialisation in low value added products, lack of standardisation and trade strategy.
8 Ms Mariann Fischer Boel, EU Commissioner for Agriculture and Rural Development, in reply to a Greek MEP, stated that the share of subsidies in the Greek agricultural income rose from 27% in 1996 to 39% in 2007.
9 By contrast, value added in industry (including energy) rose by 1.8% in 2008. However, in the fourth quarter of the year it decreased (-0.1%).

Table IV.4 Production of basic agricultural products

(thousand tonnes)

Product	2002	2003	2004	2005	2006	2007*	2008*
Soft wheat	427	323	274	270	432	466	525
Durum wheat	1,902	1,309	1,500	1,491	1,144	918	1,414
Maize	2,194	2,206	2,210	2,169	1,647	1,928	2,472
Tobacco	116	116	112	108	22	22	24
Cotton (natural)	1,137	972	1,035	1,100	481	432	362
Industrial tomatoes	1,000	985	1,180	900	990	758	735
Sugar beets	2,531	2,200	2,095	2,800	1,650	855	903
Olive oil	414	310	435	424	366	449	397
Lemons	109	102	36	42	41	45	31
Oranges	1,176	849	765	1,017	856	970	802
Apples	262	203	275	247	263	262	235
Peaches	706	123	948	769	618	737	734
Meat, total	488	480	486	483	464	469	480
Milk, total	1,928	1,927	1,948	1,866	1,866	1,895	1,890

Source: Ministry of Rural Development and Food.
* Provisional data.

Table IV.5 Producer prices[1] and input prices

(2000=100)

Product	Weights	2001	2002	2003	2004	2005	2006	2007	2008
		Percentage changes in producer prices (output prices)							
Plant production	70.7	5.4	11.0	11.6	-3.2	2.4	7.1	12.8	-0.1
Livestock production	29.3	7.7	-2.2	1.3	2.0	5.2	4.9	0.2	4.4
General producer price index	**100.0**	**6.1**	**7.1**	**8.8**	**-1.9**	**3.1**	**6.5**	**9.5**	**1.0**
		Percentage changes in input prices							
Consumables	74.9	1.4	2.3	4.2	9.0	5.6	4.2	7.4	14.6
Fixed capital	25.1	4.0	4.4	3.2	3.1	3.8	3.3	3.0	3.9
General input price index	**100.0**	**2.1**	**2.8**	**4.0**	**7.5**	**5.1**	**3.9**	**6.4**	**12.1**

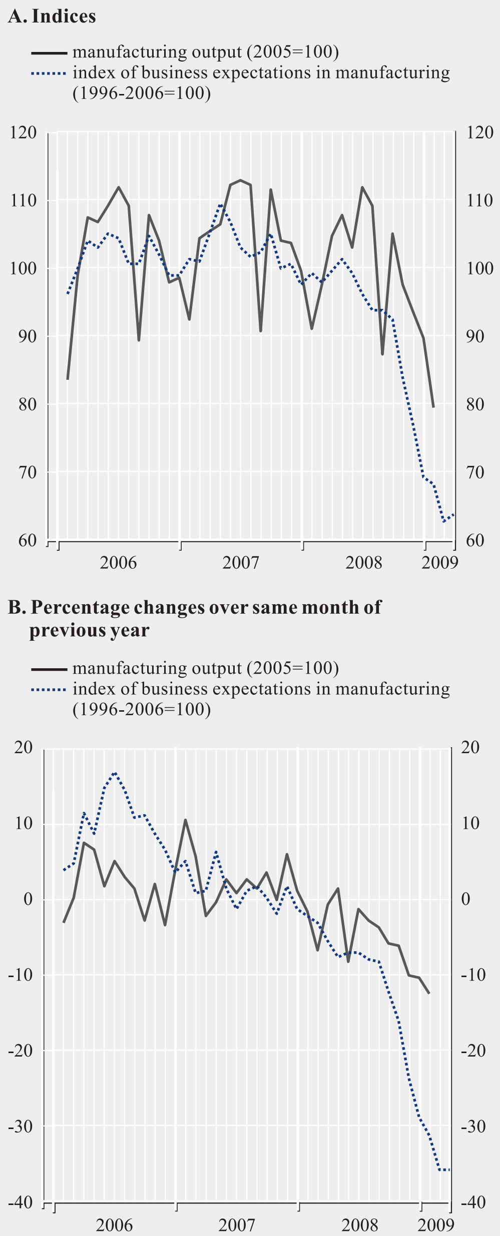
Source: NSSG.
1 Producer prices do not include subsidies on products.

mediate goods (-7.2%), which had a decisive contribution to the decrease in output across industry. Especially in manufacturing, the output of most sectors dropped significantly, with the exception of food and pharmaceuticals, the output of which rose.[10]

The negative picture drawn by manufacturing activity (see Charts IV.3 and IV.4) is also reflected in the relevant conjunctural survey carried out by IOBE. The downward course of the industrial confidence index in 2008 (-10.6% on average, 2007: +1.3%), which was felt particularly in the last quarter of the year, continued at a stronger pace in the first quarter of 2009,

10 In January 2009, industrial output *decreased* at an annual rate of 10.2% (manufacturing output: -12.6%).

Chart IV.3 Output and business expectations in manufacturing

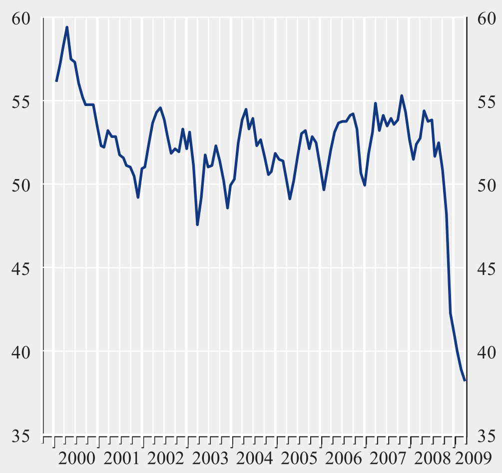


Sources: NSSG (output) and IOBE (expectations). The index of business expectations is based on business firms' estimates of total demand and stocks and on output forecasts for the next 3-4 months.

in the face of increasingly negative forecasts for the outlook of orders and demand – especially from abroad.[11] The capacity utilisation rate in industry as a whole, which was 75.9% in 2008 (from 77% in 2007), further declined in the first

Chart IV.4 Purchasing Managers' Index (PMI) in manufacturing

(seasonally adjusted; values over 50 suggest an increase in activity)



Sources: Markit Economics and Hellenic Purchasing Institute.

quarter of 2009, when it reached a four-year low (71.3%). Furthermore, the quantitative index of the estimated number of months' production assured by orders on hand decreased significantly, confirming qualitative forecasts of a deceleration in industrial activity.[12]

Value added in the **tertiary sector** (services) rose by 5.2% in 2008 (at constant prices), from 5.1% in 2007. Certain subsectors (transport, telecommunications-post services, wholesale trade) demonstrated positive activity during the year as a whole, despite a deceleration observed in the fourth quarter of the year. On the other hand, the volume of retail trade and car sales decreased markedly, as already mentioned (see Chart IV.2), and so did tourism (see Chapter VIII).

Specifically, in 2008, according to NSSG data, turnover (at current prices) rose by 5.1% in

11 Furthermore, the PMI for manufacturing, which, during the first nine months of the year, suggested increased output, in the last quarter of 2008 dropped for the first time below the 50 threshold (thus implying a decrease). This decline continued at an accelerating pace into the first three months of 2009, and in February the index reached a ten-year low.

12 According to the IOBE survey of February 2009, "the period of low expectations and pessimistic forecasts is prolonged and the uncertainty surrounding industrial activity is heightened".

Table IV.6 Industrial production

(2005=100)

		Weights 2005	Average annual percentage changes			Level 2008 (2005=100)
			2006	2007	2008	
INDUSTRY	**100.0**		**0.9**	**2.6**	**-4.0**	**99.3**
1. Mining and quarrying	***6.1***	***100.0***	***-2.9***	***0.1***	***-4.8***	***92.6***
Mining of coal and lignite		56.6	-6.0	0.7	0.4	95.1
Extraction of crude oil and natural gas		1.9	-7.1	-18.2	-17.1	63.0
Mining of metal ores		9.1	-16.7	-2.1	2.2	83.3
Other mining and quarrying		32.4	6.6	0.7	-13.7	92.6
2. Manufacturing	***69.8***	***100.0***	***2.0***	***2.6***	***-4.6***	***99.8***
Food		18.2	-0.9	3.3	1.2	103.6
Beverages		6.0	1.6	8.0	-0.5	109.3
Tobacco		1.9	-7.7	4.1	-3.3	92.8
Textiles		3.1	-9.3	1.8	-22.8	71.3
Clothes		3.4	-7.9	13.2	-14.5	89.1
Leather-footwear		0.6	-1.1	1.8	-5.7	95.0
Wood and cork		1.2	-5.1	-10.6	-9.3	76.9
Paper and paper products		2.3	3.4	3.6	-3.8	103.1
Printing and reproduction of recorded media		1.9	8.0	-3.7	-4.8	99.0
Oil and coal products		11.3	6.5	3.0	-4.3	105.0
Chemicals		5.3	-0.6	3.5	-4.7	98.1
Basic pharmaceuticals		2.5	13.2	14.6	3.4	134.2
Rubber and plastic products		4.2	4.6	4.2	-2.8	106.0
Non-metallic mineral products		10.3	4.2	-6.1	-6.5	91.5
Basic metals		8.0	5.5	2.0	-9.0	98.0
Metal products		5.1	10.9	-3.9	-10.1	95.8
Computers, electronics and optical products		1.2	2.1	-17.6	-4.3	80.5
Electrical equipment		3.0	3.7	1.1	-1.0	103.8
Machinery and equipment n.e.c.		2.1	13.1	-0.3	-0.8	111.8
Motor vehicles, trailers and semi-trailers		0.8	-23.5	28.2	-16.7	81.7
Other transport equipment		1.6	-7.4	14.8	-3.0	103.1
Furniture		1.5	3.6	1.9	-1.4	104.0
Other manufacturing		0.5	0.8	-1.7	-15.1	84.1
Repair and installation of machinery and equipment		4.1	-6.0	6.4	-6.7	93.3
3. Electricity	***20.8***	***100.0***	***-1.7***	***3.5***	***-2.8***	***98.9***
4. Water supply	***3.3***	***100.0***	***2.5***	***1.1***	***2.5***	***106.2***
INDUSTRY	**100.0**		**0.9**	**2.6**	**-4.0**	**99.3**
Main industrial groupings						
Energy	36.8		0.1	2.8	-2.4	100.4
Intermediate goods	28.0		2.6	1.0	-7.2	96.1
Capital goods	8.6		2.3	-1.0	-6.8	94.3
Consumer durables	2.3		2.5	-0.7	-4.6	97.2
Consumer non-durables	24.3		-0.5	5.6	-1.6	103.4

Source: NSSG. Revised index, 2005=100.

Table IV.7 Activity indicators in the services sector

(annual percentage changes)

	2007	2008	2009 (available period)
Turnover in services			
Car retail sales	6.8	-2.3	...
Wholesale trade	11.4	9.4	...
Telecommunications and post	1.2	0.3	...
Information technology	9.9	-1.0	...
Land transport	18.2	5.1	...
Sea transport	8.1	10.2	...
Air transport	7.0	6.5	...
Supporting transport services including travel agencies	12.6	3.3	...
Tourism (hotels and restaurants)	6.5	3.2	...
Other business activities[1]	18.3	3.6	...
Olympic Airlines passengers-km	2.7	-8.6	...
Aegean Airlines passengers-km[2]	25.5	21.1	...
Piraeus port passenger traffic	2.0	0.7	...
Business expectations index in the services sector	2.8	-8.3	-41.2 (Jan.-March)

Sources: NSSG (turnover in services) Olympic Airlines, Aegean Airlines, Piraeus Port Authority and IOBE (expectations).
1 Including mainly architects-engineers, legal services and advertisement.
2 Including charter flights.

land transport, 10.2% in sea transport and 6.5% in air transport, while turnover in supporting and transport-related services and travel agencies declined considerably by 16.5% in the fourth quarter of the year. Moreover, turnover (at current prices) in IT services decreased by 1.0% in 2008, in telecommunications-post it remained virtually unchanged (+0.3%), while in "other business activities"[13] it rose by 3.6%. Turnover (at current prices) in wholesale trade rose by 9.4% in 2008 (see Table IV.7). Also, according to the IOBE's conjunctural survey, business expectations in the services sector (excluding retail trade and banks), after a prolonged and large decline between July 2008 and January 2009, showed a slight increase in February and March 2009.

As national and international short-term indices do not yet show any signs of improvement, it is estimated that **economic activity will be stagnant in 2009**, while negative rates of annual change are not to be excluded. The economic outlook in Greece is still less negative than in the euro area as a whole. However, the forecast of zero GDP growth is surrounded by high uncertainty and the outcome may be even worse if global economic conditions deteriorate more than currently anticipated (as this would mean a larger than expected decrease in exports). Furthermore, if the large stocks accumulated last year (which supported the GDP growth rate in 2008) are used to feed demand in 2009, they may lead to a decrease in domestic output in 2009 (even if they are not used and their level remains unchanged, their contribution to the rate of change in GDP will be zero, while in 2008 it was positive). Additionally, one should not ignore the possibility that, if further measures are taken to reduce the fiscal deficit, there may be positive effects (stronger confidence of the markets and domestic economic agents in the prospects of the Greek economy and better financing conditions in the world market), but losses of real

13 The largest part of this category concerns business activities by engineers, architects, lawyers, notaries and advertisers.

output and jobs will not be avoided over the short term.

Certainly, there exist **certain factors that can mitigate the adverse impact of the crisis on economic activity.** In particular, lower oil prices have a more favourable impact on Greek inflation, as well as on the Greek economy's potential growth rate, because of the relatively high oil intensity of the Greek economy (see Chapters VI and VIII). Therefore, inflation is expected to decelerate considerably because of this factor. Furthermore, for most employees in the business sector, nominal wage increases have already been determined in the two-year collective labour agreements signed in 2008. Certainly, it is estimated that, at individual-business level in the non-bank private sector, actual wages will increase considerably less than negotiated wages (see Chapter VI). Besides, according to the incomes policy announced by the government, the increase in average wages in the public sector will be lower than initially forecast in the Budget. However, average real wages in the whole economy are expected to increase at a rate that can support a 1% increase in **domestic consumption demand** (compared with 2.2% in 2008), to the extent that the decrease in employment is moderate (see Chapter V) and there is no further considerable decline in households' confidence. Furthermore, the plan to enhance liquidity in the economy (see Chapter IX) is expected to help maintain household and corporate credit growth at a level that would prevent a considerable weakening of economic activity and support a small increase in *nominal* GDP. The substantial drop in equity prices on the Athens Exchange does not seem to affect materially Greek households' consumption. Finally, though a decrease is expected in the prices of residential property (see Box IV.1), which constitutes the main asset of households, the change in the market value of houses does not affect consumer behaviour visibly.

The worsened business climate, especially since the last quarter of 2008, combined with the ongoing decline in demand and uncertainty in financial markets, support the view that, at least for 2009, private investment initiatives will be further reduced. In greater detail, **residential investment** is expected to further contract by around 20%. This estimate is based on the declining trend of relevant leading indicators and the rapid deceleration of the growth rate of the balance of housing loans to households (11.5% in 2008, from 21.9% in 2007 and 26.3% in 2006). **Non-residential investment** is also expected to decline, as lower returns and financial difficulties may negatively affect the market for business/commercial buildings and the implementation of large infrastructure projects, respectively. **Business investment in equipment** is possible to decline, given the worsening of the business climate, the increasing weakening of domestic and global demand, the restricted access of businesses to funding and the particularly cautious forecasts of medium-sized and large enterprises regarding their financial results for 2009. The negative effects of these trends in the domestic and international economic environments on investment may be offset by an acceleration of public-private partnerships, together with the private investment projects that have been approved for support under the development law and the implementation of considerable investment projects in energy. Turning to **public investment**, it should be noted that, as a result of the cuts in spending under the Public Investment Budget (8.8% at current prices, according to the Budget for 2009) general government investment will decrease by more than 11% at current prices in 2009, unless its financing becomes easier either through advance payments of the Community contribution to the National Strategic Reference Framework (ESPA) or through savings on other government expenditure.

A large decline, of about 12% at constant prices, is expected in **exports of goods and services** in 2009 (compared with a 2.2% rise in 2008). The expected drastic decrease in transport receipts and the anticipated decline in tourist activity are the main reasons behind the decrease in services exports, while goods exports are also expected to decline. **Imports of goods and services** are expected to drop in 2009 by about 8-8.5% (2008: -4.4%), reflecting subdued domestic demand. The change in the real external balance is expected to make a zero contribution to the rate of change in GDP.

Box IV.1

THE REAL ESTATE MARKET TRENDS IN 2006-2008 AND PROSPECTS FOR 2009

The real estate market constitutes a special market which considerably affects financial and therefore macroeconomic stability. Changes in real estate prices, rents and interest rates on housing loans have an impact on total demand and inflation. Thus, the real estate market plays a significant role in the transmission of monetary policy and economic developments. At the same time, real estate constitutes the main means of banks' hedging against credit risks from housing loans and a large part of business loans. This is why it is very important to systematically register and analyse developments in the real estate market, together with their potential impact on other important variables, such as households' consumption and saving, the value of their wealth, the structure of their portfolios etc. With a view to collecting data necessary for monitoring developments in the real estate market, the Bank of Greece issued Governor's Act 2610/31 October 2008 re: "Reporting by credit institutions of data on residential property which is financed or used as collateral for loans granted by credit institutions". According to this Act, all credit institutions operating in Greece shall report to the Bank of Greece, on a monthly basis, detailed data on the value and quality characteristics of all residential property which has been purchased through loans or is used as collateral for loans granted by credit institutions.[1] By end-March 2009, the data base (estimates) of the Real Estate Market Analysis Section of the Bank of Greece included data on 375,000 residential property items, the values of which had been estimated in the January 2006-February 2009 period. Of the total items, 72.1% (275,000) concerns apartments, 18.3% houses, 4.5% building plots and 4.5% maisonettes. The material gathered is already being used to construct individual residential property price indices (see table for data regarding the area of Athens).

Residential property prices

The continuous deceleration of the upward trend of residential property prices in Greece between 2006 and 2008 constitutes the main characteristic of the housing market. However, residential prices maintained slightly positive rates of change (in nominal terms) also in 2008. According to available data from the Bank of Greece, residential property prices in urban areas (total) rose by 2.6% in 2008 (provisional data), compared with 4.6% in 2007, 12.2% in 2006 and 10.9% in 2005. In greater detail, the annual rate of increase in residential property prices in Athens came to 2.7% in 2008,[2] against 5.2% in 2007 and 11.3% in 2006 (based on data reported by banks). In other urban areas, price increases decelerated further to 2.6% in 2008, from 3.8% in 2007 and 13% in 2006 (based on data gathered by the branches of the Bank of Greece mainly from real estate agencies – see table).

1 Data reported to the Bank of Greece on the basis of Bank of Greece Governor's Act 2610/31 October 2008 refer separately to each assessment of residential property and include the code number and the type of this property (apartment, house, etc.), its exact geographic position (address, floor, etc.), how old it is (in which year it was built or the building permit was issued), description and floor area of the main house and auxiliary rooms (e.g. storeroom, parking, etc.) and the respective commercial values of these areas, their quality features (quality of construction, surrounding area, position, etc.), building costs and objective value, together with all the particulars of the loan for which the property constitutes the sole collateral (category of loan, amount that has been approved and paid, value of the mortgage, etc.).

2 However, according to *other* evidence (January 2009 estimates by representatives of large real estate agencies throughout the country in discussions with different services of the Bank of Greece), it is estimated that since the summer of 2008 residential property prices have dropped (in nominal terms) by about 7%. If the increase registered in the first half of 2008 is also taken into account, the average annual level of residential property prices (in nominal terms) fell slightly in 2008.

House price index

Period		Urban areas-total			Athens			Other urban areas		
		Index	Percentage changes		Index	Percentage changes		Index	Percentage changes	
		1997=100	Over previous quarter	Year-on-year	1997=100	Over previous quarter	Year-on-year	1993 IV=100	Over previous quarter	Year-on-year
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	256.8	11.3	11.3	304.2	13.0	13.0
2007		251.6	4.6	4.6	270.1	5.2	5.2	315.8	3.8	3.8
2008		258.2	2.6	2.6	277.3	2.7	2.7	323.9	2.6	2.6
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	233.3	4.1	13.7	249.9	4.6	11.7	294.1	3.6	15.7
	II	238.7	2.3	12.8	255.0	2.1	11.4	301.7	2.6	14.2
	III	240.9	0.9	11.1	254.9	0.0	10.1	307.4	1.9	12.0
	IV	249.2	3.4	11.2	267.2	4.8	11.8	313.7	2.0	10.5
2007	I	251.3	0.8	7.7	269.5	0.9	7.9	315.8	0.7	7.4
	II	249.5	-0.7	4.5	266.9	-1.0	4.7	314.3	-0.5	4.2
	III	252.1	1.0	4.6	272.1	1.9	6.7	314.5	0.1	2.3
	IV	253.5	0.6	1.7	271.9	-0.1	1.7	318.4	1.2	1.5
2008	I	255.6	0.9	1.7	274.2	0.8	1.7	321.1	0.8	1.7
	II	258.3	1.0	3.5	277.6	1.3	4.0	323.7	0.8	3.0
	III	258.1	-0.1	2.4	277.2	-0.2	1.9	323.6	0.0	2.9
	IV	260.9	1.1	2.9	280.3	1.1	3.1	327.1	1.1	2.7
2009*	I	...	...	...	270.4	-3.5	-1.4	...	...	...

Sources: For the other urban areas: Bank of Greece (data collected by the Bank's branches, mainly from real estate agencies). For Athens: calculations based on data from "Danos and Associates" (1993-97), "Property Ltd" (1997-2005) and Bank of Greece (data collected by credit institutions, 2006-2009). For the total of urban areas: weighted index based on the housing stock in Athens and other urban areas.
* Estimates.

After the de-escalation of the upward trend in residential property prices observed up to 2008, the annual rate of change becomes negative in the first months of 2009. On the basis of data gathered by banks, residential property prices in Athens are estimated to have *decreased* by 1.4% (annualised, in nominal terms) in the first quarter of 2009.[3] The future course of residential property prices will depend on factors affecting both supply (e.g. construction costs, city planning and tax regulations) and demand (e.g. change in population, especially number of households, costs of borrowing and level of interest rates, relationship between rent and value of property). However, the risk of an abrupt correction in the Greek housing market is limited, at least to the degree the evolution of prices is affected by the evolution of, and prospects for, rents and long-term interest rates.

Demand and supply in the real estate market

The deceleration of the rate of increase in real estate prices in the past two years is estimated to be attributable to the relative decrease in demand and to increased supply. In greater detail, the announcement, at end-2006, that objective prices would be raised in March 2007 led to a temporary increase in demand in the last quarter of 2006 and the first two months of 2007, which was at least partly offset by the easing of demand in the next months of 2007. More recently, lower demand can be partly explained by the cautionary stance of households in view of the current economic conditions and the uncertainty regarding the consequences of the financial crisis, especially in terms of employment and future incomes. Besides, households seem to expect that residential property prices will decline in the future and this could make them postpone all relevant decisions. On the other side, the more careful and selective stance of banks as regards granting new housing loans, is estimated to have contributed to the slower increase in demand. It should be noted, however, that, while all factors mentioned above have contributed to a decrease in demand for real estate purchase in general, they have also switched buyers towards older and smaller real estate items.

Lower demand is also apparent in the continuous deceleration of the rate of increase in housing loans, especially after the recent financial crisis. In greater detail, the annual rate of increase in the outstanding balance of bank loans to households for home purchase dropped to 11.5% at end-2008, from 21.9% and 25.8% at end-2007 and end-2006 respectively. However, it remains high, despite the increases in interest rates up to October 2008[4] and the clear tightening of credit standards. The net flow of new mortgage loans in the last quarter of 2008 was 60% lower than in the last quarter of 2007, whereas in the first nine months of 2008 it was only 19.5% lower than in the respective period of 2007.[5] The net flow of new housing loans came to €318 million in the first two months of 2009, while the annual rate of change in the outstanding balance of housing loans decelerated further to 10.6% in January and 9.6% in February 2009 (see also Chapter IX.2).

3 Real estate prices in the euro area increased on average by 6.6% per annum between 2000 and 2005. In 2006 and 2007 the high rates of increase eased to 6.4% and 4.3% respectively. In certain countries (Spain, Italy, France, Belgium) the average annual rate of increase had reached two-digit figures in 2000-2007, while prices decreased slightly only in Germany. Available data for 2008 show varying price developments in the euro area countries, despite the general decelerating trend, the speed of which is considerably linked with the size of price increases during the previous years: the average nominal increase is about 1-1.5%, but in Ireland the decrease was substantial, a development that was also recorded in Spain (only in the second half of the year). See ECB, *Housing Finance in the Euro Area,* Occasional Paper Series No. 101, March 2009; ECB, "Recent Housing Market Developments in the Euro Area", *Monthly Bulletin,* February 2009 (Box 4); and OECD, *Economic Outlook – Interim Report,* 31 March 2009, Table 1.2, p. 23.

4 Interest rates on mortgage loans started decreasing in November 2008.

5 Data gathered by the Bank of Greece (on the basis of estimates made by engineers who work with commercial banks) on the value of residential property which is purchased through loans or is used as collateral for loans show that the number of these estimates dropped in 2008 to about 98,000, against 125,000 in 2007. The number of such estimates keeps on decreasing after the first quarter of 2007; in the third quarter of 2008 it was 24,000 and in the fourth quarter of 2008 it dropped to 18,000 (from 28,000 and 31,000 in the respective 2007 quarters).

Turning to supply, there exists a considerable stock of new residential property, which seems to be gradually absorbed, despite the relative caution from the demand side. This excess supply stems mostly from the extraordinarily high private construction activity in 2006 (on the basis of permits issued in 2005, when the tax regime was more favourable, as VAT was imposed on new buildings as from the beginning of 2006). It is worth noting that the volume of private construction activity on the basis *of permits* issued rose by 35.2% in 2005. The largest part of these permits was issued towards the end of 2005, but the actual construction is estimated to cover the time period from 2006 up to now. Thus, the supply of new residential property has been maintained at high levels since the beginning of 2006, although the volume of private building activity, on the basis of permits, dropped by 19.5% in 2006, 5.0% in 2007 and 17.1% in 2008.[6]

The large stock of unsold residential property, combined with weak demand in the real estate market in the past two years, has made constructors reluctant to take new investment activities. Constructors, having a large number of unsold property at their disposal, do not issue new building permits, hoping that this will help them maintain the current level of prices. This reserved policy, namely a limited expansion of operations on the part of construction firms, is not expected to change considerably in the months to come. To this respect, it is worth noting that the side of supply does not seem to be especially strained, as constructors have accumulated considerable profits in the past ten years, due to the rapid increase in residential property prices.

Besides, the total cost of construction, as derived from the NSSG indices regarding the construction of new dwellings, demonstrated an average annual increase of 5.0% in 2008, against 4.4% in 2007. This was mainly driven by the 6.3% rise in the building material index in both 2008 and 2007. The labour cost index registered a smaller increase (3.6% in 2008 against 2.4% in 2007). It is estimated that the higher construction cost hinders constructors from undertaking new investment activities, as it raises the replacement cost of the existing stock of unsold real estate.

Business expectations in the field of residential construction, and investment in residential property

The business expectations index in construction (which concerns all types of construction) rose at an average annual rate of 3% in 2008, against 1.5% in 2007 and 44.6% in 2006. The index started decelerating in the second quarter of 2008, a development that continued also in the first quarter of 2009 (annual rate of decrease: 31.8%). Especially for firms constructing houses, according to an IOBE survey, the estimated number of secured months of production decreased between December 2008 and March 2009, but it is not lower than the 2008 average.

However, total residential investment dropped significantly in 2008 (by 29.1%) according to NSSG national accounts data, after a 6.8% decline in 2007. As explained in the main text, the decrease in residential construction activity is expected to be significant also in 2009, although there exist some signs for a less negative outlook as regards transactions for house purchase.[7]

6 The decrease in building activity is more evident in the Attica prefecture, as the exceptionally high increase of 49.8% in the volume of private building construction (on the basis of permits issued) in 2005 was followed by a considerable reduction: by 20.2% in 2006, 13.3% in 2007 and 24.1% in 2008.

7 Reserved optimism over the recovery of the real estate market is derived from the answers given by large real estate agencies in February 2009 in a relevant questionnaire compiled by the Real Estate Market Analysis Section of the Bank of Greece, which aimed at registering the recent trends and expectations in the residential and business property market. In the question "what is the outlook for the residential property market in the next quarter", 67% replied that it would remain unchanged, 17% that it would be slightly better and 16% that it would be slightly worse. In the question "what is your estimate for transactions on residential property in the next quarter", 50% replied that they would remain virtually unchanged, 33% that they would increase slightly and 17% that they would decrease slightly. A survey carried out by the Economic University of Athens allows for similar optimism: according to it the relevant expectations index for house purchase reached 42.1 points for the first half of 2009, against 40.8 points in the second half of 2008 (it rose by 3.2%).

Impact on GDP and inflation

The impact of the evolution of the housing market on households' private consumption, especially on the prices of residential property and therefore the market value of households' assets (i.e. households' wealth) is estimated to be limited.[8] This is why it is expected that the impact of the recent developments on the rate of change in GDP will be marginal. As regards inflation, insofar as housing prices affect rents (something that is not clearly confirmed in Greece), the housing market could affect the evolution of the consumer price index. It should be noted, however, that in the past five years the average annual rate of increase in rents was considerably higher than the respective rate of increase in the general level of prices. More recently, while the annual rate of CPI increase dropped from 3.9% in December 2007 to 1.6% in February 2009, the respective rate of increase in rents remained almost unchanged (from 4.0% in December 2007 it decelerated to 3.7% in February 2009).

8 According to a recent survey, the impact of the market value of houses, which constitute a key component of households' wealth, on private consumption is estimated to be relatively limited in the euro area as a whole. See ECB "Housing wealth and private consumption in the euro area", *Monthly Bulletin,* January 2009, pp. 59-71.

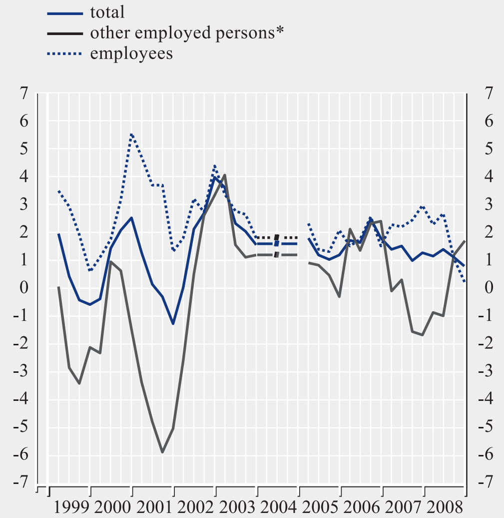
V EMPLOYMENT AND UNEMPLOYMENT: DEVELOPMENTS AND PROSPECTS

The slowdown of economic growth in 2008 led to a **decrease in the average annual employment growth.** NSSG Labour Force Survey (LFS) data suggest that the total number of employed individuals increased at an average annual rate of 1.1% in 2008, compared with 1.3% in 2007. Since employment is a lagging indicator of economic activity, the deceleration in the rate of increase of employment did not materialise until the last quarter of the year, when the annual growth rate of employment stood at 0.8%, compared with 1.3% in the corresponding quarter of 2007 (see Chart V.1).

While in the first half of 2008 employment growth can be attributed almost solely to the increase in the number of wage earners in the non-agricultural private sector, the number of self-employed, especially women, rose significantly in the second half of the year (see Chart V.2).[1] The increase in the number of self-employed may be due to a rise in necessity-entrepreneurship among those who could not find a job. It also appears that economic developments in the second half of 2008 discouraged a shift of employment out of agriculture, thus supporting an increase (albeit negligible) of employment in the sector for the first time in a number of years.

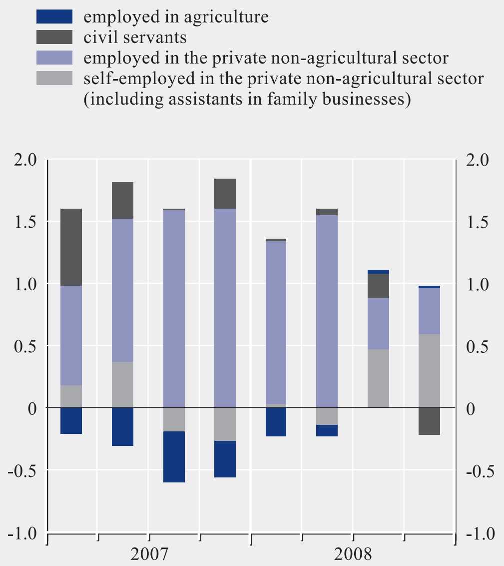
Chart V.1 Employment

(percentage changes over corresponding quarter of previous year)



Source: NSSG, Labour Force Surveys.
Note: 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.

Chart V.2 Sectoral contributions to the change in employment[1]



Source: NSSG, Labour Force Survey, 2007-2008.
1 Contributions to annual percentage changes.

In 2008 employment in the non-agricultural private sector increased at an annual rate of 1.7% (1.4% in the last quarter). LFS and other surveys (special NSSG survey in retail firms-PMI) for the period January-September 2008, compared with the same period of 2007,[2] suggest that employment declined in manufacturing (-1.9%), construction (-2.5%), transport-

1 Specifically, in the first half of 2008, (i) individuals employed in the non-agricultural private sector, (ii) the self-employed in the non-agricultural sector, (iii) civil servants and (iv) individuals employed in the agricultural sector contributed 1.4, -0.06, 0.03 and –0.16 percentage point, respectively, to the annual rate of change in total employment. In the second half of 2008, these figures stood at 0.4, 0.5, -0.007 and 0.025 percentage point, respectively.

2 Due to the adoption in the first quarter of 2008 of the NACE rev. 2 statistical classification (STAKOD-08), comparisons of the number of employees at the two-digit sectoral level are not possible between 2008 and 2007. Data for 2007 based on the new classification are only available for the first nine months; thus employment comparisons at two-digit sectoral level can only be made for this period. However, comparisons of very broad sectors (agricultural, secondary and tertiary sector; see Table V.1) are possible for the whole year.

Table V.1 Population, labour force and employment

	Q2 2008 (thousands of persons)	Annual percentage changes (second quarter)[5]				
		2004[4]	2005	2006	2007	2008
Population aged 15 and over[1]	9,230	...	0.5	0.5	0.6	0.2
Population aged 15-64[1]	7,228	...	0.1	0.3	0.8	0.3
Labour force[1]	4,939	...	0.5	0.6	0.8	0.4
Employment[1]	4,582	...	1.2	1.6	1.5	1.4
– Primary sector[1]	518	...	-0.1	-1.7	-2.6	-0.7
– Secondary sector[1]	1,022	...	0.0	-0.2	3.1	1.1
– Tertiary sector[1]	3,042	...	1.5	2.9	1.7	1.9
Labour force participation rate[2]		66.5	66.8	67.0	67.0	67.2
Employment rate[3]		59.6	60.3	61.0	61.5	62.2
Unemployment as a percentage of the labour force		10.2	9.6	8.8	8.1	7.2

Source: NSSG, Labour Force Surveys.
1 Second quarter-on-second quarter.
2 Labour force participation rate of population aged 15-64.
3 Employed persons aged 15-64 as a percentage of the population aged 15-64.
4 Labour Force Survey data for 2004 are not fully comparable with those for the previous years.
5 Average annual changes and average year levels are reported in the main text.

communication (-2.8%) and healthcare (-1.7%), while an increase was recorded in trade (5%) and hotels & restaurants (1.4%).

Average weekly hours worked (regular and overtime) per employee in the non-agricultural private sector declined by 0.3% in 2008.

Despite the fall in the annual growth of employment in 2008, the **share of individuals holding more than one job** did not decline.[3]

Turning to the different types of employment contracts, **the percentage of employees on fixed-term contracts** increased to 11.5% in 2008 from 10.9% in 2007 (see Table V.2).[4] The increase was more pronounced in the last quarter of 2008. The **percentage of part-time employees** in 2008 was unchanged at 5.6% (see Table V.2).[5]

As employment growth (1.1%) outpaced that of the labour force (0.4%), the **unemployment rate fell** to 7.6% in 2008, from 8.3% in 2007 (see Chart V.3).[6] The decline in the unemployment rate in the period January-October 2008 compared to the same period in 2007 is also corroborated by available OAED data on the number of registered unemployed.

The decline in the total unemployment rate in 2008 mainly reflects the drop in the female unemployment rate (from 12.8% in 2007 to 11.4% in 2008), while the male unemployment rate decreased by much less (from 5.2% in 2007 to 5.1% in 2008) and in fact increased for 15-24 year-olds (see Table V.3). The rise in the male unemployment rate of 15-24 year-olds reflects increased unemployment among non-nationals.[7] The percentage of the unemployed who have been in that state for twelve months or over (long-term unemployed) decreased to 49.5% from 51.7% in 2007.

3 The share of employed individuals holding two jobs in the non-agricultural private sector in the total number of employed in this sector was 2.7% in 2008 compared with 2.5% in 2007.
4 The percentage of employees on fixed-term contracts in the non-agricultural private sector is somewhat higher: 12.1% in 2008 from 11.7% in 2007.
5 The percentage of part-time employees in the non-agricultural private sector is somewhat lower: 5.2% in 2008, from 5.4% in 2007.
6 The active population (15-64) increased by 0.3% in 2008.
7 The unemployment rate of Greek nationals fell to 7.7% in 2008 (men: 5.1%, women: 11.4%) from 8.8% in 2007 (men: 5.3%, women: 12.7%). The unemployment rate of non-nationals was lower, 6.7%, in 2008 (men: 4.2%, women: 11.1%) and lower compared with 2007 (total: 7.5%, men: 4%, women: 13.3%).

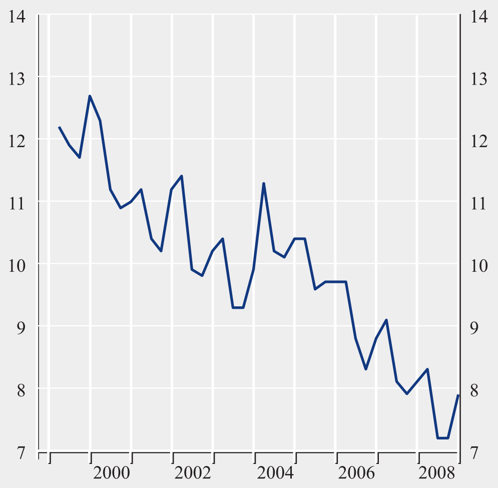
Table V.2 Labour market and educational level of the population in Greece and the EU

	Greece					
	2005	2006	2007	2008	EU 15[1]	EU 27[1]
I. Labour market						
1. Employment						
1.1 Annual percentage change in employment	1.0	2.1	1.3	1.1	1.0*	1.8
1.2 Employment rate (employed persons aged 15-64 as a percentage of the population in the same age group)	60.1	61.0	61.4	61.9	67.0	65.4
1.2.a By gender						
i. Men	74.2	74.6	74.9	75.0	74.2	72.5
ii. Women	46.1	47.4	47.9	48.7	59.7	58.3
1.2.b By educational level[2]						
i.Low	50.5	51.9	52.3	52.4	51.9	48.6
ii. Middle	60.5	60.5	60.8	61.2	72.3	70.3
iii. High	81.0	82.2	81.9	82.1	83.9	83.9
1.2.c By age:						
i.15-24 years	25.0	24.2	24.0	23.5	41.0	37.4
ii. 25-54 years	74.0	75.3	75.6	76.1	79.7	79.1
iii. 55-64 years	41.6	42.3	42.4	42.8	46.5	44.7
1.3 Employment by type of employment[3]						
1.3.a Share of wage earners in total employed persons	63.6	63.6	64.3	64.6	85.0	84.0
1.3.b Share of self-employed in total employed persons (including assistants in family businesses)	36.4	36.4	35.7	35.4	15.0	16.0
1.4 Share of part-time employed (in total employed persons)	5.0	5.7	5.6	5.6	20.9	18.2
1.4.a By gender						
i. Men	2.3	2.9	2.7	2.8	8.3	7.7
ii. Women	9.3	10.2	10.1	9.9	36.7	31.2
1.5 Share of wage earners with fixed-time contracts	11.8	10.7	10.9	11.5	14.8	14.5
1.6 Regular weekly working hours						
1.6.a For full-time employees	44.2	44.1	43.8	43.7	41.8	41.8
1.6.b For part-time employees	21.2	20.8	20.6	20.5	19.8	20.0
1.7 Average age of persons dropping out of the labour force due to retirement	61.7	61.1	61.0	...	61.5	61.2
2. Unemployment						
2.1 Unemployment rate (unemployed as a percentage of the labour force)	9.9	8.9	8.3	7.6	7.1*	7.0*
2.1.a By gender						
i. Men	6.1	5.6	5.2	5.1	6.7*	6.6*
ii. Women	15.3	13.6	12.8	11.4	7.6*	7.5*
2.1.b Unemployment rate for persons aged 25-64 by educational level[2]						
i. Low	8.3	7.2	7.0	6.8	8.8	9.2
ii. Middle	9.5	8.8	8.2	7.3	5.8	6.0
iii. High	7.0	6.3	6.0	5.6	3.7	3.6
2.2 Youth unemployment (unemployed persons aged 15-24 as a percentage of the labour force in the same age group)	2.6	25.2	22.9	22.1	15.3*	15.5*
2.3 Long-term unemployment rate (persons unemployed for 12 months or more as a percentage of the labour force)	5.1	4.8	4.1	3.6	2.8	3.1
2.3.a By gender						
i. Men	2.6	2.6	2.2	2.1	2.6	2.8
ii. Women	8.9	8.0	7.0	5.9	3.1	3.3
2.4 Very long-term unemployment rate (persons unemployed for 24 months or more as a percentage of the labour force)	3.0	2.7	2.4	2.1	1.7	1.8
2.4.a By gender						
i. Men	1.4	1.4	1.2	1.1	1.7	1.8
ii. Women	5.2	4.6	4.1	3.5	1.9	2.0
2.5 Percentage of persons aged 18-59 living in unemployed households	8.9	8.1	8.0	...	9.0	9.3
II. Educational level of the population						
1. Percentage of the population aged 25-64 with low educational level[2]	40.0	41.0	40.2	38.9	32.5	29.2
1.1.a Persons aged 25-34 with low educational level as a percentage of the population in the same age group	22.8	24.7	24.8	25.2	23.2	20.7
1.1.b Persons aged 55-64 with low educational level as a percentage of the population in the same age group	66.7	65.6	63.2	60.8	44.7	41.6
1.2 Percentage of the population aged 25-64 that has completed at least the compulsory education	60.0	59.0	59.8	61.1	67.5	70.8
1.3 Percentage of the population aged 18-24 that has dropped out of school having completed the compulsory education	13.3	15.9	14.7	...	16.9	15.2
2. Lifelong learning						
2.1 Percentage of the population aged 25-64 that participates in education and training programmes	1.9	1.9	2.1	2.9	10.9	9.5

Sources: NSSG, Labour Force Surveys and Eurostat.
1 Data for EU15 and EU27 refer to 2007, except those with an asterisk *, which refer to 2008.
2 *Low education level:* ISCED 0-2 education levels (pre-primary, primary and lower secondary education); *middle education level:* ISCED 3-4 education levels (upper secondary, post-secondary, non-tertiary education); *high education level:* ISCED 5-6 educational levels (tertiary education, postgraduate studies).
3 For Greece, data refer to total employed persons, while for EU15 and EU27 they refer to employed persons aged 15-64.

Chart V.3 Total unemployment rate

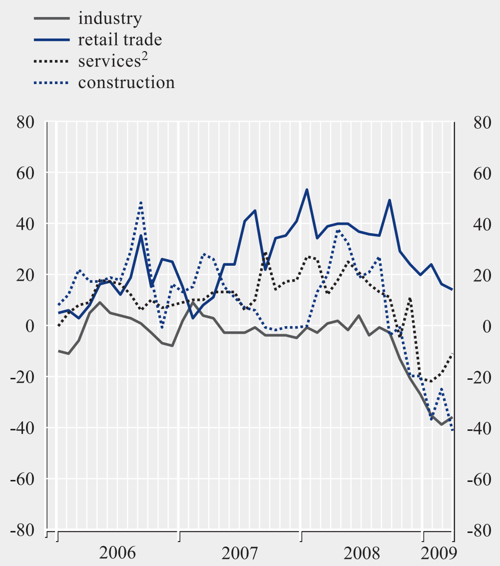
(percentage of the labour force)



Source: NSSG, Labour Force Surveys.

Chart V.4 Business expectations[1] for employment

(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.

Labour market developments will depend on the length and intensity of the crisis in the coming months. Overall, firms are unwilling to lose skilled workers and employees in whom they have invested. Therefore, **if the crisis does not last long, firms will mainly react to weak economic activity by reducing working hours** (see Box V.1). The most vulnerable groups are the unskilled, the low skilled and those on fixed-term contracts (groups with a high proportion of immigrants). Firms to be hit most by the financial and economic crisis include construction companies, export-oriented manufacturers, enterprises engaging in import trade (mostly of capital goods and consumer durables), as well as tourism and financial sector firms. The percentage of unskilled workers is high (10%) in construction and tourism; however, since most unskilled workers are young, they may be able to find work in other sectors.

Developments in the Greek labour market may be different than those in other euro area countries due to the high percentage of the self-employed[8] (35.4% of all employed persons and 37.5% of individuals employed in the non-agricultural private sector) and as a result of the high percentage of individuals employed in the agricultural sector (11.3% of all individuals employed).

Businesses' employment intentions for the coming months, as recorded in the March 2009 IOBE survey (see Chart V.4), are negative and suggest that there is a chance that employment will decline in 2009.[9] Prospects are particularly negative in **manufacturing.**[10] Businesses' employment intentions in the first quarter of 2009 were the worst recorded in the past decade. Employment is also expected to decline in **construction,** mainly for companies engaged in the construction of residential and other buildings (intentions of firms engaged in

8 Self-employed with or without personnel and assistants in family businesses.
9 Moreover, in a survey conducted in March 2009 on behalf of the Athens Chamber of Commerce and Industry (ACCI) among 635 firms from all sectors of economic activity, 23.6% replied that the crisis had already led the firm to layoffs and 23.1% that it is possible to lead it to layoffs in the coming months.
10 As confirmed by the employment sub-index of the PMI, which has been below 50 since May 2008 (implying a fall in employment) and reached 38.2 in March 2009.

Table V.3 Population, labour force, employment and unemployment: 2nd quarter of the year

(thousand persons)

	Population					Labour force					Employed persons					Unemployed persons					Unemployment rate				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Men and women																									
– total (aged 15 and over)	9,056	9,102	9,150	9,206	9,230	4,822	4,848	4,880	4,917	4,939	4,329	4,381	4,452	4,519	4,582	493	466	427	398	357	10.2	9.6	8.8	8.1	7.2
– 15-64 years	7,126	7,132	7,152	7,207	7,228	4,742	4,766	4,792	4,827	4,854	4,250	4,301	4,365	4,430	4,497	491	465	426	396	356	10.4	9.8	8.9	8.2	7.3
– 15-24 years	1,278	1,232	1,215	1,172	1,151	476	417	394	363	348	350	311	297	283	276	126	105	96	80	71	26.5	25.3	24.5	22.0	20.6
– 25 years and over	7,778	7,870	7,934	8,034	8,079	4,346	4,431	4,485	4,554	4,591	3,979	4,070	4,154	4,236	4,305	366	361	330	317	285	8.4	8.2	7.4	6.0	6.2
Men																									
– total (aged 15 and over)	4,405	4,428	4,453	4,489	4,502	2,861	2,872	2,886	2,905	2,925	2,679	2,705	2,725	2,761	2,788	182	166	160	144	136	6.4	5.8	5.6	4.0	4.7
– 15-64 years	3,543	3,550	3,566	3,602	3,615	2,802	2,811	2,821	2,841	2,862	2,620	2,645	2,661	2,698	2,726	181	166	160	143	136	6.5	5.9	5.7	5.0	4.8
– 15-24 years	640	615	611	589	579	259	228	222	202	196	210	188	184	174	167	48	39	38	28	29	18.7	17.5	17.3	14.1	15.1
– 25 years and over	3,765	3,812	3,842	3,899	3,923	2,602	2,644	2,663	2,702	2,728	2,469	2,517	2,541	2,587	2,621	133	126	122	115	106	5.1	4.8	4.6	4.3	3.9
Women																									
– total (aged 15 and over)	4,650	4,674	4,696	4,717	4,727	1,961	1,976	1,993	2,012	2,014	1,650	1,676	1,727	1,758	1,793	311	300	266	253	220	15.9	15.2	13.4	12.6	10.9
– 15-64 years	3,583	3,582	3,585	3,605	3,613	1,939	1,955	1,970	1,986	1,991	1,629	1,655	1,704	1,732	1,770	310	299	266	253	220	16.0	15.3	13.5	12.8	11.1
– 15-24 years	637	616	604	582	572	217	188	172	160	151	139	123	113	109	109	77	65	58	51	42	35.7	34.8	33.9	32.1	27.7
– 25 years and over	4,013	4,058	4,092	4,134	4,155	1,743	1,787	1,821	1,851	1,862	1,510	1,553	1,613	1,648	1,683	233	234	208	202	178	13.4	13.1	11.4	10.9	9.6

Source: NSSG, Labour Force Survey, 2004-2008.

public works are less negative). In **retail trade,** although firms expect a fall in sales in the coming months, they intend to increase employment. However, even if sales increase, the rate of increase of employment in retail trade will probably decelerate, as implied by the significant decrease in the sector's job vacancies in the last quarter of 2008.[11] Finally, firms engaging in services[12] also report negative employment intentions, although these were less negative in February and March 2009 compared to January 2009.

The decline in employment will lead to a higher unemployment rate, a development that will also depend on labour force growth. Growth in the labour force in 2007 and 2008 (0.6% and 0.4%, respectively) stemmed from non-Greek nationals; it can perhaps be attributed to the fact that an increasing number of immigrants were legalised and does not necessarily reflect the higher participation of immigrants in the labour market. The "discouraged worker effect" may intensify in 2009, i.e. an increase may be recorded in the number of people who – due to weak economic activity – give up searching for a job and drop out of the labour force. Moreover, the inflow of immigrants may decline and the elderly long-term unemployed may drop out of the market. For these reasons, **the labour force is not expected to increase in 2009.**

The anticipated slack in economic activity in 2009 (see Chapter IV) is estimated to affect the gross income of households and the average hours worked rather than the number of employed persons. The following factors will contribute to this development:

- For 35.4% of workers who, as stated above, are self-employed, weak activity typically implies a reduction in working time (i.e. underemployment) and lower income.

- The number of moonlighting employees is not negligible (about 3% of total employees): these persons may lose one job but keep the other.

- Many firms are already taking measures to decrease working time (see Box V.1).

Taking the above into account, the decrease in salaried employment may be relatively small (around 1%) and the decline in total employment even smaller (0.5%-0.8%). Assuming that the labour force does not increase, the unemployment rate will rise by 0.5-0.8 percentage point.

11 In a National Confederation of Greek Trade survey conducted in February-March 2009 among 2,000 retail firms, 27% stated that the change in financial conditions has already had or will have a significant impact on employment. However, only 2.6% of the firms stated that they would try to deal with the new conditions by cutting back their personnel.
12 Excluding retail trade and banks.

Box V.1

EMPLOYMENT AND THE CRISIS

The first reaction of firms to a slowdown in external and domestic demand, as the one currently taking place in Greece, is to try to increase competitiveness by reducing operating costs, prices and profit margins and by increasing productivity, in order to improve their market share and prevent a decline in output. If, however, firms do not succeed in becoming more productive, they will be forced to cut output. Both an improvement in competitiveness and a cut in output are likely to lead to adjustments in the headcount.

According to press reports during the last quarter, a significant number of Greek firms (mainly, but not solely, in manufacturing) are adjusting employment downwards, by making use of the leeway provided by the legal framework. The main such tools provided for in the legislation are:

• **Cutbacks in overtime work.** Cutting down overtime is at the sole discretion of the employer,[1] while it is the least distressing measure for employees, given that this implies a relatively small loss of income without destroying the job. Similarly, **work in groups (shiftwork)[2] may also be cut back.**

• **Non-renewal of fixed-term employment contracts[3] on expiry**. In the last twenty years industrial firms have used shiftwork, overtime work and fixed-term contracts (temporary employment) to a great extent in order to adjust total person-hours without a significant change in the number of employees.[4] Note that in 2007 10.9% of wage earners in Greece were on fixed-term contracts (mainly in tourism), compared with 14.5% in the EU and 16.8% in the euro area.

• **Job rotation.** Pursuant to the legislation,[5] under normal conditions, upon signing the employment contract or during its term, employers and employees may, by individual contract, agree on any form of daily, weekly or monthly job rotation. Therefore, in such a case, the employee's consent is required. However, employers encountering difficulties ("restriction of activity") may unilaterally "impose a system of job rotation, provided they have previously consulted with the lawful representatives of the employees" (in other words, no agreement is required). **The shift from full-time (regular) employment to job rotation implies a significant decrease in salary.**

• **Shift from full-time to part-time employment.** Pursuant to the legislation,[6] on execution or during the term of the employment contract, employers and employees may, by individual contract and for a fixed or an indefinite period, agree on a reduction in the number of hours worked on a daily, weekly, or monthly basis, **with a commensurate decrease in salary.**[7] The law stipulates that "any termination of the employment contract [i.e. layoff] on the grounds that the employee refused the employer's proposal for part-time employment shall be null and void". Note that in 2007 part-time employees accounted for 5.6% of total employment in Greece, compared with 18.2% in the EU and 19.7% in the euro area.

• **Temporary layoffs:** Pursuant to the prevailing legislation,[8] firms faced with difficulties (lower level of economic activity) may unilaterally decide, in lieu of permanent layoffs, to layoff their personnel for up to 3 months per year and pay only 50% of their salary. The Manpower Employment Agency (OAED) covers 10% of the salary of laid off individuals (30% in special cases).[9] This scheme implies that employers pay part of the salary without receiving any work, while, for employees, the decrease in their salary is significant (40%).

• **Mass layoffs:** Pursuant to the legislation,[10] the threshold over which layoffs *in the course of one month* are considered as mass (and may only take place following notification and a consultation

1 The relevant arrangements have been reformed by Law 3385/2005. See Bank of Greece, *Monetary Policy – Interim Report 2005,* October 2005, Box V.1, pp.103-105.
2 Shiftwork is governed by Law 1892/1990 (Article 40).
3 For persons employed in the private sector, these contracts are governed by Presidential Decree 180/2004, amending Presidential Decree 81/2003.
4 See Bank of Greece, *Monetary Policy – Interim Report 2000,* November 2000, Box 3, pp. 58-60, and I. Sabethai, "The Greek labour market: features, problems and policies", Bank of Greece, *Economic Bulletin*, issue 16, December 2000.
5 Law 2639/1998, Article 2(2). Also see G. Leventis "Part-time employment and job rotation under Law 2639/98" [in Greek], *Labor Legislation Bulletin* (Deltio Ergatikis Nomothesias), 1999, volume 55, p.81.
6 Law 2639/1998, Article 2(1).
7 However, part-time employees who are paid the minimum wage/salary (either the general or the sectoral/occupational minimum) and work for less than four hours per day receive, according to Law 2874/2000, Article 7, a premium of around 7.5% (see. K. Markopoulos, "Reduced or intermittent employment" [in Greek], *Labor Legislation Bulletin (Deltio Ergatikis Nomothesias),* 2009, volume 65, p. 140).
8 Law 3198/1955 (Article 10), as supplemented by Legislative Decree 206/1974 (Article 1). Also see K. Markopoulos, "Suspending employees" [in Greek], *Labor Legislation Bulletin,* 2008, volume 64, pp. 705-717.
9 Article 20 of Law 1836/1989.
10 Law 1387/1983 (Article 1), as amended by Law 2874/2000 (Article 9).

procedure) is four (4) employees in firms or undertakings employing 20-200 persons at the beginning of the month. For firms employing over 200 individuals, the threshold is 2-3% of the personnel (which is usually however set at 2% by ministerial decision) and up to 30 persons.[11]

The legislation also provides for the **"annualisation" of working hours,**[12] namely the adjustment of working time (depending on the fluctuations of demand and output) within a "reference period" (4 months or one year). During this reference period average weekly hours worked must tantamount to the regular working hours. It is clear that, given the uncertainty regarding the timing of economic recovery, such arrangements (with the applicable reference periods) are not suitable.

If firms resort to layoffs, then the legislation provides for **unemployment benefits.** Pursuant to the prevailing legislation,[13] the length of time over which benefits are received varies from 5 to 12 months, depending on the length of previous employment. Moreover, as from January 2008, the basic (daily) unemployment benefit is fixed at 55% of the prevailing minimum wage, with an increase of 10% for each dependent family member of the unemployed.[14] In addition to unemployment benefits ("passive employment policies"), **"active employment policies"** are in place, with the aim of facilitating the reintegration of the unemployed into the labour market, by subsidising the salaries of unemployed individuals who are hired (or the social security contributions payable by their employers), subsidising self-employment and holding training programmes.[15]

* * *

There is no doubt that, in periods of economic downturn or crisis, firms must be flexible in adjusting to new realities and the income of employees must be supported – especially for those who are affected by the adjustment measures taken by firms. This may be achieved with interventions by public employment-training agencies, mainly the OAED, in order to boost active employment policies. The required intervention mainly concerns the method to bridge the gap revealed by the above review of the legislation: *employees who are subject to reductions in working hours and salary (but are not laid off) cannot be considered unemployed and, therefore – under the current regime – cannot benefit from employment subsidy measures, with the sole exception of the OAED's payment of 10% of the salary of temporarily laid off employees (suspended employees).* The solution is to mainstream the non-active status system in order to bridge this gap. In this regard, the experience of other European countries is very useful. For instance, in **France**, legislation recognises **partial unemployment** (chômage partiel or chômage technique) and provides for its subsidisation.[16] In **Italy**, there is the rich experience of the **Wages Guarantee Fund** (Cassa Integrazione Guadagni).[17] The Italian system provides for interventions in case of short-term problems, as well as in case of restructuring or crises: some or all employees may be placed in non-active status for all or part of the working hours for a specific period of time. The salaries corresponding to the idle working hours are paid by the Fund, which is mainly financed by employers' contributions and state funds. Thus, the employment relationship is not terminated, the unemployment "risk"

11 This means that firms employing over 1,500 persons may lay off up to 30 individuals per month without restriction.
12 Law 3385/2005.
13 Mainly Legislative Decree 2961/1954 and Laws 1545/1985, 1836/1989, 1874/1990, 1892/1990 and 2224/1994.
14 Law 3552/2007 (Article 5).
15 The latest relevant legislative arrangement is Law 3227/2004 (Article 1).
16 See the website of the French Ministry of Labour: http://www.travail-solidarite.gouv.fr/informations-pratiques/fiches-pratiques/chomage/chomage-partiel.html.
17 See Italian Law 164/1975, as repeatedly amended to date. Also see the website of the INPS (main social security organisation in Italy): http://www.inps.it/doc/TuttoINPS/Prestazioni/Le_prestazioni_a_sostegno_del_reddito/La_cassa_integrazione_guadagni_ordinaria/index.htm, and http://www.inps.it/doc/TuttoINPS/Prestazioni/Le_prestazioni_a_sostegno_del_reddito/La_cassa_integrazione_guadagni_straordinaria/index.htm.

is shared by more than one employee and the cost of layoffs (compensation) is replaced by the cost of non-active status, which is not incurred solely by the company (as is the case with compensation), but also by the Fund – namely all companies. In **Germany**, the legislation[18] stipulates that, in case working hours are reduced for cyclical or economic reasons, a substantial part of the resulting salary cutback is covered by the Federal Employment Agency–BA). If, for example, working hours are reduced to half, employers continue to pay 50% of the salary and BA pays 60% of the *remaining* 50% to employees (or 67% for employees with children). Recently, with the first package of measures of the German government to boost the economy, the length of this subsidy was extended to 18 months. According to available data, the number of employees who have received such subsidies in Germany increased from 50,000 in October 2008 to almost 300,000 in January 2009.[19]

Note that, in Greece, the National Social Development Agreement, concluded by social partners and published by the Economic and Social Commission on 19 March, states *inter alia* that "available resources to both active and passive employment policies must be increased".

18 Article 170 of the German Social Security Code.
19 Also see F. Zipfel, "Short-time work: an important and flexible instrument to fight the crisis", Deutsche Bank Research, Chart in focus, 23 February 2009.

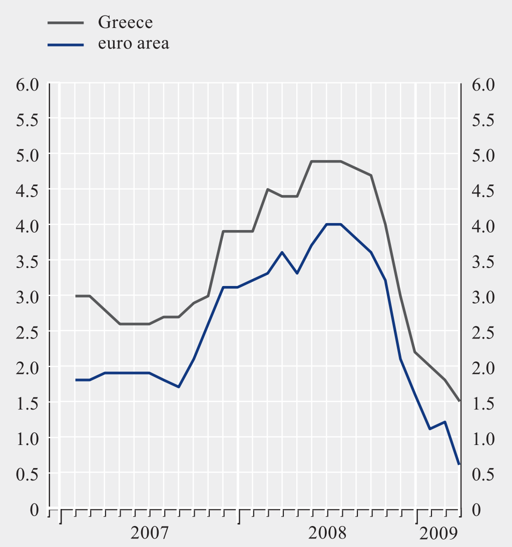
VI INFLATION, WAGES AND BUSINESS PROFITS, AND INCOME DISTRIBUTION

1 DEVELOPMENTS IN 2008 AND PROSPECTS FOR 2009: SUMMARY

Inflation was highly volatile in 2008. In the first seven months of the year, when world oil prices were constantly rising, the annual inflation rate (based on the Harmonised Index of Consumer Prices – HICP) reached its highest level since 1998 (4.9% in May, June and July). Thereafter, however, owing to the steep fall in world oil and other commodity prices, inflation declined rapidly and stood at 2.2% in December (see Chart VI.1),[1] i.e. its lowest level since 2000. On account of the developments up to end-July, average annual inflation in 2008 stood at a level considerably higher than in 2007 (4.2% compared with 3.0%). Core inflation (which does not include energy and unprocessed food prices) remained high in 2008 (at 3.4% on average), only slightly accelerated in comparison with 2007 (3.2% – see Chart VI.3), as it was affected by counteracting determinants. Specifically, on the demand side inflationary pressures decreased, while on the supply side unit labour cost growth accelerated.

Chart VI.1 Harmonised index of consumer prices: Greece and the euro area

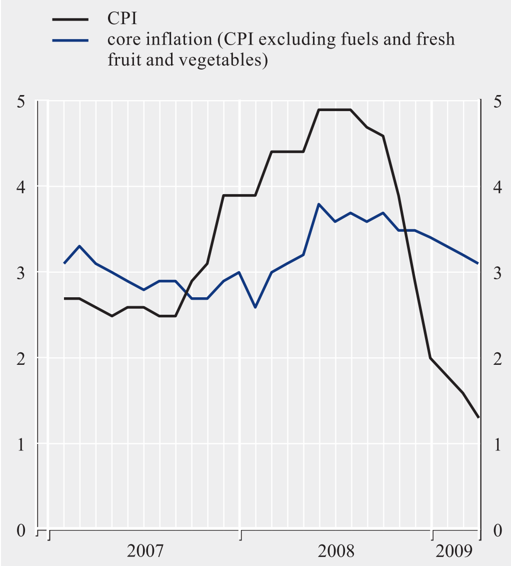
(percentage changes over same month of previous year)



Sources: NSSG and Eurostat.

Chart VI.2 Consumer Price Index and core inflation

(percentage changes over same month of previous year)



Source: Calculations based on NSSG data.

The annual rate of HICP inflation continued to decline in the first months of 2009 (to 2.0% in January, 1.8% in February, and 1.5% in March) and may stand close to 1% or lower around June, before rising again in the second half of the year. This forecast fluctuation reflects mainly the expected developments in world oil prices in each month of 2009 compared with their corresponding levels in 2008. It is estimated that in 2009 the average annual level of HICP inflation may fall to 1.5%, or even lower (to 1.1-1.2%), from 4.2% in the previous year. Core inflation is forecast to remain relatively high, around 2.9%, i.e. slightly lower than in 2008 (3.4%). It is worth noting the existence of conditions favouring a greater deceleration of core inflation. Specifically, the conditions of excess demand that weakened in 2008 are reversing this year, while the drop in profit margins recorded in 2008 is expected to continue. In addition, unit labour cost growth is forecast to decelerate notably in 2009 and thus will have a lesser inflationary effect than in 2008 (as will also be the case with develop-

1 At 2.0% based on the CPI (see Table VI.1 and Chart VI.2).

Table VI.1 Inflation indicators

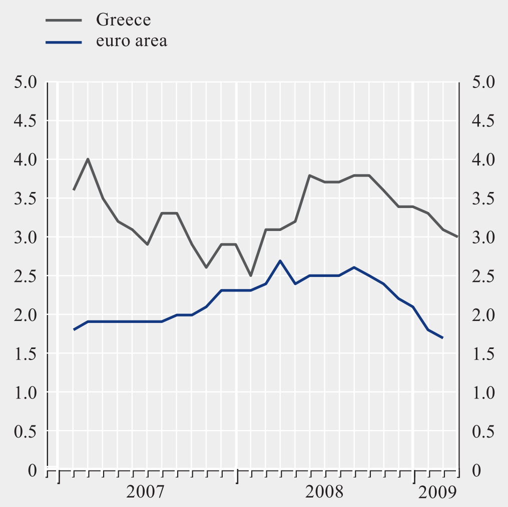
(annual percentage changes)

Year or quarter	Consumer Price Index								Industrial producer price index					Import price index in industry	
	General index	Sub-indices							Domestic market				External market		
									General index	Sub-indices					
		Goods	Services	CPI excl. fuel & fresh fruit and vegetables	CPI excluding food & fuel	Food and non-alcoholic beverages	Fresh fruit and vegetables	Fuel		General index excl. energy	Interme-diate goods	Consumer goods	General index	General index	General index excl. energy
2002	3.6	3.2	4.3	3.6	3.6	5.3	13.8	-1.7	2.3	2.3	1.3	3.2	1.1	0.3	0.4
2003	3.5	3.1	4.2	3.2	3.1	5.0	10.7	3.9	2.3	2.5	2.3	2.7	-0.3	0.7	0.6
2004	2.9	2.3	3.8	3.3	3.2	0.5	-11.9	7.5	3.5	4.7	3.2	6.0	5.0	3.1	0.8
2005	3.5	3.4	3.7	3.1	3.2	0.6	-8.1	18.0	5.9	3.0	3.8	2.5	3.7	8.8	1.2
2006	3.2	3.4	3.0	2.7	2.5	3.7	3.3	10.9	7.3	6.5	7.3	6.2	4.8	4.2	2.7
2007	2.9	2.5	3.5	2.9	3.0	3.2	5.6	1.3	4.1	2.7	6.1	-0.3	3.0	2.6	3.0
2008	4.2	4.3	3.9	3.4	3.0	5.4	4.6	14.7	10.0	6.4	8.4	4.5	6.4	7.1	2.5
2005 Q1	3.3	3.1	3.6	3.3	3.5	-0.6	-11.5	15.1	4.6	2.6	4.9	0.8	2.7	8.2	1.4
Q2	3.3	3.0	3.8	3.0	3.1	-0.3	-12.4	18.1	4.9	2.3	3.6	1.4	2.3	8.4	1.1
Q3	3.9	4.0	3.6	3.0	3.1	1.4	-4.1	21.6	6.3	2.6	3.3	2.2	4.5	9.8	1.1
Q4	3.7	3.6	3.7	3.0	3.0	2.1	-2.2	17.1	7.7	4.7	3.5	5.7	5.4	8.9	1.4
2006 Q1	3.3	3.3	3.2	2.5	2.3	1.9	-5.8	19.6	9.4	6.8	4.6	8.9	7.2	7.6	1.8
Q2	3.2	3.6	2.7	2.5	2.3	3.4	1.3	14.8	9.0	7.3	7.5	7.6	6.4	6.7	2.6
Q3	3.4	3.9	2.8	2.7	2.4	5.1	10.8	11.8	7.4	7.4	8.9	6.6	4.0	2.5	3.0
Q4	2.9	2.7	3.1	3.0	2.8	4.6	9.4	-1.2	3.7	4.6	8.2	2.0	1.8	0.4	3.2
2007 Q1	2.7	2.1	3.4	3.2	3.3	3.1	4.9	-4.9	1.5	1.9	6.4	-1.7	0.4	-0.7	3.4
Q2	2.6	1.9	3.6	2.9	3.1	2.0	2.9	-1.5	2.7	1.9	5.8	-1.5	2.1	0.9	3.2
Q3	2.7	2.0	3.6	2.8	3.0	3.3	11.8	-3.1	3.4	2.3	5.7	-0.7	2.5	3.0	3.0
Q4	3.6	3.9	3.2	2.8	2.5	4.5	3.7	15.8	8.9	4.7	6.6	2.9	7.1	7.4	2.6
2008 Q1	4.3	5.0	3.3	2.9	2.3	6.1	7.1	24.0	11.5	6.9	9.3	4.9	8.5	8.1	2.5
Q2	4.8	5.6	3.6	3.6	3.0	6.4	5.3	21.5	13.5	7.2	9.4	5.3	10.0	10.1	2.3
Q3	4.7	5.1	4.2	3.7	3.2	4.5	-3.1	22.9	14.2	7.2	9.7	4.9	9.8	10.1	2.8
Q4	2.9	1.7	4.5	3.5	3.4	4.5	8.9	-7.4	1.3	4.2	5.4	3.0	-2.4	0.4	2.3

Source: NSSG.

Chart VI.3 Harmonised index of consumer prices excluding energy and unprocessed food: Greece and the euro area

(percentage changes over same month of previous year)



Source: Calculations based on NSSG and ECB data.

ments in other production cost components). However, as the Greek economy is still characterised by conditions of imperfect competition that adversely affect price developments, core inflation is estimated to decline less than what would have been possible in principle. Of course, these forecasts involve a high degree of uncertainty regarding developments during 2009, as much in world commodity prices and exchange rates as in demand and unit labour costs at domestic level. Particularly, if domestic demand records an even greater deceleration than what is currently expected (or if it decreases) a considerable decline in core inflation cannot be ruled out.

2 MAIN DETERMINANTS OF INFLATION

2.1 FOREIGN DETERMINANTS

World Brent crude oil prices in US dollars were constantly on the rise up to July 2008, but then declined considerably by December. On account of this volatility, they recorded an average annual increase of 33.9% in 2008, but in December they were 52.8% lower than in December 2007. In euro terms, oil prices fell by 48.9% between December 2007 and December 2008, but their average annual level rose by 24.8% in 2008.[2] The above developments had a proportionate effect on the prices of imported and of domestically sold fuel (see Chart VI.4).[3]

In 2009, the average annual level of world oil prices in US dollars is expected to drop by 50-55%.[4]

Given that in Greece the "oil intensity" of goods and services production remains higher than the respective figure for the euro area as a whole,[5] the *anti-inflationary* effect of the decline in oil prices is in Greece greater than in the euro area on average. (Likewise, the *inflationary* impact of the rise in oil prices in the first seven months of 2008 was greater.) As a result, between December 2007 and December 2008 the positive inflation differential of Greece over the euro area average narrowed slightly (from 0.8 to 0.6 percentage point – see Tables VI.2 and VI.3 and Chart VI.6). In contrast, the positive core inflation differential widened in the same period (from 0.6 to 1.3 percentage points), implying that, *overall*, the more permanent *domestic* factors widening this differential and lessening the economy's international competitiveness have not weakened.

2 The exchange rate of the euro vis-à-vis the US dollar was increasing until July, but then started to decline and fell by 7.7% between December 2007 and December 2008, while its average annual level rose by 7.3%.

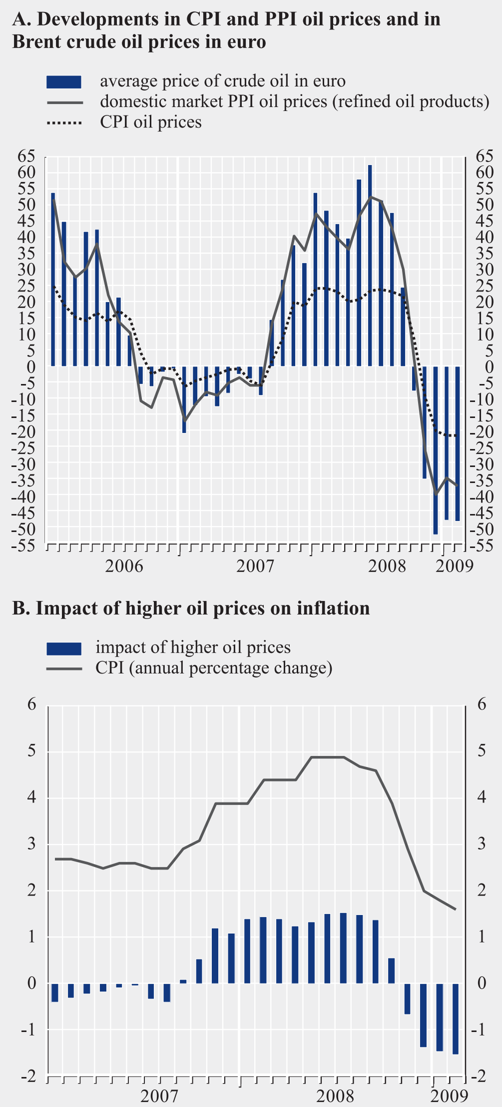
3 In Greece, according to the Import Price Index in Industry (NSSG – revised data), the prices of imported energy raw materials (crude oil and natural gas) and of imported fuel final products rose in 2008, respectively at average annual rates of 25.2% and 16.0%, but in December these prices were lower than in December 2007 (by 11.7% and 30.0% respectively). Moreover, *in the domestic market at wholesale level,* the fuel (final product) prices included in the Industrial Producer Price Index for the domestic market rose at an average annual rate of 24.7% in 2008, but in December showed an average annual rate of decrease of 40.0% (revised index 2005=100). The *retail fuel prices included in the CPI* rose in 2008 at an average annual rate of 14.7% (December 2008/December 2007: -20.3%).

4 According to the assumptions included in the ECB staff projections published on 5 March 2009, this decrease will be almost 50% (ECB, *Monthly Bulletin,* March 2009); according to more recent assumptions by the OECD, it will reach 54% (OECD, *Economic Outlook – Interim Report*, 31.3.2009).

5 See Chapter X of this Report and *Monetary Policy – Interim Report 2008,* October 2008, Appendix 2 to Chapter V.

Chart VI.4 Oil prices

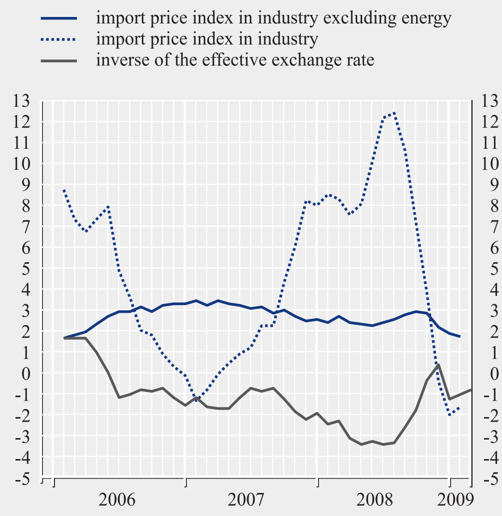
(percentage changes over same month of previous year)



Source: Calculations based on NSSG data and on dollar prices of Brent futures in the London market.

Chart VI.5 Import price index in industry and the inverse of the currency's effective exchange rate

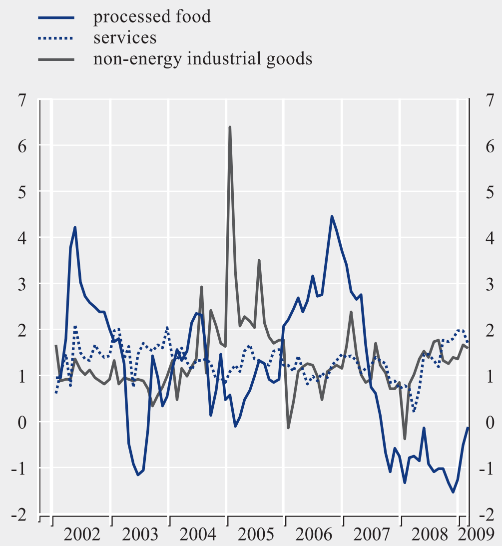
(percentage changes over same month of previous year)



Sources: NSSG and Bank of Greece.

Chart VI.6 Annual inflation differentials between Greece and the euro area

(selected price indicators, differentials in percentage points)



Source: Calculations based on NSSG and Eurostat data.

2.2 DOMESTIC DETERMINANTS

Unit labour costs in the whole economy[6] are estimated to have risen in 2008 by 5.4%, i.e. more than in 2007 (4.0%). In the business sector (which includes public and private enterprises and banks), unit labour costs are estimated to have risen by 4.7%, compared with

6 This rate of increase, as calculated by the Bank of Greece, satisfactorily proxies unit labour cost growth in the economy's non-agricultural sector (see *Monetary Policy – Interim Report 2008*, October 2008, pp. 80-81).

Table VI.2 Price developments in Greece and the euro area

(annual percentage changes)

	2007	2008	2008 June	2008 July	2008 Aug.	2008 Sept.	2008 Oct.	2008 Nov.	2008 Dec.	2009 Jan.	2009 Feb.	2009 March
A. Euro area												
Harmonised Index of Consumer Prices (HICP) and its components												
Overall index	**2.1**	**3.3**	**4.0**	**4.0**	**3.8**	**3.6**	**3.2**	**2.1**	**1.6**	**1.1**	**1.2**	**0.6[2]**
Goods	1.9	3.8	5.0	5.1	4.6	4.4	3.5	1.8	0.9	0.2	0.3	...
Food	2.8	5.1	5.8	6.1	5.6	5.2	4.4	3.7	3.3	2.7	2.5	...
Processed food[1]	2.8	6.1	7.0	7.2	6.8	6.2	5.1	4.2	3.5	2.7	2.0	...
Unprocessed food	3.0	3.5	4.0	4.4	3.7	3.6	3.4	2.8	2.8	2.6	3.3	...
Industrial goods	1.4	3.1	4.5	4.6	4.2	4.0	3.1	0.8	-0.3	-1.0	-0.7	...
Non-energy industrial goods	1.0	0.8	0.8	0.5	0.7	0.9	1.0	0.9	0.8	0.5	0.7	...
Energy	2.6	10.3	16.1	17.1	14.6	13.5	9.6	0.7	-3.7	-5.3	-4.9	...
Services	2.5	2.6	2.5	2.6	2.7	2.6	2.6	2.6	2.6	2.4	2.4	...
Industrial producer prices	*2.8*	*6.2*	*8.0*	*9.2*	*8.5*	*7.9*	*6.3*	*3.3*	*1.6*	...	...	...
B. Greece												
Harmonised Index of Consumer Prices (HICP) and its components												
Overall index	**3.0**	**4.2**	**4.9**	**4.9**	**4.8**	**4.7**	**4.0**	**3.0**	**2.2**	**2.0**	**1.8**	**1.5**
Goods	2.5	4.5	5.7	5.7	5.5	5.0	3.8	2.0	0.4	0.2	0.1	...
Food	3.1	4.6	5.1	4.7	4.0	3.6	3.8	4.5	3.6	3.4	3.2	...
Processed food[1]	3.7	5.0	6.1	6.1	5.8	5.1	3.7	2.6	2.3	2.2	1.8	...
Unprocessed food	2.2	4.0	3.7	2.4	1.3	1.2	3.9	7.5	5.6	5.4	5.5	...
Industrial goods	2.2	4.4	6.0	6.3	6.4	5.8	3.7	0.4	-1.5	-1.8	-1.8	...
Non-energy industrial goods	2.2	2.0	2.2	2.2	2.5	2.2	2.2	2.3	2.2	2.1	2.3	...
Energy	2.1	13.8	20.9	22.2	21.1	19.9	9.2	-6.5	-15.6	-16.7	-17.0	...
Services	3.7	3.8	4.0	3.9	3.9	4.4	4.4	4.4	4.5	4.4	4.1	...
Industrial producer prices	*4.1*	*10.0*	*15.5*	*16.7*	*14.3*	*11.8*	*6.7*	*0.5*	*-3.2*	*-3.4*	*-5.3*	...

Source: Calculations based on ECB and NSSG data.
1 Including alcoholic beverages and tobacco.
2 Provisional estimates by Eurostat.

Table VI.3 Harmonised Index of Consumer Prices: Greece and the European Union

(annual percentage changes)

Countries	2007 average	February 2008	2008 average	February 2009
Austria	2.2	3.1	3.2	1.4
Belgium	1.8	3.6	4.5	1.9
Bulgaria	7.6	12.2	12.0	5.4
Cyprus	2.2	4.7	4.4	0.6
Czech Republic	3.0	7.6	6.3	1.3
Denmark	1.7	3.3	3.6	1.7
Estonia	6,7	11,5	10,6	3,9
Finland	1.6	3.3	3.9	2.7
France	1.6	3.2	3.2	1.0
Germany	2.3	3.0	2.8	1.0
Greece	3.0	4.5	4.2	1.8
Hungary	7.9	6.7	6.0	2.9
Ireland	2.9	3.5	3.1	0.1
Italy	2.0	3.1	3.5	1.5
Latvia	10.1	16.5	15.3	9.4
Lithuania	5.8	10.9	11.1	8.5
Luxembourg	2.7	4.2	4.1	0.7
Malta	0.7	4.0	4.7	3.5
Netherlands	1.6	2.0	2.2	1.9
Poland	2.6	4.6	4.2	3.6
Portugal	2.4	2.9	2.7	0.1
Romania	4.9	8.0	7.9	6.9
Slovakia	1.9	3.4	3.9	2.4
Slovenia	3.8	6.4	5.5	2.1
Spain	2.8	4.4	4.1	0.7
Sweden	1.7	2.9	3.3	2.2
United Kingdom	2.3	2.5	3.6	3.2
European Union-27	2.3	3.5	3.7	1.7
Euro area	2.1	3.3	3.3	1.2

Source: Eurostat.

4.8% in 2007. This faster labour cost growth in the whole economy is mainly attributable to a higher rate of increase in average nominal pre-tax earnings (6.6% from 5.2% in 2007 – see Table VI.4), while productivity growth was slightly lower than in 2007.

In 2009, unit labour cost growth is estimated to slow down notably, standing at 3.3% in the whole economy and at 2.6% in the business sector. The rate for the whole economy should converge considerably to the corresponding figure for the euro area as a whole.

In more detail, average pre-tax earnings in the whole economy are estimated to increase by 3.7% in 2009, compared with 6.6% in 2008,[7] while productivity growth will be limited (close

7 Compensation per employee including employers' social security contributions (and civil servants' pensions) is estimated to rise by 4.3% (compared with 6.8% in 2008).

Table VI.4 Earnings and labour costs

(annual percentage changes)

	2002	2003	2004	2005	2006	2007	2008	2009 (prov.)
Greece								
Average gross earnings (nominal):								
– whole economy	6.6	5.6	7.2	4.4	5.7	5.2	6.6	3.7
– central government[1]	7.3	5.9	9.7	2.3	3.1	4.5	8.3	4.7
– public utilities	10.6	10.9	9.9	7.6	7.0	7.1	8.2	7.7
– banks	2.9[2]	3.1[2]	8.0	1.5[2]	10.8	8.9	0.0[2]	6.2
– non-bank private sector	6.5	5.8	5.8	5.6	6.8	6.1	6.5	2.8
Minimum earnings	**5.4**	**5.1**	**4.8**	**4.9**	**6.2**	**5.4**	**6.2**	**5.7**
Average gross earnings (real)	**2.9**	**2.0**	**4.2**	**0.9**	**2.4**	**2.2**	**2.2**	
Net[3] income of an employee with average earnings								
– nominal	6.3[4]	6.3[5]	5.3	3.6	4.3	5.5	...	...
– real	2.6[4]	2.7[5]	2.3	0.1	1.1	2.5	...	...
Total compensation of employees	**9.1[6]**	**8.3[5]**	**8.9**	**5.8**	**7.8**	**8.2**	**8.5**	**3.3**
Compensation per employee	**5.9**	**5.5**	**7.6**	**3.9**	**5.9**	**5.7**	**6.8**	**4.3**
GDP[7]	**3.4**	**5.6**	**4.9**	**2.9**	**4.5**	**4.0**	**2.9**	**0.0**
Unit labour costs:								
– whole economy	5.5[6]	2.6[5]	3.8	2.8	3.2	4.0	5.4	3.3
– business sector[8]	4.9[6]	3.0[5]	2.5	3.2	3.8	4.8	4.7	2.6

Sources: NSSG/Ministry of Economy and Finance (revised GDP 2002-2008), Bank of Greece estimates (for GDP in 2009 and the other annual aggregates in 2002-2009).
1 Average compensation per employee.
2 The relatively low growth rate or even stagnacy of bank employees' average earnings mainly reflects changes in staff structure.
3 Gross earnings less employees' social security contributions and income tax.
4 Including the abolition (as from 1 January 2002) of stamp duties (0.6% of gross earnings) paid by employees.
5 Taking into account the increase (0.1% of gross earnings) in employees' and employers' contributions to the Workers' Fund.
6 Taking into account the abolition (as from 1 January 2002) of stamp duties (0.6% of earnings) paid by employers in the business sector.
7 NSSG/Ministry of Economy and Finance for 2002-2008 (revised data). Bank of Greece estimates for 2009.
8 The business sector includes private and public enterprises and banks.

to 1%). The rise in average earnings in the whole economy is estimated taking into consideration the following:

- In **central government,** the 2009 Budget forecast that the wage bill would increase this year by 6.3% (compared with 9.1% in 2008) and the wage bill plus pension expenditure by 7.9%[8] (compared with 10.2% in 2008).[9] The assumption that the number of employees would remain practically unchanged in 2009 (having increased by 0.7% in 2008) led to the conclusion that total compensation per employee would rise by 6.3% in 2009 (compared with 8.3% in 2008). It should be noted that the **substantial increase of the central government wage bill in 2008** reflected —aside from the overall raises in civil servants' basic salaries (2.5% as of 1 January 2008 and 2.0% as of 1 October 2008)[10]— the additional rise in the earnings of the judiciary as of 1 January 2008,[11] the increased wages and/or allowances paid to the police, cost guard and armed forces staffs, to teachers and to hospital staff, as well as the payroll of the personnel tenured by virtue of Presidential Decree 164/2004. **In 2009, however, the wage bill will finally increase less than what the Budget forecast.** According to the incomes policy announced on 18 March 2009, this year civil servants with low or medium earnings will be granted a special one-off financial aid (rather than a raise in their

8 The rise entered in the Budget for 2009 is 10.2%, because the additional allowances of the abolished Special Accounts have been integrated in the figures of 2009, which are thus not comparable with those of 2008.
9 These rates of change included a retroactive special payment (in instalments) to the judiciary (€190 million paid in 2008 and €131 million to be paid in 2009). Net of this payment, the rise in the wage bill plus pension expenditure falls to 9.2% for 2008, but would stand at 8.2% for 2009 (based on the Budget forecasts).
10 Law 3670/2008.
11 Article 57 of Law 3691/2008.

basic salaries), while no raises will be granted to those with high earnings. Similar arrangements will apply for central government pensioners.[12] Also, recruitments will be clearly less than retirements.[13] Based on certain approximations, it is estimated that, owing to the above measures, total compensation per civil servant in 2009 will rise by 4.7%[14] (and not by 6.3% as was expected). Furthermore, on the assumption that the number of civil servants will finally decrease by 2% in 2009[15] (instead of remaining unchanged), it is estimated that the central government wage bill will finally rise by 2.6% in 2009 (instead of 6.3%) and the wage bill plus pension expenditure by 4.6% (instead of 7.9%), i.e. it will be €740 million[16] or 0.3% of GDP lower than Budget forecasts.

• In the **non-bank private sector**, the biannual National General Collective Labour Agreement signed in 2008 provides for an *average annual* increase in minimum wages of 6.2% in 2008 and 5.7% in 2009. Moreover, the also biannual collective agreements concluded at branch and occupational level entail an average annual increase in contractual earnings of 6.1% in 2008 and 5.8% in 2009. The rise in contractual earnings forecast for 2009 would lead to a rather similar increase in average *actual* earnings only if the impact of the adverse economic conditions were to be very limited. However, it is already observed that these conditions contribute to a reduction in overtime employment and a decrease of average working time (and the respective earnings) in several enterprises, while there are also cases —in relatively few enterprises— of cuts in regular earnings. In light of the above, it is indicatively calculated[17] that the rise in average *actual* earnings in the non-bank private sector will be limited to 2.8% in 2009 (compared with 6.5% in 2008).

• **In banks,** the arbitration award issued in September 2008 applied only for 2008 and provided for increases in basic salaries of 3.5% as of 3 June 2008, 2.5% as of 1 September 2008 and 2% as of 1 December 2008, which however entailed a "charge carried forward" of 4.7% for 2009.[18] In any case, it is assumed that in 2009 actual earnings will increase by about 6% (while in 2008, as the annual financial results indicate, compensation per employee remained unchanged, obviously due to changes in staff structure).

• Finally, the biannual collective agreements signed in 2008 for certain public utilities entail an average annual increase in contractual earnings of 6.7% in 2008 and 6.2% in 2009. For 2009 it is assumed that actual earnings will increase (due to "seniority") by about 7.5%.

The biannual collective agreements signed in early 2008 reflect the effect that the rise in fuel prices and in inflation in the last months of 2007 had on the inflation expectations of both employees and enterprises (see Chart VI.7) and —through them— on the wage increases in the business sector in 2008 and 2009. In the meantime, however, the macroeconomic environ-

12 Specifically, central government employees whose gross earnings (excluding family benefits) on 31 December 2008 amounted to a maximum of €1,500 per month will receive a special one-off financial aid of €500. This amount will be tax free and not subject to social security contributions and other withholdings. Respectively, central government employees with gross earnings of up to €1,700 per month will receive a special one-off benefit of €300. No raises will be granted in 2009 to central government employees with higher earnings. Central government pensioners entitled to a basic pension of up to €800 will receive a special financial aid of €500. This amount will also be tax free and not subject to other withholdings. Respectively, pensioners entitled to a basic pension of up to €1,100 will receive an aid of €300.

13 As was announced, only 12,000 tenured central government employees will be hired in 2009, whereas 21,925 civil servants retired in 2008.

14 This percentage includes the "charge carried forward" (1.4%) attributable to the raises granted during 2008.

15 This decrease is calculated based on the assumptions that: (i) the retirements of tenured employees in 2009 will be equal to those recorded in 2008 (i.e. 21,925); (ii) the recruitments of tenured employees will be limited to 12,000; and (iii) the number of other central government employees (under fixed- or unfixed-term contracts) will remain unchanged. In such case, the total number of civil servants will decrease in 2009 by 9,925 persons.

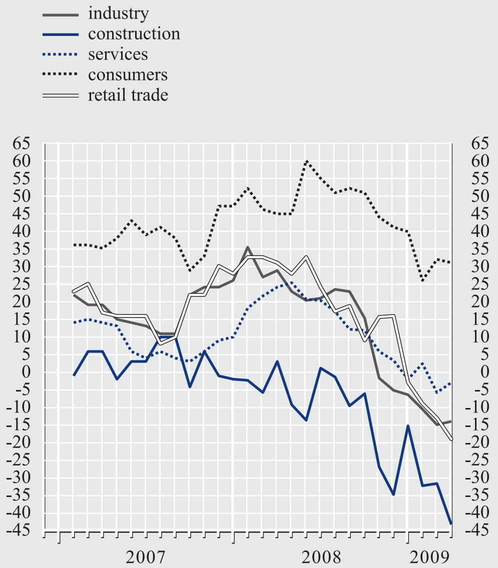
16 As calculated by approximation, €270 million will be saved owing to the arrangements regarding civil servants' earnings, €120 million owing to the arrangements regarding central government pensions and €350 million owing to the expected decrease in the number of employees.

17 Indicative calculation based on the assumptions that: (i) only for 40% of the persons employed in the non-bank private sector the increase in their actual earnings will include the increase in contractual earnings and a very small positive "seniority" effect; (ii) for 50% of the persons employed in this same sector the final increase in actual earnings will be much less than the one in contractual earnings, as average weekly working hours will be reduced by 4% due to overtime elimination; and (iii) 10% of the persons employed will accept a temporary (for 2009) cut in their earnings, in the order of 10%.

18 In other words, in 2009 the average annual increase in bank employees' basic salaries will be 4.7%, even if no raise is granted in the course of the year.

Chart VI.7 Consumer and business inflation expectations[1]

(weighted percentage balances)



Sources: IOBE and European Commission, *Business and Consumer Survey Results.*
1 Business firms' responses refer to expected increases in their selling prices over the next 3-4 months. Consumer responses refer to an expected faster increase in consumer prices over the next 12 months. Consumer inflation expectations data are seasonally adjusted.

ment has changed dramatically and —as was mentioned earlier— it is estimated that actual earnings at enterprise level in the non-bank private sector will increase in 2009 notably less than contractual earnings. At the same time, inflation is expected to stand at a level considerably lower than what was anticipated when these wage agreements were concluded.

The above forecasts entail that average *real* earnings in the whole economy will increase in 2009 at a rate of around 2-2.5% (compared with 2.5% in 2008). This rise in average real earnings could help strengthen domestic demand (see Chapter IV), unless its positive effect is limited or eliminated by a possible notable decrease in the number of persons employed or by other factors (e.g. a considerable decline in household confidence). In any case, based on the estimate that salaried employment will drop by around 1% in 2009 (see Chapter V), the employees' *total* income will rise by 1-1.5% in real terms. On the other hand, of course, higher nominal earnings combined with very limited productivity growth lead, as was mentioned earlier, to decelerating unit labour cost growth, which will converge considerably to the corresponding rate for the euro area as a whole, but without dropping *lower* than the latter (see Table VI.5). This means that Greece's international cost and

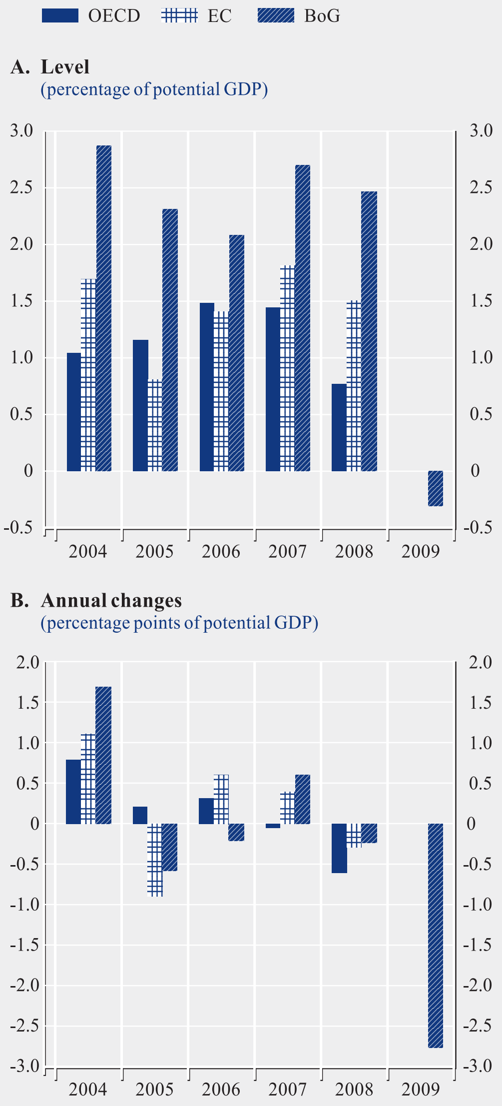
Table VI.5 Average earnings and unit labour costs in the whole economy: Greece and the euro area

(annual percentage changes)

	Average earnings		Unit labour costs	
Year	Greece	Euro area	Greece	Euro area
2001	4.7	2.8	3.9	2.4
2002	6.6	2.7	5.5	2.5
2003	5.6	2.9	2.6	2.2
2004	7.2	2.6	3.8	0.9
2005	4.4	2.2	2.8	1.3
2006	5.7	2.5	3.2	1.1
2007	5.2	2.6	4.0	1.7
2008	6.6	3.6	5.4	3.3
2009 (forecast)	3.7	2.5	3.3	2.8

Sources: For Greece: Bank of Greece estimates; for the euro area: European Commission, *Economic Forecasts, Autumn 2008*, and *Statistical Annex of European Economy,* Autumn 2008 (for 2009: Bank of Greece forecast).

Chart VI.8 The output gap of the Greek economy



Sources: OECD, *Economic Outlook*, No 84, December 2008; European Commission (EC), *Autumn 2008 Economic Forecasts*; Bank of Greece (BoG): estimates of the Economic Research Department.

price competitiveness will continue to decline, albeit much slower than in 2008 (see Table VIII.2 on page 123).[19]

The relatively high rates of labour cost growth observed in recent years were due to *more permanent* factors, namely the conditions of excess demand, the conditions of imperfect competition in significant product markets, labour market rigidities, as well as the insufficient adjustment of the social partners to the operation conditions of the Economic and Monetary Union.[20]

In 2008, inflationary pressures on the demand side decreased (as was mentioned earlier), but this development did not suffice to counterbalance the higher inflationary effect of production costs and thus core inflation was slightly higher. But in 2009, this further considerable deceleration of the rise in demand means —according to the available estimates (see also Chart VI.8)— that the Greek economy's output gap[21] will be negative,[22] whereas it had been positive for many years. The negative output gap and the slower unit labour cost growth will contribute to a decline in core inflation, which however (as mentioned earlier) is likely to be limited due to the conditions of imperfect competition in the economy,[23] unless demand decelerates considerably more than what is currently expected.

In 2008, profit margins narrowed, mainly owing to weakened conditions of excess demand and accelerated growth in unit labour costs. As the conditions of excess demand are reversing in 2009, it is expected that the narrowing of profit margins will continue (despite the decelerated growth in production costs). Indicatively,

19 In the first three quarters of 2008 the average annual rate of increase in unit labour costs in the euro area was 3.1% (rise in average earnings: 3.3%, rise in productivity: 0.2% – see ECB, *Monthly Bulletin*, March 2009), while in 2009 it may slow down to 2.8%, assuming that productivity will fall by 0.3% as forecast by the European Commission (*Interim Forecast*, January 2009) and that the rate of increase in average earnings will slow down to 2.5%, from 3.3% in 2008.

20 For more details see *Monetary Policy – Interim Report 2008*, October 2008, pp. 71-72.

21 The "output gap" is defined as the difference between the level of current output (GDP) and the country's productive capacity (*level of potential* GDP) expressed as a percentage of the *level of potential* GDP. Not directly measurable, it is estimated using various methods. The estimates regarding potential GDP and the output gap involve a high degree of uncertainty. These factors should be taken into account in assessing the conclusions of relevant analyses. A perhaps more reliable indicator is the *change* in output gap, measured in GDP percentage points.

22 According to the services of the European Commission (*Greece: Macro Fiscal Assessment – An analysis of the January 2009 update of the Stability Programme*, 4 March 2009), the output gap will remain positive in 2009, but will be very small (0.5%).

23 See also *Monetary Policy – Interim Report 2008*, October 2008, Appendix 1 to Chapter V.

according to the data on a sample of 229 non-financial corporations listed on the Athex,[24] sales (turnover) rose by 9.9% in 2008, but gross profits fell by 16.2% and net pre-tax profits by 44.5% compared with 2007. Excluding from the sample the two oil refineries (whose sales and profits were considerably affected by the highly volatile oil prices in 2008), the remaining corporations' gross profits decreased by 8.3% and their net profits by 29.4%, while the rise in sales was limited to 4.2%.[25] Profit developments in 2008 reflect —in addition to the decelerated rise in total demand and the accelerated rise in production costs— the inclusion in the results of extraordinary income in 2007 and extraordinary expenses in 2008.

The above data relate only to a sample of corporations, although a macroeconomic approach leads to the same conclusion. Specifically, in 2008 the GDP deflator rose by 3.4%, i.e. notably less than unit labour costs (5.7%) and the deflator of imports of goods (6.9%). This implies a clear narrowing of operating profit margins in the whole economy.

3 THE CONTRIBUTION OF WAGES TO TOTAL OUTPUT

According to recently revised NSSG national accounts data (March 2009), in the eight years from 2001 to 2008 —i.e. in the period since Greece joined the euro area— total compensation of employees (comprising the total wage bill and employers' social security contributions) rose more than GDP at current prices and thus the share of wages in total output increased slightly. Specifically, between 2000 and 2008, GDP at current market prices rose by a cumulative 78.3% (according to NSSG data). In the same period, total compensation of employees (including employers' social security contributions) increased more – by 90.7% according to NSSG national accounts data, or by 86.9% according to the Bank of Greece estimates published in this Report (see Table VI.4). The share of wages in GDP at current market prices rose from 33.2% in 2000 to 35.6% in 2008 according to NSSG data.

The higher share of wages reflects exclusively the increased participation of wage-earners in total employment, as the number of wage-earners rose faster than total employment between 2000 and 2008 (by 20.3% compared with 11.8%). In these eight years, average labour compensation rose at an *average annual rate* of 5.9% (according to the NSSG), or 5.8% (according to the Bank of Greece estimates), i.e. roughly as much as GDP or gross value added *at current prices* per employed person in general (6.0% or 6.1%), and therefore did not affect the share of wages. This implies that in the eight years under review the total rise in average nominal earnings was roughly equal to the sum of inflation and productivity growth.

The share of wages in total output can also be measured based on the share of the total compensation of employees (including employers' social security contributions) in gross value added at current basic prices,[26] which rose from 37.6% in 2000 to 40.0% in 2008 according to NSSG national accounts data.[27] Deducting the total compensation of employees (including employers' social security contributions) from gross value added we obtain the "gross operating surplus", which increased by a cumulative 75.6% in the eight years examined and includes the gross income of private and public enterprises (irrespective of size), agricultural income and the income earned by the self-employed. The share of the "gross operating surplus" in GDP decreased slightly, from 54.8% in 2000 to 54.0% in 2008.

24 Account has been taken of the parent companies' data only (not of the consolidated data of the respective groups). The Public Power Corporation (DEH) and the Hellenic Telecommunications Organisation (OTE) are not included in the sample.
25 Similar estimates are reported in Chapter IX.5, according to which net pre-tax profits (at consolidated level) of all non-financial corporations listed on the Athex fell by around 40% in 2008.
26 Gross value added plus net indirect taxes equals GDP at market prices.
27 Moreover, given that salaried employment is very limited in the agricultural sector, it should be noted indicatively that the share of wages (of all sectors) in the gross value added of the non-agricultural sector (i.e. excluding agriculture, hunting, forestry and fishing) rose from 39.7% in 2000 to 40.6% in 2008.

Information on income distribution is also provided by other indicators, aside from the shares of wages and the operating surplus in total output. The data from the Household Income and Living Conditions Surveys conducted by Eurostat and the NSSG allow for the compilation of special indicators of inequality in the distribution of households' disposable monetary income, as well as of the share of households facing risk of poverty (see Box VI.1). The inequality in the distribution of personal income, having been reduced considerably between 1974 and 1982, remained practically unchanged in the period 1982-2005 (as the aforementioned surveys indicate). According to the same surveys, this inequality is greater in Greece than (on average) in the EU. In addition, the share of the population facing poverty risk ("at-risk-of-poverty rate") fluctuated only between 20% and 21%, throughout the last decade at least. Of course, this share relates to "relative" poverty. According to Eurostat, poor are those people whose disposable monetary income is less than 60% of the "median" of disposable income for the entire population. Therefore, in the last decade, the considerable rise in average income has pushed upwards the "at-risk-of-poverty line" as well. In this respect, the stability of the relative poverty rate implies that absolute poverty in Greece has decreased impressively.

Box VI.1

KEY FACTS ON INEQUALITY, POVERTY AND THE INEFFECTIVENESS OF THE SOCIAL STATE

The problems of poverty, inequality and social exclusion very often constitute the focal point of public social and political debates. However, the arguments put forward are usually insufficiently documented, and indeed sometimes run contrary to the conclusions of scholarly studies. This box summarises the key findings of such studies in order to facilitate to the extent possible the political and social dialogue on these issues and check the validity of claims typically made.

1. The size of inequality and poverty in Greece and in the EU

Based on the latest official data, 20% of the country's population, or more than two million people (2,190,000), find themselves below the poverty line (based on 2006 monetary incomes).[1] It should be noted that the above indicator of poverty risk (calculated using the same methodology) has been impressively stable in the last ten years or more, fluctuating between 20% and 21% (rounded percentages). In any case, the poverty rate in Greece is higher than in most EU-15 countries[2] (and also in all EU-27 countries except Latvia: 21%; EU-27 as a whole: 16%). Similar results are also obtained based on the relative poverty gap, which measures the distance of the poor population's income from the poverty line as a percentage of the latter (Greece: 26%, the highest among all EU-27 countries; EU-27 as a whole: 22%).

In terms of inequality, Greece ranks first (Gini coefficient: 34) among all EU countries, not taking account of the provisional data on Portugal (Gini: 37) and Latvia (Gini: 35). Furthermore, the richest 20% of households in Greece holds a 6 times greater income share than the poorest 20%. The corresponding ratio stands at 4.8 for the EU-27 as a whole (see table).

1 Eurostat data: Household Income and Living Conditions Survey (EU-SILC 2007). The 2007 survey showed that the monetary at-risk-of-poverty line was €6,120 for a single-member household and €12,852 for a four-member household (with two parents and two children).
2 According to the 2007 survey (related to 2006 incomes), at-risk-of-poverty rates similar to the Greek one (20%) were recorded in Italy and Spain.

Selected indicators of social cohesion

Indicator	Greece 2005	Greece 2006	Greece 2007	EU-15[1]	EU-27[1]
I. Risk of poverty					
1. At-risk-of-poverty rate					
1.1 Total population	*20*	*21*	*20*	*16*	*16*
a. People aged 65+	28	26	23	20	19
b. Children aged 0-15	19	22	23	18	19
c. Single-parent households	44	30	34	32	32
d. Two adults with 3 or more children	33	38	30	22	25
1.2 In-work poverty	*13*	*14*	*14*	*7*	*8*
a. Part-time employment	24	26	27	10	11
b. Temporary employment	19	19	19	12	12
1.3 Unemployed	*33*	*33*	*36*	*39*	*41*
2. At-risk-of-poverty gap [2]					
Total population	*24*	*26*	*26*	*22*	*22*
a. People aged 65+	24	24	24	18	18
b. Children aged 0-15	23	26	30	22	23
3. At-risk-of-poverty line (in euro)					
a. Single-member households	5,650	5,910	6,120	...	...
b. Two adults with two children	11,866	12,411	12,852	...	...
II. Inequality indicators					
1. Gini coefficient	*33*	*34*	*34*	*29*	*30*
2. S80/S20 ratio[3]	*5.8*	*6.1*	*6.0*	*4.7*	*4.8*
III. Social welfare					
1. Social expenditure, % of GDP					
Total	*24.3*	*24.2*	...	*27.5*	*26.9*
a. Pensions	11.9	11.9	...	12.1	11.9
b. Social transfers	12.4	12.3	...	15.4	15.0
2. Reduction in the at-risk-of-poverty rate:					
Social expenditure (total)	*19*	*18*	*22*	*27*	*27*
a. Pensions	16	16	18	17	17
b. Social transfers	3	2	4	10	10

Source: Eurostat.
1 Data for the EU-15 and the EU-27 refer to the latest available year (2007 data referring to the earnings of 2006).
2 For definitions see the main text.
3 Share ratio, defined as the ratio of the total income received by the 20% of the population with the highest income (highest quantile) to that received by the 20% of the population with the lowest income (lowest quantile).

2. The evolution of inequality and poverty in Greece: 1974-2005

In the period since the return to democracy (1974), inequality initially decreased considerably (between 1974 and 1982) and thereafter remained relatively stable with narrow fluctuations throughout the years from 1982 to 2005 for which comparable data exist (Household Budget Surveys conducted by the NSSG). In addition, contrary to what is often claimed during public debates, economic inequalities are much more (almost by 75%) attributable to differences *within* the various socioeconomic population groups (broken down based on demographic, geographical, occupational, educational and other criteria) than to differences *between* these groups. Similar developments in the period from 1974 to 2005 are recorded in *relative* poverty as well.[3] However, comparisons of poverty over time adopting the absolute approach rather than the relative one lead to the conclusion that absolute poverty in Greece has decreased impressively after the return to democracy (1974). Furthermore, all relevant indicators show an almost constant but not linear improvement in the population's level of economic prosperity. Several non-monetary indicators of prosperity, such as house comforts, possession of consumer durables, life expectancy, average education level, etc., lead to similar conclusions.

Most probably, some changes after 2005 were not in the direction of reducing poverty and economic inequalities. Income tax became less progressive, the rise in VAT rates led to a larger decrease in the real purchasing power of the poorer households (which consume a larger share of their income), the abolition of the Large Property Holding Tax (FMAP) and the establishment of the Single Tax on Real Estate (ETAK) operated counter-progressively, while the very large increases in food and fuel prices in 2008 weighed much more heavily on the economically weaker social groups than on the more prosperous ones. On the other hand, the remarkable rises in minimum pensions and in the Pensioners' Social Solidarity Allowance (EKAS) in the last few years resulted in a continuous reduction of the poverty rate among the elderly, from 28% in 1996 to 25% in 2005 and recently to 23%.

3. Groups at high risk of poverty and recent developments

As to the size of poverty within individual population groups, it is particularly important that 27% of the people in rural areas, 23% of the elderly (aged 65 or over) who live alone, 34% of single-parent families with children, 25% of pensioners, 36% of the unemployed, 27% of part-time workers and 30% of households whose head has not completed primary school lie below the poverty line. Moreover, the composition of the poor population indicates that 35% of the poor are employed, 7% are unemployed in search of work, 25% are pensioners and the remaining 33% are inactive. Furthermore, 58% of the poor have never attended school or are only primary school graduates. In other words, the groups with a high contribution to total poverty in Greece are the elderly, the members of households whose head is either employed in the primary sector or a pensioner or unemployed, and the members of households whose head is of a low education level (data from the EU-SILC 2007 and the Household Budget Survey 2004/05).

This situation has remained impressively stable throughout the last three decades. However, certain recent developments are particularly important, as lately poverty seems to shift:

(i) From the group of the elderly to the groups of younger couples with children and of young workers. In Greece, 24% of the persons aged 18-24 are today poor. This is attributable to the difficult access of the young to employment and the relatively low wages paid in the increasingly expanding new flexible forms of employment (part-time jobs, works contracts, piecework, etc.).

3 In the sense of relative poverty, people are considered to be poor when their income does not suffice to ensure them a living standard consistent with the lifestyle and standards of the specific society in which they live. According to the relative approach the at-risk-of-poverty line shifts along with the population's average living standards, whereas according to the absolute approach it remains constant over time in terms of real purchasing power.

(ii) From rural to urban areas. The erstwhile particularly high share of farmers in total poverty decreases considerably in the latest years due to agriculture contraction, population ageing and the payment of contribution-based pensions to the new retired farmers.

(iii) From the less educated (e.g. people who have not completed primary school) to those of a medium and higher education level (e.g. secondary school graduates). This reflects mainly an improvement in the population's education level ("educational maturity") rather than a lower probability for people of a low education level to find themselves below the poverty line.

4. The recent size of child poverty is a matter of concern

In the last few years most countries increasingly recognise the existence of the problem of child poverty. This fact relates to the considerable size of the problem, which is steadily growing. As relevant UNICEF reports point out, around 50 million children in the developed world (the OECD countries) live today below the poverty line. In Greece, based on Eurostat data, a rise in child poverty rates is recorded after 2002. In fact, unlike what happened in most other EU countries, the rate of children aged 15 or less living below the relative poverty line in Greece rose by 3 percentage points in 2006 and by one further percentage point in 2007, reaching 23% from 19% in 2005. Based on 2007 data, around 450,000 children in Greece live and grow up in poor households.

Reducing the child poverty risk should henceforth be placed at the heart of social policy concerns. The adoption of measures aimed at improving the education level of mainly the population's poorer sections is practically bound to help limit child poverty. Furthermore, based on research findings, it is estimated that a reduction of uninsured labour and a faster inclusion of economic immigrants into the country's social and economic life will most probably reduce the size of child poverty. Similar results can be generated by policy measures supporting the access of young couples with children to employment and higher-quality jobs. Consequently, combatting child poverty requires multifaceted action that not only increases monetary social benefits, but also provides services (in the fields of education, health, social security, culture, etc.) and facilitates the access (of poor families with children) to social services and, predominantly, the labour market. In other words, it requires coordinated and complementary actions involving social expenditure, social investment, as well as non-monetary social aid in kind.

5. The Greek social solidarity system is limited and mainly ineffective

Despite the rise in social expenditure in Greece, mainly in the period between 1995 and 2001, its size as a percentage of GDP falls 3.3 percentage points short of the EU-15 average (Greece: 24.2%, EU-15: 27.5%, EU-27: 26.9%; 2006 data). Furthermore, based on Eurostat official data, social expenditure in Greece has increased no more than 1.3 percentage points of GDP between the early 1990s (22.9%) and today (24.2%).

The redistributive effect of the social benefits of the fragmented Greek welfare state is limited compared with the other EU-15 countries. The reduction of poverty attributable to total social expenditure in the case of Greece is limited to 22 percentage points (of which 18 due to pensions and 4 due to social transfers) compared with the EU average of 27 percentage points (17 due to pensions and 10 due to social transfers). This effectiveness indicator surprisingly improved considerably by 4 percentage points in Greece in 2006-2007 (from 18 percentage points in 2006 to 22 percentage points in 2007).

In addition to the extent of the available resources, there are also other important factors affecting the effectiveness of social expenditure, such as the composition of social benefits and the degree to which they are targeted towards those who should really be entitled to them, i.e. the economically weaker social groups which are in greater need. Particularly, the bulk of social expenditure in the Mediterranean countries corresponds mainly to pensions and, to a lesser extent, to non-pension social transfers such as the (unemployment, disability, welfare, sickness, housing, family, etc.) social benefits, which are more "progressive", in the sense that they are more supportive of those in the lower income brackets. Furthermore, the remaining limited resources made available for social expenditure do not reach those that should benefit from them. Indicatively, the poorest 10% of the population receives 6.6% of social transfers (excluding pensions), whereas 12.5% goes to the medium income brackets and 7.4% to the richest 10% of the population. This obviously does not ensure a minimum living standard for the poor and the underprivileged households, while the fragmented and bureaucratic social expenditure system is prone to create de facto discriminations among the various categories of beneficiaries. Consequently, strengthening and improving the targeting of social expenditure towards families in relatively greater economic need is a matter of social justice that should contribute to a reduction of economic inequalities and poverty. Social dialogue on the issue of redefining the groups / persons that really deserve social support should audaciously be launched, as it would certainly contribute considerably to the improvement of the effectiveness of social expenditure in Greece.

6. Education remains over time the major factor for reducing inequality and poverty

Educational inequalities seem to be much more closely linked to economic inequalities than other demographic and socioeconomic factors (occupation, age, household size and composition, area of residence, gender, etc.). Educational inequalities alone account for almost one fourth of total inequality. Consequently, policies aimed at reducing the educational inequalities are bound to help limit economic inequalities and poverty in the long run. Such policies may include e.g. those aimed at increasing the number of years of mandatory education and decreasing the school dropout rate; encouraging the participation of the population's poorer sections in the non-mandatory levels of education; educational policies that keep the schools and universities "open" and reduce the thousands of lost teaching hours; policies that limit the phenomenon of "substitute education" (reliance on costly private preparatory schools and lessons for entry in the country's tertiary education institutes) and support the state-run schools, which are attended by the population's poorer sections; etc.

The results of studies for Greece have shown that the probability of poverty is dramatically reduced as the level of education of the household's head rises. The probability of poverty for households whose head has not completed primary education is 3.4 times greater than for the entire population.

7. Still in need of a regulation aimed at eliminating "extreme poverty"

Today's system of social solidarity in Greece is flawed and characterised by considerable leaks. For instance, among households with dependent children and no employed members the poverty rate rises to 54%. The existing social solidarity system unfortunately does not provide anything for those people once the relatively short period of unemployment benefit collection lapses, as is also the case for many other vulnerable groups of the population. No matter how much the existing system's targeting improves, these people will remain well below the poverty line. One solution could be to establish a universal and at the same time selective measure (on the basis of income), aimed at eliminating extreme poverty and ensuring for all a minimum income and living standard, not necessarily on a compensatory basis. The implementation and management of such a universal measure in the case of Greece would address, in addition to the issue of costs, some serious practical problems, mainly as regards the identification of the persons really entitled to the relevant benefits. However, a pilot-phase implementation of such a selective programme for ensuring a minimum living standard for all would allow for a systematic examination of its crucial management problems, just as was the case in other South-European countries that, one after the other, proceeded to the establishment of such a programme. Successful pilot-phase implementation of such a programme requires cooperation between different sections of the state mechanism, but also the involvement of local governments, the "civil society" and volunteer organisations. In any case, the experience of the European countries shows that the adoption of policies that are indeed universal but also targeted towards groups facing a high risk of poverty and/or social exclusion can dramatically reduce economic inequalities and poverty. Moreover, the introduction of a similar measure for the sensitive population of the pensioners had outstanding results in Greece. It is a fact that after the introduction of a pension for the uninsured there are no leaks in the network of social protection of the elderly, as everyone now receives some kind of pension. This measure, combined with the remarkable rises in minimum pensions and in the EKAS, has most probably contributed considerably to the notable reduction of the poverty rate recorded in the group of the elderly in Greece in the latest years (see table).

VII FISCAL DEVELOPMENTS, PROBLEMS AND PROSPECTS

1 BORROWING REQUIREMENTS AND THEIR FINANCING

Fiscal policy remained expansionary in 2008. Moreover, in the last two months of the year the impact of the international financial crisis on the Greek economy had negative repercussions on fiscal administration; as a result the general government deficit (on a national accounts basis) exceeded the reference value of the Maastricht Treaty (3.0% of GDP) for the second consecutive year. Owing to these developments, the Excessive Deficit Procedure has already been initiated for Greece and certain other countries, and an official decision by the Council of European Union Economy and Finance Ministers (ECOFIN) ascertaining the existence of an excessive deficit is expected within April. This decision will be inviting Greece to implement fiscal adjustment measures and, if these are considered to be adequate, the procedure will remain at the stage referred to in Article 103 (7) of the Maastricht Treaty, allowing time for the measures to bear fruit.

According to estimates of the 2008-2011 Updated Stability and Growth Programme (USGP) of January 2009, in 2008 the general government deficit came to 3.7% of GDP. However, on the basis of more recent data, this figure has subsequently been revised upwards to above 4% of GDP (final figures will be confirmed by Eurostat on 22 April). It should be noted that the deficit target for 2008 was 1.6% of GDP, compared with a 2007 outcome of 3.5% of GDP (see Table VII.1). It is estimated that the cyclically adjusted deficit exceeded the headline (unadjusted) deficit as a percentage of GDP for the third consecutive year. This indicates the magnitude of the fiscal adjustment necessary to restore the deficit to levels below 3.0% of GDP. At the same time, the primary surplus of general government (on a national accounts basis) fell from 1.3% of GDP in 2006 to 0.5% in 2007 and reversed into a primary deficit of 0.5% in 2008.

According to initial USGP estimates, the widening of the deficit is solely attributable to central government, the deficit of which rose by 1.4 percentage point relative to 2007 and stood at 6.3% of GDP. This increase was to some extent offset by the higher consolidated surplus of social security organisations, local

Table VII.1 General and central government deficits

(percentage of the revised GDP)

	2003	2004	2005	2006	2007	2008*
General government deficit[1]	**-5.6**	**-7.5**	**-5.1**	**-2.8**	**-3.5**	**(-3.7)[4]**
(national accounts data – convergence criterion)						
– Central government	-8.1	-9.6	-6.1	-4.1	-4.9	(-6.3)[4]
– Social security organisations local authorities, legal persons in public law	2.5	2.1	1.0	1.3	1.4	(2.6)[4]
Central government deficit[2]						
(administrative data)	**-5.7**	**-6.9**	**-5.7**	**-3.9**	**-4.6**	**-5.7**
Central government deficit[3]						
(cash data)	**-6.1**	**-8.4**	**-7.3**	**-4.9**	**-6.0**	**-7.0**

Sources: Bank of Greece, Ministry of Economy and Finance and NSSG.
* Provisional data.
1 Ministry of Economy and Finance data, as submitted to the European Commission (Excessive Deficit Procedure-EDP notification).
2 State General Accounting Office data, as shown in the state budget.
3 Bank of Greece data, referring to the borrowing requirement of central government on a cash basis. The borrowing requirements of public entities are now calculated by the NSSG on the basis of a quarterly survey among these entities regarding their net financial results (revenue-expenditure) and financial situation (borrowing, investment in securities, deposits, etc.), a method considered more reliable than the bank statistics used previously.
4 According to the Updated Stability and Growth Programme 2008-2011; these data have already been revised by the NSSG, in the context of the EDP notification of 31 March 2009.

authorities and other legal persons in public law (2008-2011 USGP data), which improved to 2.6% of GDP in 2008, from 1.4% of GDP in 2007 (see Table VII.1).

It should be noted that 2008 saw widened fiscal deficits in all countries of the euro area (the deficit of which reached 1.8% of GDP from 0.7% in 2007), either because these economies went into a recession or because they had to provide large financial support to certain banks. In several countries (such as Ireland, Spain, France and Malta) the general government deficit exceeded 3% of GDP. In the case of Greece, however, the deficit exceeded this reference value in both 2007 and 2008, which means that the Greek fiscal deficits are of a structural, not of a cyclical nature, i.e. they were not affected considerably (up to the third quarter of 2008) by the ongoing international financial crisis and its impact on the real economy. In addition, the measures strengthening the liquidity of the banking system have not affected the 2008 deficit (nor will they affect that of the current year, but they will increase public debt), while no fiscal measures have been taken to strengthen economic activity.

The worsened public finances are also reflected in the central government deficit on an administrative basis,[1] which rose from 4.6% of GDP in 2007 to 5.7% in 2008 (see Table VII.1). Developments in state budget figures are extensively analysed in Section 2 of this chapter.

The central government cash deficit (borrowing requirement), as derived from changes in the bank accounts of central government and the OPEKEPE,[2] also increased – from 4.9% of GDP in 2006 to 6.0% in 2007 and 7.0% in 2008 (see Table VII.1). It should be clarified that the data regarding central government on an administrative, cash and national accounts basis are comparable between them but not with data on general government, which also includes social security organisations and local authorities, as well as a considerable number of legal persons in public law. Furthermore, the difference observed between the central government deficit on a national accounts basis (6.3% of GDP) and the respective cash requirements (7.0% of GDP) is mainly attributable to the fact that certain transactions of central government, while not taken into account in the national accounts balance, are included in the borrowing requirement on a cash basis. Finally, cash data record total cash flows within the year, while national accounts data, according to the methodology of the European System of Accounts (ESA 95), are compiled based on the time the liability or claim is created, regardless of the time the relevant amount is, respectively, paid or collected. For these reasons, the borrowing requirement usually differs from the respective national accounts deficit and sometimes evolves in the opposite direction.

The central government borrowing requirement

The borrowing requirement (cash deficit) of central government[3] widened in 2008 to 7.0% of GDP from 6.0% in 2007 (see Table VII.2). The increased deficit is primarily attributable to the ordinary budget and only secondarily to the public investment budget. In contrast, the account of farmers' income subsidies (OPEKEPE) showed a small surplus of €254 million, compared with a considerable deficit (€1,160 million) in 2007, a fact contributing by 0.6% of GDP to the moderation of the central government deficit in 2008. The ordinary budget deficit increased considerably due to the shortfall of revenue and the overrun of expenditure relative to the 2008 budget fore-

1 Data from the state budget, which is compiled by the State General Accounting Office on an administrative basis.

2 Payment and Control Agency for Guidance and Guarantee Community Aids (OPEKEPE); this organisation has replaced the Agricultural Markets Management Service (DIDAGEP) as of 3 September 2001 and pays farmers' income subsidies under the CAP through an account held with the Agricultural Bank of Greece (ATE).

3 It should be noted that the Bank of Greece has no data available to estimate the cash balance of public entities, i.e. social security organisations, local authorities and other legal persons in public law, and thus from 2003 onwards does not calculate the borrowing requirement of general government. The relevant national accounts data originate from a special quarterly NSSG survey that collects primary data on the development of the balance and the financial situation of these entities.

casts, although revenue was boosted by an amount of €534 million carried over from the "special accounts". In contrast, the widening of the investment budget deficit was limited due to the collection (mainly from the EU Structural Funds) of additional, non-budgeted revenue of €446 million.

The international financial crisis, which started in August 2007 and intensified considerably from September 2008 onwards, led, among other things, to a radical re-pricing of credit risks, resulting in a drastic change in lending terms for financing the borrowing requirement of the Greek central government, particularly in the last quarter of 2008. This change is reflected in the large widening of the yield spread between Greek and German government securities. In December 2007 the yield spread for the 10-year bond was 29 basis points; by end-August 2008 it had widened to 66 basis points, while by end-December 2008 it had surged to 228 basis points. On 20 January 2009, after the downward revision of Greece's credit rating by Standard & Poor's, the yield spread rose further to 269 basis points.[4] Thereafter it recorded a small decrease, and on 6 April stood at 243 basis points. At the same time, from October 2008 onwards the European Central Bank (as well as many other central banks) proceeded to consecutive reductions of the bid rate on main refinancing operations, which from 4.25% came to 1.25% on 2 April 2009. Thus, the generalised interest rate cuts offset to a great extent the widened yield spread between Greek and German bonds. Owing to these developments, the weighted average borrowing rate for the Greek central government rose

4 On that same day, the yield spread between the Greek 5-year bond and the corresponding German one was 325 basis points.

Table VII.2 Net borrowing requirement of central government on a cash basis[1]

(million euro)

	2005	2006	2007	2008*
1. State budget	**14,793**	**11,500**	**12,432**	**17,361**
% of GDP	7.5	5.4	5.4	7.1
(Ordinary budget) [2]	10,033[4]	7,020[5]	8,512[6]	12,585[7, 8]
(Public investment budget)	4,760	4,480	3,920	4,776
2. ELEGEP - OPEKEPE [3]	**369**	**-1,033**	**1,160**	**-254**
3. Central government (1+2)	**14,424**	**10,467**	**13,592**	**17,107**
% of GDP	7.3	4.9	6.0	7.0

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 Payment and Control Agency for Guidance and Guarantee Community Aid. It replaced DIDAGEP (Agricultural Markets Management Service) from 3 September 2001.
4 Including a grant of about €2,586 million to hospitals, expenditure (€1,239.3 million) for the capital increase of the Agricultural Bank of Greece, as well as proceeds of €1,090 million from the sale of 16.4% of OPAP (the Greek soccer pools organisation) shares, €826 million from the sale of 10% of OTE (Hellenic Telecommunications Organisation) shares and a €425 million grant to OGA.
5 Including an amount of €149.7 million from the settlement of revenue collected by the Hellenic Communications and Post Commission (EETT), €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 of Greece, €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 and a €422.9 million grant to OGA.
6 Including privatisation proceeds of €1,107.5 million and €502.8 million from the sale, respectively, of OTE and Postal Savings Bank shares, as well as expenditures of €264.9 million and €465.7 million for aid to the fire-stricken and a grant to OGA, respectively.
7 Including the receipt of €430.8 million from the sale of OTE shares and a €570.8 million grant to OGA, but excluding the payment of Greek government debt to IKA by the issuance of bonds (€1,172 million).
8 During the strike of the Bank of Greece personnel in March 2008, public debt service payments of €1,537 million were effected through commercial banks, of which €359 million were interest payments. If the latter amount is also taken into account, the net borrowing requirement in the state budget would rise from 7.1% to 7.2% of GDP and the net borrowing requirement of central government from 7.0% to 7.1% of GDP.

Table VII.3 Financing of the borrowing requirement of central government

(million euro)

	2005		2006		2007		2008*	
	Amount	% of total	Amount	% of total	Amount	% of total	Amount	% of total
1. Greek Treasury bills and government bonds[1]	15,325	106.2	11,342	108.4	15,310	112.6	17,283[4]	101.0
2. Change in the balances of central government accounts with the banking system[2]	-1,224	-8.5	-1,145	-10.9	418	3.1	-3,850	-22.5
3. External borrowing[3]	323	2.2	270	2.6	-2,136	-15.7	3,674	21.5
Total	**14,424**	**100.0**	**10,467**	**100.0**	**13,592**	**100.0**	**17,107**	**100.0**

Source: Bank of Greece.
* Provisional data.
1 Comprising Treasury bills and government bonds issued in Greece, as well as bonds convertible into shares.
2 Comprising changes in the central government accounts held with the Bank of Greece and credit institutions, as well as changes in the OPEKEPE account. The figure does not include the purchase of government paper by domestic MFIs, as this is included in item 1.
3 Comprising securities issuance and borrowing abroad (in any currency). The figure does not include non-residents' holdings of bonds issued in Greece. It also includes the change in government accounts with banks abroad.
4 Excluding bonds issued by the Greek government for debt repayment to the Social Insurance Institute – IKA. See also footnote 7 in Table VII.2.

from 3.8% in 2006 to 4.4% in 2007 and 4.6% in 2008, while in the first quarter of 2009 it stood at 5.0%. In early April, however, it declined to 4.7%, exclusively on account of a recourse to the issuance of short-term securities, the rate on which was very low.

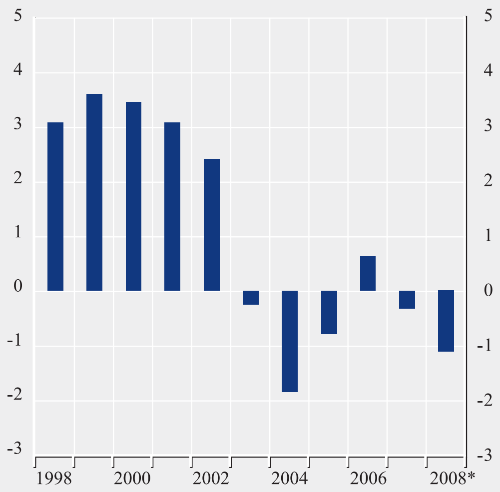
As in previous years, in 2008 the borrowing requirement was financed to a great extent through the issuance of medium- and long-term government paper (in euro) in Greece, sold mainly to foreign investors (see Table VII.3), while external borrowing and issues of securities abroad (regardless of currency) increased considerably. In contrast, domestic financial institutions reduced the loans granted to central government.

2 THE EVOLUTION OF FISCAL AGGREGATES

2.1 STATE BUDGET

As mentioned above, the worsening of fiscal aggregates relates mainly to the state budget, the deficit of which (on an administrative basis) widened from 4.6% of GDP in 2007 to 5.7% in 2008, compared with a targeted 3.4%. The above result was positively affected by the collection of non-budgeted revenue stemming from the "special accounts", the EU Funds and the revenue-strengthening measures implemented in September 2008. The worsening is also reflected in the primary deficit of the state budget, which from 0.3% of GDP in 2007 reached 1.1% of GDP in 2008, compared with a targeted primary surplus of 0.9% of GDP (see Chart VII.1 and Table VII.10).

Chart VII.1 Primary balance of the state budget as a percentage of GDP



Source: State General Accounting Office.
* Provisional data.

Table VII.4 Ordinary budget revenue[1]

(million euro)

	2005	2006	2007	2008*	Percentage changes 2006/2005	2007/2006	2008*/2007
I. Direct taxes	**18,371**	**18,704**	**19,832**	**20,903**	**1.8**	**6.0**	**5.4**
1. Income tax	14,166	15,006	16,092	16,670	5.9	7.2	3.6
– Personal	8,292	9,275	10,160	10,816	11.9	9.5	6.5
– Corporate	4,731	4,438	4,659	4,191	-6.2	5.0	-10.0
– Special categories of income tax	1,143	1,293	1,272	1,663	13.1	-1.6	30.7
(tax on shipping)	9	9	12	11	0.0	37.0	-13.0
(tax on interest income from bonds, deposits, etc.)	439	441	492	635	0.5	11.6	29.0
2. Wealth taxes	548	464	434	486	-15.3	-6.4	11.8
3. Direct taxes collected on behalf of third parties	2	2	5	1	0.0	150.0	-79.2
4. Tax arrears	2,410	1,848	1,742	2,116	-23.3	-5.7	21.5
5. Extraordinary and other direct taxes	1,245	1,384	1,559	1,630	11.2	12.6	4.6
II. Indirect taxes	**23,722**	**26,287**	**28,573**	**30,231**	**10.8**	**8.7**	**5,8**
1. Customs duties and special contributions on imports-exports	260	276	326	320	6.2	18.1	-1.9
2. Consumption taxes on imports	2,661	2,922	3,234	3,246	9.8	10.7	0.4
– VAT	1,771	2,026	2,236	2,403	14.4	10.4	7.5
– Cars	833	839	936	783	0.7	11.5	-16.3
– Special consumption tax	58	57	62	59	-1.0	8.8	-4.2
3. Consumption taxes on domestic products	18,547	20,372	22,190	23,798	9.8	8.9	7.2
– Turnover tax	270	296	17	1	9.7	-94.2	-96.6
– VAT	12,360	13,799	15,145	15,840	11.6	9.8	4.6
– Fuel	2,478	2,608	2,862	3,684	5.2	9.7	28.7
– Tobacco	2,257	2,415	2,582	2,516	7.0	6.9	-2.5
– Road duties	706	794	820	997	12.5	3.2	21.6
– Special levies and contributions on cars	60	72	76	73	20.2	5.1	-3.3
– Other[2]	417	388	690	687	-7.0	77.8	-0.4
4. Transaction taxes	1,687	1,867	2,242	2,063	10.7	20.1	-8.0
– Capital transfers	905	1,045	1,323	1,130	15.5	26.6	-14.6
– Stamp duties	681	710	684	685	4.3	-3.7	0.2
– Licence fees for gambling	101	112	236	247	10.9	110.6	4.8
5. Other indirect taxes	567	850	581	805	49.9	-31.6	38.5
III. Total tax revenue	**42,093**	**44,991**	**48,405**	**51,134**	**6.9**	**7.6**	**5.6**
IV. Non-tax revenue	**2,667**	**3,694**	**3,372**	**4,183**	**38.5**	**-8.7**	**24.0**
V. Total ordinary budget revenue	**44,760**	**48,685**	**51,777[3]**	**55,317**	**8.8**	**6.4**	**6.8**

Source: State General Accounting Office.
* Provisional data.
1 For comparability purposes, tax refunds have not been deducted from revenue.
2 Including the special consumption tax on domestic products.
3 Including "notional" revenue of €437 million arising from the settlement of positions vis-à-vis the Olympic Airways.

The worsening relates exclusively to the ordinary budget, the deficit of which widened from €6,580 million (or 2.9% of GDP) in 2007 to €9,261 million (or 3.8% of GDP) in 2008, compared with a targeted €3,538 million (or 1.4% of GDP). In contrast, the deficit of the public investment budget, despite a small overrun in investment outlays, was €122 million lower than the budget forecast, owing to the collection of non-budgeted revenue of €446 million.

The fact that the ordinary budget deficit was more than two times larger than the budgeted amount is attributed, for the reasons analysed below, both to a significant shortfall of revenue and to a marked overrun of expenditure relative to the budget targets.

Ordinary budget revenue

Ordinary budget revenue[5] increased in 2008 by 6.8% relative to the previous year and stood at €55,317 million (see Table VII.4). Net of the non-budgeted revenue of €534 million transferred from the "special accounts", this rate of change is limited to 5.8%, compared with a targeted increase of 12.2%,[6] and the total shortfall of revenue stands at €3,287 million or 1.3% of GDP. This development implies a small decline in income "elasticity"[7] of tax revenue to 0.9, while long-term elasticity exceeds 1.0.

This shortfall is mainly attributable to the non-collection of expected revenue from the imposition of the single tax on real estate (ETAK) and the equalisation of the excise tax rate on heating oil with that applying to diesel oil. In addition, the revenue expected from the arrangements that took place in September 2008 (settlement of pending tax cases and payment of tax arrears to central government) was not collected, while a significant shortfall compared to budget forecasts was recorded in revenue from the VAT levied on domestic goods and services, as well as in corporate income tax receipts. The insufficient tax income is only partly associated with the ongoing economic crisis.

More specifically, direct tax receipts increased by 5.4%, compared with a budgeted[8] 11.1%. This development is mainly attributable to three reasons:

- First, corporate income tax revenue dropped by 10.0% relative to the previous year and fell 13.9% short of the budget target despite the considerably increased[9] profits in 2007. This development is attributable to the reduction of the tax rate by 13.8% (from 29% to 25%) for 2007 profits and to the (one-off) strengthening of revenue in 2007 through the abolition of the 1.5% discount granted for prompt payment of the tax.

- Second, revenue from tax on real estate (ETAK), budgeted initially at €900 million and later on[10] at €940 million, finally came to only €316 million.[11] This development is attributable to the considerably delayed implementation of this new tax.

- Third, revenue from tax arrears, forecast to €2,460 million following the measures of September 2008, finally stood at €2,116 million. Unlike experiences from the implementation of similar arrangements in the past, the taxpayers' response was unsatisfactory, possibly on account of the businesses' liquidity shortages due to the economic crisis.

In contrast to the above, personal income tax receipts, despite the ongoing tax rate cuts, rose by 6.5% and stood very close to the budget forecast (6.8%). This development is mainly attributable to the "fiscal drag" owing to the non-indexation of the tax scale, as well as to the large wage increases in 2008. In addition, revenue from the tax on deposit and bond interest income increased considerably (29%) and exceeded the relevant budget forecast (increase of 1.6%) owing to the rise in time deposit interest rates and the

5 Tax refunds have not been deducted from revenue, in line with the practice followed by the State General Accounting Office.
6 In effect, the target was for 13.1% higher revenue in 2008, as it was known that the collection of extraordinary revenue in 2007 would not be repeated in 2008.
7 For 2008, extraordinary revenue was not taken into account (i.e. the "adjusted" rate of 5.8% was used).
8 After the package of tax measures of September 2008 was passed, the budget target for the rise in direct taxes was revised in the 2009 Draft Budget to 14.2% (5 October 2008).
9 The net pre-tax profits of a sample of 740 non-financial corporations were 25.7% higher, while financial sector profits recorded a similar increase as well.
10 In the 2009 Draft Budget (5 October 2008) the relevant forecast was revised from €900 million to €940 million, although until then no revenue had been collected and the whole process had been delayed.
11 This amount includes revenue of around €8 million from the abolished Large Real Property Tax (FMAP).

investors' shift towards this category of deposits, particularly in the second half of the year.

Revenue from indirect taxes rose by 5.8% compared with a budget forecast of 14.1%. This shortfall is mainly attributable to the following:

- Revenue from VAT rose by only 5.0%, compared with a budgeted 14.5%. VAT receipts were boosted considerably by the revenue corresponding to VAT levied on fuel, owing to the high fuel prices up to the end of the third quarter of the year. Net of these receipts (which rose by 20.8%), the rate of increase in other VAT revenue is limited to 2.7%, compared with an increase of 10.3% in 2007. This development is attributable to a surge in tax evasion and, to a certain extent, to the ongoing economic crisis, on account of which the increase in the value of retail sales in 2008 was limited to 2.1%, compared with 5.7% in 2007. Particularly in the case of products on which the regular VAT rate (19%) applies, such as consumer durables, there was even a drop in sales. Overall, the deviation of VAT receipts relative to the budget forecast amounted to €1,657 million.

- Revenue from the excise tax rate on fuel, forecast to rise by 45.0% (due to the arrangement regarding heating oil), finally increased by only 28.7%. This development is attributable to a six-week delay in the implementation of the measure, which resulted in the loss of 25% of the additional revenue, as well as to the good weather conditions prevailing in autumn 2008, which contributed to lower heating oil consumption.

- Revenue from car registration fees fell by 16.3% and came to only €783.4 million, compared with a budgeted increase of 7.9%. This development is attributable to the 7.0% drop in car sales in 2008. The decline in sales was visible since the beginning of the year but intensified in the last quarter (sales fell by 22.6%).

In the other categories of revenue, a weaker performance relative to 2007 was also recorded in receipts from the tax on stock exchange transactions (-32.3%), due to the lower volume of transactions and the drop in share prices in the stock exchange, particularly in the second half of the year. Similarly reduced were the receipts from the real estate transfer tax (-11.8%), due to the decline in the real estate market after three years of strong activity (which had been partly due to successive increases in the "objective" —i.e. set for tax purposes— prices,[12] expedited purchases in anticipation of the imposition of VAT on real estate, and very low housing loan rates). In both cases, developments were to a certain extent expected and thus the 2008 budget forecast a reduction in the relevant revenue.

Finally, non-tax revenue exceeded the budget forecast and increased by 24.0% compared with the respective revenue in 2007. This development is attributable to the fact that the balance (amounting to €534 million) of the off-budget "special accounts" held by Ministries was carried over to the budget. It is also attributable to higher receipts from the European Social Fund, which exceeded the relevant budget forecast.

Ordinary budget expenditure

Ordinary budget expenditure[13] rose by 10.7% in 2008 and reached €64,578 million, compared with a targeted increase of 5.6%. In absolute figures, it exceeded the budget target by €2,970 million or 1.2% of GDP (see Table VII.5), although on 7 September 2008 the Ministry of Economy and Finance announced a €500 million cut in primary expenditure (of 2008). Already at the time the budget was being drafted, considerable deviations in its implementation were likely, as certain expen-

12 The last increase in real estate "objective prices" took place in March 2007. This marked the beginning of the decline in the real estate market, which continued in 2008, and contrary to what was the case in other countries, was obviously unconnected with the ongoing economic crisis.

13 Including expenditure for tax refunds.

Table VII.5 Outlays under the ordinary budget and the public investment budget

(million euro)

	2005	2006	2007	2008*	Percentage changes 2006/05	2007/06	2008*/07
I. Outlays under the ordinary budget	**51,239**	**52,508**	**58,357**	**64,578**	**2.5**	**11.1**	**10.7**
1. Personnel outlays	19,325	20,427	22,009	24,091	5.7	7.7	9.5
of which: pensions	(4,211)	(4,576)	(5,052)	(5,942)	(8.7)	(10.4)	(17.6)
2. Interest payments[1]	9,774	9,589	9,796	11,210	-1.9	2.2	14.4
3. Payments to the European Union	2,224	2,172	3,265	2,649	-2.3	50.3	-18.9
of which: for retroactive contributions	-	-	(1,108)	-	-	-	-
4. Transfer of revenue collected on behalf of third parties	4,056	4,085	4,313	4,731	0.7	5.6	9.7
5. Tax refunds	2,554	2,392	2,624	3,653	-6.3	9.7	39.2
6. Subsidies to farmers	634	694	733	748	9.5	5.6	2.0
7. Grants	9,960	10,600	11,984	14,828	6.4	13.1	23.7
– to social security organisations[2]	(7,593)	(7,784)	(8,644)	(11,310)	(2.5)	(10.9)	(30.8)
– to public enterprices	(2,367)	(2,835)	(3,073)	(3,518)	(19.8)	(8.4)	(14.5)
– to fire-stricken	-	-	(263)	-	-	-	-
8. Other	2,712[3]	2,549	3,633	2,668	-6.0	42.5	-26.6
of which:							
– Olympic Airways	-	-	(839)	-	-	-	-
– conduct of snap elections	-	(124)	(134)	-	-	-	-
II. Outlays under the public investment budget	**7,524**	**8,184**	**8,809**	**9,624**	**8.8**	**7.6**	**9.3**
1. Project implementation	2,260	2,060	2,149	...	-8.8	4.3	...
2. Grants	5,206	6,058	6,569	...	16.4	8.4	...
3. Administrative costs	58	66	91	...	13.8	37.9	...
III. Total (I+II)	**58,763**	**60,692**	**67,166**	**74,202**	**3.3**	**10.7**	**10.5**
Primary expenditure under the state budget	48,989	51,103	57,370	62,992	4.3	12.3	9.8
Primary expenditure under the ordinary budget	41,465	42,919	48,561	53,368	3.5	13.1	9.9
Amortisation payments	21,752	16,954	23,543	26,275	-22.1	38.9	11.6
Ministry of National Defence programmes for the procurement of military equipment	1,394	1,590	2,380	2,596	14.1	49.7	9.1

Source: State General Accounting Office.
* Provisional data.
1 Including: "other expenditure" for public debt servicing.
2 Including expenditure for the implementation of social welfare measures (e.g. Social Solidarity Allouance for Pensioners – EKAS, allowance to families with many children, etc.).
3 Including extraordinary expenditure of €345 million for the repayment a debt of the Greek State to ATE and expenditure of €39 million for an allowance to forest guards, granted retroactively following a court decision.

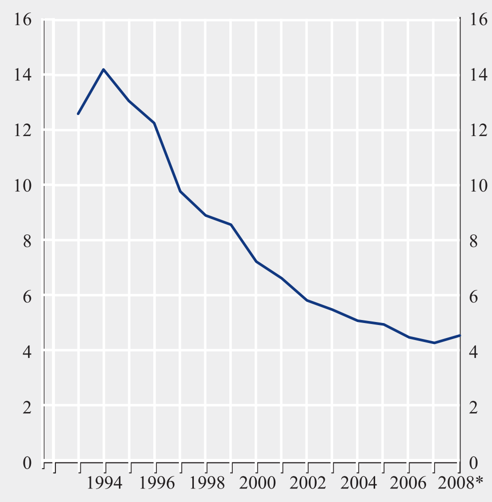
diture categories were extremely squeezed.[14] In addition, ordinary budget primary expenditure (including tax refunds) increased by 9.9% in 2008 and reached €53,368 million, compared with a targeted increase of 5.2%.

Personnel outlays rose by 9.5% compared with 7.7% in 2007 and stood at €24,091 million. This development is attributable to higher salaries paid to military officers as of 1 January 2008 (8-9% above the incomes policy level) and to back payments to the judiciary. A major

14 The 2008 budget provided for considerably higher wages (readjustment of salaries paid to military officers and back payments to the judiciary), grants to social security organisations (so as to increase OGA pensions and the EKAS), pensions (readjustment of the pensions of former members of the armed forces and law enforcement agencies), as well as welfare benefits (expansion of the allowance to families with many children to families with three children, and increased unemployment benefits). In contrast, all other categories were extremely squeezed. Indicatively, instead of a targeted 2.8% decrease, expenditure for tax refunds recorded a 39.2% increase.

Chart VII.2 Interest payments[1] on central government debt

(percentage of GDP)



Source: State General Accounting Office.
* Provisional data.
1 On an administrative basis. Including capitalised interest and other debt servicing outlays.

part of the above increase is also attributable to pension expenditure (17.6% higher), which recorded an overrun of €530 million. This development is attributable to the expedited retirement of almost twice the usual number of civil servants, as well as to the change in the pensions of former members of the armed forces and law enforcement agencies.

Interest payments rose in 2008 by 14.4% and reached €11,210 million, overrunning the relevant budget forecast by €710 million. This increase reflects the higher average cost of borrowing and the increased debt (see Chart VII.2).

Payments to the EU fell in 2008 by 18.9%, as in 2007 they had been excessively high due to the extraordinary contribution (€1,108 million) paid on account of the GDP revision.

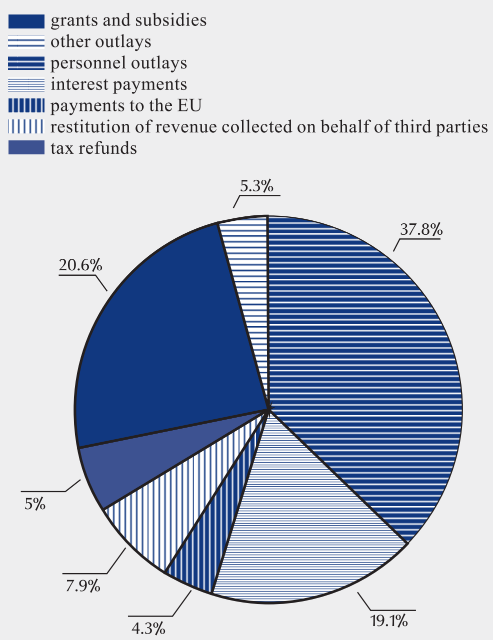
Restitution of revenue collected on behalf of third parties — mainly municipal and regional authorities and the Agricultural Insurance Fund (OGA) — increased considerably (by 9.7%) and reached €4,731 million, owing to pressures by local authorities for the payment of these funds.

Payments for tax refunds rose by 39.2% in 2008 (compared with 9.7% in 2007) and reached €3,653 million, overrunning the relevant budget forecast by €1,103 million. This development is also attributable to the fact that, as of 2008, tax refunds include for the first time heating-oil-related refunds of the VAT and the excise tax. The budget had forecast a €2.8% reduction in this expenditure.

Outlays for government grants (to social security organisations, transport organisations and other legal persons in public law), the second largest category of ordinary budget expenditure (20.6% of total expenditure, see Chart VII.3), increased by 23.7% relative to 2007 and reached €14,828 million. Among the individual categories of grants, the largest increase was recorded in grants to social security organ-

Chart VII.3 Composition of outlays under the ordinary[1] budget

(2008*)



Source: State General Accounting Office.
* Provisional data.
1 Excluding amortisation payments.

isations (30.8%), due to increases in OGA pensions and the Social Solidarity Benefit for Pensioners (EKAS), as well as the larger requirements of other social security funds, such as the Self-Employed Workers' Insurance Organisation (OAEE) and the Seamen's Pension Fund (NAT).

Finally, "other expenditure", which in 2007 included (clearing) extraordinary expenditure amounting to €839 million for the Olympic Airways[15] plus €134 million for holding parliamentary elections, in 2008 fell by 26.6% (as such extraordinary expenditure was not repeated) and stood at €2,668 million.

Public investment budget

In 2008, investment expenditure rose by 9.3% and reached €9,624 million, overrunning the relevant budget forecast by €324 million (see Tables VII.5 and VII.10). This overrun was offset by non-budgeted revenue amounting to €446 million, stemming mainly from the EU Structural Funds.

Following these developments in revenue and expenditure, the deficit of the public investment budget was limited to €4,646 million, compared with a targeted deficit of €4,768 million. As a percentage of GDP, the deficit stood at 1.9% compared with 1.6% in 2007.[16]

2.2 SOCIAL SECURITY AND WELFARE ORGANISATIONS

According to the data included in the Introductory Report on the 2009 Budget,[17] as well as to detailed data of the Ministry of Economy and Finance, the provisional financial results of the six major social security and welfare organisations for 2008 showed a higher deficit relative to 2007 (see Table VII.6).

In 2008, the above organisations' total revenue increased considerably, by 13.7%, to €20,497 million, compared with a 4.7% increase in 2007. Particularly higher were the receipts of IKA (8.7%), OGA (8.8%) and NAT (11.4%). As regards administrative costs, they rose by 16.3% in 2008, compared with a 6.2% increase in 2007, and reached €29,466 million. The faster rise in expenditure than in revenue led to the widening of the administrative deficit. As regards the individual organisations, considerable increases were recorded in the administrative costs of the Workers' Fund (36.2%), NAT (16.3%), OAED (50.5%), OGA (19.8%) and IKA (11.4%). Particularly in the case of OGA, the increased costs are attributable to the considerably higher (by €52.25 per month) pensions paid to farmers as of 1 January 2008, while in the cases of IKA and NAT the rise is attributable to the higher EKAS (+€32.25 per month) applicable as of the same date.

Capital expenditure rose by 16.5% to €605 million in 2008, compared with an 84.2% increase in 2007; yet only 35.7% of this amount relates to investment. The rise in capital expenditure, combined with the 22.7% larger administrative deficit of the above organisations, resulted in a further widening of the total deficit to €9,574 million in 2008, from €7,828 million in 2007. As a percentage of GDP, the deficit widened by 0.5% (2008: 3.9% of GDP, 2007: 3.4% of GDP).

Most of the deficit was covered through state budget subsidies. More specifically, ordinary budget subsidies reached €8,713 million and financed 91.0% of the deficit, while the remainder was covered by 5.3% (€505 million) through subsidies of the public investment budget and the EU and by 3.7% through depreciation and net borrowing. Relative to 2007, ordinary budget subsidies rose by 20.9% and public investment budget subsidies by 35.1%, while net borrowing also increased considerably, from €248 million in 2007 to €353 million in 2008.

15 "Notional" expenditure of €839 million related to a clearing payment of liabilities of the Greek government to Olympic Airways.

16 It should be recalled that in 2007 revenue amounting to €982 million beyond the budget forecast was collected and thus the public investment budget deficit stood at particularly low levels.

17 These data differ considerably from those of Table VII.1, which cover all social security organisations and are on a national accounts basis.

Table VII.6 Results of social security and welfare organisations[1] and their financing

(million euro)

	2006	2007	2008*	Budget 2009	Percentage changes 2007/2006	2008*/2007	2009/2008*
A. Management account							
1. Revenue	17,219	18,021	20,497	22,490	4.7	13.7	9.7
2. Expenditure	23,862	25,330	29,466	32,614	6.2	16.3	10.7
3. Balance (1 - 2)	-6,643	-7,309	-8,969	-10,124			
B. Capital account							
4. Revenue	0	0	0	0			
5. Expenditure	282	519	605	873	84.2	16.5	44.3
(Investment)	171	227	216	446	32.9	-5.1	107.2
(Working capital)	111	187	275	300	68.7	46.8	9.1
(Other expenditure)		105	114	127		9.0	10.7
6. Balance (4 - 5)	-282	-519	-605	-873			
7. Special funds							
Total result (3 + 6 + 7)	*-6.925*	*-7,828*	*-9,574*	*-10,997*	*13.0*	*22.3*	*14.9*
Percentage of GDP	*3.2*	*3.4*	*3.9*	*4.3*			
Financing							
8. Subsidies	6,568	7,578	9,218	9,799	15.4	21.6	6.3
(Ordinary budget)	6,286	7,204	8,713	9,318	14.6	20.9	6.9
(Public investment budget, EU, etc.)	282	374	505	481	32.6	35.1	-4.7
9. Depreciation	3	2	3	3	-12.3	18.5	1.9
10. Net borrowing requirements	354	248	353	1,195	-29.9	42.5	238.5
Total financing	6,925	7,828	9,574	10,997	13.0	22.3	14.9
11. Amortisation	167						
12. New suppliers' credit							
13. Gross borrowing requirements (10 + 11 – 12)	521	248	353	1,195	-52.4	42.5	238.5

Source: Ministry of Economy and Finance
* Estimates.
1 Comprising six major social security and welfare organisations (Social Insurance Institute–IKA, Seamen's Pension Fund–NAT-KAAN, Agricultural Insurance Fund–OGA, Manpower Employment Organisation–OAED, Workers' Housing Organisation (OEK) and Workers' Fund–EE).

In light of the above, it becomes evident that the financial results of the major social security and welfare organisations remain negative and have continuously worsened in the last few years (2006-2008). The deficit of these organisations widened from €6,925 million (3.2% of GDP) in 2006 to €9,574 million (3.9% of GDP) in 2008. For 2009, the deficit is forecast to rise to 4.3% of GDP and reach €10,997 million as an absolute figure (see Table VII.6).

The global economic crisis, which starts to have a notable impact on the Greek economy as well, is estimated to have a negative effect on the financial results of the social security and welfare organisations and to widen their deficits further for the following reasons:

- First, the organisations' revenue is estimated to decrease due to higher unemployment and reduced hours worked (which entail loss of both employers' and employees' social security contributions), increasing contribution evasion, squeezed total earnings and higher debt to social security funds due to the businesses' reduced liquidity. In addition, revenue will also decrease owing to the collection of smaller or even zero dividends corresponding to the businesses' share portfolios, as, *inter alia,* banks that use funds from the bank liquidity strengthening programme have been prohibited to pay dividends.

- Second, a further surge in expenditure is expected due to the higher total cost of unemployment benefits and early retirement pensions. This rise is associated, respectively, to the higher number of unemployed people and the earlier retirement of employees qualifying for pension.

2.3 PUBLIC ENTERPRISES

According to Law 3429/2005, public enterprises are defined as undertakings not listed on the Athens Exchange, whose financial aggregates are (directly or indirectly) influenced decisively by central government. The financial results of such undertakings, included in the public enterprises table[18] from 2005 onwards, are presented in Table VII.7. The data analysis shows that:

Total revenue under the operating account increased by 6.4% in 2008 to €1,929 million, while operating costs rose by 9.0% to €3,572 million. Thus, in 2008 the operating deficit stood at €1,643 million, compared with a €1,464 million deficit in 2007. The deficit of the public enterprises' operating account has been constantly widening over the period 2005-2008, as expenditure rises faster than revenue.

In 2008, expenditure under the capital account fell by 26.0% and amounted to only €1,443 million. This development is attributable to the considerably (96.0%) lower working capital requirements in 2008 relative to 2007, as well as to the reduction of investment by 11.2% (see Table VII.7).

The consolidated deficit of the operating and capital accounts of public enterprises stood at €2,346 million or 1.0% of GDP in 2008, roughly as much as in 2007 (€2,335 million). This deficit was financed by 79.1% through borrowing, by 9.6% through ordinary budget subsidies and by the remainder through capital depreciation. Owing to the higher subsidies, net borrowing fell by 2.1% to only €1,855 million, compared with €1,894 million in 2007.

The fact that the deficit stood at the level of 1.0% of GDP is mainly attributable to the large deficits of transport-related public enterprises. This implies that any effort to substantially limit the deficit of public enterprises and the respective state budget subsidies should aim at improving the economic effectiveness of transport organisations.

2.4 PUBLIC DEBT

The ongoing global financial crisis has patently revealed the risks that public debt entails for any country (see Table VII.8), particularly when it persists at high levels for long periods of time. The Greek debt ratio, despite its considerable decrease after the GDP revision in 2007, remains at high levels (the second highest in the EU) and constitutes one of the major sources of macroeconomic imbalance. It is also one of the most important reasons underlying the unprecedented widening of the yield spread between Greek and German government bonds in the last six months.

Over the last 15 years, public debt has remained at roughly 99% of GDP, despite the GDP revision and the extremely favourable conditions for its reduction that have prevailed from the mid-1990s through to 2007 (namely, strong growth performance, substantial fall in interest rates up to end-2005, high primary surpluses up to end-2001, and significant proceeds from privatisations). It should be noted that the debt remained high not only due to the annual deficits, but also owing to considerable "deficit-debt adjustments". These are budget transactions that, according to the applicable rules, are not recorded in the deficit, but increase public debt (see Table VII.9).

According to the data included in the 2008-2011 USGP, in 2008 the consolidated debt of

18 Published annually in the Introductory Report on the Budget.

Table VII.7 Results of public enterprises and their financing

(million euro)

					Budget	Percentage changes			
	2005[2]	2006[2]	2007[2]	2008*	2009	2006/2005	2007/2006	2008*/2007	2009/2008*
A. Management account									
1. Revenue	1,419	1,492	1,814	1,929	2,049	5.2	21.6	6.4	6.2
2. Expenditure	2,587	2,797	3,278	3,572	3,684	8.1	17.2	9.0	3.1
3. Balance (1 - 2)	-1,168	-1,305	-1,464	-1,643	-1,635				
B. Capital account									
4. Revenue	0	0	0	0	0				
5. Expenditure	1,322	1,313	1,950	1,443	1,403	-0.7	48.5	-26.0	-2.8
(Investment)	1,017	1,004	1,322	1,174	1,333	-1.3	31.7	-11.2	13.5
(Working capital)	76	132	380	15	12	73.7	188.1	-96.0	-20.3
(Other expenditure)	229	177	248	254	58	-22.7	40.0	2.6	-77.1
6. Balance (4 - 5)	-1,322	-1,313	-1,950	-1,443	-1,403				
7. Special funds[1]	894	761	1,079	740	617	-14.8	41.7	-31.4	-16.6
Total result (3+6+7)	*-1,596*	*-1,857*	*-2,335*	*-2,346*	*-2,421*				
Percentage of GDP	*0.8*	*0.9*	*1.0*	*1.0*	*1.0*				
Financing									
8. Ordinary budget subsidies[3]	154	163	185	226	228	5.9	13.3	22.3	0.9
9. Depreciation	245	254	256	265	253	3.6	0.9	3.5	-4.5
10. Net borrowing requirements	1,197	1,440	1,894	1,855	1,940	20.3	31.6	-2.1	4.6
Total financing	*1,596*	*1,857*	*2,335*	*2,346*	*2,421*	*16.3*	*25.8*	*0.5*	*3.2*
11. Amortisation[4]	696	229	134	360	465	-67.1	-41.5	168.7	29.2
12. Credit repayments[4]	26	8	5	14	19	-67.9	-40.1	180.0	35.7
13. New suppliers' credit	15	96	132	3	4	542.3	36.6	-97.6	23.5
14. Gross borrowing requirements (10+11+12-13)	1,904	1,581	1,901	2,226	2,419	-17.0	20.2	17.1	8.7

Source: Ministry of Economy and Finance
* Estimates.
1 Advance payments and participations by DEH consumers, one-off contribution by OTE subscribers, private participations in EYDAP projects and own reserves (from surpluses) of certain public enterprises. Since 1997, subsidies through the public investment budget and the EU have gradually taken the form of share capital increases, thus have gradually stopped appearing under "subsidies" and are now recorded as "special funds".
2 According to Law 3429/2005 (Gov. Gazette 314A/27 December 2005) 20 new public enterprises replaced 19 older ones in the table of Public Enterprises and Entities (DEKO) included in the Introductory Report on the 2007 Budget (p. 131).
3 Ordinary budget subsidies to public enterprises with deficits, minus revenue payments by enterprises with surpluses.
4 Estimated breakdown of amortisation and repayments, due to lack of relevant data.

Table VII.8 Consolidated debt of general government[1]

(million euro)

	2002	2003	2004	2005	2006	2007	2008*
Short-term	1,398	3,409	2,839	1,346	1,108	1,668	...
– securities	982	3,084	2,568	1,156	943	1,625	...
– loans	416	325	271	190	165	43	...
Medium- and long-term	156,974	163,860	179,342	192,757	202,298	214,020	...
– securities	134,040	140,922	156,969	170,863	180,968	194,658	...
– loans	22,934	22,938	22,373	21,894	21,330	19,362	...
Coin and deposits	842	756	976	1,235	988	693	...
Total	**159,214**	**168,025**	**183,157**	**195,338**	**204,394**	**216,381**	**(231,861)[4]**
% of GDP	*100.8*	*97.9*	*98.6*	*98.8*	*95.9*	*94.8*	*(95.4)[5]*
– domestic debt	154,517	164,643	180,654	192,591	202,338	214,465	(230,229)[4]
(of which: debt to the Bank of Greece)[2]	(9,561)	(9,018)	(8,488)	(7,988)	(7,991)	(7,520)	(7,051)
– external debt[3]	4,697	3,382	2,503	2,747	2,056	1,916	1,632

Sources: State General Accounting Office and Bank of Greece.
* Provisional data.
1 According to the definition in the Maastricht Treaty.
2 The small increase recorded in this item for 2006 is due to the redenomination in euro of debt denominated in foreign currency, previously included in external debt. This is also reflected in the significant decrease in external debt.
3 Debt in currencies other than euro.
4 According to the Updated Stability and Growth Programme 2008-2011; these data have already been revised by the NSSG, in the context of the EDP notification of 31 March 2009.
5 Based on the revised (March 2009) GDP figure for 2008.

Table VII.9 Decomposition of changes in the general government debt-to-GDP ratio[1]

(percentages of GDP; changes in percentage points) [2]

	2000	2001	2002	2003	2004	2005	2006	2007	2008*
General government debt-to-GDP ratio	103.4	103.7	101.7	98.0	98.6	98.8	95.9	94.8	95.4
Changes in the general government debt-to-GDP ratio	-8.9	0.3	-2.1	-3.6	0.5	0.3	-3.0	-1.0	0.6
– Primary balance	-3.6	-2.0	-0.7	0.7	2.6	0.7	-1.3	-0.6	-0.3
– Change in GDP and change in interest rates	-12.5	-0.9	-1.4	-4.0	-2.9	-1.6	-3.2	-2.3	-1.8
– Deficit-debt adjustment[3]	7.3	3.2	0.1	-0.4	0.9	1.2	1.5	1.9	2.8

Sources: Ministry of Economy and Finance, General Directorate of Economic Policy, "Macroeconomic Aggregates" (various issues).
*Provisional data.
1 Changes in the debt ratio have been decomposed using the following formula:

$$\left(\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}}\right) = \frac{PB_t}{Y_t} + \left(\frac{D_{t-1}}{Y_{t-1}} * \frac{i_t - g_t}{1+g}\right) + \frac{SF_t}{Y_t}$$

where D_t = general government debt
PB_t = primary balance (deficit or surplus)
Y_t = GDP in current prices
g_t = nominal GDP growth rate
i_t = average nominal rates on government debt
SF_t = deficit-debt adjustment
2 Based on the revised (March 2009) GDP figure.
3 The deficit-debt adjustment includes expenditure or liabilities assumed by general government which do not affect the deficit but increase debt, as well as revenue (e.g. privatisation proceeds) which does not affect the deficit, but reduces debt.

general government showed a small increase and stood at 95.4% of GDP (as finally estimated by the NSSG) compared with 94.8% in 2007. It should be stressed, however, that this figure was revised upwards on 31 March 2009 with the data notification to Eurostat under the Excessive Deficit Procedure. This development reflects the significant widening of the deficit and the reversal of the primary surplus to a primary deficit in 2008. After an increase in 2008, the debt-to-GDP ratio is expected to rise further in 2009 (according to the 2008-2011 USGP).

The reversal of the debt's declining trend is attributable to the worsening and ultimately the overturn of conditions defining the path of the debt-to-GDP ratio, a fact already stressed by the Bank of Greece since April 2008.[19] More specifically, the average borrowing rate for the Greek government gradually rose from 3.2% in 2005 to 4.6% in 2008, while it reached 5.0% in the first quarter of 2009 on account of the widened yield spread between Greek and German bonds. As mentioned above, in early April the average borrowing rate declined to 4.7% thanks to the issuance of Treasury bills with a very low rate. At the same time, the decelerated rate of economic growth (2.9% in 2008 from 4.0% in 2007) and the stagnation forecast for 2009, combined with the much lower primary surplus (that turned into a primary deficit in 2008), are expected to considerably strengthen the dynamics of the debt and lead to a higher debt-to-GDP ratio.

It should be noted, finally, that government-guaranteed loans are calculated in (and increase) public debt only if and when they are called in. Government-guaranteed loans at end-2008 reached €22,200 million (or 9.0% of GDP). By the end of 2009 this amount may rise further, to the extent that banks will benefit from the ability to borrow from the interbank market under a state guarantee. Moreover, according to the existing information, the balance of guaranteed loans will rise further following the arrangement of hospitals' debts to their suppliers.

3 THE BUDGET FOR 2009

3.1 STATE BUDGET

The 2009 Budget, passed in late 2008, has *de facto* gone through considerable revisions due to the readjusted macroeconomic forecasts regarding the impact of the ongoing crisis on the Greek economy. The readjustment is partly attributable to the continuous changes in the projections by international organisations related to the global economy. Moreover, the considerable changes in the fiscal data of 2008 increased uncertainty and necessitated the revision of forecasts and budget targets for 2009. For the same reasons, other euro area countries as well have considerably revised their budgets for 2009.

Most changes in the data of the 2009 Budget are included in the 2008-2011 USGP[20] submitted by Greece to the European Commission on 30 January 2009. More specifically, according to the USGP, ordinary budget revenue is expected to be €2,420 million less than the original budget forecast, and expenditure (including tax refunds) €1,300 million higher. As a result, the forecast deficit of the state budget for 2009 stands at €12,526 million or 4.9% of GDP, whereas it was initially forecast at €8,806 million or 3.5% of GDP (see Table VII.10). In view of the volatile international financial situation and in order to secure a safety margin to avoid deviations in the implementation of the budget, in the first quarter of 2009 measures were taken to contain expenditure and strengthen revenue,[21] which diminish the deficit by 0.6-0.7% of GDP.

Relative to 2008, in 2009 the state budget deficit (as revised by the 2008-2011 USGP data) is expected to be €1,381 million lower. This narrowing of the deficit should stem from

19 Bank of Greece, *Annual Report 2007*, April 2008, p. 112.
20 The new forecasts included in the USGP have been taken into account in drafting Table VII.10 and thus the relevant column is labelled "Stability Programme". It should be noted that the Stability Programme also revised considerably the estimates for 2008 included in the 2009 Budget.
21 The measures are presented below.

Table VII.10 Revenue, expenditure and deficit of the state budget

(million euro)

						Percentage changes			
	2005	2006	2007	2008*	Stability Programme 2009**	2006/2005	2007/2006	2008*/2007	Stability Programme 2009**/2008*
I. Revenue [1]	**47,446**	**52,460**	**56,649**	**60,295**	**66,852**	**10.6**	**8.0**	**6.4**	**10.9**
1. Ordinary budget	44,760	48,685	51,777	55,317	63,152	8.8	6.4	6.8	14.2
(of which: extraordinary revenue)	0	773[4]	437[5]	534[7]	1,372[9]				
2. Public investment budget	2,686	3,775	4,872	4,978	3,700	40.5	29.1	2.2	-25.7
– Own revenue	63	212	64	310	200	236.5	-69.8	384.4	-35.5
– Revenue from the EU	2,623	3,563	4,811	4,668	3,500	35.8	35.0	-3.0	-25.0
II. Expenditure [1]	**58,763**	**60,692**	**67,166[6]**	**74,202**	**79,378**	**3.3**	**10.7**	**10.5**	**7.0**
1. Ordinary budget	51,239[3]	52,508	58,357[6]	64,578	70,578	2.5	11.1	10.7	9.3
– Interest payments[2]	9,774	9,589	9,796	11,210	12,000	-1.9	2.2	14.4	7.0
– Primary expenditure	41,465[3]	42,919	48,561	53,368	58,578[10]	3.5	13.1	9.9	9.8
(of which: tax refunds)	2,554	2,392	2,624	3,653	3,700	-6.3	9.7	39.2	1.3
2. Public investment budget	7,524	8,184	8,809	9,624	8,800	8.8	7.6	9.3	-8.6
III. Net deficit (-) / surplus (+)	**-11,318**	**-8,232**	**-10,517**	**-13,907**	**-12,526**				
% of GDP	*-5.7*	*-3.9*	*-4.6*	*-5.7*	*-5.0*				
1. Ordinary budget	-6,479	-3,823	-6,580	-9,261	-7,426				
2. Public investment budget	-4,838	-4,409	-3,937	-4,646	-5,100				
IV. Ordinary budget primary surplus	**-1,544**	**1,357**	**-721**	**-2,697**	**-526**				
% of GDP	*-0.8*	*0.6*	*-0.3*	*-1.1*	*-0.2*				
V. General government deficit									
% of GDP (on a national accounts basis)	*5.1*	*2.8*	*3.5*	*(3.7)[8]*	*3.7*				
Amortisation payments [2]	21,752	16,954	22,544	26,278	29,158	-22.1	33.0	16.6	11.0
Ministry of National Defense programmes for the procurement of military equipment [2]	1,394	2,076	2,129	2,596	2,200	48.9	2.6	21.9	-15.3
GDP (current prices)	197,645	213,207	228,180	242,946	252,250	7.9	7.0	7.4	3.8

Source: Ministry of Economy and Finance, State General Accounting Office.
* Provisional data.
** Budget 2009 data, revised on the basis of the Updated Stability and Growth Programme 2008-2011 of January 2009. In greater detail, a decrease in revenue (of €2,420 million) and an increase in expenditure (of €1,300 million of which €400 million concern higher tax refunds) have been taken into consideration.
1 For comparabilty 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 effected 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 Including a grant of €330 million to the OTE's personnel insurance fund (TAP-OTE) and repayment of debt (€345 million) to the Agricultural Bank of Greece. These expenditure amounts are not included in the estimates of the Ministry of Economy and Finance for 2005, as published in the Introductory Report on the 2006 Budget, but were included in the Introductory Report on the 2007 Budget.
4 Including an amount of €149.7 million from the settlement of revenue collected by the Hellenic Communications and Post Commission (EETT), €299.3 million (which has not been included in the 2006 Budget) from the decrease in the capital of the Postal Savings Bank, €34 million from the decrease in the capital of the Agricultural Bank of Greece and €290 million from additional dividends of the Deposits and Loans Fund.
5 Including "notional" revenue of €437 million arising from the settlement of positions vis-à-vis the Olympic Airlines.
6 Including "notional" expenditure of €840 million arising from the settlement of positions vis-à-vis the Olympic Airlines, as well as additional contributions to the Community Budget (€1,108 million) due to the upward revision of past GDP figures.
7 It concerns revenue from special accounts (now abolished), amounting to €534 million.
8 Data come from the Updated Stability and Growth Programme 2008-2011, revised by the NSSG with the EDP notification of March 2009.
9 Including revenue from special accounts (now abolished), amounting to €972 million, as well as revenue from the liquidity-support package, amounting to €400 million.
10 Including payments out of special accounts (now abolished), amounting to €882 million, as well as expenditure of €790 million for the Intergeneration Solidarity Fund.

the significantly higher ordinary budget revenue (14.2%), while expenditure will increase by 9.3%, roughly as much as in 2008. It should be noted that —according to the USGP— GDP growth at current prices will be only 3.8%. But is should be recalled that sizeable items are included in both revenue and expenditure for the first time, as analysed further below. After the necessary adjustments to restore comparability, the rate of increase in revenue is limited to 12.8% of GDP and in expenditure to 6.7%.

The significant rise in ordinary budget revenue, forecast to reach €63,152 million, is partly associated with the collection of the single tax on real estate corresponding to two years (2008 and 2009), the equalisation of the excise tax rate on heating oil with that applying to diesel oil,[22] as well as the tax measures of August 2008.[23] It is also attributable to the fact that the 2009 budget includes extraordinary revenue amounting to €972 million from the "special accounts" (compared with only €534 million in 2008), and €400 million from the commission fees central government will receive from the bank liquidity strengthening programme.

Despite the measures taken, meeting the revenue target is considered to be difficult, particularly taking into account the projected stagnation of economic activity. Tax revenue, including that from VAT, car registration fees,[24] the excise tax on fuel consumption, the tax on stock exchange transactions, and the real estate transfer tax, is expected to be negatively affected by the weaker economic activity. On account of this, in conjunction with the tight incomes policy in the public sector, personal and corporate[25] income tax yields will also decline.

Against this background, on 5 February 2009 the minimum excise tax on cigarettes, determined on the basis of cigarettes the retail price of which is lower than the price category most in demand, was raised from 75% to 80% and the excise tax on alcohol was raised by 20%. In addition, on 18 March 2009 an extraordinary one-off tax (the amount of which was later increased considerably for very high incomes) was imposed on natural persons with a declared income of over €60,000. Owing to the prevailing economic conditions, the return of the measures is hard to estimate.

The 2009 Budget, as revised by the 2008-2011 USGP, forecasts that ordinary budget expenditure[26] will increase by 9.3% and reach €70,587 million, compared with €64,578 million in 2008. However, the 2009 budget includes for the first time credit amounting to €790 million for the Intergeneration Solidarity Fund (AKAGE), as well as expenditure amounting to €882 million attributable to the incorporation of the special accounts. After the necessary adjustments to restore data comparability, the rate of increase falls to 6.7%. Primary expenditure (after the above adjustment) is expected to rise by 6.6%, while interest payments by 7.0%.

According to the relevant government decision of 6 February 2009, discretionary expenditure (for transport, commission fees, operating costs, other expenses, and grants to organisations) is curtailed by 10%. This measure is expected to save primary expenditure amounting to €500 million. Also, following the announcement of the incomes policy in the public sector on 18 March,[27] which provides for no increases in the basic wages and pensions of central government employees but only one-off cash bonuses to civil servants with monthly earnings of up to €1,700 and civil service pensioners with a monthly pension of up to €1,100, it is estimated that this measure will result in a net saved expenditure in the order of €390 million (0.15% of GDP),

22 It is the first time this measure is implemented for a whole year.
23 Eight measures announced on 28 August and passed by Parliament in late September 2008 (Law 3697/25 September 2008); they are described in detail in the Appendix to the present chapter. It should be noted that the implementation of two of them was postponed for 1 January 2010 (instead of 1 January 2009).
24 Which will be reduced by 50% for four months.
25 It should be noted, however, that revenue from corporate income tax will be strengthened, as the effect on revenue attributable to the tax rate reduction (from 35% to 25%) ended in 2008.
26 Including expenditure for tax refunds.
27 The relevant amendment was submitted to Parliament on 26 March 2009.

Table VII.11 Greece's financial account with the European Union

(million euro)

	2005	2006	2007	2008*	Budget for 2009	Percentage changes 2006/2005	2007/2006	2008*/2007	Budget for 2009/2008*
A. Receipts from the EU budget	**5,455**	**6,733**	**7,274**	**7,482**	**6,634**	**23.4**	**8.0**	**2.9**	**-11.3**
1. Own resources collection costs	67	68	77	79	79	1.5	13.2	2.6	0.0
2. Social Fund	576	552	783	992	587	-4.2	41.8	26.7	-40.8
3. EAGGF – Guidance Section	376	382	589	504	188	1.6	54.2	-14.4	-62.7
4. Regional Fund	1,341	2,146	3,065	2,858	2,169	60.0	42.8	-6.8	-24.1
5. EAGGF – Guarantee Section	2,754	3,072	2,374	2,718	3,040	11.5	-22.7	14.5	11.8
6. Other receipts	5	10	17	100	31	100.0	70.0	488.2	-69.0
7. Cohesion Fund	311	482	334	200	492	55.0	-30.7	-40.1	146.0
8. Receipts from EFTA countries	3	3	2	2	6	0.0	-33.3	0.0	200.0
9. Fisheries Fund	22	18	33	29	42	-18.2	83.3	-12.1	44.8
B. Payments to the EU budget	**2,224**	**2,172**	**3,265**	**2,647**	**2,540**	**-2.3**	**50.3**	**-18.9**	**-4.0**
1. Agricultural levies and duties	12	12	11	7	8	0.0	-8.3	-36.4	14.3
2. Sugar levies	4	3	0	0	1	-25.0	-100.0	-	-
3. Customs duties under the Common External Tariffs	250	258	297	298	305	3.2	15.1	0.3	2.3
4. Contribution according to the VAT base	424	467	473	577	619	10.1	1.3	22.0	7.3
5. Contribution on the basis of GDP	1,211	1,222	1,184	1,415	1,498	0.9	-3.1	19.5	5.9
6. Additional extraordinary contributions	41	2	1,108	136	15	-95.1	-	-87.7	-89.0
7. Contribution to the European Development Fund	33	33	36	40	44	0.0	9.1	11.1	10.0
8. Payments owing to unrealised projects	249	175	156	174	50	-29.7	-10.9	11.5	-71.3
Net receipts from the EU budget (A – B)	**3,231**	**4,561**	**4,009**	**4,835**	**4,094**	**41.2**	**-12.1**	**20.6**	**-15.3**

Source: State General Accounting Office.
* Provisional data.

while the limiting of recruitments can save an additional 0.15% of GDP.[28] Overall, thanks to the entire set of measures announced from 5 February 2009 onwards, the deficit is expected to narrow by 0.6-0.7% of GDP, while the reestablishment of the tax-exempted amount for professionals will burden the budget by approximately 0.25% of GDP.

The 2008-2011 USGP reports that expenditure will be €1,300 million higher relative to the 2009 budget. This amount relates to €400 million higher expenditure for tax refunds, increased grants to social security funds, as well as higher personnel outlays in order to readjust the wages of health sector employees (Law 3754/3.3.09).

Interest payments are forecast to rise in 2009 by 7.0% and reach €12,000 million. This expenditure may record an overrun in case of substantial borrowing through short-term securities (Treasury bills, etc.), as the relevant interest is recorded within the year. The higher bond rates will affect interest payments in 2010 and the coming years.

Finally, the 2009 public investment budget forecasts a decline in both expenditure (by 8.6%) and revenue. In effect, revenue will not decrease but return to its usual levels after the collection of extraordinary revenue amounting to €982 million in 2007 and €446 million in 2008. Thus, the investment budget deficit as well, after its decline to 1.7% of GDP in 2007, will return to the level of 2.0% (2009: 2.0%; 2008: 1.9%; 2006: 2.1%). However, these projections may change, given that the European Commission is willing to finance co-funded projects even by 100% for one or two years, provided that the national contribution will later increase considerably, so as to return (on average) to the appropriate levels by the completion of CSF IV.

Turning to financial transactions between Greece and the EU, in 2008 net receipts recorded a considerable increase of 20.6%, compared with a decrease of 12.1% in 2007, and stood at €4,835 million (see Table VII.11). This development is mainly attributable to the decrease of payments by 18.9% (compared with an increase of 50.3%) because 2007 transactions included the extraordinary contribution amounting to €1,108 million paid due to the GDP revision. In contrast, receipts from the various EU funds rose by only 2.9%. A significant increase (26.7%) is observed in receipts from the Social Fund, as well as from the EAGGF Guarantee Section (14.5%), which grants income subsidies to farmers. In contrast, receipts from all the other major funds (Cohesion Fund, Regional Development Fund, etc.) declined.

In 2009, net inflows are expected to decrease by 15.3%. In effect, this development is attributable to the 11.3% lower receipts, given that payments to the EU will also decrease (by 4.0%, see Table VII.11).

3.2 THE BUDGETS OF SOCIAL SECURITY AND WELFARE ORGANISATIONS AND PUBLIC ENTERPRISES

According to the data of the Introductory Report on the 2009 Budget,[29] the financial results of the six major social security and welfare organisations are expected to deteriorate and record a €1,423 million wider deficit. As analysed in Table VII.6, the total deficit will reach €10,997 million (or 4.3% of GDP), increased by 14.9% relative to 2008. A share of 84.7% of the deficit will be covered through state budget subsidies, while the net borrowing requirement is also expected to increase significantly, to finance 10.9% of the deficit.

As regards public enterprises, a small increase from €2,346 million in 2008 to €2,421 million in 2009 is expected in the total deficit of their consolidated operating and capital accounts. As a percentage of GDP, the deficit is expected to remain unchanged at 1% (see Table VII.7).

28 The Greek government's wage bill plus pension expenditure will record savings in the order of €550 million, while the cost of one-off cash bonuses is estimated to be around €160 million.
29 See footnote 17.

This deficit will be financed by 9.4% through ordinary budget subsidies and by 10.4% through capital depreciation, while the remaining 80.2% will be covered through net borrowing. The constantly higher borrowing by public enterprises, carried out as a rule under the guarantee of the Greek government, leads to a higher balance of guaranteed loans, which already amounts to €22,200 million or 9.0% of GDP. Although to a considerable extent such borrowing covers investment expenditure —with the exception of the Greek Agricultural Insurance Organisation (ELGA)— its persistent rise still represents an adverse development and a considerable risk for the country's constantly increasing debt.

APPENDIX TO CHAPTER VII
TAX POLICY MEASURES

The common denominator of all the measures taken during 2008 is the effort to boost revenue and curb tax evasion. In this context, the single tax on real estate was introduced on 1 January 2008 and the excise tax rate on heating oil was equalised with that applying on diesel oil on 15 February 2008. In addition, the regulations of August 2008 related to a set of measures aimed at limiting deviations in the implementation of the 2008 budget and strengthening the 2009 revenue. These measures include, among other things, the settlement of pending tax cases, the collection of tax arrears, the increase in car registration fees, the higher advance payment of corporate income tax by sociétés anonymes, the tax on share surplus value, the tax on options, etc. Finally, after the initiation of the Excessive Deficit Procedure for Greece, the excise tax on tobacco and alcohol was increased and an extraordinary tax was imposed on high personal incomes.

More specifically, Law 3634/2008[1] imposed a single tax on real estate (ETAK) as of 1 January 2008. In effect, this is a tax on real property. The tax-exempt limit for the so-called "first" residence is set at 200 square metres and an "objective" value of up to €300,000. From 2009 onwards, a tax-exempt amount is established for all real estate items (and not only main residences), equal to €200,000 and increased by €30,000 for families with three or more children. The objective value of any residence that exceeds the tax-exempted limit will be taxed at a flat rate of 0.1%. On account of delays and insufficient preparations, only a small part of this tax was collected in 2008 and the relevant revenue is expected to be collected in 2009.

Within the framework of the efforts to combat fuel tax evasion, Law 3634/2008 equalised the excise tax rate on heating oil with that applying on diesel oil. More specifically, after the 6.2% increase in the excise tax rate applicable as of 1 January 2008, the single tax on diesel and heating oil amounts to €293 per 1,000 litres. This implies no further cost for households, which continue to procure heating oil with the decreased tax applicable prior to the regulation, i.e. €21 per 1,000 litres. The difference (€272) is refunded by central government to gas-station owners once they have submitted a special statement with their oil purchases and sales. The equalisation of the tax rate, scheduled to apply as of 1 January 2008, finally came into force on 15 February 2008.

Law 3522/2006[2] reduces by two further percentage points the tax rates on personal income earned in 2009. After this change, the new tax scale of the personal income tax for incomes earned in 2009 (and taxable in 2010) stands as follows:

Personal income tax scale for wage earners and pensioners

(euro)

Income bracket	Tax rate (%)	Bracket tax	Total income	Total tax
12,000	0	0	12,000	0
18,000	25	4,500	30,000	4,500
45,000	35	15,750	75,000	20,250
Excess	40			

A decision by the Minister of Economy and Finance codified the "unique net profit coefficients" applicable to the gross income of commercial and industrial enterprises and professionals and used for the calculation of their profits on an off-balance-sheet basis. It should be noted that these coefficients were readjusted in 2006 for financial year 2005, as they had remained unchanged for several years until then.

1 "Abolition of inheritance and parental gifts tax, tax exemption of first residence, single tax on real estate, combatting fuel smuggling, and other provisions".
2 "Amendments in income tax, simplifications in the Code of Books and Records, and other provisions".

Personal income tax scale for all taxpayers except wage earners and pensioners

(euro)

Income bracket	Tax rate (%)	Bracket tax	Total income	Total tax
10,500	0	0	10,500	0
1,500	15	225	12,000	225
18,000	25	4,500	30,000	4,725
45,000	35	15,750	75,000	20,475
Excess	40			

Another ministerial decision readjusted, by 23.5% on average, the objective values of real estate in regions outside town plans. The new objective values came into force on 8 April 2008. At the same time, another decision increased the starting price for determining the "minimum cost of new building construction".

Law 3697/25.9.2008[3] (September 2008) included a series of tax measures aimed at boosting revenue. More specifically:

(a) enterprises and professionals were given anew the opportunity to settle their pending tax cases for the seven-year period 2000-2006, at extremely favourable terms. Interested parties had to submit a relevant declaration by 31 December 2008 and pay in advance 20% of the amount of the tax levied. The minimum amount of the tax is €200, €500 and €700 per year for those keeping books of categories A, B and C respectively. The entire tax will be paid in 24 instalments, by the end of 2010. The deadline provided for by this regulation was extended initially for two months, until 28 February 2009 (by an amendment[4] to Law 3746/2009), and then for two more months, until the end of April 2009.

(b) Debtors to central government were given the opportunity to arrange their debts and repay them in 24 monthly instalments. They had to submit a relevant declaration by 20 November 2008 and pay 15% of the total debt along with the first instalment. This measure, as well, entailed extremely favourable terms for debtors, as it decreased considerably (or eliminated) all relevant surcharges and fines. The deadline of this regulation was initially extended until 31 December 2008, later on (by an amendment to Law 3746/2009) until 28 February and by a new regulation until the end of April 2009.

(c) Registration fees for all vehicles increased by 20%. This measure applies to the registration fees for 2009, collected in December 2008 and recorded in the revenue of 2008. It is estimated that this regulation yielded additional revenue of €180 million for 2008.

(d) As of 1 January 2009, the advance payment of corporate income tax by sociétés anonymes and limited liability companies was raised from 65% to 80%.

(e) The tax-exempt amount of income (€10,500) applicable to traders, professionals, etc. for incomes earned in 2008 was abolished and a tax rate of 10% was established for this amount. However, an amendment attached to Law 3756/2009[5] postponed the implementation of this provision until 2010 (for financial year 2009) and thus the tax-exempt amount remains unchanged for the 2008 incomes (taxed in 2009).

(f) As of 1 January 2009, income from dividends is taxed independently at a rate of 10%.

3 "Reinforcement of transparency of the state budget, monitoring of public expenditure, tax justice measures, and other provisions."
4 "Hellenic Deposit and Investment Guarantee Fund (TEKE), transcription of Directives 2005/14/EC on the mandatory insurance of motor vehicles and 2005/68/EC on reinsurance, and other provisions".
5 "Book-Entry Securities System, capital market provisions, tax provisions, and other provisions".

Thus, undistributed profits will be taxed at a rate of 25% and distributed ones at a rate of 35%. The tax amount will be withheld at source (i.e. by the sociétés anonymes upon dividend distribution) and paid to the tax authorities without any other liability of the taxpaying person. At the same time, the tax rate on the wages of the board members of sociétés anonymes is increased from 25% to 35%.

(g) A tax is introduced for the first time in Greece on the surplus value stemming from the sale of shares quoted on the Athens Exchange. At the same time, the 1.5‰ tax on Athens Exchange transactions is gradually abolished. For the tax to be levied, it was initially determined that both the purchase and the sale of the share would have to be carried out after 1 January 2009. The implementation of this measure was initially postponed until 1 April 2009 and later on (by a provision of Law 3756/2009) until 2010.

(h) Finally, a tax is levied on the option granted to corporate executives. In effect, this implies the imposition of two taxes as of 1 January 2009. First, the difference between the share's current price (in the stock exchange) and the price at which the corporation sells the share to its executives will be treated as ("notional") income of the employees, added to the taxpayer's other income and taxed according to the general provisions applying to personal income tax returns. Second, if a subsequent sale of the share by the person results in capital profit as well, the aforementioned tax on surplus value will be also levied.

Corporations keeping books of category C are required to readjust the value of their fixed assets every four years. The relevant readjustment will take place in the 2008 balance sheet and the resulting surplus value will be taxed at a rate of 2% for land and 8% for buildings. The relevant tax will be paid in four six-month instalments by July 2010.

Extraordinary measures

After the initiation by the European Commission of the preliminary stages of the Excessive Deficit Procedure for Greece and in order to offset losses from the postponement of some of the measures of August 2008, it was decided to increase, as of 5 February 2009, the minimum excise tax rate imposed on low-cost cigarettes (with a retail price lower than the "price category most in demand") from 75% to 80%. In parallel, as of the same date the excise tax on alcoholic beverages (except wine) and beer was increased by 20%.

In addition, new extraordinary measures were announced on 18 March 2009, by which an extraordinary one-off personal income tax was imposed, ranging between €1,000 and €5,000 depending on the taxpayer's income (earned in 2007). By a new amendment on 2 April, the amount of this tax is gradually increased, up to €25,000 for very high incomes.

VIII BALANCE OF PAYMENTS

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

The high current account deficits recorded in recent years reflect the Greek economy's macroeconomic imbalances and structural weaknesses, as a result of which total saving falls short of domestic investment expenditure, mainly because private saving as a percentage of GDP is very low and public saving is negative. This shortfall is by definition reflected in the current account deficit. The widening of the deficit is associated with a continued decline in the economy's international cost and price competitiveness, while its high level is connected with low structural competitiveness.[1]

In 2008, the current account deficit stood at €35.0 billion (or 14.4% of GDP), up by €2.7 billion compared with 2007 (14.2% of GDP). The combined current and capital account deficit, which corresponds to the economy's external financing requirements (i.e. net borrowing, portfolio investment and direct investment inflows), stood at 12.7% of GDP in 2008, up from 12.3% in 2007.

The rate of increase in the current account deficit in 2008 fell to 8.2% (from 36.9% in 2007). The widening of the deficit mainly reflects a higher net oil import bill and increased net interest, dividend and profit payments, as well as (to a much lesser extent) a rise in the trade deficit excluding oil and ships. These developments were only partly offset by the increased surpluses of the current transfers and services balances (see Table VIII.1).[2] In more detail:

- The €2.5 billion rise in the **trade deficit** is primarily attributable to a €2.9 billion increase in the net oil import bill and, to a much lesser extent, to a €430 million hike in the trade deficit excluding oil and ships, as export receipts in this category rose by €1.8 billion, while the import bill grew by €2.3 billion. However, the increase in exports of goods excluding oil and ships (of 15.2%, up from 4.7% in 2007) was almost triple that in the corresponding imports (5.8%, down from 12.0% in 2007). By contrast, net payments for ship purchases fell by €815 million.[3] The widening of the trade deficit continued despite notably higher exports, as the import bill remains roughly triple than export receipts. This widening reflects a **continued decline in international price competitiveness** (see Table VIII.2) and —generally in the last few years— the **inability of domestic supply to meet domestic and foreign demand in terms of both composition and growth.** Although international oil prices fell considerably in the last months of 2008, their average annual level rose, which contributed to a higher net oil import bill as well. Nevertheless, the recorded (according to Bank of Greece data) notable rise in export receipts excluding oil and ships in a period of declining total foreign demand growth is mainly associated with **Greek products' commercial penetration into the countries of South-Eastern Europe,** which still recorded relatively strong growth rates in 2008. According to detailed Bank of Greece data, increased export receipts in 2008 are mainly attributable to exports of agricultural and unclassified products, while the higher import bill is mainly accounted for by imports of machinery and means of transport excluding ships.

- The surplus of the **services** balance rose by €544 million. Underlying this development were mostly higher net transport receipts (up by €704 million). It should be noted that gross transport (mainly merchant shipping) receipts increased considerably in 2008 (by €2.2 billion or 13.3%), as, until end-October, receipts on

1 For a more detailed discussion of the permanent and conjunctural determinants of the current account deficit, see Bank of Greece, *Monetary Policy – Interim Report,* October 2008, Chapter VI.3.
2 Developments in exports and imports of goods and services on a national accounts basis are presented in Chapter IV.
3 According to the available NSSG provisional data, in 2008 the value of exports excluding oil products and ships rose by 2.7%, compared with 4.0% for imports. Moreover, the total value of exports increased by 1.1%, while that of imports (excluding ships) rose by 10.1%. It should be recalled that differences between Bank of Greece and NSSG trade data are largely due to the fact that Bank of Greece data relate to receipts and payments mainly through the domestic banking system, whereas NSSG data are based, on the one hand, on customs data on trade with non-EU countries and, on the other hand, on tax data (INTRASTAT) on intra-EU trade.

Table VIII.1 Balance of payments

(million euro)

		January – December	
	2006	2007	2008*
I CURRENT ACCOUNT BALANCE (I.A+I.B+I.C+I.D)	**-23,668.1**	**-32,393.4**	**-35,043.6**
I.A Trade balance (I.A.1 – I.A.2)	**-35,286.3**	**-41,499.2**	**-44,048.8**
Oil trade balance	-8,761.3	-9,219.6	-12,154.6
Non-oil trade balance	-26,525.0	-32,279.6	-31,894.3
Ships balance	-3,390.5	-5,520.3	-4,705.0
Trade balance excl. fuel and ships	-23,134.5	-26,759.3	-27,189.3
I.A.1 Exports of goods	*16,154.3*	*17,445.5*	*19,812.9*
Fuel	2,939.8	3,037.3	4,254.5
Ships (receipts)	1,631.8	2,275.4	1,582.0
Other goods	11,582.7	12,132.8	13,976.5
I.A.2 Imports of goods	*51,440.6*	*58,944.8*	*63,861.7*
Fuel	11,701.1	12,256.9	16,409.0
Ships (payments)	5,022.3	7,795.7	6,286.9
Other goods	34,717.2	38,892.2	41,165.8
I.B Services balance (I.B.1 – I.B.2)	**15,337.1**	**16,591.7**	**17,135.6**
I.B.1 Receipts	*28,364.1*	*31,337.3*	*34,066.2*
Travel	11,356.7	11,319.2	11,635.9
Transport	14,324.7	16,939.3	19,188.3
Other services	2,682.7	3,078.9	3,242.0
I.B.2 Payments	*13,027.0*	*14,745.6*	*16,930.6*
Travel	2,382.8	2,485.7	2,679.1
Transport	6,991.3	7,771.3	9,316.0
Other services	3,652.9	4,488.6	4,935.5
I.C Income balance (I.C.1 – I.C.2)	**-7,118.8**	**-9,077.0**	**-10,889.0**
I.C.1 Receipts	*3,626.1*	*4,625.7*	*5,732.8*
Wages, salaries	318.1	366.9	344.7
Interest, dividends, profits	3,308.0	4,258.9	5,388.1
I.C.2 Payments	*10,744.9*	*13,702.7*	*16,621.8*
Wages, salaries	280.7	332.6	410.1
Interest, dividends, profits	10,464.2	13,370.1	16,211.7
I.D Current transfers balance (I.D.1–I.D.2)	**3,399.9**	**1,591.1**	**2,758.6**
I.D.1 Receipts	*6,847.4*	*6,608.1*	*6,882.7*
General government (mainly transfers from the EU)	4,462.4	4,361.2	4,678.8
Other sectors (emigrants' remittances, etc.)	2,385.0	2,246.9	2,203.9
I.D.2 Payments	*3,447.5*	*5,017.0*	*4,124.1*
General government (mainly payments to the EU)	2,472.7	3,825.4	2,717.6
Other sectors	974.8	1,191.6	1,406.4
II CAPITAL TRANSFERS BALANCE (II.1–II.2)	**3,041.3**	**4,332.3**	**4,090.8**
II.1 Receipts	**3,310.7**	**4,673.9**	**4,637.8**
General government (mainly receipts from the EU)	3,116.5	4,401.4	4,241.9
Other sectors	194.2	272.4	395.9
II.2 Payments	**269.5**	**341.6**	**547.0**
General government (mainly payments to the EU)	32.2	27.1	192.0
Other sectors	237.3	314.5	354.9
III CURRENT ACCOUNT AND CAPITAL TRANSFERS BALANCE (I+II)	**-20,626.8**	**-28,061.1**	**-30,952.8**
IV FINANCIAL ACCOUNT BALANCE (IV.A+IV.B+IV.C+IV.D)	**20,363.7**	**27,361.4**	**30,160.2**
IV.A Direct investment[1]	**953.8**	**-2,499.0**	**1,666.7**
By residents abroad	-3,321.6	-3,900.1	-1,810.0
By non-residents in Greece	4,275.4	1,401.1	3,476.7
IV.B Portfolio investment[1]	**8,115.4**	**17,441.7**	**16,428.0**
Assets	-6,961.2	-16,351.1	-268.9
Liabilities	15,076.6	33,792.8	16,696.9
IV.C Other investment[1]	**11,518.5**	**12,740.6**	**12,094.6**
Assets	-5,851.0	-16,266.1	-27,823.3
Liabilities	17,369.5	29,006.8	39,917.8
(General government loans)	-447.7	-2341.7	-572.7
IV.D Change in reserve assets[2]	**-224.0**	**-322.0**	**-29.0**
V ERRORS AND OMISSION	**263.1**	**699.7**	**729.7**
RESERVE ASSETS	**2,169.0**	**2,491.0**	**2,521.0**

Source: Bank of Greece.
* Provisional data.
1 (+) net inflow, (–) net outflow.
2 (+) decrease, (–) increase.

Table VIII.2 Greece: revised nominal and real effective exchange rate (EER) indices[1]

(average annual levels, percentage changes)

	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	0.7
2002	1.9	2.8	4.3
2003	4.5	5.3	4.3
2004	1.4	1.9	3.9
2005	-0.7	0.3	0.3
2006	0.1	1.0	1.9
2007	1.4	1.9	3.2
2008[2]	2.3	2.8	4.7
Cumulative percentage change between 2001 and 2008	**12.4**	**18.3**	**25.7**

Sources: Exchange rates: ECB, euro reference exchange rates. CPI: ECB, harmonised CPI where available. Unit labour costs in the whole economy: Bank of Greece estimates for Greece, ECB for the other countries.
1 Revised indices (compiled by the Bank of Greece) comprise Greece's 28 main trading partners (including the other euro area countries, with the exception of Malta). The weights used reflect the share of each partner country in Greece's manufacturing trade (SITC 5-8) during 1999-2001 and account for competition in third markets.
2 Provisional data and estimates.

a monthly basis were higher than in the corresponding months of 2007, before declining in November and December, reflecting a decline in freight rates since the third quarter of 2008 (see Box VIII.1).[4] Net travel receipts rose by a mere €123 million compared with 2007, as gross receipts (i.e. travel spending by non-residents in Greece) increased moderately (by €317 million or 2.8%), while gross payments (i.e. travel spending by residents abroad) grew by €194 million (or 7.8%). The underperformance of travel receipts reflects both weaknesses in the existing infrastructure that adversely affect the level of quality competitiveness and a decline in price competitiveness (see Box VIII.1). Finally, net payments for other services rose by €284 million.

4 These higher receipts are attributable to the fact that the current long-term charter-parties had been concluded when freight rate levels were higher, and to the appreciation of the US dollar vis-à-vis the euro since August 2008, given that charter-parties are usually priced in US dollars.

Box VIII.1

SHIPPING AND TOURISM: RECENT DEVELOPMENTS, PROSPECTS, PROBLEMS, CONSEQUENCES OF THE CRISIS

The services surplus contributes decisively to the limitation of the constantly widening trade deficit and finances it by almost 40%. In the last few years, however, net travel, transport and other receipts cover a diminishing share of the trade deficit, since the latter increases faster than the services surplus. Travel and (mainly sea) transport receipts constitute the main components (adding up to more than 90%) of the services balance. Until 2006, net travel receipts exceeded transport receipts. Ever since, however, travel receipts have recorded very weak growth rates, while transport receipts —also on account of the high levels of freight rates— have continued to grow strongly. Nevertheless, the financial and economic crisis is expected to negatively affect tourism and ocean-going shipping.

Tourism

Net travel receipts, which represent 52.3% of total net services receipts, came to 3.7% of GDP in 2008 and covered nearly 20.3% of the trade deficit (see Table A). In 2008, net travel inflows rose by 1.4%, while the rate of change in arrivals recorded a small downturn, despite the upward trend observed in the first half of the year. A small decrease can be seen in average stay duration, while spending per journey and spending per overnight stay have increased (see Table B).

Table A Key macroeconomic aggregates of tourism and shipping

(million euro)

	January-December					Average
	2004	2005	2006	2007	2008	2004-2008
Receipts from travel services	10,347.8	10,729.5	11,356.7	11,319.2	11,635.9	11,077.8
Annual rate of change (%)	9.0	3.7	5.8	-0.3	2.8	4.1
Payments for travel services	2,310.4	2,445.7	2,382.8	2,485.7	2,679.2	2,460.8
Annual rate of change (%)	8.2	5.9	-2.6	4.3	7.8	4.6
Net receipts from travel services	8,037.4	8,283.8	8,973.9	8,833.5	8,956.7	8,617.1
Annual rate of change (%)	9.2	3.1	8.3	-1.6	1.4	4.0
Net receipts from travel services as:						
– % of GDP	4.3	4.2	4.2	3.9	3.7	4.0
– % of the trade balance	31.6	30.1	25.4	21.3	20.3	24.8
– % of the services balance	52.0	53.8	58.5	53.2	52.3	53.9
Receipts from sea transport	12,404.2	12,953.0	13,280.2	15,678.6	17,940.5	14,451.3
Annual rate of change (%)	38.4	4.4	2.5	18.1	14.4	14.9
Payments for sea transport	4,486.0	4,646.9	5,024.5	5,426.7	6,487.2	5,214.2
Annual rate of change (%)	17.5	3.6	8.1	8.0	19.5	11.2
Net receipts from sea transport	7,918.3	8,306.1	8,255.7	10,251.9	11,453.3	9,237.1
Annual rate of change (%)	54.0	4.9	-0.6	24.2	11.7	17.4
Net receipts from sea transport as:						
– % of GDP	4.3	4.2	3.9	4.5	4.7	4.3
– % of the trade balance	31.1	30.1	23.4	24.7	26.0	26.6
– % of the services balance	51.2	54.0	53.8	61.8	66.8	57.8

Sources: Bank of Greece and NSSG.

Table B Evolution of expenditure per journey and per night, and of average duration of tourists' stay in Greece

Year	Expenditure per journey (in euro)	Expenditure per overnight stay (in euro)	Average duration of stay (nights)
2004	757.5	70.7	10.7
2005	745.7	69.9	10.7
2006	745.9	70.0	10.7
2007	700.2	70.2	10.0
2008	730.0	76.3	9.6

Source: Bank of Greece, Border Survey.

The bulk of travel receipts is accounted for by tourists from the EU-27. However, their share has shown a downward trend in the last two years. Almost two thirds of such receipts are attributable to euro area residents, the share of which in total travel receipts stood at 47.6% in 2008. The top two countries of origin of tourists to Greece are Germany (16.5%) and the United Kingdom (16.1%). In 2008, the shares of these countries were respectively 2 and 3 percentage points lower than in 2007, a fact also reflected in the aforementioned narrowing of the shares of the EU-27 and euro area countries. Outside the EU-27, the share of Russia recorded an upward trend.

Problems and prospects for tourism

Market conditions, i.e. the industry's dependence mainly on the European market and on large European tour operators, tend to squeeze prices when the latter appear unwilling to respond to the initially high prices offered by Greek hotels. In the end, Greek hotels are forced to offer lower prices, at this point in order to at least cover their costs. But as costs are on the rise, these developments naturally curb considerably the profitability of the tourist industry, which resorts to offering all-inclusive packages.[1] This practice affects the price to quality ratio, as Greek hotels are forced to offer their products at increasingly lower prices by cutting costs, with obvious consequences for the quality of the services provided.

In examining the problems of the tourist industry, account should be taken of the following:

- The majority of tourists are medium- or low-income earners.

- The Greek tourist product is highly seasonal, focusing on the "sun and sea" package, without seeking to develop alternative forms of tourism.

- There are weaknesses in the tourist infrastructure and shortages in specialised human resources, as well as shortcomings in the infrastructure of land transport.

Efforts to raise travel receipts should aim mainly at increasing spending per journey. This can be achieved by providing more and higher-quality services, as well as special interest services (e.g. diving tourism). There is considerable room for improvement as well in the branch of business journeys to Greek destinations (conference tourism etc.), particularly in the off-peak season. In addition, the breakdown of receipts by country of origin shows considerable potential for further penetration into the new markets of Russia, the new EU countries and many emerging countries.

The Greek tourist product exhibits high price elasticity of demand (i.e. an increase in prices easily makes tourists turn to rival markets), as well as high income elasticity of demand (i.e. adverse economic conditions in the countries of origin have a negative effect on tourist spending).

The world economic crisis is expected to adversely affect travel behaviour worldwide. According to recent estimates by the World Tourism Organisation, in 2009 tourist arrivals will remain unchanged or will even decrease by around 1% to 2%. European destination countries in particular are expected to be most heavily affected, as many top countries of origin are already in economic recession.

1 All-inclusive packages usually comprise tourists' transport, accommodation and board plus some extra services, such as night-life attractions, sport activities, etc.

Specifically in the traditional countries of origin of tourists to Greece (UK, Germany, France, Italy), growth is forecast to be negative in 2009. Thus, incoming travel traffic will decrease further. Reduced arrivals, combined with an expected shorter average stay duration for visitors from these countries, are bound to considerably affect travel receipts.

Ocean-going shipping

Net sea transport receipts rose in 2008 to 4.7% of GDP, a five-year high (see Table A). However, the growth of net receipts in euro terms slowed down from 24% in 2007 to 12% in 2008.

In early 2009, the Greek-owned fleet represented approximately 15% of the world fleet[2] (roughly one third of the Greek-owned fleet comprised ships flying the Greek flag). At the same time, the Greek-owned fleet currently under construction represents 55% of the existing one and covers around 16% of orders at global level.[3] The large number of orders by Greek ship-owners implies that the share of Greek-owned shipping in the global one will remain unchanged. Dry (bulk) cargo ships represent approximately half of the Greek-owned fleet, while crude oil tankers 35%.[4]

Developments in dry (bulk) cargo ships

In the first half of 2008, the Baltic Dry Index (BDI) —measuring freight rates for dry (bulk) cargo ships— stood at high levels due to strong demand for raw materials (mainly iron ore) by developing countries and primarily China (see *Monetary Policy – Interim Report 2008*, October 2008, Box VI.2). In the second half of the year, however, the BDI decreased considerably (by 50% relative to the first half – see chart). This drop relates on the one hand to reduced credit (letters of guarantee) to trade by the banking system and, on the other hand, to lower imports (mainly of iron ore) by China on account of the adverse forecasts regarding the world economy and demand for steel. But on an average annual basis this index was only 10% lower, while in February 2009 it rose by 150% compared with December 2008. This increase is associated with an agreement (between iron ore mining companies and steel producers) to lower the selling price for iron ore and with the need to replenish the stocks used up in the second half of 2008.

However, the outlook for the dry cargo market for 2009 is unfavourable. According to estimates, the transport capacity of the dry cargo fleet is expected to increase by about 9% in 2009,[5] although the reduced prices of second-hand ships in the second half of 2008 have encouraged the decommissioning and dismantlement of old ships. At the same time, the expected decline in world trade volume and world GDP in 2009 entails a decrease in demand for sea transport. Nevertheless, the implementation of the two-year support programme for the Chinese economy,[6] which will also involve infrastructure projects improving the country's road and railroad networks, may exert a stabilising effect on dry cargo ship freight rates, as it will boost imports of building and raw materials.

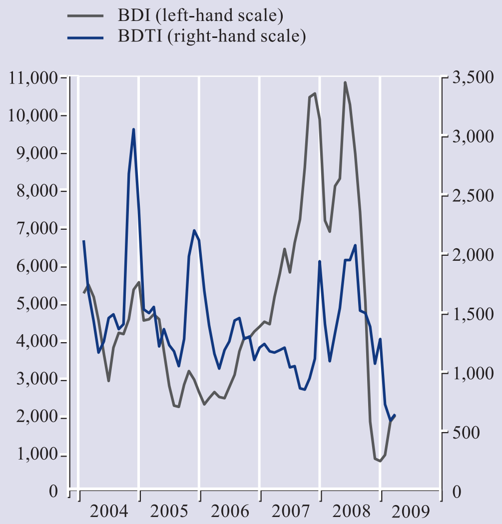
2 In terms of transport capacity (dwt – deadweight tonnes).
3 Greek Controlled Shipping (February 2009) – Greek Shipping Co-operation Committee based on Lloyd's Register – Fairplay data.
4 The remainder is mainly made up of oil product carriers (9%) and container ships (5%). As regards the Greek-flagged fleet, tankers represent 50% and dry cargo ships 34% of the total.
5 Total world orders as a percentage of the existing fleet exceeded 70% in February 2009, while by the end of 2009 they will have fallen to 50% due to deliveries of new ships by shipyards.
6 Announced by the Chinese government in November 2008.

Developments in tankers

Although high crude oil prices until the summer of 2008 drove down demand for oil sea transport, the low rate of increase in the world fleet of tankers (as they are dismantled or converted into dry cargo ships) has contributed to a rise in tanker freight rates up to end-July 2008 (see chart). However, a further drop in oil demand due to the economic crisis and the successive OPEC decisions to reduce crude oil production quotas have dampened demand for oil sea transport. In addition, the enlargement of the world fleet of tankers contributed to an increase in the services offered. As a result of these conditions, the Baltic Dirty Tanker Index (BDTI) fell. Relative to its high levels in July 2008, it was 38% lower in December 2008 (and 72% in February 2009), but nevertheless recorded an average annual increase of 34% in 2008.

Developments in BDI and BDTI freight rates

(average monthly data)



Source: Clarkson Research Services.

According to market estimates, shipyards will deliver about 300 new oil tankers worldwide in 2009, i.e. double those delivered in 2008.[7] A considerably larger world fleet and the lower cargo to be transported (due to an expected reduction in oil consumption in 2009[8]) should further squeeze tanker freight rates.

General outlook for sea transport

Owing to the lower demand for sea transport and the higher transport capacity of the world fleet, freight rates should remain at low levels in 2009. However, further cancellations of orders for construction of new ships and an expected rise in the number of old ships being dismantled should limit world fleet growth and contribute to a faster return of the freight markets to equilibrium, at higher levels. Also, sea transport receipts are estimated to decline less than what would be expected in the light of the observed decrease in freight rates, on account of existing long-term charter-parties concluded at higher prices than the current ones. The anticipated (in principle) recovery of the world economy in 2010 and the ensuing expansion of world trade volume should contribute to higher freight rates.

7 Total world orders as a percentage of the existing fleet stood at around 40% in February 2009, while by end-2009 they will have fallen to 23% due to deliveries of new ships by shipyards.
8 International Energy Agency – Oil Market Report – 13 March 2009.

• The **income account deficit** widened by €1.8 billion, mainly on account of higher net interest, dividend and profit payments. This development is largely associated with non-residents' increased public debt holdings. At the same time, the high gross external debt of the public and the private sector, which stood at 149% of GDP at the end of 2008, is fed by these same current account deficits.[5]

5 Almost **three fifths** of gross external debt has been incurred by **general government,** while the remainder mainly by the **business sector** (financial and non-financial corporations).

• Finally, the widening of the **current transfers** surplus (up by €1.2 billion) is due to increased EU transfers to general government (up by €318 million), as well as considerably reduced payments of this sector to the EU (down by €1.1 billion), given that since December 2007 these payments also included Greece's retroactive contribution to the Community Budget (amounting to €1.1 billion) due to the upward revision of GDP.

The **capital transfers** balance[6] recorded a surplus of €4.1 billion in 2008, slightly less (by €242 million) than in 2007. The overall transfers balance (current plus capital transfers) recorded a surplus of €6.8 billion, i.e. €926 million higher than in 2007. Total net transfers of funds from the EU (current plus capital transfers minus payments to the Community Budget) rose to €6.0 billion, or 2.5% of GDP. It should be noted that between the launch of CSF III and end-December 2008 €21.2 billion had been disbursed by the Structural Funds, i.e. approximately 94% of the envisaged community contribution.[7]

In 2009, the balance of payments will be considerably affected by the deterioration in the international and domestic economic environment, combined with the long-standing structural weaknesses of the Greek economy. In more detail:

• In the **trade balance (excluding oil and ships)**, exports of goods will be adversely affected by the downturn in external demand, in particular under the impact of worsened market conditions in the Balkans and other countries in Eastern Europe. At the same time, imports will decrease on account of the marked deceleration of domestic demand growth. Owing to the greater relative weight of imports, the **trade deficit is expected to narrow**, benefiting in particular from (i) a reduced oil import bill, since the average annual level of imported oil prices in 2009 will be lower than in 2008 and the economic downturn will affect oil demand (in volume terms); and (ii) reduced net payments for ship imports, as many orders have been cancelled. Indicatively, according to Bank of Greece data, in January 2009 exports of goods excluding oil and ships fell by 17.6% compared with January 2008, while the corresponding imports declined by 23.5%[8] (the oil import bill dropped by 34.5%).

• Regarding the **services** balance, world market developments are expected to have a considerable negative effect on travel receipts. Transport receipts will be adversely affected by reduced world trade volumes and the already recorded decline in freight rates (see also Box VIII.1).

• As regards **capital transfers**, it is expected that, alongside the remaining disbursements under CSF III, additional advance payments will be received in 2009 and payments for projects and programmes under the National Strategic Reference Framework (NSRF 2007-2013, CSF IV) will accelerate. Moreover, direct payments and subsidies under the CAP will remain substantial, estimated to border on €2.3 billion.[9] It must be taken into account that, according to the European Economic Recovery Plan, Member States are allowed another six months for absorbing remaining CSF III resources.[10] As regards disbursements under the NSRF 2007-2013 (CSF IV), the European Commission has approved an additional advance payment of 2.5% of the overall con-

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

7 Already by end-March 2009, according to provisional data, 96% of the overall community contribution had been disbursed.

8 According to NSSG provisional data, in January 2009 the value of exports excluding oil and ships fell by 18.5%, while the value of the corresponding imports fell by 11.7%.

9 From now on, direct payments and subsidies will be financed by the European Agricultural Guarantee Fund (EAGF), which replaces the Guarantee Section of the EAGGF. As regards the entire period up to 2013, it appears that direct payments and subsidies under the CAP will carry on in general terms as they stand, unless new CAP implementation measures apply before 2013, given that the future of the CAP is being reviewed in the context of the negotiations on the Budget of the European Union for the 2014-2020 programming period (See Commission of the European Communities, Communication from the Commission, *Preparing for the "Health Check" of the CAP reform,* COM (2007)722, 20 November 2007).

10 It should be recalled that, although CSF III implementation has been completed on 31 December 2008 according to the well-known "n+2" rule, the European Commission has already granted Greece an extension until the end of 2009 for the programmes related to the country's fire-stricken areas (press release by the Ministry of Economy and Finance, 2 January 2009).

tribution of the Structural Funds.[11] For Greece, this amounts to €409 million and thus total advance payments will come to roughly €500 million in 2009. At the same time, the Commission has recommended specific changes in the regulations and operational programme implementation procedures to speed up disbursements and support more effectively the sectors most affected by the crisis.[12] Particularly important is the option offered to Member States to increase at the beginning of the 2007-2013 programming period the share of the community contribution in the total cost of co-funded projects and programmes (commensurately reducing the national contribution), provided however that the required share of the national contribution will have been covered by the end of the programming period.[13]

Against this background, **the current account deficit is expected to narrow to 12.5-13.0% of GDP in 2009. However, the deficit continues to be high and may widen again as soon as the economy starts to recover.** Therefore, there is still a need to implement medium- and long-term policy measures aimed at addressing the more permanent causes of the high deficit.

2 FINANCIAL ACCOUNT

In 2008, financial investment, i.e. the sum of direct, portfolio and "other" investment (which mainly includes interbank deposit and repo holdings), recorded a net inflow of €30.2 billion, compared with a net inflow of €27.7 billion in 2007 (see Table VIII.1). In more detail, the record shows net inflows of €16.4 billion under portfolio investment (compared with a net inflow of €17.4 billion in 2007), of €12.1 billion under "other" investment (€12.7 billion in 2007) and of €1.7 billion under direct investment (compared with a net outflow of €2.5 billion in 2007).

• Net inflows for non-residents' **direct investment** in Greece rose to €3.5 billion, from €1.4 billion in 2007. The acquisition of 19.99% of the capital of the Hellenic Telecommunications Organisation (OTE) (amounting to €2.5 billion) in May plus another 3.03% (worth €0.4 billion) in November by Deutsche Telekom (Germany) was the most important of these inflows.[14] It should be recalled that the relatively low level of foreign direct investment in Greece is attributable to, among other things, the country's product and labour market inflexibilities, infrastructure weaknesses and heavy red tape.[15] Outflows for residents' investment abroad came to €1.8 billion (down from €3.9 billion in 2007) and mainly related to banks' investment activity in the Balkan countries.[16]

11 According to the fundamental regulations of the European Union (EU), in the 2007-2013 period the European Commission pays in advance to Greece and all the other EU-15 Member States 5% of the overall contribution of the Structural Funds (2% in 2007 and 3% in 2008) and 7.5% of the contribution of the Cohesion Fund (2% in 2007, 3% in 2008 and 2.5% in 2009). For 2007-2008, Greece has already received advance payments in the order of €1 billion.

12 See European Commission, *A European Economic Recovery Plan,* COM (2008) 800, 26 November 2008, and Speech by Commissioner Hübner at the informal meeting of EU ministers, "Cohesion Policy Response to the Financial Crisis", Marseilles, 26 November 2008.

13 Statements by Commissioner Hübner in Athens, 24 February 2009.

14 In addition to the acquisition of part of the capital of OTE, other considerable direct investments by non-residents in Greece in 2008 included inflows of: (i) €50 million for the participation of Alapis Farma (Cyprus) in the capital of its parent company Alapis SA; (ii) €22 million for the participation of Xanatech Ltd (Cyprus) in the capital increase of Channel Nine SA; (iii) €103 million for the participation of Emirates International Telecommunications LLC in the capital increase of Forthnet; (iv) €30 million for the acquisition of the classified ads newspaper "Chrysi Efkairia" by Southeastern Europe Fund (Cyprus); (v) €26 million representing part of the price for the acquisition of Alpha television channel by RTL (Germany); (vi) €46 million for the increase of the stake of Crédit Agricole in the capital of Emporiki Bank from 68.2% to 77.5%; and (vii) €28 million for the acquisition by Dixons (England) of the stake held by Fourlis in the Kotsovolos company. At the same time, there was an outflow of €70 million due to the sale of the supermarket chain Plus Hellas by Tengelmann KKG (Germany) to AB Vassilopoulos SA; an outflow of €150 million due to the sale to Alapis SA of the 49% stake held by Boxwood in Gerolymatos SA; and an outflow of €30 million – first instalment out of six – due to the sale to Wind Hellas of the stake held by Wind PPC Holding in Tellas SA.

15 See also Bank of Greece, *Monetary Policy – Interim Report,* October 2006, Box IV.1.

16 Residents' direct investment abroad included, most importantly, outflows of: (i) €80 million for a capital injection by Eurobank to EFG Spolka AK (Poland); (ii) €50 million for the increase in Piraeus Bank's participation in the capital of its subsidiary Atlas Banka (Serbia); (iii) €17 million for the increase in Eurobank's participation in the capital of its subsidiary Eurobank Serbia (Serbia); (iv) €47 million for the participation of the National Bank of Greece in the capital increase of the bank Romaneaska (Romania); (v) €260 million for the partial acquisition of Ocean Rig ASA (Norway) by the Ikonomou Group; (vi) €49 million for the participation of Alpha Bank in the capital increase of its subsidiary Alpha Bank Srbija AD; (vii) €492 million for the acquisition by Forthnet of the companies that owned the Nova pay-TV platform; (viii) €395 million for the participation of Titan Cement Atlantic SA in the capital increases of Titan America LLC in the US (€298 million) and of Columbus Properties in the Netherlands (€97 million); and (ix) €42 million for the participation of the National Bank of Greece in the capital increase of the bank Romaneaska (Romania). Furthermore, there was a net inflow (disinvestment) of €624 million due to the sale of Antenna's investment in a television channel in Bulgaria.

Table VIII.3 Geographical breakdown of foreign direct investment inflows in Greece

(million euro)

	2006	2007	2008*
EU-27[1]	3,994	1,196	3,200
Euro area	3,253	1,435	3,297
Other OECD countries[2]	203	108	143
Balkan countries[3]	0	0	1
Middle East, Mediterranean and former USSR[4]	13	19	7
Other countries	65	78	124
Total direct investment by non-residents	**4,275**	**1,401**	**3,475**

Source: Bank of Greece.
* Provisional data.
1 EU: 25 countries in 2006 and 27 countries thereafter (following the accession of Bulgaria and Romania).
2 Australia, Canada, Iceland, Japan, S. Korea, Mexico, New Zealand, Norway, Switzerland, Turkey and United States.
3 Albania and former Yugoslavia countries (Bosnia-Herzegovina, Croatia, FYROM, Serbia and Montenegro).
4 Greece's main trading partners in the Middle East, the Mediterranean and former USSR countries.

Table VIII.4 Geographical breakdown of Greek direct investment outflows

(million euro)

	2006	2007	2008*
EU-27[1]	375	1,371	789
Euro area	461	864	1,073
Other OECD countries[2]	2,342	2,125	617
Balkan countries[3]	510	121	153
Middle East, Mediterranean and former USSR[4]	15	47	75
Other countries	80	236	167
Total direct investment by residents	**3,322**	**3,900**	**1,802**

Source: Bank of Greece.
* Provisional data.
1 EU: 25 countries in 2006 and 27 countries thereafter (following the accession of Bulgaria and Romania).
2 Australia, Canada, Iceland, Japan, S. Korea, Mexico, New Zealand, Norway, Switzerland, Turkey and United States.
3 Albania and former Yugoslavia countries (Bosnia-Herzegovina, Croatia, FYROM, Serbia and Montenegro).
4 Greece's main trading partners in the Middle East, the Mediterranean and former USSR countries.

Table VIII.3 shows the country breakdown of non-residents' direct investment in Greece. This originated primarily from the EU, in particular the euro area countries, and to a much lesser extent from the other countries of the OECD. Table VIII.4 presents the country breakdown of residents' direct investment abroad. The euro area countries and the other countries of the OECD attracted the bulk of this investment; particularly considerable was the share of the Balkan countries.

- The climate of uncertainty prevailing in world capital markets has affected **portfolio investment**. Inflows for non-residents' portfolio investment stood at €16.7 billion, i.e. considerably lower than in 2007 (€33.8 billion). This development is attributable mainly to reduced placements by foreign investors in Greek government bonds and Treasury bills, which came to €19.9 billion, down from €25.7 billion in 2007, and secondarily to net sales of Greek companies' shares by non-residents, amounting

Table VIII.5 Greece's international investment position

(million euro)

	2006	2007[1]	2008*
1. Direct investment	-14,328	-14,653	-3,063
Abroad by residents	17,022	21,500	23,310
In Greece by non-residents	31,350	36,153	26,373
2. Portfolio investment	-127,172	-149,589	-123,099
Assets	67,195	86,848	85,880
Liabilities	194,367	236,437	208,979
3. Financial derivatives	10	503	970
4. Other investment	-38,842	-53,220	-61,273
Assets	62,640	78,717	106,695
Liabilities	101,482	131,937	167,968
5. Reserve assets	2,169	2,491	2,521
Net international investment position (iip)(1+2+3+4+5)	-178,163	-214,468	-183,944
GDP	213,207	228,181	242,946
Net iip as % of GDP	-83.6	-94.0	-75.7

Source: Bank of Greece.
* Provisional estimates.
1 Revised data.

to €3.7 billion (compared with net purchases of €8.1 billion in 2007). Residents' portfolio investment abroad also recorded a steep fall and came to €0.3 billion, down from €16.3 billion in 2007. This drop reflected mainly net inflows due to sales of foreign shares by residents amounting to €2.9 billion (compared with a net outflow of €0.5 billion in 2007), as well as residents' reduced investment in foreign bonds and Treasury bills (€2.2 billion in 2008, compared with €15.4 billion in 2007).

- Under **"other" investment**, the considerable net inflows reflect mainly the fact that inflows for non-residents' investment in deposits and repos in Greece were much higher than outflows for corresponding placements abroad by domestic credit institutions and institutional investors. In more detail, non-residents' deposit and repo holdings in Greece increased to €40.9 billion, up from €31.7 billion in 2007, while residents' corresponding holdings abroad rose to €27.0 billion, up from €15.8 billion in 2007. A small part of these inflows into Greece was offset by repayments of loans granted by non-residents to residents (amounting to €0.9 billion).

Finally, the country's **reserve assets,** as defined by the European Central Bank, stood at €2.5 billion at end-2008.

3 INTERNATIONAL INVESTMENT POSITION

In 2008, the **negative international investment position** of Greece improved to €183.9 billion at the end of the year (75.7% of GDP), down from €214.5 billion at end-2007 (94.0% of GDP – see Table VIII.5).

This reflects developments in mainly portfolio investment and, to a lesser extent, direct investment. Reduced liabilities under portfolio and direct investment resulted mainly from the considerable downturn of the stock exchange index in 2008, which affected the valuation of these items.

IX FINANCIAL MARKETS IN GREECE AND THE STABILITY OF THE BANKING SYSTEM

1 MONETARY DEVELOPMENTS AND BANK DEPOSIT RATES

1.1 MONETARY DEVELOPMENTS

After accelerating until September 2008, the annual growth rate of the monetary **aggregate M3**[1] slowed down in the last few months of the year, a trend that continued into the first two months of 2009 (February 2009: 10.9%, fourth quarter 2008: 14.4%, fourth quarter 2007: 14.7%, see Table IX.1). This slowdown is associated with the tightening of terms and conditions applied by MFIs for lending to the private sector, which has been observed since the fourth quarter of 2008,[2] as well as with weak economic activity. The growth rate of M3 partly reflects a base effect from last year's shifts from assets outside M3[3] to M3 components, mostly deposits with an agreed maturity of up to two years. Underlying this shift were an increase in short-term deposit rates[4] (in the context of Greek banks' competition for funding) and the negative yields on mutual funds (across all types) during the period under review. It should be noted, however, that the M3 growth rate remained higher than the corresponding euro area figure, which declined significantly during 2008 and the first two months of 2009 (February 2009: 5.5%, fourth quarter 2008: 7.8%, fourth quarter 2007: 12.3%).

Among individual M3 components, developments in **deposits** were largely driven by interest rate changes. Specifically, the stronger increase in the remuneration of time deposits, compared with other deposits,[5] also encouraged shifts of funds within M3, particularly from highly liquid deposits to **time deposits.** Thus, the growth rate of time deposits, though decelerating, remained high (February 2009: 28.9%, fourth quarter 2008: 39.1%, fourth quarter 2007: 42.2%, see Table IX.1) and the share of time deposits in M3 had risen to 58.5% by the end of the year. In contrast, **overnight deposits** continued to decline (February 2009: -4.0%, fourth quarter 2008: -7.0%, fourth quarter 2007: -0.9%, see Table IX.1), causing their share in M3 to fall to 38.6% by the end of the year. Owing to the above developments, the growth rate of total M3 deposits moderated marginally and reached 15.3% in the fourth quarter of 2008 (fourth quarter 2007: 15.9%). This downward trend was strengthened in the first two months of 2009 (February 2009: 13.4%). As regards the other M3 components, holdings of **repos** and **money market fund shares/units** declined further (see Table IX.1).

1.2 BANK DEPOSIT RATES

During 2008, **interest rates on household deposits**, which are mostly short-term, rose significantly in the case of deposits with an agreed maturity of up to one year and remained almost unchanged in the case of overnight deposits. Until October, deposit rates mirrored developments in interbank rates, but they were not affected by the interbank rate decline in the fourth quarter of the year. **Developments in deposit rates during 2008 were associated with the liquidity shortage conditions in the interbank market, as well as with the difficulties faced by Greek banks in accessing international money and capital markets. In order to strengthen their deposit bases, Greek banks offered high interest rates on longer-term deposits.** Thus, the interest rate on deposits with an agreed maturity of up to one year, i.e. the largest deposit category, rose by 84 basis points (December 2008: 5,36%), while the interest rate on overnight deposits remained almost unchanged (December 2008: 1.24%). In the first two months of 2009, interest rates on both deposit categories fell (see Chart IX.1), as funding conditions improved for Greek banks (partly as a result of recourse to the Eurosystem liquidity providing operations). Finally, the **repo rate** fell markedly during 2008 and in the first two months of 2009 (declining by 243 basis points between December 2007 and February 2009).

1 This aggregate is the Greek contribution to the euro area M3 and does not include currency in circulation.
2 See Section 2 of this chapter.
3 Mostly from bond-type mutual funds and funds of funds.
4 See Section 1.2 of this chapter.
5 See Section 1.2 of this chapter.

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

(non-seasonally adjusted data)

	Outstanding balances on 31.12.2008 (million euro)	Annual percentage changes[1]									
		2004	2005	2006	2007	2008					2009
		Q4[2]	Q4[2]	Q4[2]	Q4[2]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	Dec.[3]	Feb.[3]
1. Overnight deposits	90,798.9	16.8	9.3	0.7	-0.9	-2.8	-4.4	-6.3	-7.0	-8.6	-4.0
1.1 Sight deposits and current account deposits	25,916.3	19.1	20.2	1.8	10.3	6.2	2.6	-1.3	-3.6	-8.5	0.3
1.2 Savings deposits	64,882.6	16.1	6.3	0.2	-4.6	-5.8	-6.8	-8.1	-7.9	-8.6	-5.3
2. Time deposits with agreed maturity of up to 2 years	137,639.1	5.3	45.2	37.5	42.2	42.1	43.0	38.3	39.1	37.3	28.9
3. Deposits redeemable at notice up to 3 months[4]	1,883.0	2.8	105.2	-24.4	-20.3	-20.0	-18.0	-22.9	-24.1	-23.2	-14.8
4. Total deposits (1+2+3)	**230,321.0**	**13.1**	**20.7**	**12.1**	**15.9**	**16.0**	**16.5**	**14.3**	**15.3**	**13.8**	**13.4**
5. Repurchase agreements	377.4	-12.6	-72.8	-35.7	-54.3	-55.7	-50.9	-39.3	-11.4	-46.2	-52.9
6. Money market fund shares/units	2,263.6	-1.9	-51.8	-2.5	40.5	28.1	9.3	-11.2	-58.8	-71.4	-76.3
7. Debt securities issued with maturity of up to 2 years[5]	2,126.1	-0.3	-42.2	24.2	-	-	-	-	-	-	-
8. M3 excluding currency in circulation (4+5+6+7)	**235,088.1**	**9.2**	**6.9**	**10.6**	**14.7**	**15.2**	**16.2**	**15.0**	**14.4**	**12.3**	**10.9**

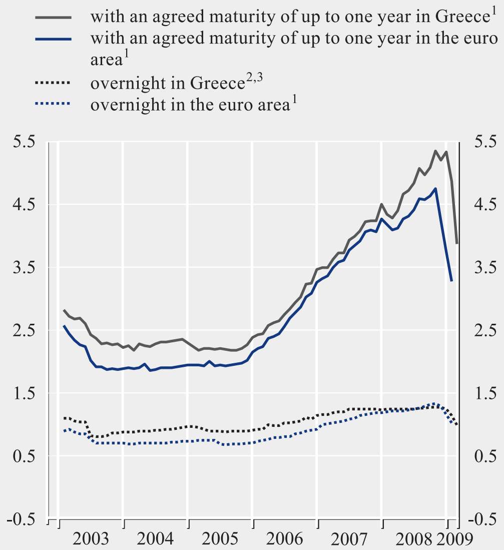
Sources: Bank of Greece and ECB.
1 Annual rates of change in the corresponding index, which is compiled on the basis of outstanding stocks for December 2001 and cumulative monthly flows, adjusted for exchange rate variations, reclassifications etc.
2 The quarterly average is derived from monthly averages (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-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.

The interest rate on **savings deposits** (which form the largest part of overnight deposits) at end-2008 stood at its end-2007 level (1.16%). In **real terms** (calculated on the basis of the annual inflation rate) it remained negative (December 2008: -2.99%), even more strongly compared with 2007 (-1.7%). The real interest rate on deposits with an agreed maturity of up to one year, which was positive in 2007, remained positive on average in 2008 (0.71%), but was lower than in 2007 (1.08%).

The interest rate on deposits with an agreed maturity of up to one year in the euro area fell in 2008 (by 53 basis points, December 2008: 3.75%) and in January 2009 (by 47 basis points). Thus, its spread over the corresponding Greek rate widened further (January 2009: 161 basis points). **Given that the Greek interest rate on deposits with an agreed maturity of up to one year remains one of the highest in the euro area, Greek banks continue to face relatively higher funding costs.** Regarding overnight deposits, the interest rate spread between Greece and the euro area also rose,

Chart IX.1 Bank interest rates on new deposits by households in Greece and the euro area

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

(percentages per annum)

	Dec. 2007	June 2008	Oct. 2008	Dec. 2008	Jan. 2009	Change Jan. 2009/ Dec. 2007 (in percentage points)	Feb. 2009[3]	Change Feb. 2009/ Dec. 2007 (in percentage points)
Overnight[1]								
Weighted average interest rate in the euro area	1.18	1.24	1.34	1.16	1.02	-0.16	...	...
Maximum interest rate	2.58	2.62	2.73	2.21	1.77	-0.81	...	...
Minimum interest rate	0.19	0.21	0.17	0.17	0.16	-0.03	...	...
Interest rate in Greece	1.24	1.25	1.27	1.24	1.15	-0.09	0.98	-0.26
Interest rate differential between Greece and the euro area	0.06	0.01	-0.07	0.08	0.13	0.07	...	...
With an agreed maturity of up to one year[2]								
Weighted average interest rate in the euro area	4.28	4.43	4.77	3.75	3.28	-1.00	...	...
Maximum interest rate	4.68	5.11	5.72	6.04	6.14	1.46	...	...
Minimum interest rate	2.94	3.10	3.73	2.59	1.82	-1.12	...	...
Interest rate in Greece	4.52	4.84	5.37	5.36	4.89	0.37	3.87	-0.65
Interest rate differential between Greece and the euro area	0.24	0.41	0.60	1.61	1.61	1.37	...	...

Sources: ECB and euro area NCBs.
1 End-of-month rate.
2 Monthly average rate.
3 Data on bank interest rates in February 2009 were not available on the date of publication of this Report.

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

	Overnight[2]		With agreed maturity of up to one year[3]	
	December 2007	January 2009	December 2007	January 2009
Austria	1.93	1.50	4.28	2.79
Belgium	1.16	0.73	4.21	2.23
France	0.19	0.16	4.18	2.63
Germany	1.83	1.77	4.22	2.67
Greece	**1.24**	**1.15**	**4.52**	**4.89**
Ireland	1.40	0.89	4.08[4]	2.60[4]
Spain	0.70	0.61	4.49	3.43
Italy	1.28	0.91	2.94	2.41
Cyprus	-	1.58	-	6.14
Luxembourg	2.58	1.53	4.07	1.82
Malta	1.10	0.46	3.88	2.71
Netherlands	0.80	0.65	4.25	4.28
Portugal	0.20	0.20	4.16	3.21
Slovakia	-	0.53	-	2.06
Slovenia	0.40	0.48	4.04	4.08
Finland	1.09	0.61	4.68	2.41

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 .
2 End-of-month rate.
3 Monthly average rate.
4 The interest rate applies to all time deposits irrespective of maturity.

although marginally, in late 2008 and in January 2009 (see Tables IX.2A and IX.2B).

2 FINANCING OF THE ECONOMY – BANK CREDIT TO ENTERPRISES AND HOUSEHOLDS

2.1 FINANCING OF THE ECONOMY

After picking up during the January-September 2008 period, the annual growth rate of total domestic MFI[6] credit to the economy moderated in the last months of the year (fourth quarter 2008: 16.6%, fourth quarter 2007: 13.5%, see Chart IX.2 and Table IX.3) and the first two months of 2009, to stand at 14.2% in February. This deceleration reflected a strong **decline in credit expansion to the private sector** during that period. In contrast, **the annual growth rate of credit to general government continued to rise** (February 2009: 21.3%, fourth quarter 2008: 8.1%, fourth quarter 2007: -16.1%), partly reflecting increased MFI holdings of government securities.

2.2 BANK CREDIT TO ENTERPRISES AND HOUSEHOLDS

The recent weakening in credit expansion to the private sector (non-financial enterprises and households) reflected lower credit expansion both to enterprises and to households. This development is attributable to the impact of the financial crisis feeding through into the real economy, as well as to the adverse prospects for

6 Total MFI credit to the economy comprises loans given to enterprises, households and general government; government securities and corporate bonds held by MFIs; and securitised loans and securitised corporate bonds. In calculating the outstanding amounts of growth rates of total MFI credit, the valuation differences arising when loans denominated in foreign currency are valued in euro, as well as write-offs effected by banks during the reference period are taken into account.

Table IX.3 Total financing[1] of the economy by domestic MFIs

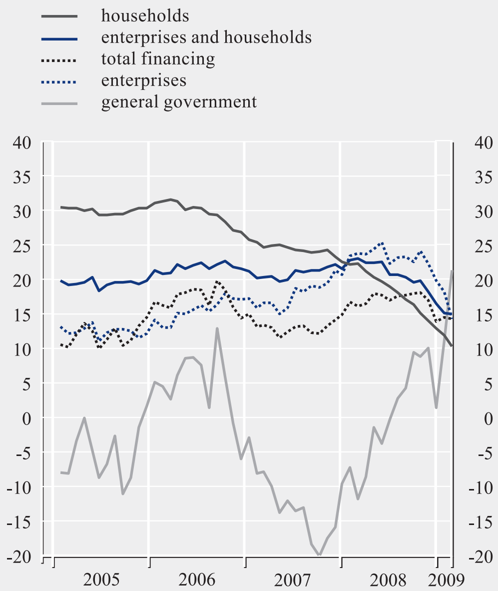
(annual percentage changes)

	2005	2006	2007	2008*					2009*	
	Q4[2]	Q4[2]	Q4[2]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	December[3]	January[3]	February[3]
1. Total financing by MFIs	13.8	15.6	13.5	16.1	17.3	17.4	16.6	13.4	14.0	14.2
2. Financing of general government	-0.6	-1.8	-16.1	-9.4	-3.2	3.8	8.1	1.3	10.9	21.3
3. Financing of enterprises and households	19.8	21.7	21.7	22.6	22.1	20.2	18.3	15.9	14.6	12.9
3.1 Enterprises[4]	12.3	17.3	20.1	23.1	24.1	22.6	21.6	18.7	17.2	15.3
3.2 Households	30.3	26.9	23.6	22.0	19.9	17.6	14.8	12.8	11.8	10.3
of which:										
3.2.1 Housing loans	31.1	28.4	23.3	20.9	18.5	16.3	13.4	11.5	10.6	9.6
3.2.2 Consumer loans	30.3	23.7	22.6	23.3	22.1	21.0	18.4	16.0	14.7	12.3

Source: Bank of Greece.
* Revised data after Q1 2008.
1 Including bank loans, corporate bonds and government securities held in MFI portfolios, securitised bank loans and securitised corporate bonds. The rates of change are calculated after taking into consideration loan write-offs and foreign exchange valuation differences in respect of loans denominated in foreign (non-euro) currencies.
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 It should be noted that the rate of change of the outstanding financing to enterprises in January and February 2009 had been negatively affected by the sale of a corporate bonds portfolio of a domestic MFI to an MFI of another euro area country. If this transaction is not taken into account, the rate of change would have been 18.3% in January and 16.6% in February.

Chart IX.2 Financing[1] by domestic MFIs

(percentage changes over same month of previous year)



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

future economic activity. These factors compound the uncertainty characterising households and enterprises regarding the evolution of their income or profits, respectively, as well as the MFIs about the sustained creditworthiness of borrowers.[7] **It is worth noting that, according to seasonally adjusted data, since November 2008 the annualised monthly rate of credit expansion to the private sector has been significantly lower than the corresponding year-on-year rate. Moreover, in the four-month period from November 2008 to February 2009, new deposits by the private sector with domestic MFIs fell by almost 30% compared with one year earlier, while the ratio of net credit flow**[8] **to new deposits showed a much stronger decline (from 142% to 32%). The last development is consistent with the trend toward deleveraging observed among MFIs worldwide.**

In particular, the **annual rate of credit expansion to enterprises**, which had followed an upward path since around mid-2005, started declining in November 2008 (February 2009: 15.3%, fourth quarter 2008: 21.6%, fourth quarter 2007: 20.1%, see Chart IX.2). It should be noted that the rate of credit expansion to enterprises in January and February 2009 was affected negatively by the sale of a corporate bond portfolio by one domestic MFI to another euro area MFI. Without that sale, it would have been 18.3% in January and 16.6% in February. The deceleration of credit expansion to enterprises was mostly due to a **tightening of MFIs' terms and conditions for lending to businesses, while demand for corporate loans remained virtually unchanged,**[9] mostly reflecting the need for working capital and liquidity, as enterprises cut down on their investment projects. The weakening of credit expansion to enterprises is likely to continue, as banks' expectations of an increase in non-performing loans should act as a constraint on the supply of new corporate loans and could have a negative effect on the renewal of the existing credit lines.

With credit expansion to enterprises outpacing nominal GDP growth, **total credit to enterprises (including corporate bonds, securitised loans and securitised corporate bonds) as a percentage of GDP rose to 54.5% in December 2008, from 48.8% in December 2007**. Taking into account only bank loans, credit to enterprises stood at 42.6% of GDP in December 2008 (December 2007: 39.3%), 9.8 percentage points lower than the corresponding euro area figure.[10] **New issuance of corporate bonds also remained high**, accounting for

7 The uncertainty of MFIs as regards the uncertainty characterising loan servicing is exacerbated by an increase in non-performing loans in 2008 (see Section 7.2 of this chapter).
8 Net credit flow includes the change in the outstanding stock of credit (loans, corporate bonds, securitised loans and securitised corporate bonds), the valuation differences arising when loans denominated in foreign currency are valued in euro, as well as write-offs effected by banks during the reference period.
9 Sustained demand is also confirmed by the results of the October 2008 and the January 2009 rounds of the Bank Lending Survey. The Bank Lending Survey is conducted by the Bank of Greece on a quarterly basis, as part of a similar Eurosystem-wide survey.
10 Data concerning euro area securitised MFI loans to enterprises (and to households, respectively) are not available as yet; they are expected to be published by the ECB by 2010 (see "Publication of data on MFI loans to the private sector adjusted for sales and securitisation", ECB, *Monthly Bulletin*, February 2009, p. 19).

26.8% of total net bank financing flows to enterprises during 2008. Thus, these securities represented 18.6% of total MFI credit to enterprises at end-2008 (December 2007: 17.0%).

The sectoral breakdown of credit expansion shows that in the November 2008-February 2009 period **the annual growth rate of credit decelerated across all sectors of economic activity** (see Table IX.4). It is worth noting that the growth of credit to **retail trade firms** (of which around 300,000 are small and medium-sized enterprises) remained strong in 2008 and in the first two months of 2009.[11] In December 2008 it exceeded both the December 2007 and the 2006-2007 period average.

The annual growth rate of domestic MFI credit to households fell significantly during 2008 and in the first two months of 2009, standing at 10.3% in February (fourth quarter 2008: 14.8%, fourth quarter 2007: 23.6%, see Chart IX.2). The decline was stronger **in the four months from November 2008 to February 2009, as net credit flows[12] fell by 72%, compared with the corresponding period a year earlier**. Throughout 2008, a key factor in the deceleration of the annual growth rate of the outstanding stock of credit to households was the weakened growth of housing loans, while from September 2008 onwards the stronger slowdown in the growth of consumer loans, relative to previous months also played a role. **Apart from the above mentioned factors, the observed deceleration is also attributed to a decline in demand for bank loans due to a corresponding drop in expenditure for house purchase or repairs. It is also connected with increased cautiousness of consumers, owing to uncertainty for the evolution of their incomes.**

Total MFI credit to households (including securitised loans) as a percentage of GDP stood at 48.2% in December 2008 (December 2007: 45.6%). Excluding securitisations, loans to households amounted to 39.9% of GDP at end-2008, which is significantly lower than the corresponding euro area figure (53.2%).

Specifically, the annual growth rate of the outstanding balance of both housing and consumer loans decelerated[13] during 2008 and in the first two months of 2009 (see Table IX.3). This development is associated with the tightening of credit standards during this period, as well as weaker demand for housing loans, as mentioned above. **It is worth noting that, since the fourth quarter of 2008, for the first time in two years, a decline in demand for consumer loans has been observed, which is partly attributed to lower household expenditure on consumer durables.[14]**

The weakening in the annual growth of credit to the private sector is expected to continue in 2009, with dampening effects estimated to come both on the supply and on the demand side. On the supply side, this development is attributed to banks' tightening of credit standards in an effort to contain future non-performing loans (which are initially expected to increase, due to the projected further weakening of economic activity in 2009) as well as to their preference for liquidity. In this respect, deposits are the main source of funding for MFIs,[15] as the ability to raise funds through the interbank market has been significantly reduced.

11 One factor that underpinned strong credit expansion to retail credit firms in the first two months of 2009 was the liquidity support for small and medium-sized enterprises offered by the **Guarantee Fund for Small and Very Small Enterprises (TEMPME).**

12 See footnote 8.

13 **The net flow of housing loans in the four months from November 2008 to February 2009 fell by 67% over the corresponding period a year earlier, while the net flow of consumer loans declined by 78%.**

14 See Chapter III for trends in consumer confidence, retail trade volume and car sales indices. As regards consumer durables, the relevant NSSG index (for retail trade volume of furniture, electrical and household appliances) fell at an annual average rate of 4.3% in 2008, compared with an annual average increase of 6.7% in 2007 (revised data). Moreover, the IOBE consumer survey, in the section regarding (on a quarterly basis) consumers' intention to purchase consumer goods within 2009, records a decline in car purchases (see Foundation for Economic and Industrial Research – IOBE, *Results of Conjunctural Surveys*, January 2009).

15 It should be noted, however, that from September 2008 onwards a deceleration in the growth rate of deposits is observed in Greece. Whether this trend continues will partly depend on the projected weakening of household disposable income.

Table IX.4 Loans[1] to domestic enterprises and households by domestic MFIs

	Outstanding balances on 31.12.08 (million euro)	Annual percentage changes								
		2006	2007	2008*					2009*	
		Q4[2]	Q4[2]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	December[3]	January[3]	February[3]
A. Enterprises[4,7]	**132,458**	**17.3**	**20.1**	**23.1**	**24.1**	**22.6**	**21.6**	**18.7**	**17.2**	**15.3**
1. Trade	32,985	9.9	17.9	19.7	21.5	22.6	22.2	19.5	19.6	19.3
2. Industry[5]	24,873	9.5	11.0	14.0	16.1	17.9	17.3	15.8	15.2	13.1
3. Construction	11,257	28.9	28.5	33.7	36.6	35.8	37.3	35.2	32.2	25.2
4. Shipping	10,228	17.8	25.3	25.5	25.1	23.6	22.7	17.2	20.9	19.8
5. Other financial intermediaries (non-MFI)	8,326	35.1	14.7	18.6	16.9	7.8	-2.1	-8.7	-22.3	-25.7
6. Tourism	7,032	11.0	21.0	24.1	25.7	27.4	24.3	19.7	19.0	15.1
7. Transport and communication (excluding shipping)	4,642	51.9	39.6	60.1	60.6	30.1	35.6	26.8	23.2	14.0
8. Agriculture	3,856	11.0	10.7	15.0	22.8	19.7	20.4	20.3	17.6	14.1
9. Electricity – gas – water supply	3,518	3.0	40.2	39.5	20.4	26.8	36.4	29.8	29.4	19.0
10. Other sectors	25,742	28.8	27.4	28.9	29.5	25.4	23.6	23.4	21.8	23.1
B. Households	**117,203**	**26.9**	**23.6**	**22.0**	**19.9**	**17.6**	**14.8**	**12.8**	**11.8**	**10.3**
1. Housing loans	77,700	28.4	23.3	20.9	18.5	16.3	13.4	11.5	10.6	9.6
2. Consumer loans	36,435	23.7	22.6	23.3	22.1	21.0	18.4	16.0	14.7	12.3
– Credit cards	10,044	5.7	6.3	11.2	13.5	13.9	12.4	10.0	8.3	7.2
– Other consumer loans [6]	26,391	35.4	30.9	29.1	25.9	23.9	20.9	18.4	17.3	14.3
3. Other loans	3,068	30.6	42.2	34.1	30.7	13.8	7.5	9.5	8.9	5.8
TOTAL	**249,661**	**21.7**	**21.7**	**22.6**	**22.1**	**20.2**	**18.3**	**15.9**	**14.6**	**12.9**

Source: Bank of Greece.
* Revised data after Q1 2008.
1 Including bank loans, corporate bonds and government securities held in MFI portfolios, securitised bank loans and securitised corporate bonds. The rates of change are calculated after taking into consideration loan write-offs and foreign exchange valuation differences in respect of loans denominated in foreign (non-euro) currencies.
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 figures.
4 Sectors are listed in descending order of their share in total financing, with the exception of "other sectors".
5 Including manufacturing and mining-quarrying.
6 Including personal loans and loans against supporting documents.
7 See Table IX.3, footnote 4.

Turning to the liquidity of banks, the participation of Greek banks in the liquidity support plan has been satisfactory so far, and is expected to have a positive effect.[16] In the euro area interbank market, despite signs of improvement the volume of transactions has remained subdued. Domestic MFIs, facing difficulties in accessing international money and capital markets, continue to rely on the liquidity-providing operations of the Eurosystem, and partly on loan securitisations, which appear to have increased substantially, in line with similar developments in the euro area.

On the demand side, household uncertainty regarding their future incomes, as well as the economic slowdown, are having a negative effect on the willingness of households and enterprises to increase their indebtedness, especially longer-term debt. This development should **dampen further credit expansion to the private sector in 2009 which, however, is projected to remain higher than nominal GDP growth thus providing a support to domestic economic activity.**

3 BANK LENDING RATES AND THE INTEREST RATE SPREAD

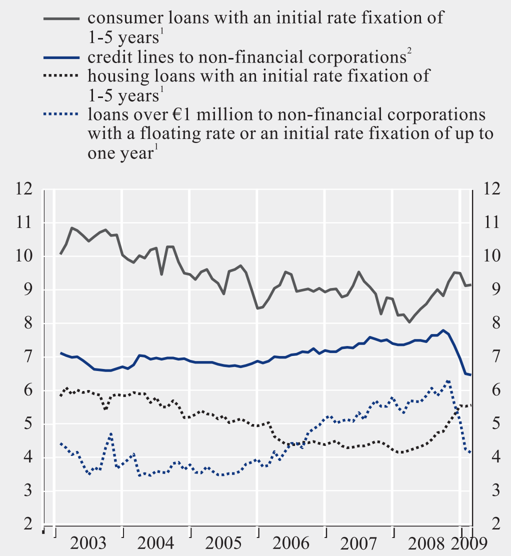
Bank lending rates in Greece showed divergent trends in 2008 (see Chart IX.3). **Interest rates on new loans showed a decline that was broadly based across individual categories in the last two months of 2008, falling significantly further in the first two months of this year. However, in December 2008 interest rates on new loans to households were higher than in December 2007, while interest rates on loans to non-financial corporations were lower. The total decline in interest rates on corporate loans in 2008, which was smaller than that in interbank rates, was offset by interest rate increases in all categories of loans to households. Thus, the average interest rate on total new loans rose marginally in 2008.**

The above developments are mostly attributed to the fact that banks, finding it difficult to tap the interbank market, sought to attract time deposits by offering high interest rates which supported a high level of interest rates on lending. Moreover, Greek banks faced more unfavourable funding conditions as a result of a widening yield spread of Greek government bonds over German bonds. The cuts in key ECB rates and the declines in interbank rates were not mirrored by rates on new loans, as they were partly offset by the increased risk premiums required by Greek banks due to higher loan loss ratios. In contrast, there was a significant alleviation of indebtedness for existing loans agreed at floating rates.

In the euro area, interest rates on bank loans to households dropped – in contrast with the corresponding Greek rates which continued to rise – and at end-2008 they stood at lower lev-

Chart IX.3 Bank interest rates on new loans in Greece

(percentages per annum)



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

16 According to the results of the Bank Lending Survey, MFIs estimate that the launch of this plan has brought about little improvement in their access to funding in the fourth quarter of 2008 and continue to face difficulties in terms of medium- and long-term funding. Still, they expect a considerable improvement after the full implementation of the plan.

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

(percentages per annum)

	December 2007	January 2009	Change Jan. 2009/ Dec. 2007 (percentage points)	February 2009[2]	Change Feb. 2009/ Dec. 2007 (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	4.73	-1.35	...	...
Maximum interest rate	7.25	7.13	-0.12	...	...
Minimum interest rate	5.41	3.71	-1.70	...	...
Interest rate in Greece	6.83	5.45	-1.38	4.99	-1.84
Interest rate differential between Greece and the euro area	0.75	0.74	-0.01	...	...
A.2 Loans of over €1 million to non-financial corporations					
Weighted average interest rate in the euro area	5.35	3.51	-1.84	...	...
Maximum interest rate	6.72	6.58	-0.14	...	...
Minimum interest rate	4.89	3.00	-1.89	...	...
Interest rate in Greece	5.79	4.24	-1.55	4.12	-1.67
Interest rate differential between Greece and the euro area	0.44	0.73	0.29	...	...
A.3 Housing loans					
Weighted average interest rate in the euro area	5.32	4.39	-0.93	...	...
Maximum interest rate	6.45	6.70	0.25	...	...
Minimum interest rate	4.76	3.18	-1.58	...	...
Interest rate in Greece	4.76	4.55	-0.21	4.16	-0.60
Interest rate differential between Greece and the euro area	-0.56	0.16	0.72	...	...
A.4 Consumer loans					
Weighted average interest rate in the euro area	8.05	8.30	0.25	...	...
Maximum interest rate	11.30	11.93	0.63	...	...
Minimum interest rate	5.51	4.13	-1.38	...	...
Interest rate in Greece	7.61	9.15	1.54	8.84	1.23
Interest rate differential between Greece and the euro area	-0.44	0.85	1.29	...	...
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	4.80	-0.23	...	...
Maximum interest rate	6.30	7.02	0.72	...	...
Minimum interest rate	4.21	3.60	-0.61	...	...
Interest rate in Greece	4.21	5.50	1.29	5.56	1.35
Interest rate differential between Greece and the euro area	-0.82	0.70	1.52	...	...
B.2 Consumer loans					
Weighted average interest rate in the euro area	6.93	7.02	0.09	...	...
Maximum interest rate	11.79	15.81	4.02	...	...
Minimum interest rate	5.46	5.44	-0.02	...	...
Interest rate in Greece	8.71	9.11	0.40	9.15	0.44
Interest rate differential between Greece and the euro area	1.78	2.09	0.31	...	...

Sources: ECB and euro area NCBs.
1 Monthly average rates.
2 Euro area bank interest rates for February 2009 were not available on the date of publication of this Report.

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

(annual percentages)

	New loans with a floating rate or an initial rate fixation of up to one year[2]								New loans with an initial rate fixation of over one and up to five years[2]	
	To non-financial corporations				Housing loans		Consumer loans		Consumer loans	
	Loans up to €1 million		Loans over €1 million							
	Dec. 2007	Jan. 2009	Dec. 2007	Jan. 2009	Dec. 2007	Jan. 2009	Dec. 2007	Jan. 2009	Dec. 2007	Jan. 2009
Austria	5.54	3.97	5.10	3.23	5.73	4.93	6.57	6.05	6.50	6.62
Belgium	5.89	4.08	5.20	3.18	5.26	4.24	6.98	7.14	7.52	7.76
France	5.82	4.34	5.00	3.00	5.01	5.35	8.03	8.07	6.93	7.22
Germany	6.55	4.56	5.47	3.63	5.97	4.97	5.51	5.10	5.46	5.48
Greece	**6.83**	**5.45**	**5.79**	**4.24**	**4.76**	**4.55**	**7.61**	**9.15**	**8.71**	**9.11**
Ireland	6.75	5.25	6.53	4.30	5.07	3.74	6.81	5.13	...[3]	...[3]
Spain	5.96	4.93	5.33	3.46	5.35	4.80	10.24	11.93	8.86	9.29
Italy	5.98	4.59	5.21	3.42	5.48	4.33	11.30	11.50	7.91	8.66
Cyprus	...[3]	7.13	...[3]	6.58	...[3]	6.70	...[3]	7.94	...[3]	...[3]
Luxembourg	5.95	3.86	5.25	3.69	4.83	3.47	...[3]	...[3]	6.29	5.44
Malta	5.41	5.51	6.72	4.43	...[3]	3.29	...[3]	5.87	...[3]	...[3]
Netherlands	5.51	4.31	5.22	3.28	5.41	4.73	9.09	11.30	...[3]	...[3]
Portugal	7.25	7.02	5.72	5.31	5.18	4.12	7.82	7.61	11.79	13.44
Slovakia	...[3]	4.70	...[3]	3.02	...[3]	6.30	...[3]	8.34	...[3]	15.81
Slovenia	6.40	5.89	5.96	5.44	6.45	5.50	7.23	6.36	7.62	8.08
Finland	5.73	3.71	4.89	3.16	4.92	3.18	5.85	4.13	6.14	5.63

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.
2 Monthly average rate.
3 No data on the respective interest rates are published in these countries.

els than at end-2007. Similar developments were observed in bank lending rates to non-financial enterprises, which in most cases declined more than the Greek rates. Due to these developments, the interest rate spread between Greece and the euro area widened in both individual categories. The spread expanded further in January 2009,[17] primarily regarding loans to non-financial enterprises and, to a lesser extent, loans to households. Generally speaking, due to structural factors,[18] Greek interest rates remain higher than the average rates in the euro area. In particular, the largest differences are observed in the case of consumer loans, although the Greek interest rates on consumer loans are not the highest in the euro area (see Tables IX.5A-B and Chart IX.4).

Specifically, the average interest rate on new loans (consumer and housing loans taken together) to households rose by 60 basis points in 2008, driven by all individual categories. This development, which is to some extent associated with an increase in risk premium as a result of a rise in non-performing household loans, especially from the second half of 2008 onwards, was mostly offset in the first two months of 2009 by declines in interest rates.[19]

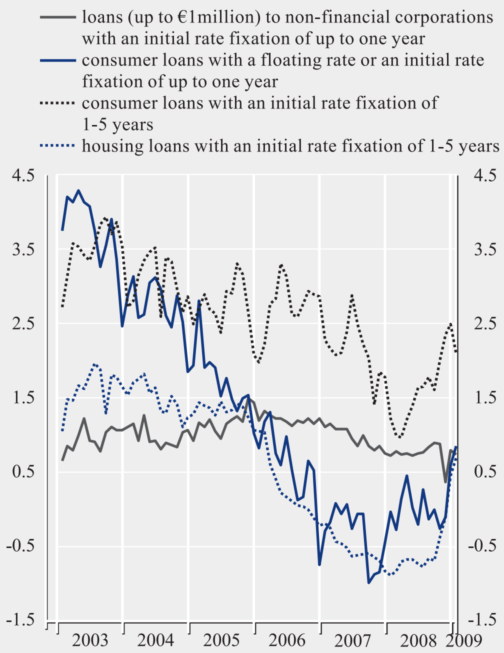
The average interest rate on new consumer loans rose by 37 basis points in 2008 and stood at 11.29% in December (December 2007-February 2009: 68 basis points). This reflected interest rate increases both in loans with an agreed maturity and in loans without an agreed maturity.[20] The interest rate spread between Greece and the euro area regarding new consumer loans widened during 2008 and in January 2009. The highest spread is observed in loans without an agreed maturity (December 2008: 440 basis points, January 2009: 468 basis points).

The average interest rate on new housing loans increased considerably further in 2008 (2008: 76 basis points, December 2007-February 2009: 20 basis points) and stood at 5.21% in December 2008. It should be noted that the interest rate on housing loans was particularly low in the previous years, due to competition among Greek banks, and lower than the corresponding weighted average rate in the euro area. The interest rate on the largest subcategory (loans with an interest rate fixation of over one and up to five years) rose by 132 basis points in 2008, while that on the second largest subcategory of housing loans (loans with a floating rate or a rate fixation of up to one year) showed a much weaker increase of 16 basis points.

The average interest rate on new loans to non-financial enterprises fell noticeably in the last

Chart IX.4 Bank interest rates on new loans: differential between Greece and the euro area

(percentage points)



Sources: Bank of Greece and ECB.

17 Data on bank interest rates in the euro area for February 2009 were not available when the present Report was going to press.
18 See footnote 23 below.
19 The total increase in the December 2007-February 2009 period was 33 basis points.
20 As mentioned in previous reports, the interest rate on loans without an agreed maturity stands at a high level (December 2008: 15.72%) because this category includes mainly loans through credit cards, which involve high administrative costs and increased credit risk.

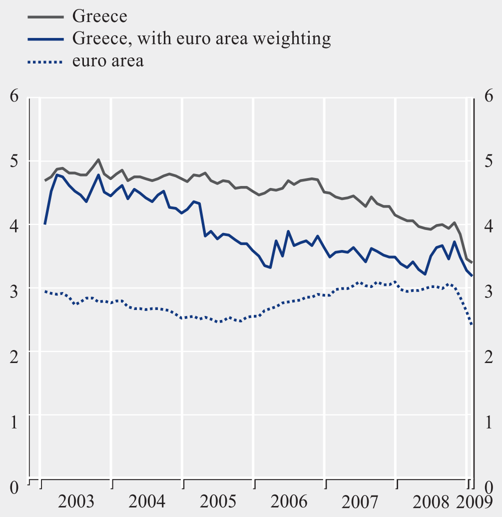
two months of 2008 and the first two months of 2009 (by 171 basis points), reversing the increase observed in previous months. The recent decline mostly reflects the effect of falling interbank rates and, to a lesser extent, the drop in the average duration of these loans. In 2008, the largest interest rate declines were recorded in loans with an agreed maturity (of 65 and 72 basis points for the two most important subcategories), which however fell by less than the corresponding euro area rates, resulting in a wider spread between them. In contrast, this spread fell marginally for loans without an agreed maturity, which constitute almost one third of total corporate loans,[21] and their interest rate fell by 43 basis points in 2008.

The interest rate spread, i.e. the difference between the weighted average interest rate on

21 Credit lines constitute the bulk of these loans.

Chart IX.5 Average interest rate spread between new loans and new deposits in Greece and the euro area

(percentage points)



Sources: Bank of Greece and ECB.

Table IX.6 Interest rate spread in Greece and the euro area

(percentages per annum)

	Average interest rate on new loans in Greece[1]	Average interest rate on new deposits in Greece[1]	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	6.29	1.67	4.62	...	...
Dec. 2003	5.92	1.20	4.72	4.45	2.77
Dec. 2004	5.94	1.22	4.72	4.18	2.53
Dec. 2005	5.79	1.27	4.52	3.59	2.56
Dec. 2006	6.38	1.87	4.51	3.63	2.89
Dec. 2007	6.67	2.53	4.14	3.48	3.09
Dec. 2008	6.72	3.27	3.45	3.27	2.64
Jan. 2009	6.40	3.00	3.40	3.18	2.39
Feb. 2009[2]	6.19	2.41	3.78	...	...

Sources: Bank of Greece and ECB.
1 The average interest rate depends on the level of interest rates of individual categories of deposits/loans as well as on the weight of each type of deposit/loan in the corresponding total. Therefore, changes in the average interest rate reflect changes in the actual interest rates and/or changes in the weights of the instrument categories concerned. In order to smooth out the impact of abrupt changes in shares, the calculation of the average interest rate is based on the average of the shares over the past twelve months.
2 Data on bank interest rates for February 2009 were not available on the date of publication of this Report.

new bank loans and the corresponding interest rate on new deposits in Greece fell by 70 basis points in 2008 (December 2007-January 2009: 75 basis points), due to a larger increase in the deposit rate against the lending rate, and stood at 345[22] basis points in December 2008 (January 2009: 340 basis points). This spread in the euro area fell by 45 basis points in the period under review and stood at 264 basis points at the end of 2008 (January 2009: 239 basis points). Obviously, the interest rate spread in Greece remains at a higher level, although it has declined more strongly than the corresponding euro area spread (see Table IX.6 and Chart IX.5). It should be recalled that the reasons why the Greek interest rate spread is wider than in the euro area relate to inherent characteristics of the domestic banking system, such as the relatively large number of small depositors and borrowers; the higher borrowing costs of Greek banks in the interbank market; the higher non-performing loans ratio; and the longer total time needed in Greece for the liquidation of collateral, while the different composition[23] of deposits or loans is a major additional factor.

4 THE MARKET FOR GOVERNMENT PAPER

4.1 THE PRIMARY MARKET

The adverse effects of the international financial crisis, which intensified in the last few months of 2008, on the world economy had an impact on the primary and secondary markets for Greek government securities. **Developments in the primary market in 2008 were marked by an upward trend in interest rates and a significant increase in funds raised.**

New issuance in 2008 rose to a nominal value of €43.9 billion, from €37.5 billion in 2007 (see Table IX.7), in the context of a growing fiscal deficit[24] and higher amortisation payments on government debt.[25] Issues mostly involved bonds (95.7%) with maturities ranging from 3 to 50 years, while Treasury bill issues represented a mere 4.3% of the value of total issues (see Table IX.7). Three new bonds were launched, i.e. a ten year bond through syndication and two other bonds (with a 3-year and a 5-year maturity) through auction procedures. In order to enhance the liquidity of new issues, the government re-opened past issues through auction procedures. Past issues of 15-year, 30-year and 23-year indexed bonds were also re-opened through syndication procedures.

In contrast with 2007, the bulk of bond issues concerned bonds with a maturity of less than 10 years (2008: 52%, 2007: 25%), thus causing the weighted average maturity of total new issues in 2008 to fall to 11 years (2007: 13.3 years). **The issuance of securities with short- and medium-term maturities continued more intensively in the first quarter of 2009. The government selected these maturities in order to avoid adding new burden on the debt servicing costs due to higher interest rates for a long period of time, while, at the same time, investor demand turned mostly to bonds with a shorter maturity, owing to strong uncertainty.**

In line with developments in yields in the secondary market, **interest rates on government debt in the primary market increased, as already mentioned, and continued to rise more strongly in the first quarter of 2009.[26] This is attributable to the fact that, in the context of the international crisis, investors had reservations about the Greek economy and some**

22 The figure is a Bank of Greece estimate. For relevant ECB estimates, see the publication "Differences in MFI interest rates across euro area countries", September 2006.

23 In Greece, as compared with the euro area, overnight deposits by households have a larger share in total deposits. Among loans, the share of credit card loans is higher in Greece, while in the euro area this category is not significant. Correcting for these differences in composition, the spread would have been lower by 18 basis points in December 2008.

24 See Chapter VII.

25 In 2008, these payments reached €26.3 billion, against €22.5 billion in 2007.

26 **The weighted average cost of new government borrowing showed a small increase to 4.63% in 2008, from 4.42% in 2007. In the first quarter of 2009 it rose to 5% before declining slightly to 4.7% in early April.** This small increase relative to 2008 is associated with the fact that a significant part of new issues concerned Treasury bills with a markedly lower interest rate than in older issues. In particular, the twelve-month and six-month Treasury bills were issued on 7 April 2009 at historically low interest rates of 1.78% and 1.48%, respectively.

Table IX.7 Percentage breakdown of Greek government paper issues

Type of securities	2006		2007		2008	
Treasury bills	6.9		4.2		4.3	
Bonds	93.1		95.8		95.7	
3-year		19.1		4.2		23.5
5-year		25.4		21.6		15.2
8-year[1]		-		-		13.3
10-year		29.1		31.2		20.1
12-year		1.9		-		-
15-year		-		19.3		8.2
23-year		8.8		9.7		9.4
30-year		15.7		11.2		8.9
50-year[1]		-		2.8		1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total funds raised (million euro)	28,955		37,532		43,943	

Source: Ministry of Economy and Finance.
Note: Reopened past issues are classified according to initial (rather than residual) maturity.
1 Effected through private placement.

other economies experiencing significant macroeconomic imbalances and structural weaknesses.

Rising interest rates are having a negative effect on the government debt servicing costs[27] and **put an additional burden on the economy as a whole, as banks and businesses in general raise funds from markets influenced by the government borrowing rate.**

Despite the overall negative environment, **there were no problems with the implementation of the government's borrowing plans, and the coverage ratio of the auctioned issues remained at a satisfactory level of 3.1 in 2008, compared with 4.2 in 2007. Additionally, in the first quarter of 2009, demand outstripped supply by five times in Treasury bill auctions.**

4.2 THE SECONDARY MARKET

Developments in the Electronic Secondary Market for Securities (HDAT) regarding Greek government paper were particularly negative, **their main characteristics being stronger yields, higher volatility[28] and a significant decline in transactions.**

Bond yields in the Greek secondary market, in line with corresponding yield developments in the euro area, rose during the first half of 2008, in response to rising inflationary pressures and expectations of an increase in ECB key rates (see Chart IX.6). However, in the three months from July to September, a decline in inflationary pressures, in the context of falling commodity prices and economic weakness in the euro area, had a downward effect on bond yields. Later on, and until the end of the year, heightened uncertainty in global money and capital markets led to a significant upward reassessment of risks and —in the euro area— flight-to-safety shifts towards German bonds. Thus, **yields in the Greek secondary market rose amid high volatility,[29] unlike the yields on German bonds, which fell to historically low levels.[30]**

These developments are reflected in the **yield spread of Greek government bonds vis-à-vis German bonds**, which widened significantly for all maturities, reaching **the highest level since Greece joined Economic and Monetary Union.** In particular, this yield differential between the Greek ten-year bond and the corresponding German bond widened significantly since end-October[31] and stood at 228 basis points at end-December 2008, against merely

27 Moreover, the servicing costs for the part of the debt that has been obtained at a floating rate were burdened in 2008 by higher interbank market rates. However, at the end of the first quarter of 2009, a decline in those interest rates had a dampening effect on the servicing costs of floating-rate debt. It should be noted that the proportion of the central government debt obtained at a floating rate is almost 20%.

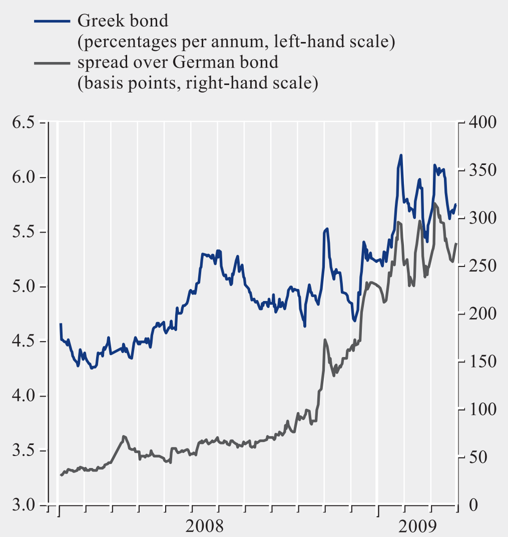
28 The volatility of ten-year bond yields in 2008 was almost double its average level for the past six years, while volatility in euro area bond markets was also high.

29 During this period, yields were positively influenced by the cuts in key ECB interest rates and the coordinated government measures to support the financial system announced in the euro area. In contrast, the data releases and projections implying a protracted recession in advanced economies had a negative impact on yields.

30 Bond yields in the other euro area countries also dropped, though to a lesser extent.

31 On 22 October 2008 the Fitch rating agency downgraded the prospects of the Greek economy from positive to stable, although it maintained its rating at A.

Chart IX.6 Yield on the Greek 10-year government bond and yield spread against the corresponding German bond



Source: Bank of Greece.

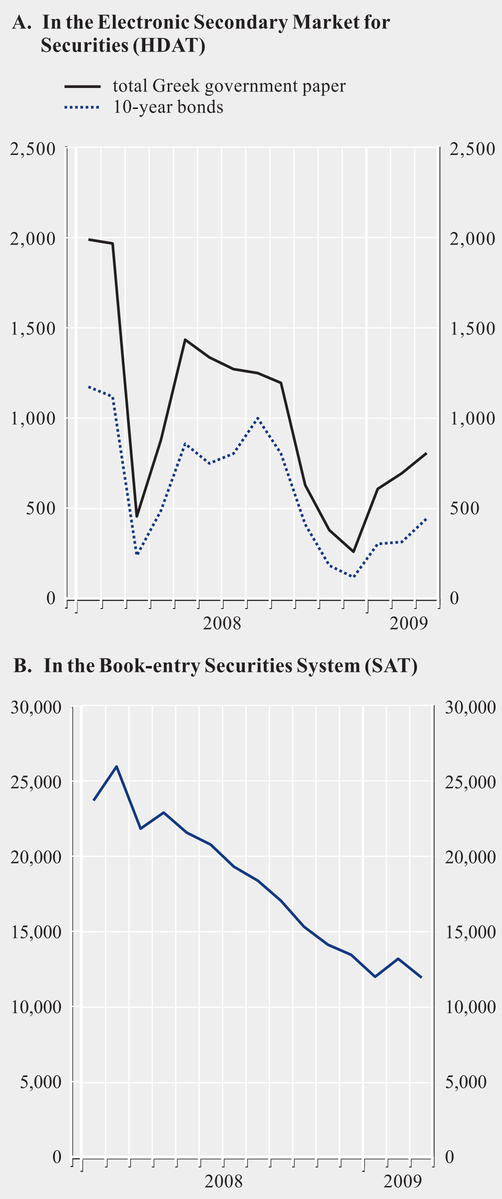
29 basis points at end-December 2007. In the first quarter of 2009, this differential increased further[32] (see Chart IX.6). **Marked increases in bond yield spreads but smaller than in the case of Greece were observed for other euro area countries, such as Ireland, Italy, Belgium, Portugal and Spain.** This reflects the differentiation of investors' behaviour towards government securities of particular countries, in line with credit and liquidity risks.

The yield curve of Greek government bonds shifted upwards at end-2008 compared with end-2007 and steepened significantly, as the spread between the ten-year and the three-year bond increased by 41 basis points to 86 basis points at end-December. The yield on the Greek government ten-year bond rose to 5.23% at end-December 2008, 57 basis points higher than at end-December 2007, and increased further in the first quarter of 2009.

The adverse conditions prevailing in the secondary market in 2008 were also reflected in turnover figures. The average daily **value of transactions in HDAT** dropped by half com-

Chart IX.7 Average daily value of transactions in Greek government paper

(million euro)



Source: Bank of Greece.

32 This was associated with the downgrading, from A to A-, of the country's credit rating by Standard and Poor's on 14 January 2009. Moreover, on 25 February 2009 Moody's downgraded the prospects of the Greek economy from positive to stable. On the other hand, on 6 March 2009, the yield differential between the Greek ten-year bond and the corresponding German bond reached 314 basis points, due to the launch of a new ten-year Greek benchmark bond on HDAT with a 6% coupon, which matures in July 2019, around 7 months later than the corresponding German bond.

pared with 2007 and stood at around €1.1 billion (see Chart IX.7A). However, the average daily **value of transactions in the Book-Entry Securities System** of the Bank of Greece[33] stood at €19.6 billion, i.e. almost unchanged from 2007 (see Chart IX.7B). The bulk of HDAT transactions[34] concerned ten-year bonds, which accounted for 59% of the total value of transactions (2007: 64%), while noticeable increases were seen in transactions in five-year bonds (2008: 17.9%, 2007: 14.0%) and three-year bonds (2008: 7.2%, 2007: 3.1%). The bid-ask spread rose to 55.9 basis points in December 2008, compared with 9.7 basis points in December 2007. This strong increase[35] reflects constrained liquidity in the secondary market and investors' higher risk aversion.

5 THE STOCK MARKET

The **downward trend of the Athex composite index** that started in November 2007 continued at a strong pace in 2008. In the first quarter of 2009, this index declined further slightly (see Chart IX.8A).

In more detail, the Athex composite index posted losses of 65.5% at end-December 2008, compared with end-December 2007. This decline was stronger than the one observed in the Dow Jones Euro Stoxx broad index (-46.3%) and the third largest among the major stock market indices in the euro area. Reflecting a broadly based fall in stock prices in the Athex,[36] total market capitalisation as a percentage of GDP at end-2008 was reduced to

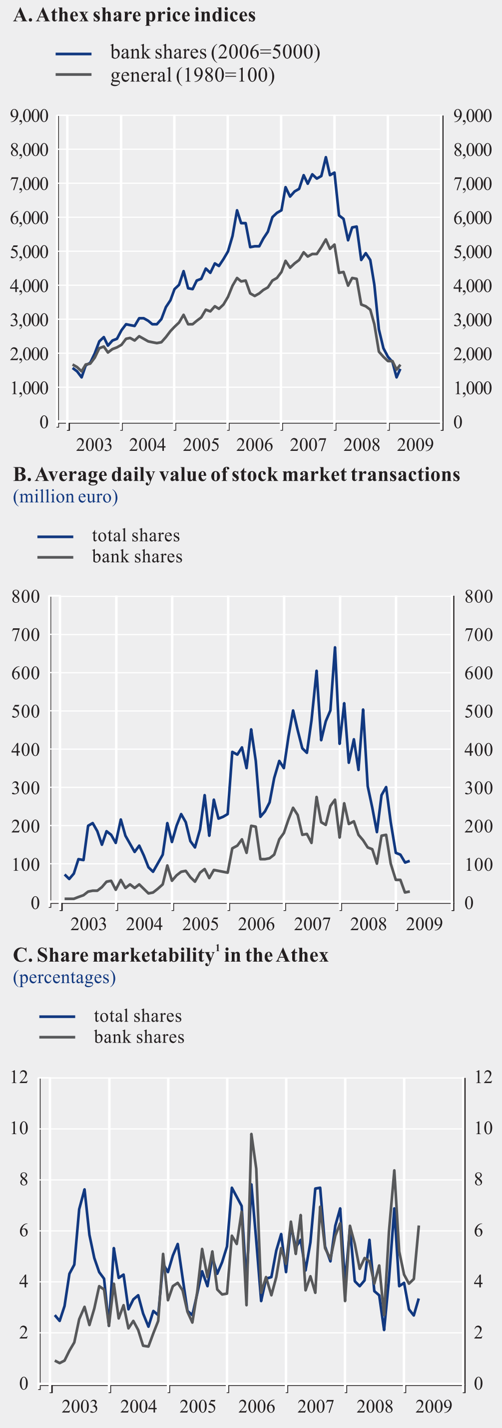
33 In addition to HDAT transactions, the Book-Entry Securities Clearing System of the Bank of Greece handles OTC trading of securities between banks and their customers.

34 The participation of foreign investors in HDAT transactions in 2008 averaged roughly 45%, down from 55% in 2007. Moreover, in 2008 the number of foreign and Greek dealers (including primary dealers) trading in HDAT stood at 21 and 10 respectively, from 20 and 9 in 2007. Finally, the net inflow of foreign capital fell to €19.9 billion in 2008, from €25.7 billion in 2007.

35 Due to the adverse conditions prevailing in the secondary market in 2008, the bid-ask spread allowed by the operating rules of HDAT increased depending on the maturity of the securities traded.

36 It should be noted that the Athex composite index involves the shares of 60 firms.

Chart IX.8 Share prices, value of transactions and marketability in the Athens Exchange (Athex)



Source: Athens Exchange.
1 Number of shares traded to total number of listed shares.

Table IX.8 Stock market aggregates

Year	Share price indices[1] (1980=100)		Average daily value of transactions (million euro)	Market capitalisation[1] (million euro)			Market capitalisation (percentage of GDP)			Funds raised through the Athens Exchange (ATHEX)[3] (million euro)		
	Composite	Banks		Shares	Loans[2]	Total	Shares	Loans	Total	Listed companies	New companies	Total
2003	2,263.6	4,246.9	141.1	84,547	135,219	219,766	49	78	128	317	61	378
2004	2,786.2	6,129.0	140.8	92,140	157,905	250,045	49	85	135	397	79	476
2005	3,663.9	7,904.2	209.3	123,033	178,925	301,958	61	90	152	2,906	61	2,967
2006	4,394.1	6,194.5	343.3	157,928	191,549	349,477	73	90	163	3,396	86	3,482
2007	5,178.8	7,296.4	480.0	195,502	194,659	390,161	86	86	171	9,988	146	10,134
2008	1,786.5	1,899.4	316.4	68,176	201,859	270,035	28	83	111	623	9	632

Sources: ATHEX, Bank of Greece and (for GDP) Ministry of Economy and Finance.
1 At year-end.
2 Comprising Treasury bills and bonds issued by the Greek government, bonds issued by banks and non-financial corporations, loans of the Greek State, businesses and international organisations, as well as national loans in foreign currency, consolidation loans, expropriation loans and lottery bonds.
3 Through capital increase and issuance of new shares.

one third of its end-2007 level (Dec. 2008: 28%, Dec. 2007: 86% – see Table IX.8).

The Greek stock market was affected negatively by developments in global stock markets, given the heightened uncertainty of investors about the extent and duration of the financial turmoil and its impact on corporate profitability[37] and the economy as a whole. The collapse of Lehman Brothers in mid-September exacerbated further the situation, while the coordinated intervention of governments, central banks and international organisations aiming to deal with the financial crisis and to minimise its impact on the real economy had a temporary positive effect.

Athex stock prices came under additional pressure as foreign investors tended to sell out positions in order to meet liabilities in their home markets. Net outflows rose to €3.6 billion during the January-December 2008 period, while in October 2008, for the first time since March 2007, the participation of foreign investors in the Athex market capitalisation fell below 50%.

The above developments were reflected both in the trading activity and in fund-raising (see Table IX.8). **The average daily value of transactions fell by 34.2% in 2009** to €316.4 million (see Table IX.8 and Chart IX.8B). However, taking into account the significant decline in stock prices, **the average value of transactions at constant prices (trading volume) increased.** The bulk of transactions (96.7%) related to the large capitalisation market, while smaller trading activity was observed in all other stock categories (see Table IX.9). The trading activity of the first Exchange Traded Fund (ETF), which reproduces the composition of the FTSE/ATHEX 20 stock price index, accounted for a marginal proportion of total transactions in 2008. In line with similar developments in **the average daily value of transactions, the average annual share marketability declined** to 4.3% in 2008, from 5.8% in 2007 (see Chart IX.8C). Moreover, **fund-raising in 2008 was also limited**, as it reached a mere €632 million, dropping by around 94% relative to 2007 (see Table IX.8). The funds raised by new entrants reached almost 1.4% of total funds raised, almost the same as in 2007.

37 In Greece, pre-tax profits (on a consolidated basis) of all non-financial Athex-listed corporations fell by 40% in 2008. Corporate profits in the euro area also fell. Characteristically, earnings per share of companies included in the European stock price index Dow Jones EURO STOXX had fallen by 13% at end-December 2008, compared with December 2007.

Turning to the **banking sector**, between end-2007 and end-2008 **the banking sub-index fell by 73.9%** (see Chart IX.8A). This was larger than the decline in the Athex composite index and in the corresponding euro area banking sub-index (-63.7%), despite the fact that banks' exposure to risks related with the financial turmoil was indirect and limited. **The factors behind this performance of the Greek banking sub-index were a 43% drop in profitability[38] and the prospects for lower profitability also in 2009, as well as investors' concerns about the exposure of Greek banks to countries in South-eastern and Eastern Europe.**

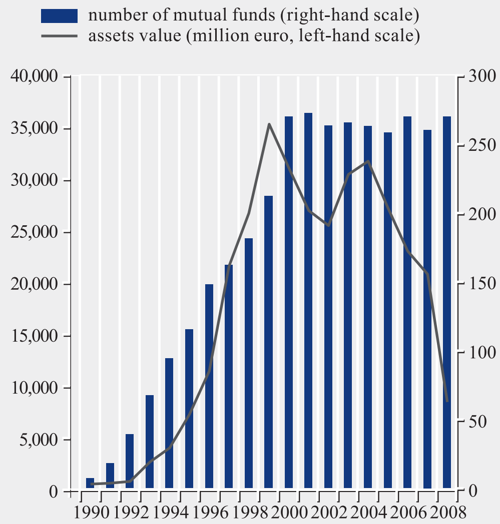
The most noteworthy institutional developments in the Greek stock market during 2008 was a decision[39] of the Board of Directors of the Hellenic Capital Market Commission to prohibit "open"[40] share sales traded in the Athex[41] (the prohibition will remain in effect until the end of May 2009),[42] the launch of an Alternative Market for very small enterprises in the Athex stock exchange, as well as the creation of the first Exchange Traded Fund.

6 THE MUTUAL FUNDS MARKET

The negative developments in the domestic and the international money and capital markets weighed on the activity of mutual funds, which declined significantly. Between end-2007 and end-2008, **total assets of mutual funds fell** by 59.5% and stood at €8.3 billion (see Chart IX.9), although the number of mutual funds rose to 269 (2007: 260). During the first two months of 2009, mutual fund assets declined further.

Money market funds recorded the strongest percentage drop in assets, facing competition from banks which offered high interest rates on time deposits. However, **equity-type and mixed-type mutual funds assets** also dropped significantly, mostly reflecting the fall in equity prices. **Bond fund** assets showed a relatively smaller decline.

Chart IX.9 Mutual funds: number and assets



Source: Bank of Greece.

Looking at the structure of the mutual fund market by type, bond fund assets at end-December 2008 accounted for 31.4% of total assets, against 29.9% for money market funds, 23.6% for equity funds, 9.2% for mixed funds and 6% for funds of funds assets.

Regarding the investment behaviour of mutual funds in 2008, a tendency towards lower holdings can be seen across all individual instruments (equities, government and corporate bonds, fund shares, synthetic currency swaps and cash), both domestically and abroad.

Finally, activity in the euro area market for mutual funds in 2008 also plummeted, following a pick-up in 2007. However, in the euro area market the total mutual fund assets

38 For the profitability of banks, see Section 7 in this chapter.
39 Decision 1/488/10 October 2008 (Government Gazette B 2176/ 23 October 2008).
40 Short selling refers to cases in which the seller of the shares does not own the shares, but has previously borrowed the same number of similar shares through a borrowing agreement in the Derivatives Exchange.
41 Similar measures were taken in most advanced stock markets internationally.
42 Decision 15/493/11 December 2008.

Table IX.9 Value and structure of stock market transactions

(million euro)

	2006		2007		2008	
	Value of trans-actions	Percentage breakdown	Value of trans-actions	Percentage breakdown	Value of trans-actions	Percentage breakdown
Shares	**85,334.0**	**100.0**	**121,266.6**	**100.0**	**78,145.8**	**100.0**
Large capitalisation	77,423.0	90.7	111,143.9	91.6	75,587.8	96.7
Medium and small capitalisation	6,873.0	8.2	9,081.3	7.5	1,814.9	2.3
Low dispersion, marketability and special financial features	187.9	0.2	839.4	0.7	588.1	0.8
Under surveillance	210.7	0.2	171.9	0.1	93.8	0.1
Sale of existing shares	639.4	0.7	30.1	0.0	0.0	0.0
Exchange-traded mutual funds	-	-	-	-	61.2	0.1
Loans[1]	**5.7**	**0.0**	**13.4**	**0.0**	**28.6**	**0.0**
Total	**85,339.7**	**100.0**	**121,280.0**	**100.0**	**78,174.4**	**100.0**

Source: Athens Exchange.
1 Comprising Treasury bills and bonds issued by the Greek government, bonds issued by banks and corporate bonds.

showed a significantly smaller decline (-25.4%) compared with the Greek market, and stood at €4.6 trillion at end-2008.

7 KEY INDICATORS OF THE BANKING SYSTEM[43]

The dysfunctioning of conditions in global money and capital markets in 2008, which led to a deterioration in the international and domestic macroeconomic environment, particularly from September 2008 onwards, had a negative effect on the factors affecting the Greek banking system. During 2008, most indicators of the banking system worsened, but its fundamental aggregates remained healthy.

Moreover, these factors should be interpreted in a dynamic manner, i.e. taking into account developments and prospects, as well as policy measures taken at the domestic and international level to restore confidence and mitigate the impact of the economic slowdown. In this respect, Law 3723/2008 is already being implemented with a view to enhancing liquidity in

43 This is only a brief overview. The Bank of Greece will soon publish a separate Financial Stability Report, with a more comprehensive analysis of the relevant issues.

Table IX.10 Profitability and efficiency ratios of Athex-listed banks and banking groups

(percentages per annum)

	Banking groups		Banks	
.	2008	2007	2008	2007
Net interest rate margin	2.9	3.0	2.2	2.5
Return on risk-weighted assets (after tax) - RoA	1.0	2.1	0.3	1.5
Return on equity (after tax) - RoE	10.1	17.9	3.0	14.7
Efficiency ratio	56.0	52.7	60.9	52.9

Source: Bank of Greece.

the economy.[44] Greek banks have started making use of the relevant measures; this is expected to improve banks' liquidity and capital adequacy, by mitigating pressures on deposit and lending rates and restoring the normal flow of credit to the private sector. The full implementation of the measures provided for by the law should reduce the impact of the crisis on the real economy[45] and bolster the stability of the banking system, provided that similar measures adopted at EU and South-eastern Europe level are also fully implemented.

7.1 PROFITABILITY AND CAPITAL ADEQUACY OF GREEK BANKS

The after-tax profits of banking groups **fell substantially in 2008**, relative to 2007 (-42.8%) to €2.6 billion. Not taking into account non-recurring profits recorded in 2007, this decline comes to -34.6%. Other factors behind the drop in profits were the following:

- **Impairment losses (i.e. forecasts for credit risk) more than doubled**. Banks adopted more conservative provisioning policies, taking into account portfolio quality indicators, but also the economic and credit outlook, as well as the adequacy of Tier I capital for covering any unexpected losses.

- **Increased funding costs**, as banks in the context of a dysfunctioning interbank market and pressed for liquidity sought to attract time deposits, which are costlier than other deposit categories. Moreover, the increase in banks' credit default swap (CDS) spreads and, as mentioned above, the rise in the borrowing costs of Greek government also had an upward effect on funding costs.

- **Lower profits from financial operations and the investment portfolio.**

The above developments inevitably affected the core profitability ratios (net interest rate margin, return on risk-weighted assets and return on equity)[46] **and the efficiency ratio[47] of both banks and banking groups** (see Table IX.10), as the crisis also impacts their subsidiaries abroad, though to a lesser extent for the time being. However, **the profitability of the Greek banking system remained comparatively higher than that of large banking groups in the euro area.[48]**

Regarding **the outlook for 2009**, a slowdown in credit growth and a decline in commission income and other income are expected to have a negative effect on the operational profitability of banks. Moreover, the expected increase in forecasts for credit risk will also have a negative impact on profitability, given the cyclical downturn.

The capital adequacy ratio (CAR) and the Tier I ratio of banking groups also declined, standing at 9.5% and 7.9% respectively (from 11.2% and 9.2% at end-2007), as weighted assets rose, while prudential own funds fell marginally.

The increase in risk-weighted assets is attributable to:

- the calculation, for the first time, of capital requirements for operational risk, due to the implementation of the "Basel II" framework; and

- an increase in risk-weighted assets for credit risk due to credit expansion, which more than offset a decline in risk-weighted assets for market risk.

44 For details of the plan to enhance liquidity in the economy, see Report on *Monetary Policy 2008-2009*, February 2009.

45 The plan to enhance liquidity in the economy should contribute to limit the procyclicality of the credit system, i.e. its tendency to amplify the fluctuations of the business cycle. It should be noted that the regulations of the Basel II framework, being more sensitive to risk measurement, are procyclical.

46 The net interest rate margin is defined as the ratio of net interest income to assets, while the return on equity and return on risk-weighted assets ratios are calculated as the ratios of pre-tax profits to own funds and to risk-weighted assets, respectively.

47 The efficiency ratio is the ratio of operating expenses to operating revenue.

48 Based on a sample of large banking groups monitored by the ECB, in the first half of 2008 the average net interest rate margin came close to 1% (2007: 0.9%), return on risk-weighted assets fell to 0.7% (2007: 0.9%), return on equity declined to 7.9% (2007: 11.4%) and the efficiency ratio rose to 78.5% (2007: 63.6%).

A 2% marginal decline in prudential own funds is accounted for by:

- the recognition of considerable valuation losses directly in equity, as required by International Financial Reporting Standards (IFRS);

- banks' purchases of own shares, as this figure is deducted from prudential own funds;

- foreign exchange valuation losses on Greek banking groups' foreign assets.

The decline resulting from the above factors was not fully offset by the internal capital creation owing to the smaller profitability of banking groups.

Although the leverage ratio of Greek banking groups increased at end-2008, year on year, it remains relatively low (2008: 17.6, 2007: 13.2), **while their capital adequacy is expected to rise by around 190 basis points, mostly through the issuance of preference shares under Law 3723/2008,[49] as well as the support of foreign bank subsidiaries in Greece by their parent banks.** An additional factor working in the same direction is an amendment submitted by the Ministry of Economy and Finance,[50] according to which:

- during participation of a credit institution in plans for enhancing liquidity, the purchase of own shares by this institute is prohibited; and

- credit institutions that receive capital support through the issuance of preference shares and would like to distribute a dividend for 2008 are obliged to distribute the dividend exclusively in the form of shares.

7.2 BANKING RISKS

The **most important risks** faced by the Greek banking groups are the following:

- **an expected deterioration in the quality of the loan portfolio** due to a significant decline in economic activity, increased risk premiums and the deleveraging trend observed in financial institutions internationally;

- **Greek banks' exposure to South-eastern Europe countries** (including Turkey);[51] and

- **the impact of the continued liquidity crunch internationally.**

As regards the quality of the loan portfolio at a domestic level, **the ratio of non-performing loans to total loans (NPL ratio) rose to 5% in 2008, from 4.5% in December 2007**. This is exclusively attributable to a significant deterioration in the NPL ratios for household loans (housing loans: 2008: 5.3%, December 2007: 3.6% – consumer loans: 2008: 8.2%, December 2007: 6.0%), which offset a marginal improvement in the NPL ratio for corporate loans (2008: 4.3%, December 2007: 4.6%). On the other hand, **particularly high provisioning contributed to an increase in accumulated provisioning for credit risk** (2008:€6.6 billion, 2007: €5.4 billion). **Despite a significant increase in provisioning, the relatively stronger increase in NPLs led to a decline in the coverage ratio (2008: 48.9%, December 2007: 53.4%) and an increase in the ratio of NPLs net of provisions to regulatory capital (2008: 26%, December 2007: 16.8%)**. The above coverage ratio, as well as the capital buffers of Greek banks (i.e. prudential own funds less the amount required to meet the minimum required capital adequacy ratio), combined with the measures already taken, is expected to largely offset the impact on the quality of Greek banks' portfolios from the deteriorating macroeconomic environment in Greece in 2009.

As regards the business of Greek banks in developing European countries (mostly in

49 The Shareholders' Meetings of twelve banks have already approved the issuance of preference shares, to be acquired by the Greek government, with a total value of €4.1 billion, of which €3.8 billion regarding ten banks have already been approved by the Greek government.
50 Amendment to paragraph 3 of Article 1 of Law 3723/2008.
51 Those risks were discussed extensively in Bank of Greece, *Monetary Policy 2008-2009* (February 2009).

South-eastern Europe, including Turkey), an increase in the NPL ratio was observed, mostly in the second half of 2008. However, Greek banks kept the coverage ratio almost unchanged at 100%, thus forming strong provisions for credit risk. It should be pointed out that these countries do not constitute a uniform group, as each one presents different characteristics, which call for individual assessment. However, **if economic conditions worsen in these countries, Greek banks will be exposed to not only credit, but also foreign exchange risk**.

The liquidity of the banking system deteriorated, as funding sources in both the Greek and the international banking system remained particularly tight. Specifically, the liquid asset ratio stood at 19% (December 2007: 23.2%) and the mismatch ratio came to -7.3% (December 2007: -2.8%), against regulatory minimums of 20% and -20%, respectively.

However, it is expected **that if banks make full use of the measures provided for by Law 3723/2008, this will boost banking system liquidity over the medium term**. In particular, notwithstanding the capital support to banks by the Greek government through the purchase of preference shares as mentioned above, eleven banks have already been authorised by the Bank of Greece to raise €4.5 billion by using Greek government securities as collateral, while eight of those banks have already raised €4.4 billion. Moreover, two banks have already made use of state guarantees of €1 billion in order to obtain loans. The implementation of the plans to enhance liquidity and the cuts in key ECB interest rates have contributed to a gradual drop in funding costs and are expected to have a positive effect on financing to households and enterprises.[52]

Finally, volatility in money and capital markets remained high across the globe. However, in 2008 risk-weighted assets for market risk fell by 9% at group level (17.8% at bank level) in comparison with December 2007. This development is chiefly attributable to a decline in the value of positions subject to market risks, as well as the reclassification of certain assets out of banks' trading portfolio to the loans and receivables portfolio, making use of the option available under amended IAS 39.[53]

52 For further details on developments in financing see Section 2 in this chapter.

53 IAS 39 concerns the recognition and valuation of financial instruments. Its amendment permits, under certain conditions, the reclassification of assets, thus allowing a different valuation, according to the portfolio they are classified in.

X SPECIAL FEATURE: THE EUROPEAN POLICY FOR CLIMATE CHANGE AND ENERGY, THE PROTECTION OF THE ENVIRONMENT AND THE ENERGY SECTOR IN GREECE

I THE CHALLENGE OF CLIMATE CHANGE

The term "climate change" is used to describe changes in the global climate that are attributed to human activity and are mainly caused by the increase in the concentration of greenhouse gases in the atmosphere. **The increase in the planet's mean temperature is the key indicator of climate change.** According to the latest report of the **Intergovernmental Panel on Climate Change (IPCC)**,[1] global temperature is likely to rise up to 6°C by 2100. Besides, however, the increase in temperature, climate change will also lead to sea-level rise, increased flooding and droughts, extreme weather phenomena and the extinction of species and ecosystems. Furthermore, climate change will have important social and economic repercussions, such as the spreading of diseases, massive flows of refugees and migration, lower output, higher product prices, loss of jobs and, eventually, notable changes in lifestyle. According to the **Stern review (2006)**,[2] in order to avoid the worst impacts of climate change, the concentration of greenhouse gases in the atmosphere must be stabilised at 450-550 ppm (parts per million). **In order to achieve this, global emissions will need to be reduced by 80%-90% before the end of the century. Addressing climate change will thus require immediate political actions for a sharp reduction of greenhouse gas emissions on the one hand and, on the other, adoption of adjustment measures for the mitigation of adverse impacts.**

The main conclusion of the Stern report is that **the benefits of strong early action to prevent climate change** far outweigh the costs. As estimated in this review, if the current policies for the use of energy continue, the result will be equivalent with a reduction of *per capita* consumption (namely living standards) between 5% and 20% (and most likely closer to 20%) on a permanent basis from 2050 onwards. In contrast, the cost of the policies required for the reduction of greenhouse gas emissions leading to stabilisation by 2050 will be relatively low – around 1% of the annual global GDP. The Stern review has estimated that, with the appropriate policies, the net benefits globally will amount to $2.5 trillion a year.

An important finding of the Stern report is that what we do now can have only limited effect on the climate over the next 40 or 50 years, *i.e. until 2050.* On the other hand what we do in the next 10 or 20 years can have a profound effect on the climate *from 2050 onwards.* Furthermore, the longer action is delayed to drastically reduce greenhouse gas emissions, the more unachievable and *costly* it will become.

According to the Stern review, climate change is the greatest market failure the world has ever witnessed, which also involves interactions with a range of other market imperfections. Three elements of policy are required for a timely response to the problem:

- The first is the **appropriate pricing of carbon,** in a way that the price reflects the full social cost of its use and encourages a shift to alternative energy sources and technologies on a global scale: this can be achieved through tax and emission trading schemes or regulation for carbon use.

- The second is the **adoption of policies** to support the development of a range of low-carbon and high-efficiency technologies on an urgent timescale.

- The third is **action to remove barriers to behavioural change of businesses and consumers regarding energy efficiency and the reduction of greenhouse gas emissions:** this can be achieved through appropriate information and education, proper regulatory measures and economic incentives. At the same time, adaptation policies are required for dealing with the unavoidable impacts of climate change.

1 Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report, IPCC Fourth Assessment Report*, 2007.
2 *Stern Review: The Economics of Climate Change*, October 2006. A report compiled by a group of researchers under Sir Nicholas Stern, former chief economist of the World Bank, who, in 2005, was appointed by the British government to conduct reviews on the economic dimensions of climate change.

2 THE EUROPEAN POLICY FOR CLIMATE CHANGE AND ENERGY

2.1 EVOLUTION OVERTIME OF GREENHOUSE GAS EMISSIONS IN THE EUROPEAN UNION

Total greenhouse gas emissions in the EU-27, excluding the sector "land use, land use change and forestry" amounted to 5,143 million tonnes of CO_2 equivalents in 2006, i.e. 7.7% lower than in 1990. In 2006 the EU-15 (the "old" Member States) was responsible for the emission of 4,151 million tonnes (decreased by 2.2% compared to 1990), namely for 80.7% of total emissions (from 76.2% in 1990). In other words, the EU-15 countries, on the one hand, contribute more to pollution and, on the other hand, show a more limited progress in reducing emissions than the new Member States in the period between 1990 and 2006. Germany, the United Kingdom, Italy and France are the largest greenhouse gas emitters among the old Member States, accounting for 19.5%, 12.7% and 11.0% respectively. By contrast, Luxembourg (0.3%), Sweden (1.3%), Denmark (1.4%) and Finland (1.6%) are the lowest greenhouse gas emitting Member States. It is self-evident that the amount of contribution to emissions is associated with, *inter alia*, the size of each country.

As regards the emission distribution percentage among the six greenhouse gases in EU-27 in 2006, carbon dioxide (CO_2) has the largest share (82.8%). Methane (CH_4) and nitrous oxide (N_20) follow with smaller contribution percentages, i.e. 8.2% and 7.6% respectively. Concerning the origin of gas emissions (see Table X.1), energy-related activities accounted for 79.7% of EU-27 greenhouse gas emissions (4,099 million tonnes of CO_2 equivalent) in 2006. Most pollutants from energy-related activities are emitted by public electricity production (27.1%), transport (19.3%) — mainly road transport (18.0%) — and households (9.4%). Specifically, as regards the pollution caused by the generation of electric power, it is worth noting that there are considerable differences among the EU-15 Member States, as the percentage of these pollutants in total greenhouse gas emissions varies between 9%-11% (France, Luxembourg) and 37%-38% (Finland, Denmark and Greece). Namely, the production of electricity in certain European countries is more polluting than in others. The second largest source of greenhouse gas emissions after energy is agriculture (9.2%), followed by industrial processes (8.1%) and waste (2.9%).

2.2 THE KYOTO PROTOCOL

The Kyoto Protocol,[3] which is attached to the United Nations Framework Convention on Climate Change signed at the Rio Earth Summit in June 1992, constitutes the most significant regulatory tool for addressing climate change. The major feature of the Kyoto Protocol is that it sets binding targets for industrialised countries to reduce the emissions of six greenhouse gases[4] by 5.2% against 1990 levels over the period 2008-2012 (this percentage applies to the countries which have signed the Protocol as a whole – the level of commitment is different for each country). The Kyoto Protocol includes three flexible mechanisms[5] for the reduction of gas emissions. **The European Union ratified the Kyoto Protocol on 31 May 2002 and is committed to reducing the emission of the six greenhouse gases by 8% against 1990 levels within the 2008-2012 period.** Nevertheless, the arrangement of individual commitments among Member States, on the basis of the EU-15 burden-sharing agreement, varies considerably (see Table X.2). It is worth noting that most EU-15 Member States have not attained the Kyoto target and will have to take additional measures, besides those currently in force, in order to attain it by 2012.[6]

3 United Nations, *Kyoto Protocol to the United Nations Framework Convention on Climate Change,* 1998.

4 The Kyoto Protocol concerns the following gases: carbon dioxide (CO_2), which is the most important, methane (CH_4), nitrous oxide (N_20), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF_6).

5 The Kyoto mechanisms are: *clean development mechanism,* which allows developed countries to fulfil part of their commitments by implementing emission-reduction projects in less developed countries, *the joint implementation mechanism,* which allows developed countries and countries with economies in transition to jointly implement emission reduction projects, and the *emissions trading mechanism.*

6 Along the lines of environmental commitments adopted at a European level with the ratification of the Kyoto Protocol, the EU has promoted electric power generation from renewable sources of energy with Directive 2001/77/EC, the emissions trading system with Directive 2003/87/EC, as well as energy saving, which is covered by a series of European Commission Directives.

Table X.1 Greenhouse gas emissions by source category: EU-27, EU-15 and Greece

(in million tons of CO_2 equivalents)

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-27													
Energy	4,277	4,029	4,141	4,037	4,024	3,965	3,974	4,058	4,030	4,131	4,137	4,109	4,099
Industrial processes	478	455	452	459	432	392	404	393	389	400	412	416	417
Solvent and other product use	13	11	11	11	11	11	11	11	10	10	10	10	10
Agriculture	592	513	515	515	513	509	501	493	487	482	481	474	473
Waste	216	210	206	198	191	185	179	171	167	161	155	151	148
*Total**	*5,572*	*5,214*	*5,320*	*5,216*	*5,167*	*5,058*	*5,066*	*5,121*	*5,080*	*5,180*	*5,191*	*5,157*	*5,143*
EU-15													
Energy	3,256	3,175	3,261	3,195	3,237	3,215	3,232	3,304	3,292	3,365	3,375	3,352	3,327
Industrial processes	373	371	368	378	358	325	329	321	319	324	330	332	328
Solvent and other product use		9	9	9	9	9	9	9	9	8	8	8	8
Agriculture	434	413	417	417	417	416	413	404	399	395	393	387	384
Waste	175	169	165	157	151	144	139	130	125	118	113	110	107
*Total **	*4,244*	*4,133*	*4,216*	*4,152*	*4,168*	*4,105*	*4,118*	*4,164*	*4,139*	*4,207*	*4,216*	*4,186*	*4,151*
Greece													
Energy	78	82	84	89	94	93	99	101	101	105	106	105	105
Industrial processes	9	11	12	13	13	14	13	13	13	13	13	13	13
Solvent and other product use	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Agriculture	14	12	13	12	12	12	12	12	12	12	12	12	12
Waste	4	4	4	4	4	4	4	3	3	3	3	3	4
*Total **	*105*	*110*	*114*	*119*	*124*	*124*	*128*	*130*	*129*	*134*	*134*	*134*	*133*

Sources: European Environment Agency, *Annual European Community greenhouse gas inventory 1990-2006 and inventory report 2008*, No 6/2008, Hellenic Ministry for the Environment, Physical Planning and Public Works, *Annual inventory submission under the convention and the Kyoto Protocol for greenhouse and other gases for the years 1990-2006*, April 2008.
* Excluding the source category of "land use, land use change and forestry".

Table X.2 Greenhouse* gas emissions and Kyoto Protocol targets

	1990	Kyoto Protocol (base year)**	2006	Change 1990-2006	Change of base year 2006	Kyoto targets 2008-2012
	in million tons of CO_2 equivalent			percentage changes		
Austria	79.2	79.0	91.1	15.1	15.2	-13.0
Belgium	144.5	145.7	137.0	-5.2	-6.0	-7.5
Denmark	69.0	69.3	70.5	2.1	1.7	-21.0
Finland	70.9	71.0	80.3	13.2	13.1	0.0
France	563.3	563.9	541.3	-3.9	-4.0	0.0
Germany	1,227.7	1,232.4	1,004.8	-18.2	-18.5	-21.0
Greece	*104.6*	*107.0*	*133.1*	*27.3*	*24.4*	*25.0*
Ireland	55.5	55.6	69.8	25.6	25.5	13.0
Italy	516.9	516.9	567.9	9.9	9.9	-6.5
Luxembourg	13.2	13.2	13.3	1.0	1.2	-28.0
Netherlands	211.7	213.0	207.5	-2.0	-2.6	-6.0
Portugal	59.1	60.1	83.2	40.7	38.3	27.0
Spain	287.7	289.8	433.3	50.6	49.5	15.0
Sweden	72.0	72.2	65.7	-8.7	-8.9	4.0
United Kingdom	768.5	776.3	652.3	-15.1	-16.0	-12.5
EU-15	**4,243.8**	**4,265.5**	**4,151.1**	**-2.2**	**-2.7**	**-8.0**

Source: European Environment Agency, *Annual European Community greenhouse gas inventory 1990-2006 and inventory report 2008*, No 6/2008.
* Total emissions excluding the "land uses, change of land uses and forestry" sector.
** For gases CO_2, CH_4 and N_2O, all member-countries chose 1990 as base year. For gases HFC, PFC and SF_6, 12 member-countries chose 1995 as base year, while Austria, France and Italy chose 1990.

2.3 THE NEW EU STRATEGY FOR CLIMATE CHANGE AND ENERGY

The new European Union strategy for energy and the environment was adopted by the European Council on 8-9 March 2007 and comprises the following targets for 2020:

- **A 20% reduction in greenhouse gas emissions by 2020 compared to 1990 levels,**

- **20% increase in the share of Renewable Energy Sources (RES) in overall EU energy consumption and 10% in the share of biofuels in overall EU transport petrol and diesel consumption by 2020.**

- **20% improvement of energy efficiency by 2020 (namely, saving 20% of EU's energy consumption compared to projections for 2020).**

The European Council, taking into account the proposal of the European Commission,[7] also adopted an action plan for energy and climate change. The basic guidelines of the plan are: the integration of the EU internal market for gas and electricity, the cooperation between Member States for the security of energy supply, the improvement of the greenhouse gas emissions trading mechanism, the enhancement of energy efficiency and energy security as well as the increase in RES "penetration" (namely, the expansion of their use).

On 23 January 2008 the European Commission[8] presented proposals for cutting greenhouse gas emissions and developing RES in

7 European Commission Announcement, (COM 2007) 1 final.
8 European Commission Announcement (COM 2008) 30 final, 23 January 2008.

2013-2020. These proposals point out that the reduction of greenhouse gas emissions by 20% may rise to 30%, if there is an international agreement committing other developed countries to comparable emission reductions. Furthermore, the target for a 20% increase in the share of RES in overall EU energy consumption by 2020 is reiterated. As concerns energy-saving, the targets of Directive 2006/32/EC apply, which provide for a 9% of energy end-use efficiency by 2016 and a 20% reduction in total energy consumption by 2020. The means to achieve the aforementioned targets are the enhancement of the **European Union Greenhouse Gas Emission Trading System (EU ETS)** and the operational framework of RES, as presented below.

Moreover, as agreed by the European Council on 19-20 June 2008, emphasis is placed on financing actions for climate change adaptation and mitigation, particularly on investments in research and development of low-carbon fossil fuel technologies. In this context, the European Council supports the construction and operation of new power generation plants, including the 12 demonstration plants of power generation with carbon capture and storage, which will be operating by 2015.

Finally, on 19-20 March 2009 the European Council agreed that energy security is a key priority, which needs to be enhanced by improving energy efficiency and by diversifying energy suppliers, sources and supply routes. Specifically, proposals have been put forward to develop energy infrastructure, revise the legislation concerning the security of natural gas supply and develop a southern natural gas transport corridor including a mechanism to facilitate access to Caspian gas. **With regard to the financing of projects in the energy sector, the Council —in the framework of the implementation of the European Economic Recovery Plan— agreed upon a financial contribution of € 3,980 million in the two-year period 2009-2010.** Of this amount, € 2,365 million will be invested in gas and electricity infrastructure projects, €565 million in wind energy projects and €1,050 million in carbon capture and storage projects.

2.3.1 THE EUROPEAN UNION GREENHOUSE GAS EMISSION TRADING SYSTEM (EU ETS)

The European Commission's proposals for the improvement of the European Union Emissions Trading System (EU ETS)[9] provide for the following:

- The scope of the scheme will be extended to other greenhouse gases apart from carbon dioxide and to further major industrial emitters.

- The allowed emissions covered by the trading system will start at the mid-point of the 2008-2012 period and should decrease gradually by 1.74% on an annual basis until 2020.

- The national allocation plans for the emission allowances will be replaced by auctioning of allowances or allocation for free through community-wide allocation rules.

- Emission allowances for electricity generators shall be fully auctioned from 2013 onwards. Allowances for most of the other industries and aviation should decrease gradually until 2020 (resulting in full auctioning).

Emissions not covered by the trading scheme from sectors such as buildings, transport, agriculture, waste and other installations which do not fall under EU ETS are to be reduced by 10% below 2005 levels, while specific targets are set for certain Member States.

9 With Directive 2003/87/EC of 13 October 2003, the European Parliament and the Council of the European Union contributed to the fulfilment of the EU commitments to the environment. According to the Directive, each Member State shall develop a national plan stating the total quantity of allowances that it intends to allocate and the way it proposes to allocate them for each of the following periods: (a) the three-year period starting from 1 January 2005 and (b) the five-year period starting from 1 January 2008, and for each subsequent five-year period. For the three-year period, Member States shall allocate at least 95% of the allowances free of charge, while for the next five-year period, Member States shall allocate at least 90% of allowances free of charge. Member States shall ensure that greenhouse gas emissions are monitored and reported. The Directive also provides for penalties in the case of excess emissions.

2.3.2 RENEWABLE ENERGY SOURCES IN THE EU

Community policy for RES[10] has set the interim target of increasing the share of renewable energy to 12% of total energy consumption in the EU by 2010, in order to achieve the target of 20% by 2020. It is estimated, however, that the interim target will not be achieved (the share is currently at 9%). According to EU policy each country will adopt a National Action Plan putting forward differentiated targets that will be taking account of the different potential of each country. Furthermore, given that the cost for the exploitation of renewable energy sources varies, Member States require a certain degree of flexibility. Specifically, it is provided for that Member States will have the possibility to contribute to the development of renewable energy sources inside and outside their borders. More precisely, if Member States can achieve their targets by contributing to the development of RES in another Member State with a more efficient production of renewable energy, then they will be able to reduce the cost of compliance measures and at the same time provide another Member State with an additional source of revenue. This investment does not require a physical transport of resources and may be effected by transferable guarantees of origin (a proof that renewable energy has been produced).

2.4 THE COPENHAGEN CONFERENCE – FUTURE TRENDS

On 28 January and 19-20 March 2009 the European Commission and the European Council, respectively, set out their proposals for a new global agreement to tackle climate change which is due to be concluded at the Copenhagen United Nations climate conference in December 2009. Specifically, in order to keep temperature increase below 2°C, the EU suggests the following:

- Global GHG emissions must be reduced to at least 50% of 1990 levels by 2050. The EU is committed to a 30% reduction in its emissions by 2020, provided that other developed countries commit themselves to comparable reductions. Developing countries, except least developed ones, will need to limit the rise in their emissions to 15-30% below their usual levels by 2010.

- In order to reduce global emissions, net global incremental investments must rise in the order of €175 billion on a year-on year basis, by 2020.

- Innovative international funding sources must be explored, based on the polluter-pays principle.

- EU Member States could use part of the revenue from auctioning allowances in the EU ETS to support developing countries.

- A global OECD-wide carbon market should be built by 2015, linking the EU ETS to comparable emissions cap and trade systems.

- The Kyoto Protocol's Clean Development Mechanism (CDM) should be phased out in favour of moving to a sectoral carbon market crediting mechanism and to the development of cap and trade systems.

Moreover, **the G-20 leaders (London, 2 April 2009) were committed to making the best possible use of investment funded by fiscal stimulus programmes towards a green recovery – i.e. making the transition towards clean, innovative, resource-efficient low-carbon technologies and infrastructure.**

3 THE GREEK POLICY FOR CLIMATE CHANGE AND ENERGY

3.1 GREENHOUSE GAS EMISSIONS IN GREECE

In 2006, the share of Greece in EU-27 total gas emissions was 2.6% (compared to 1.9% in

10 The promotion of electricity produced from renewable energy sources was achieved with the adoption of Directive 2001/77/EC in September 2001. According to this Directive, Member States may define mechanisms of support for RES at national level, make proposals which will contribute to the attainment of the target and establish the appropriate mechanisms that will guarantee that energy is produced from RES. Furthermore, the Directive lays down the obligations of the Member States to regularly submit progress reports regarding the use of RES. See also: European Commission, (a) *Renewable Energy Road Map,* COM (2006) 848 final, 10 January 2007, and (b) *Second strategic energy review – EU Energy security and solidarity action plan,* 13 November 2008.

1990). Total greenhouse gas emissions in Greece, excluding the sector "land use, land use change and forestry" amounted to 133.1 million tonnes of CO_2 equivalents in 2006, compared to 104.6 million tonnes in 1990, up by 27.3%. However, the increase by 2006 compared to the base year level of the Kyoto Protocol was 24.4% (gas emissions in the base year have been set at 106.9 million tonnes), against a targeted maximum increase of 25% by 2008-2012. Consequently, according to the European Environment Agency Report[11] Greece was among the four countries which in 2006 did not record an increase higher than the target set under the Kyoto Protocol for each one of them.[12] **The aim of course is that there will be no further increase in emissions in the 2008-2012 period, so that the increase between the base year and the 2008-2012 period is maintained below 25%.**

As concerns the percentage distribution of the emissions of the six greenhouse gases, carbon dioxide (CO_2) possessed the largest share (82.4%) in 2006. Nitrous oxide (N_20) and methane (CH_4) had lower participation shares, namely 7.8% and 6.3% respectively. With regard to the origin of gas emissions (see Table X.1), energy related activities are the major source of greenhouse gases with a percentage of 78.6% (104.7 million tonnes of CO_2 equivalents). Of these activities, most pollutants are emitted by public electricity production (38.4%), transport (18.1%) —mainly road transport (15.4%)— and households (7.2%). Hence, the modernisation of energy planning and the development of environment-friendly forms of energy must constitute key priorities of the national energy strategy. The second most significant source of greenhouse gases after energy is industrial processes (9.8%), followed by agriculture (8.7%) and waste (2.7%).

3.2 THE GREEK POLICY FOR CLIMATE CHANGE AND ENERGY

According to available estimates, Greece, because of its topography (long coastline, large number of islands), will be most severely affected by the consequences of climate change. Higher sea-level, desertification and the exhaustion of water resources may have a significant impact on certain areas and industries which contribute much to economic activity, e.g. tourism and agriculture.

The implementation of the European policy for energy and climate change in Greece requires, among others, better production management (with the introduction of technology for lower energy consumption) and better organisation of life in the cities (with better organisation of public transport, so as to reduce the use of energy-consuming means of transport, as well as with the use of new technologies and alternative energy sources for the insulation and heating of houses and other buildings). Such changes require appropriate planning and suitable incentives. Achieving the targets set by the new European policy is extremely important for Greece as this is necessary in order to respond to climate change and improve the quality of life. Additionally, it could lead to the implementation of large-scale investment and contribute to enhancing competition in the energy sector, the establishment of new businesses, the creation of many new jobs, a notable reduction of Greece's energy dependence and the respective downsizing of the current account deficit. The current juncture should not be considered an obstacle to such developments. By contrast, energy investment and the so-called "green" investment should provide an extremely useful boost to the recovery of economies, as pointed out also in the European Economy Recovery Plan.

The main targets of the Greek policy on climate change and energy —which have been set having taken into account the new European policy— are the reduction of greenhouse gas emissions and the achievement of the Kyoto

11 European Environment Agency, *Greenhouse gas emission trends and projections in Europe 2008*, No. 5/2008.
12 The other countries were France, Sweden and the United Kingdom.

Protocol targets, as well as the enhancement of RES penetration in the domestic energy markets. The achievement of these targets will be sought through the drawing-up of **the National Strategic Reference Framework 2007-2013 on the Environment** and the **National Allocation Plans,** the operation of the **Greenhouse Gas Emission Allowance Trading Registry,** the **institutional framework for Renewable Energy Sources,** as well as through a number of other actions, pertaining —among other things— to "green" entrepreneurship, energy efficiency of buildings, the adoption of best practices by polluting industries, the elaboration of business plans for addressing pollution in big urban centres and the intensification of environmental audits.

Besides government policy and private investment activity, the challenges associated with climate change, the protection of the environment and changing the energy pattern require a more **active participation of the society,** which, among others, requires **comprehensive and proper information.**

3.2.1 NATIONAL STRATEGIC DEVELOPMENT PLAN 2007-2013 FOR THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Addressing climate change constitutes one of the key priority axes of environmental policy in the next programming period.[13] Specifically, efforts will be made to reduce gas emissions that contribute to the greenhouse effect, promote the penetration of RES in the domestic energy market, apply a more rational use of natural and energy resources, as well as improve energy efficiency/effectiveness. More particularly, some of the actions that have already started to materialise for the reduction of emissions include the introduction of the use of natural gas in industry, households, transport and electric power generation, the application of the best available techniques in the major polluting industries, the use of more efficient and cleaner fuel in industry and transport, as well as the improvement of the "energy behaviour" of existing and new buildings. The completion of the spatial planning of Greece, as well as the sectoral and spatial planning for RES, may contribute to the increase in RES penetration in the domestic energy market (while preserving the natural environment).

3.2.2 NATIONAL ALLOCATION PLAN FOR EMISSION TRADING

The methodology for the allocation of emission allowances constitutes a decisive factor for the evolution of the Emission Allowances Trading System. Specifically, the total quantity of emission allowances, their allocation per activity, as well as all the basic rules regulating the allocation of allowances are defined in the two National Allocation Plans (NAPs) for Emission Trading.[14] The first NAP for the 2005-2007 period includes 141 businesses, while the second, for the 2008-2012 period, includes 140 businesses. Within the framework of the second plan, the forecasts of greenhouse gas emissions ("Business as Usual Scenario") adopted in the 2nd National Programme[15] for climate change were updated. As regards the allocation of the emission allowances for existing installations, **the activity with the largest share of allowances, both for the 2005-2007 and the 2008-2012 periods, is electricity generation,** with 73.1% and 70.8% respectively. Cement production comes second (15.5% and 16.6%), while the emission allowance shares for other types of installations vary from 0.1% to 6.3% (see Table X.3 below).

3.2.3 RENEWABLE ENERGY SOURCES IN GREECE

Securing energy supply and differentiating energy sources, promoting competitiveness

13 National Strategic Development Plan – Environment and Sustainable Development Sector – for the 2008-2012 period, October 2006.

14 National Allocation Plan for Emission Trading for the period 2005-2007 (December 2004), National Allocation Plan for Emission Trading for the period 2008-2012 (April 2008).

15 The 2nd National Programme for Climate Change was adopted in 2002 (Cabinet Act 5/27 February 2003) and aimed at defining a set of measures and policies to reduce the emission of greenhouse gases (Business as Usual Scenario), in order for Greece to meet its national requirements stemming from the implementation of the Kyoto Protocol, and specifically the limitation of the increase in total emissions to 25% in comparison with 1990 emissions.

through "clean" energy technologies and protecting the environment constitute the basic axes of energy policies. In this context, RES penetration in the energy market is a main target of the Greek policy.[16] Electricity production from RES in Greece is subject to a number of regulations, which define the prerequisites and the procedures for the implementation of RES projects. Today, the development of RES is governed by Law 3468/2006. The main key points of this law are:

- The national target for the share of electricity generated from RES in the gross electricity consumption is set at 20.1% in 2010 and at 29% up to 2020.

- Simplified procedure for issuing permits for the installation or the operation of electric power generation plants using RES.

- Monitoring of the progress of licensed RES projects.

- Adjustment of the pricing system.

- Possibility to install offshore wind farms.

- Creation of a system for the issuance of guarantees of origin for electric power generation using RES.

- Improvement of the terms of purchase and sale of electric power produced, in order to facilitate project funding by banks.

As regards the problems and the course of investments in RES see further below (Section 3.2.4).

3.2.4 "GREEN ENTREPRENEURSHIP"

The intensification of the financial crisis, in conjunction with the deterioration of the energy problem and the anticipated impact of climate change, brought the so-called **"green entrepreneurship"** to the fore, **namely, the entrepreneurial action aimed at improving the quality of the environment, or at least preventing its deterioration.** According to its supporters, green entrepreneurship is in a position, on certain conditions, to combine the achievement of energy and, in a broader sense, environmental targets (such as the reduction of dependence on conventional energy sources and the curtailment of activities that are detrimental to the environment) with satisfactory performance of invested capital, owing to the fact that the relevant markets are expanding and are characterised by increased demand of end- or intermediate environment-friendly products and services.[17]

Financial performance and environmental benefits vary depending on the sector in which green entrepreneurial action takes place. Thus, investment aimed at restructuring generation processes[18] is estimated to be associated with more satisfactory performance in the long term, but also with more lasting environmental benefits. Entrepreneurial actions improving the mechanisms responsible for heavy charges (e.g. pollution abatement applications), as well as the condition of environmental resources (e.g. agrotourism activities preserving local habitats) can also be vigorous and sustainable. Furthermore, entrepreneurial initiatives improving the management of effects of environmental degradation, such as for instance, waste management, can yield considerable economic and social benefits, to the extent that the existing production mechanism has not yet been replaced by or complemented with an environment-friendly technology. It should be

16 The first efforts for the development of energy generation from RES in Greece are materialised by virtue of Law 1559/1985, which provided private producers, Local Authorities and DEI (i.e. the Public Power Corporation) with the possibility of producing electricity using RES. Law 2244/1994 allowed for a more integrated approach, as it gave strong economic incentives for the development of RES in Greece attracting private funding. The law defined renewable energy sale prices at a level of 90% of the general price list in average voltage and required DEI to buy energy produced by independent producers. Law 2773/1999 placed emphasis on the issue of access priority to the network. Law 2491/2001 dealt with the issue of RES installation in forests and forest areas, while Law 3175/2003 established the rational use of geothermic energy.

17 According to the Commissioner for the Environment Mr. Dimas, the European environmental industry has a turnover of €227 billion, which corresponds to 2.2% of GDP of the EU (see *Naftemporiki*, *Special Edition – Economy 2009*, March 2009).

18 Such as replacing conventional energy generation plants with plants powered by RES.

Table X.3 Allocation of emission allowances in existing industries

(in million tonnes of CO_2 equivalents)

Activities	Total allowances 2005-2007	Total allowances 2008-2012	% allocation 2005-2007	% allocation 2008-2012
Electricity production	156.2	230.1	73.1	70.8
Cement	33.2	53.9	15.5	16.6
Refineries	10.3	20.5	4.8	6.3
Other combustion	3.5	3.0	1.6	0.9
Lime	2.5	4.6	1.2	1.4
Metal friction	2.4	4.0	1.1	1.2
Iron and steel	2.4	2.8	1.1	0.9
Ceramics	2.4	4.6	1.1	1.4
Paper	0.6	0.9	0.3	0.3
Glass	0.3	0.3	0.1	0.1
Total	213.8	324.8	100.0	100.0

Source: Hellenic Ministry for the Environment, Physical Planning and Public Works, National Plan for the Allocation of Emission Entitlements for 2005-2007 (December 2004) and for 2008-2012 (April 2008).

noted that, while, historically, actions regarding the *management of the consequences* of environmental degradation came first, today economic and social conditions for actions aimed at *influencing the causes leading to degradation* are mature, namely the modification or radical change of production mechanisms and processes so as to be compatible with modern environmental standards.

The potential effects of the current financial crisis on the further development of green entrepreneurship constitute, however, an element of uncertainty. **Questions mainly focus on whether profitability concerns will affect business plans for green investment, as well as on the extent to which large fluctuations of fuel prices will discourage large-scale RES investment plans by entrepreneurial groups or states.[19] The question also arises as to whether and how green entrepreneurship will help curtailing job losses in the private sector.[20] Government initiatives for the development of research and technology, the adoption of incentives for the production and use of green products and services, as well as the timely regulation of licensing procedures and integration of green production plants (in order to minimise red-tape and the long wait period for potential investors) are expected to contribute significantly to dealing with these challenges effectively.**

Major institutional initiatives, entrepreneurial actions already underway (mainly in the energy sector) and the social partners'[21] ever-increasing interest in the environment have brought the issue of green entrepreneurship to the fore. The relevant arguments are mainly based on the fact that a number of geomorphological features and development lags,[22] which have led to a waste of financial and environmental resources (and also to the production of low added-value goods and services), extend to a different dimension under the current conditions. For instance, the fact that the Greek agriculture failed to successfully adopt the model of intensive cultivation that prevailed in Central Europe

19 The decision of Iberdrola (the largest RES operator in the world) to cut its investment in the United Kingdom by about 40% is expected to put the relevant programming of the British government at risk (*Naftemporiki*, 26 March 2009).

20 It is estimated that the generation of aeolic energy in Europe has already created 150,000 new jobs. According to the estimates of the Commissioner for the Environment Mr. Dimas, RES industry is expected to create 700,000 new jobs in Europe by 2020 (see footnote 17).

21 It should be noted that in November 2008 SEV (the Hellenic Federation of Enterprises) proposed the establishment of a Council for Sustainable Development.

22 Such as the existence of mountainous or semi-mountainous agricultural areas with low productivity, the large number of islands, the failure to develop heavy industry etc.

has become less important, as organic farming dynamics emerge, where this farming is based on the quality and the local character of production. Respectively, the provision of low-added value tourism services, in which Greece has now particularly powerful competitors, does not secure, as in the previous decades, satisfactory capital yields and jobs, unless it is combined with services featuring environmental, agro-tourism, sports and cultural aspects. Even more, the generation of electric power from sources that are detrimental to the environment (i.e. stand-alone petrol terminals) in islands with exceptionally high wind and solar energy potential does no longer hold strong economic or technological support nor is it socially acceptable. Thus, it becomes clearer that **the conditions supporting green entrepreneurial action do exist, particularly in the context of sustainable development. However, the conditions for the materialisation of this prospect are not only exogenous (state support policy, technology), but also endogenous, as they are related to the "organisational capital", the producers' and consumers' disposition towards innovation and their general stance on environmental issues.** In this sense, it is expected that green entrepreneurship will have to incorporate progressive elements not only regarding the environment, but also the form and the operation of the enterprise, including among others, its relation with innovation, its connection with research institutes, consumer information and its acceptance by local communities.

In recent years the state undertakes more initiatives on issues related directly or indirectly to green entrepreneurship, mainly in terms of institutional and other interventions in the energy sector. As mentioned above, by virtue of Law 3468/2006 a broad programme for electric power generation using RES was promoted and the terms for the incorporation of the relevant investment in development programmes were defined. The business community[23] and local communities have shown great interest, particularly in the development of photovoltaic stations and the utilisation of arable land in areas with high solar potential. Law 3734/2009 (articles 27A and 28) seeks, among others, to resolve issues related to red tape procedures and pricing of the specific programme so as to facilitate the direct promotion of many pending[24] investment plans, the attraction of new investment and the regulation of various spatial issues. A legislative intervention is expected soon, according to the statements of the Minister of Development (press interviews 10 February 2009 and 19 March 2009), also for business investment in aeolic parks, where similar issues impede the implementation of many important investment plans.[25]

The development of green entrepreneurship, which of course, does not involve only energy production using RES, is supported by a **number of public initiatives,** many of which fall under NSRF 2007-2013.[26] These include the programmes "Green Enterprise" (Prasini Epiheirisi),[27] "Saving Energy" (Exikonomo) for local authoritis[28], the programme for the replacement or withdrawal of old energy-consuming house appliances, as well as the pilot programme for the "green island" (Ai-Stratis), where energy consumption will be exclusively covered by RES. Furthermore, the implementation of measures for the reduction of energy consumption of buildings

23 According to press clippings (see *Naftemporiki*, 11 July 2008 and 10 January 2009), the planned investments in Greece by large international private groups – before the financial crisis – amounted to €3.2 billion. Moreover, "PPC Renewables" (a subsidiary of DEI) is planning relevant investments of €2 billion by 2014.

24 The vivid interest for investment in renewables, in conjunction with the accumulation of pending cases (related to DEI network connection and security, as well as the spatial and other environmental arrangements) and the heavy work load for the evaluation of applications by the Regulatory Authority for Energy (RAE) had led to a temporary suspension of the submission of applications (Ministerial Decision, 24 March 2008) and a slowdown in the realisation of investment plans.

25 According to an ICAP survey for the RES energy generation industry (*Naftemporiki*, 1 April 2009), the main inhibitor in the faster development of the RES industry is deemed to be the low degree of investment materialisation, which is attributed to the complex and time-consuming licensing procedure.

26 According to the Commissioner for Regional Policy issues, Mrs Hübner, green economy investment for the period 2007-2013 will amount to €105 billion, while the corresponding Greek participation will come to about €5.5 billion (statements in the Greek press, 14 March 2009).

27 This is the sub-programme of the programme "Epixeiro 2009", which subsidises, for the first time to such an extent, businesses implementing environmental-friendly actions. It is expected to start in the first half of 2009.

28 This is an energy-saving programme in all public buildings, at least for municipalities with population of more than 10,000 inhabitants.

(Law 3661/2008) is considered particularly important both because it is expected that they will help limit energy waste in the medium term and because they may contribute to the creation of jobs in technical professions and the development of relevant entrepreneurial action.[29] **It is equally important to achieve greater progress in the recycling sector,** which involves the prevention of waste generation, the reuse and recycling of materials, waste to energy solutions, as well as the safe final disposal in organised landfill sites. The basic legal regulations are included in Law 2939/2001 and in a number of presidential decrees and ministerial decisions issued by virtue of this law. According to data of the Ministry for the Environment, Physical Planning and Public Works, **recycled household waste came to 25% in 2008, from 6% in 2004; it is, however, evident that it remains relatively low.** Faster progress is also necessary as regards energy-saving due to recycling, which in 2008 came to 2,600,000 GJ (it was below 500,000 GJ in 2004), and CO_2 emissions reduction owing to recycling, which in 2008 amounted to 360,000 tonnes (from 87,500 in 2004). Also in this sector, there is much that can be done by local authorities and private enterprises.

In order to multiply business initiatives related to environmentally friendly products and services, funding is of crucial importance, particularly at the early stages of the investment. Given that the market for venture capital ("business angels" etc.) is not developed in Greece —besides, their development would be exceptionally difficult under the current conditions— **the evolution of financing will mainly depend on the ability of credit institutions to choose and support appropriate green entrepreneurial opportunities.** Already, on the occasion of the photovoltaic stations programme, many commercial banks plan to fund various initiatives, extending from the production of energy using RES to the replacement of conventional transport or production equipment with green technology.

4 THE ENERGY SECTOR IN GREECE

4.1 ELECTRIC POWER GENERATION AND CONSUMPTION IN GREECE

Electric power generation in Greece from 1960 onwards has been mainly based on the exploitation of domestic sources, namely lignite and, to a lesser extent, water. According to Eurostat data, in 1990 lignite-fired plants covered 71.5% of total net energy production,[30] hydroelectric plants 6.2%, while the rest came from petrol terminals, a large part of which cover to date the needs of non-interconnected islands.

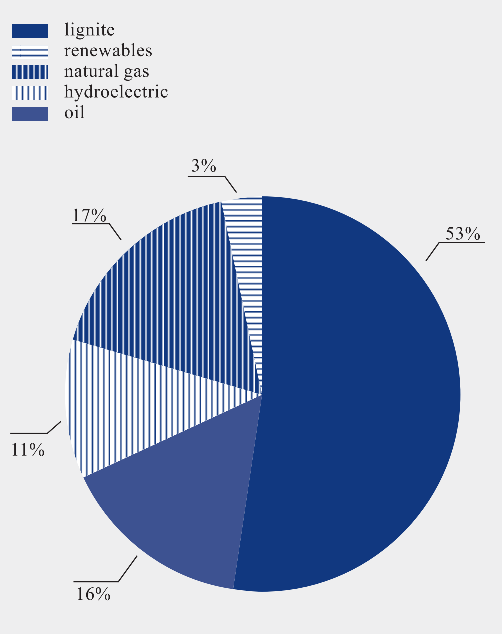
The introduction of the use of natural gas in the Greek energy system since 1997 and the gradual —very slow in the beginning— development of RES mainly since 1994 led to the change in the structure of electric power generation. Thus, in 2006 total net production amounted to 56.5 TWh, from 32.1 TWh in 1990 (and corresponded to total installed capacity of 13.6 GW, compared to 8.5 GW in 1990), from which 52.5% came from lignite-fired stations, 17.3% from natural gas terminals, 15.6% from oil terminals, while 11.4% of total net production came from hydroelectric stations and 3% from renewable sources (see Chart X.1). In the 1990-2006 period, total net electric power generation increased at an average annual rate of 3.6%. However, the growth rate declined since 2001 (with the exception of 2003), and as a result during the triennium 2004-2006 electricity production increased at an average annual rate of 1.3% (see Chart X.2).

In the 1990-2006 period the demand for electric power in Greece by end consumers increased at higher rates (3.9% on annual average). Demand by the household sector (4.3%) and the services sector (7.5%), regarding mainly the use for commercial activity, grew at

29 According to WWF-Greece, the implementation of Directive 2002/91/EC on energy consumption in buildings is expected to create 530,000 new jobs in the EU.

30 Net electric power generation is equal to total electric power generation minus electric power inland consumption which is the result of the generation process.

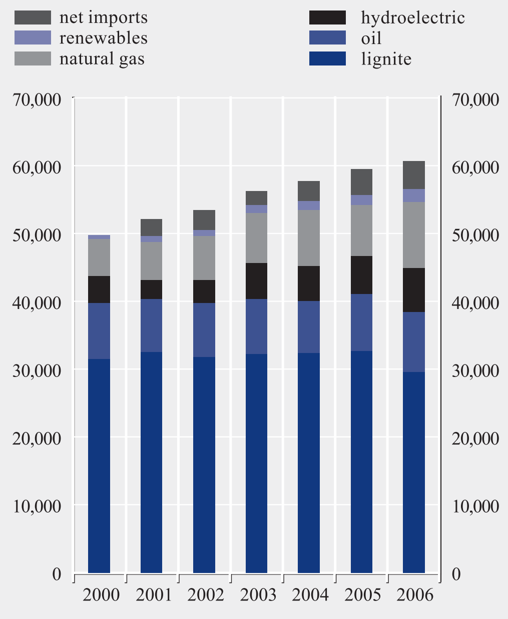
Chart X.1 Electricity production by source in Greece (2006)



Source: Eurostat.

Chart X.2 Net electricity production and trade (2000-2006)

(Gwh)



Source: Eurostat.

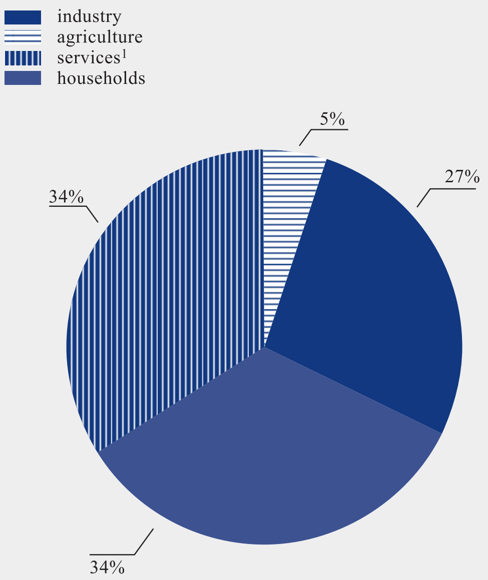
a faster average annual rate, while demand by industry increased at a lower rate (1%). Thus, in 2006 the households and services represented 33.7% and 33.8% respectively of final consumption (see Chart X.3). By contrast, the share of industry in final consumption was limited to 27% in 2006 (from 42.5% in 1990), while the share of the agricultural sector remained small (5.2% in 2006, from 5.5% in 1990).

After 2000, the divergence between energy produced and energy required led to the increase in the share of imports in the electric power system of Greece, which became stronger in the 2004-2006 period (see Chart X.2), with net imports increasing at an average annual rate of 26.2%.

The penetration of net electric power imports in the energy balance of Greece continued also in 2007 (they increased by 3.6%) and was particularly intensified in 2008 (when imports increased by 28.6%). As shown by HTSO (Hellenic Transmission System Operator) data, total demand in the interconnected Greek system[31] increased in 2007 by 4%, together with a proportionate increase in net production. In 2008 the rise in total demand was smaller (+0.6%) and was covered mainly by imports, while net production was reduced (-1.7%), mainly owing to the decline in the production by lignite and hydroelectric stations.[32] However, in 2008 the production by RES and SITHIA[33] plants (including photovoltaic stations) in the interconnected system increased considerably (+26.1%) and came to 2,203 GWh (compared with 1,747 GWh in 2007 and 1,521 GWh in 2006), which led to a further increase in their share in electric power generation.[34]

31 HTSO – according to the institutional framework of the deregulated electric power market – is responsible for the interconnected system serving mainland Greece and certain interconnected islands.
32 Besides, on the basis of HTSO data, electric power generation in the interconnected system continued to fall (-4.9%) between January and February 2009, while demand recorded an even larger drop in the same period (-5.9%).
33 "High Efficiency Cogeneration of Electricity and Heat" (or Combined Head and Power – CHP) stations.
34 At the same time, the *installed power capacity* of RES and SITHIA plants along with the photovoltaic systems in the interconnected system amounted to 1,098 MW in 2008 from 880 MW in 2007 and 768 MW in 2006.

Chart X.3 Electricity consumption by sector in 2006



Source: Eurostat.
1 Includes trade, transport and public buildings.

On the basis of the Council for National Energy Strategy (SEES)[35] report for 2008 *(Measures and means for a sustainable and competitive energy policy)*, the demand for electric power in the interconnected system is expected to increase in the 2010-2020 period at an average annual rate of 2.7% (if energy saving measures are implemented, the average rate could be limited to 1.7% during the same period).[36]

On the basis of the European Union policy for energy and climate change, targets have been set —as already mentioned— regarding the reduction of greenhouse gas emissions, as well as the further penetration of renewable sources in the internal energy market.[37] Given, however, that the electric power sector in Greece is accountable for 38.4% of CO_2 emissions (2006 data), the differentiation of the fuel mixture currently used becomes imperative so as to cover the increase in demand by 2020.

In the 2008 SEES report it is ascertained that the national energy policy targets can be achieved with the use of: (a) lignite-fired plants, but in a smaller percentage, (b) natural gas plants, in a percentage proportionate to fuel imports on the basis of long-term contracts, (c) large hydroelectric stations, (d) aeolic and other renewable sources and (e) certain new technology coal plants. Nevertheless, on the basis of the recent statements of the Minister of Development on the **new National Energy Strategy** of the Ministry of Development,[38] investment programmes in coal are cancelled, while natural gas and renewable energy sources will play the primary role in the energy mixture of Greece. At the same time, priority is given to international energy interconnections (natural gas pipelines and the Burgas-Alexandroupoli oil pipeline),[39] as well as in

35 The Council for National Energy Strategy (SEES) was established by Law 3438/2006; it comes under the Ministry of Development and constitutes a body making proposals to the government and particularly to the Minister of Development on issues regarding the long-term planning of Greece's energy policy.

36 Because of the increased uncertainty due to the financial crisis, SEES has recently announced that it postpones the publication of its 2009 Report on long-term energy planning (which may include revised forecasts) for September 2009.

37 Greece must cut down the rise in greenhouse gas emissions by 25% in the 2008-2012 period compared to 1990 levels, with an aim to attain its Kyoto Protocol targets. Furthermore, by virtue of Directive 77/2001, the national target set for Greece is to increase the share of electricity produced by RES in the gross electric power consumption to 20.1% by 2010. Moreover, on the basis of the new European policy for energy and climate change adopted by the European Council in the past two years, Greece should reduce its greenhouse gas emissions by 4% compared to 2005 (for industries not participating in the emissions trading system), while the participation of renewable sources in total energy consumption must rise to 18% by 2020 (corresponding to a share of 30-35% in gross *electric power* consumption).

38 10 February 2009.

39 The Ministry of Development is planning the establishment of a company for the South Stream pipeline in 2009, following the signature of a memorandum of cooperation between the Greek and the Russian government in April 2008. Also, in June 2008 the establishment act of the company "IGI Poseidon" was signed, which will construct and develop the Greece-Italy submarine natural gas pipeline. The construction of the pipeline, which forms part of the greater Turkey-Greece-Italy pipelines system, is expected to start in 2009 and the system will be put into operation in 2012. It is noted that the EU has approved the exception of third party access to the project for 25 years, in the course of which DEPA (the Public Gas Corporation) and the Italian company Edison will have exclusive exploitation rights. As concerns the fuel, Greece and Italy have already embarked upon deliberations with countries of the Caspian region and particularly with Azerbaijan. Furthermore, as regards the Burgas-Alexandroupolis pipeline, the Ministry of Development is planning the sanctioning of the agreement governing the passing through of the pipeline by the Parliament by June 2009, following the signature (on 18 January 2008) of the agreement for the establishment of the international company that has undertaken its construction and operation. It should be reminded that Russian companies participate in the company by 51% and Greek and Bulgarian companies by 49% equally. The commencement of the construction of the project has been set for June 2010 and is expected to upgrade Greece's position in the energy map, securing advantages related to energy security, the attraction of investment and the creation of jobs.

negotiations with Russia for the supply of natural gas from 2016 onwards. Moreover, further expansion of natural gas pipelines in Greece is being promoted, as well as the acceleration of the interconnection of the Cyclades with the national network. Regarding the promotion of RES, the Ministry of Development is tabling a new bill, which will lay emphasis on aeolic parks.

4.2 ENERGY AND PROTECTION OF THE ENVIRONMENT IN GREECE

As mentioned above, the largest percentage of greenhouse gas emissions in Greece (79% in 2006 – see Table X.1) comes from the energy sector, and this holds true for both the side of production and the side of consumption. The most polluting activities related to the use of energy are electric power generation, transport and household activities (such as house heating and the use of private passenger cars).

It is worth noting that the production of **energy, which mainly involves electric power generation, contributes to total greenhouse gas emissions almost as much as all the other sectors of the economy together,** which, however, consume the largest part (about 95%) of total gross domestic energy consumption. This, however, does not seem to be the case in the other EU-15 countries. The difference may be due to the fact that electric power generation with the use of lignite is a considerably more polluting activity than power generation from other raw materials in other countries.

4.3 ENERGY INTENSITY OF THE GREEK ECONOMY[40]

Energy consumption is directly associated with a country's energy intensity, namely the extent to which energy is used effectively in the production process. Energy intensity is defined as the ratio of gross inland energy consumption[41] to GDP. Lower energy intensity implies higher effectiveness in the use of energy for each unit of output, i.e. output increases faster that energy consumption. Respectively, oil intensity is defined as the ratio of gross domestic oil consumption to GDP.

In the 1995-2006 period Greece became more effective by 14.9% as regards energy use and 15% as regards the use of oil for each unit of output. The euro area became more effective by 9.6% and 17% respectively. **Compared to the euro area as a whole Greece remains more energy-consuming (this difference has been reduced, from 12.5% in 1995 to 6% in 2006) and oil-consuming (this difference has been increased, from 50% in 1995 to 54% in 2006) in all branches of economic activity.**

For each industrial output unit, 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, 5% more energy but 109% more oil is required for each unit of output in the sector of households and services (see Chart X.4).

The share of oil products in total energy consumption has remained unchanged in Greece since 1990, while it has been reduced in the euro area and EU-27. This development suggests that **in Greece the substitution of oil products by other forms of energy, such as natural gas, electric power[42] and RES, proceeds very slowly and remains very low.** In 1990-2006 oil products accounted for about 58% of gross inland energy consumption in Greece, the third highest among EU-27, while this share for industry, households and agriculture was considerably higher in comparison with EU-27 and the euro area.

The extra quantity of energy Greece required in relation to the euro area for the production

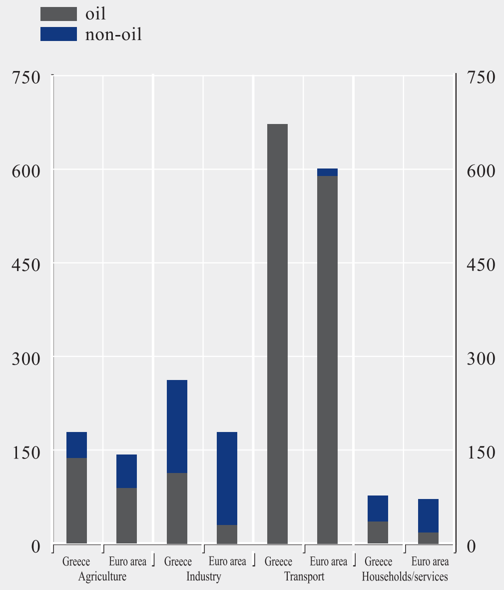
40 See also *Monetary Policy-Interim Report 2008*, October 2008, Annex II to Chapter V, pp. 93-96.

41 Gross inland consumption or "primary energy supply" represents the quantity of energy consumed within a geographical entity. It is calculated as follows: Primary production + recovered products + total imports + variations of stocks + total exports + bunkers (i.e. quantities delivered to sea-going vessels). The measurement unit is the tonne of oil equivalent (TOE).

42 It is noted that the main hydroelectric and lignite plants in Greece were constructed before 1990.

Chart X.4 Energy intensity by sector in Greece and the euro area

(TOE per €1 million of GDP, 2000-2006 average)



Source: Bank of Greece (calculations based on Eurostat data).

of one unit of output is exclusively oil. Of the extra oil quantity used, 4.4% in industry, 15% in transport, 30% in agriculture and 81% in households covers the lack of supply or reduced demand for other forms of energy, while the remaining extra oil is the result of the ineffective use of oil or of structural factors. A particular feature of Greece is that households and services have gradually increased the use of oil per unit of output,[43] unlike the euro area and EU-27, which have reduced it.

The needs for energy and oil as well as consumers' energy behaviour vary among countries due to economic, social and other characteristics, such as climate conditions, kilometric distances, the abundance of energy resources and infrastructure. Energy prices, the structural characteristics of the economy and the implementation of policies encouraging a more effective use of energy are of equal importance.

In many countries, the increase in the share of services in total GDP against the respective share of industry, the modernisation of production processes in industry, the turn to other forms of energy, better thermal insulation of buildings and the turn from heating oil to natural gas and the promotion of low fuel-consumption or hybrid vehicles have in recent years contributed to the reduction of energy and oil intensity. Furthermore, many countries have adopted policies which encourage energy saving and lower use of oil, such as increased competition through the deregulation of the energy market, lower subsidies or higher fuel tax, subsidies for biofuels and research on new more energy-efficient technologies.

There is plenty of room for further reduction in energy and particularly oil intensity in *Greece*, as the penetration of natural gas in end consumers is still very limited in comparison with the European standards, while, at the same time, the percentage of primary energy production using RES remains very low. Moreover, the challenges from the continuing increase in the number of means of transport, particularly private passenger cars,[44] and the demand for road transport as well as passenger and freight air transport are also important.

4.4 ENERGY DEPENDENCE OF THE GREEK ECONOMY[45]

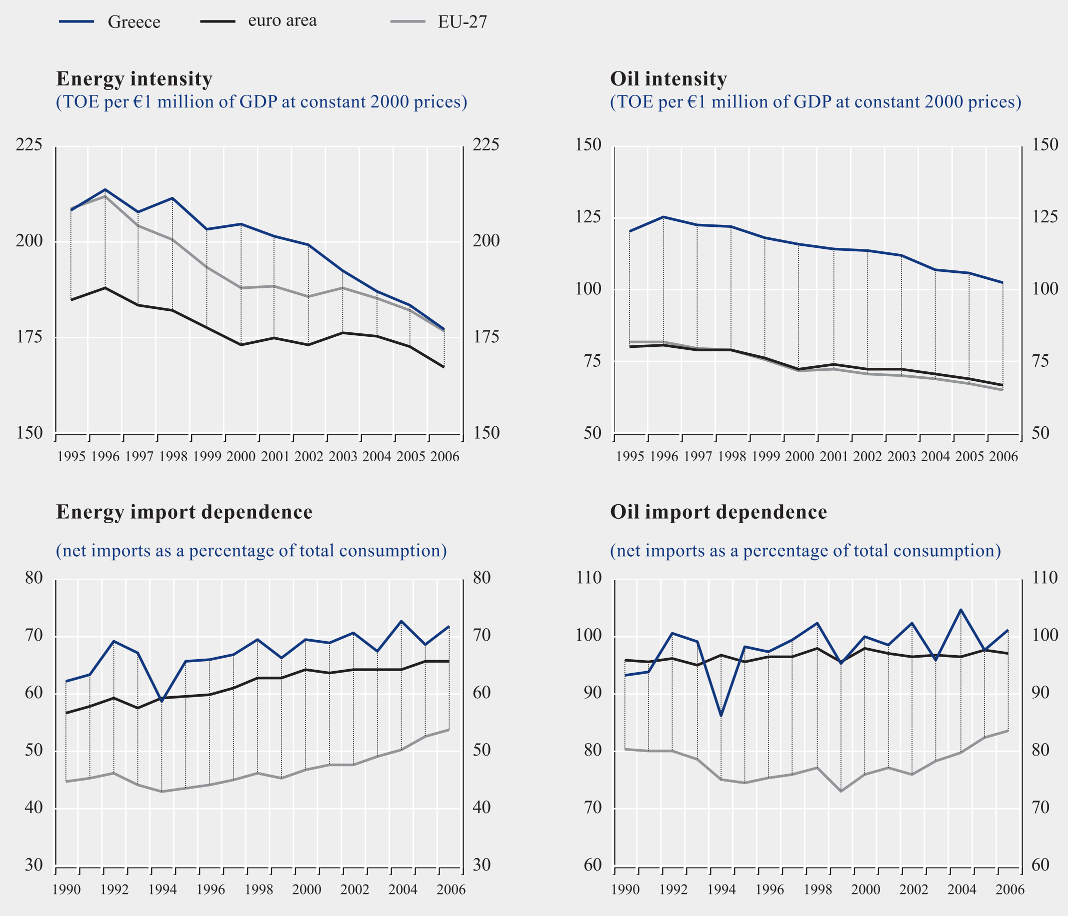
A country's energy dependence, i.e. the ratio of net energy imports to total gross inland energy consumption, has changed at around the same average annual rate as that of the euro area as a whole. However, oil dependence has increased at the highest average annual rate among euro area countries (see Chart X.5). By contrast, in countries comparable with Greece, such as Portugal and Ireland, oil dependence was reduced in the 1990-2006 period. Greece's energy dependence amounted to 67% and oil dependence to 98% on average in the 1990-2006 period. **The expected increase**

43 Services or goods destined for own use are calculated as household output.

44 International Energy Agency, *Worldwide Trends in Energy Use and Efficiency*, 2008, pp. 60, 62 and 64.

45 See also *Monetary Policy-Interim Report 2008*, October 2008, Annex II to Chapter V, pp. 93-96.

Chart X.5 Energy and oil intensity and dependence in the EU-27, the euro area and Greece



Source: Bank of Greece (calculations based on Eurostat data).

in the penetration of natural gas in Greece is estimated to limit the use of oil products, without, however, reducing fuel dependence, as natural gas is also imported. The substitution of oil for domestic energy sources, such as RES, could gradually reduce Greece's energy dependence.

5 LEGAL FRAMEWORK AND COMPETITION CONDITIONS IN THE GREEK ENERGY MARKET – INVESTMENT PROSPECTS

5.1 LEGAL FRAMEWORK

The deregulation of the electricity market in Greece formally started in February 2001 by Law 2773/1999, which aimed at aligning the Greek legislation with Directive 1996/92/EC (for the establishment of common rules for the internal market in electricity in the European Union).

Over time the institutional framework was supplemented and amended by the provisions of other laws, among which the most important were Law 3175/2003 and Law 3426/2005 "accelerating the process of deregulation in the electricity market". At the same time, the institutional framework was aligned with the rules of Directive 2003/54/EC.

On the basis of the institutional framework as

it was finally set by virtue of Law 3426/2005, the electricity market has been fully deregulated as of 1 July 2007, with the recognition of the consumers' right to choose their electricity supplier.[46] At the same time, the role of institutional bodies has been enhanced as the HTSO (Hellenic Transmission System Operator) will be exclusively responsible for the development and maintenance of the transfer system (i.e. the high voltage network), as well as for the operation of the new electricity market.[47] The institutional framework in force also provides for the distinction between distribution network management activities (for average and high voltage) and network *ownership* activities.[48]

As regards the regulatory framework, an important step towards the operation of the deregulated electricity market is the new Grid Control and Power Exchange Code for Electricity (KDSSHE), issued in 2005 and further amended in 2006. However, **the new code will be fully implemented in 2009, as the transition to the new market model was not directly feasible, because its operation rules were complex and participants could not easily assimilate them.**[49] Besides, the Grid Code has also been brought to public consultation and the same applies for the new Supply Code. As soon as these codes are put into force, the access of electricity suppliers to the distribution network (low and average voltage) will be facilitated.

The deregulation of the electricity market carried along the deregulation in the natural gas market, given that over 70% of the fuel is consumed by electric power producers. The natural gas market was initially "opened up" by virtue of Law 3175/2003 (as of 1 July 2005) for electric power producers consuming over 25 million cubic metres of natural gas on an annual basis. Following the adoption of Law 3248/2005 for the deregulation of the natural gas market, which set the framework for the transposition of Directive 2003/55/EC into national law, the free choice of supplier was extended to all authorised electricity and heat production-cogeneration suppliers with an annual demand over 100 MWh.[50]

The legislative framework for granting licenses to electricity generation plants using *renewable energy sources* (RES) and to *High Efficiency Cogeneration of Electricity and Heat* (SITHIA) plants was regularised by Law 3468/2006. The law provisions led to a considerable simplification and acceleration of the licensing processes for the relevant projects so as to safeguard their materialisation. Moreover, this law aimed at the alignment of the Greek legislation with Community Directive 2001/77 and its adaptation to the aforementioned commitments arising from the Kyoto Protocol regarding the RES share in electricity production. As regards the promotion of cogeneration of two or more useful forms of energy, the institutional framework was further supplemented with the provisions of Law 3734/2009, thus fully aligning with Directive 2004/8/EC. The new law also includes provisions by which the regime governing the foundation and operation of photovoltaic stations initially established by Law 3468/2006 is finalised.

5.2 COMPETITION IN THE ENERGY MARKET – INVESTMENT PROSPECTS

Private individuals' interest in the materialisation of investments in electricity production has

46 This law does not apply for consumers of micro-isolated networks in non-interconnected islands.

47 PPC reserves the right for exclusive ownership of the transmission grid's fixed assets. Besides PPC, other companies are eligible to be granted licenses for the construction and management of electricity transmission lines, so that they can directly supply their plants, subsidiaries and customers.

48 PPC reserves the right for the exclusive ownership of the distribution network, while the operation of the distribution network has been undertaken by a new company, under the name "Distribution Network Operator", which is a 100% subsidiary of PPC.

49 The new market established on the basis of the new Code consists of two parts: (a) *the daily wholesale energy market,* in which transactions are conducted on total electricity produced and consumed in the territory (i.e. domestic producers and importers offer electricity and are remunerated therefor, while suppliers and exporters absorb it) and (b) *the long-term capacity reliability market,* in which producers are paid for the maintenance of their plants in operational alertness and which aims at reducing producers' business risk, to ensure the possibility of installation and operation of new plants.

50 Since November 2008 these include non-household customers located in areas outside the jurisdiction of the Gas Supply Companies (EPA), while as from November 2009 the market will be opened up for household customers, except those who fall under the jurisdiction of EPA.

Table X.4 Electricity production licences issued between 1 February 2001 and 12 January 2009, by plant type

Plant type	Number	Power (MW)
1. Renewables	857	7,739.1
1.1 Wind power	501	6,858.8
1.2 Small hydroelectric	277	670.1
1.3 Biomass – geothermal	17	84.5
1.4 Photovoltaic	62	125.7
2. Combined heat and power	31	430.9
3. Large hydroelectric	1	60.0
4. Large thermoelectric	21	6,976.2
4.1 Large private thermoelectric	14	5,476.0
5. Other	134	1,682.1
6. Total	1,044	16,888.3

Source: Regulatory Authority for Energy (RAE), registry of electricity production licences.

been vivid since the beginning of the formal deregulation of the electricity market by virtue of Law 2773/1999. According to RAE data, from **February 2001 until January 2009 1,044 power generation licences had been issued, for plants with a total capacity of 16,888 MW** (see Table X.4). Of these, the highest share (46%) concerns licenses for RES stations (mainly wind power generation plants: 40.6%), while an important percentage is covered by licences for large thermoelectric stations (41.3%).

Specifically, as regards thermoelectric stations, 14 out of the 21 licences issued, are for private stations with a total power of 5,476 MW.

However, the licensed investment plans have not proceeded as scheduled. This is associated with delays both in establishing the regulatory framework for the operation of the deregulated market as well as in the conduct of tenders (by the System Operator – HTSO) between independent producers for the conclusion of capacity availability contracts provided for by law. Thus, after a two-year procedure the first tender was completed in July 2008 (it had been announced in December 2006): it concerned the construction of a natural gas plant of 447 MW, which is expected to be put to commercial operation at end-2010.[51]

However, irrespective of tender procedures, there are **two plants currently operating – besides PPC, which remains dominant in electricity production and supply – and one large private heating and electricity cogeneration plant has also been put into trial operation since summer 2008. As a result the total installed capacity of private plants amounts to 884 MW.**[52]

Besides, in the past two years, there has been strong mobility by energy groups eager to conclude agreements with international energy agents for the creation of joint ventures, so that they can secure their participation in the inter-

51 The tender was awarded to ENELCO S.A. According to law, the commencement of operation of the new plant is set in 27 months from the date at which the contracts were signed (15 July 2008) between HTSO and ENELCO S.A., while the capacity of the new plant will be bought by the Operator at a pre-fixed price for 12 years. It should be recalled that the tender procedure for 900 MW power supply contracts had originally been introduced by Law 3175/2003, which provided that the incorporation to the capacity credit system would be completed by 2007. However, owing to the delay in the materialisation of private electricity production projects, the deadline was extended to 2012.

52 This is the Gas Turbin plant “HERON I” (160 MW) of “HERON Thermoelectric SA”, which has been operating since 2004 in order to secure spare power, the “Energiaki Thessalonikis” plant of Hellenic Petroleum (ELPE – 390 MW), which was set in operation in 2006, as well as the new cogeneration plant of Endesa Hellas (334 MW).

nal electricity production and trade.[53] **Three new combined cycle plants for electricity production powered by natural gas with total power of about 1300 MW are already under construction. They belong to three large private groups and are expected to be incorporated into the system in 2010.**[54]

At the same time, **PPC is implementing a €4 billion worth programme, for the gradual replacement of its obsolete and polluting facilities with new modern technology thermal plants which will be more environment-friendly.**[55] Furthermore, **the Corporation's new investment programme, which will be concluded by 2014, also envisages the materialisation of new projects involving renewable energy sources, with total capacity of 950 MW, worth €2 billion.**

The materialisation of investment in new modern and clean technology stations in the sector of electricity production, both on behalf of private groups and the PPC is expected to enhance the adequacy of electric power in the forthcoming years and also contribute to the reduction of emissions of conventional pollutants, thus helping in the fulfilment of Greece's obligations.[56]

Finally, it is worth noting that in **the past two years, private individuals show more interest in the supply of electricity. Thus, according to RAE, 50 licences for the supply of a total of 21,284 MW had been granted by January 2009, 49 of which (9,784MW) concern independent suppliers. Furthermore, private suppliers have recently turned to major commercial consumers, as PPC bills for this category of customers (average voltage bills) leave room for lucrative activity on behalf of other "players" in the market.**[57] Besides, the finalisation of the regulatory framework, when the Grid Code is put into force, is expected to facilitate private suppliers' access also to household consumers.

53 In this context an important development in the area of electric power is the establishment of the company "Elpedison", between ELPE and the Italian Edison, on the basis of the agreement signed by the two groups in July 2008, aimed at creating electricity production plants of 2000 MW. Similar moves were also made by other groups, such as the one signed between the "GEK Terna" group with the Gaz de France-Suez (18 December 2008) which provides for the participation of the second by 50% in the share capital of "HERON Thermoelectric". Moreover, on 31 March 2009 the European Commission approved the creation of a joint venture between the Mytilinaios and Motor Oil groups for energy production (it concerns the construction of an electricity production station with a capacity of 396 MW).

54 This is a plant of 435 MW of "HERON Thermoelectric", a plant of 412 MW of Endesa Hellas and a plant of 421 MW of Edison.

55 It is noted that originally, as provided for by Law 3175/2003, the PPC may renew and replace obsolete facilities of a capacity of up to 1600 MW. However, on the basis of the recent law 3734/2009 (article 33), the PPC may proceed to the replacement of its old plants with new modern technology plants, without capacity limitations. The programme also includes the construction of a combined cycle plant in Aliveri (427MW), as well as another thermoelectric plant in Meliti, Florina (420 MW), powered by lignite and the possibility of providing thermal energy for teleheating. Moreover, the works for the construction of 5 hydroelectric stations with total capacity of 725 MW are almost completed.

56 As regards power adequacy for 2009, it is noted that demand requirements will be met by the existing PPC plants and private plants already in operation, as no new plants will be incorporated in the system. However, it is estimated that there will not be serious problems in meeting demand requirements, as a result of the lower consumption observed (mainly in the industrial sector), but also of the increase in water reserves for the operation of hydroelectric plants.

57 Thus, six new Greek and foreign companies operating in the electricity sector have already signed electricity supply contracts with large supermarket chains and retail stores.

ANNEX

ANNUAL ACCOUNTS FOR THE YEAR 2008

AUDITOR'S REPORT
REPORT OF THE GENERAL COUNCIL

CONTENTS

BALANCE SHEET AS AT 31 DECEMBER 2008
EIGHTY FIRST YEAR

(in euro)

ASSETS	31.12.2008	31.12.2007
1. Gold and gold receivables	**2,924,754,323**	**2,654,573,188**
2. Claims on non-euro area residents denominated in foreign currency	**301,602,543**	**439,077,917**
2.1 Receivables from the IMF	138,800,294	82,587,355
2.2 Balances with banks and security investments, external loans and other external assets	162,802,249	356,490,562
3. Claims on euro area residents denominated in foreign currency	**2,473,540,378**	**700,755,139**
3.1 General government	265,422,923	283,313,841
3.2 Other claims	2,208,117,455	417,441,298
4. Claims on non-euro area residents denominated in euro	**830,949,273**	**1,002,378,668**
4.1 Balances with banks, security investments and loans	830,949,273	1,002,378,668
4.2 Claims arising from the credit facility under ERM II	0	0
5. Lending to euro area credit institutions related to monetary policy operations denominated in euro	**38,354,900,000**	**8,727,274,500**
5.1 Main refinancing operations	22,765,300,000	6,759,000,000
5.2 Longer-term refinancing operations	15,584,000,000	1,968,274,500
5.3 Marginal lending facility	5,600,000	0
6. Other claims on euro area credit institutions denominated in euro	**76,778,839**	**232,122,255**
7. Securities of euro area residents denominated in euro	**14,529,148,987**	**17,006,126,881**
8. General government long term debt denominated in euro	**7,777,980,635**	**8,231,573,922**
9. Intra-Eurosystem claims	**1,483,347,572**	**1,443,521,602**
9.1 Participating interest in the ECB	390,454,407	390,235,477
9.2 Claims equivalent to the transfer of foreign reserves to the ECB	1,046,595,328	1,046,595,328
9.3 Claims related to promissory notes backing the issuance of ECB debt certificates	0	0
9.4 Claims related to the allocation of euro banknotes within the Eurosystem (net)	0	0
9.5 Net claims related to transactions with the ESCB (TARGET2)	0	0
9.6 Other claims within the Eurosystem (net)	46,297,837	6,690,797
10. Items in course of settlement	**623,195**	**3,352,187**
11. Other assets	**2,166,856,607**	**2,138,966,098**
11.1 Coins	44,783,716	50,594,774
11.2 Tangible and intangible fixed assets	804,157,896	822,814,486
11.3 Other financial assets	29,013,836	28,863,993
11.4 Accruals and prepaid expenses	713,208,538	710,243,489
11.5 Sundry	575,692,621	526,449,356
TOTAL ASSETS	**70,920,482,352**	**42,579,722,357**

OFF-BALANCE-SHEET ITEMS	31.12.2008	31.12.2007
1. Investments in Greek government securities relating to the management of the "Common capital of legal persons in public law and social security funds" according to Law 2469/97	19,345,001,939	19,361,048,419
2. Investments in Greek government securities and other securities relating to the management and custody of funds of public entities, social security funds and private agents	7,726,244,396	13,474,822,865
3. Other off-balance-sheet items	54,996,031,085	13,461,812,780
TOTAL OFF-BALANCE-SHEET ITEMS	**82,067,277,420**	**46,297,684,064**

Notes:

1 Under Article 54A of the Bank's Statute, the financial statements of the Bank of Greece are drawn up in accordance with the accounting principles and rules established by the European Central Bank (ECB) and applying to all the members of the European System of Central Banks (ESCB).

2 The Bank's key for subscription to the ECB's capital fully paid up by the 15 national central banks of the Eurosystem is 2.60674%.

3 Claims/liabilities denominated in euro or foreign currency are broken down into claims on/liabilities to euro area residents and non-euro area residents.

4 Account balances related to monetary policy operations are shown under distinct items.

5 Gold has been valued at the price provided by the ECB as at 31 December 2008 (€621.542 per fine oz., compared with €568.236 as at 31 December 2007).

(in euro)

LIABILITIES	31.12.2008	31.12.2007
1. Banknotes in circulation	**18,291,344,500**	**16,269,736,665**
2. Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	**7,793,859,079**	**7,107,978,508**
2.1 Current accounts (covering the minimum reserve system)	4,930,859,079	6,602,978,508
2.2 Deposit facility	2,863,000,000	5,000,000
2.3 Fixed term deposits	0	500,000,000
3. Other liabilities to euro area credit institutions denominated in euro	**0**	**33,400,000**
4. Liabilities to other euro area residents denominated in euro	**1,597,505,489**	**1,215,526,026**
4.1 General government	1,520,711,578	1,159,332,273
4.2 Other liabilities	76,793,911	56,193,753
5. Liabilities to non-euro area residents denominated in euro	**803,627,501**	**838,556,609**
6. Liabilities to euro area residents denominated in foreign currency	**103,335,707**	**81,162,206**
7. Liabilities to non-euro area residents denominated in foreign currency	**78,796,254**	**102,325,450**
7.1 Deposits and other liabilities	78,796,254	102,325,450
7.2 Liabilities arising from the credit facility under ERM II	0	0
8, Counterpart of special drawing rights allocated by the IMF	**114,395,563**	**111,207,295**
9. Intra-Eurosystem liabilities	**37,833,037,850**	**13,195,830,237**
9.1 Liabilities related to promissory notes backing the issuance of ECB debt certificates	0	0
9.2 Liabilities related to the allocation of euro banknotes within the Eurosystem (net)	2,484,729,740	2,399,261,590
9.3 Net liabilities related to transactions with the ESCB (TARGET2)	35,348,308,110	10,796,568,647
9.4 Other liabilities within the Eurosystem (net)	0	0
10. Items in course of settlement	**25,895,521**	**43,934,772**
11. Other liabilities	**728,834,622**	**666,204,432**
11.1 Accruals and income collected in advance	114,275,189	70,402,997
11.2 Sundry	614,559,433	595,801,435
12. Provisions	**1,506,799,733**	**1,173,625,858**
13. Revaluation accounts	**1,249,112,781**	**965,418,437**
14. Capital and reserves	**793,937,752**	**774,815,862**
14.1 Capital	111,243,362	88,994,690
14.2 Ordinary reserve	111,243,362	88,994,690
14.3 Extraordinary reserve	55,000,000	55,000,000
14.4 Special reserve from the revaluation of land and buildings	516,175,995	541,550,688
14.5 Special reserve from the acquisition (free) of fixed assets	275,033	275,794
TOTAL LIABILITIES	**70,920,482,352**	**42,579,722,357**

6 Balance sheet items denominated in foreign currency have been converted into euro using the euro foreign exchange reference rates of the ECB as at 31 December 2008.

7 Marketable debt securities are valued at the mid-market prices of 31 December 2008, with the exception of debt securities held to maturity which are valued at amortised cost. These latter securities, in line with the revised accounting policy applied by the ECB, are as of 31 December 2008 reclassified from "other assets" to the appropriate asset item, depending on the currency denomination and the origin of the issuer. Accordingly, an amount of €7.3 billion corresponding to debt securities held to maturity was transferred to asset item 7 "Securities of euro area residents denominated in euro".

8 Fixed assets are valued at cost, with the exception of land and buildings which are valued at market prices determined by independent appraisers, less depreciation.

9 From 2005 onwards, depreciation of fixed assets and banknote production costs is calculated at a rate of 2.5% and 20% respectively, over the expected life of buildings (40 years) and banknotes (5 years on average).

10 Provisions for the year 2008 include an amount of €149.5 million against counterparty risks related to the Eurosystem's monetary policy operations.

11 By virtue of Cabinet Act No. 8/10 June 2008, the Bank's share capital was increased by €22,248,671.20. This amount reflects part of the surplus value arising from real estate revaluation in 2004 and 2007. The share capital increase was effected by the issuance of 3,972,977 new bonus shares of a par value of €5.60 each, which were allotted to current shareholders in a proportion of one new share for every four existing shares. The ordinary reserve was increased by the same amount, drawn from the profit for the year 2008, so as to remain equal to the share capital, in compliance with Articles 10 and 71 of the Bank's Statute.

12 Certain items of the balance sheet and the profit and loss account for the year 2007 have been reclassified to ensure comparability with the respective items of the year 2008.

PROFIT AND LOSS ACCOUNT FOR THE YEAR 2008

(in euro)

	2008	2007
1. Net interest income	**706,174,175**	**540,872,459**
1.1 Interest income	1,656,126,765	1,195,032,737
1.2 Interest expense	-949,952,590	-654,160,278
2. Net result of financial operations, write-downs and risk provisions	**36,999,655**	**104,237,125**
2.1 Realised gains arising from financial operations	36,999,655	119,570,378
2.2 Write-downs on financial assets and positions	-11,923,222	-43,333,253
2.3 Transfer from provisions for foreign exchange rate and price risks	11,923,222	28,000,000
3. Net income from fees and commissions	**144,003,938**	**131,739,075**
3.1 Fees and commissions income	145,510,199	132,948,968
3.2 Fees and commissions expense	-1,506,261	-1,209,893
4. Income from equity shares and participating interests	**38,150,051**	**3,383,702**
5. Net result of pooling of monetary income	**-134,653,569**	**6,690,797**
6. Other income	**32,872,186**	**38,574,547**
Total net income	**823,546,436**	**825,497,705**
7. Staff costs and pensions	**-311,187,990**	**-291,754,246**
8. Administrative and other expenses	**-47,320,801**	**-58,143,853**
9. Depreciation of tangible and intangible fixed assets	**-42,567,026**	**-42,786,390**
10. Provisions	**-197,386,378**	**-148,129,355**
Total expenses	**-598,462,195**	**-540,813,844**
PROFIT FOR THE YEAR	**225,084,241**	**284,683,861**

Note: *Item 5 "Net result of pooling of monetary income" includes an amount of €149,522,606 regarding the establishment of the provision against counterparty risks in the Eurosystem's monetary policy operations.*

DISTRIBUTION OF NET PROFIT

(Article 71 of the Statute)

(in euro)

	2008	2007
Dividend €0.67 per share on 19,864,886 shares	13,309,473	10,647,579
Ordinary reserve	22,248,672	-
Extraordinary reserve	-	36,000,000
Additional dividend €1.73 per share on 19,864,886 shares*	34,366,253	40,206,530
Tax payment on dividends (Law 3296/2004, Article 6)	15,891,909	16,951,370
To the Government	139,267,934	180,878,382
	225,084,241	**284,683,861**

* *The total dividend for the financial year 2008 amounts to €2.40 per share, compared with €2.56 per share (adjusted to the new number of shares) in 2007. Dividends are subject to withholding tax of 10%, in accordance with Article 18 of Law 3697/2008.*

Athens, 11 March 2009

THE GOVERNOR — THE DIRECTOR OF THE ACCOUNTS DEPARTMENT

GEORGE A. PROVOPOULOS — DIMITRIOS E. MATSIMANIS

To the Shareholders of the BANK OF GREECE S.A.

Report on the Financial Statements

We have audited the accompanying financial statements of the BANK OF GREECE S.A. ('the Bank'), which comprise the balance sheet as at December 31, 2008, the income statement, and the statement of profit distribution for the period then ended.

Management's Responsibility for the Financial Statements: Management is responsible for the preparation and fair presentation of these financial statements in accordance with the accounting principles prescribed by the European Central Bank (ECB) as adopted by the Bank in Article 54A of its Articles of Incorporation and the Accounting Standards prescribed by Greek legislation. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility: Our responsibility is to express an opinion on these financial statements based on our audit. Except as in the paragraph below, we conducted our audit in accordance with the Greek Auditing Standards, which are based on International Standards of Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

The balance sheet caption "Provisions" includes provision for pensions, other liabilities to employee funds and other general risks amounting to €1,188 million as at December 31, 2008 (December 31, 2007: €1.003 million) which are not supported by an analysis of its method of calculation and, consequently, we are unable to satisfy ourselves as to the reasonableness of such provision.

Opinion: In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had we been able to satisfy ourselves as to the provisions referred to above, the aforementioned financial statements present fairly, in all material respects, the financial position of the BANK OF GREECE S.A. as of December 31, 2008, and of its financial performance for the year then ended in accordance with the accounting principles prescribed by the European Central Bank as adopted by the Bank in Article 54A of its Articles of Incorporation and the Accounting Standards prescribed by Greek legislation.

Report on Other Legal Requirements: We confirm that the information given in the General Council Report is consistent with the accompanying financial statements.

Athens, 11 March 2009

The Certified Auditors - Accountants

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REPORT OF THE GENERAL COUNCIL TO THE GENERAL MEETING OF SHAREHOLDERS

ANNUAL ACCOUNTS OF THE BANK OF GREECE FOR THE YEAR 2008

ACCOUNTING POLICIES

General principles regarding the preparation of the Bank's accounts

The annual accounts of the Bank of Greece, under Article 54A of its Statute, are prepared in accordance with the accounting rules and principles applicable to the European System of Central Banks, as set out by the European Central Bank (ECB) in its Guideline ECB/2006/16 of 10 November 2006.

These rules and practices, although based on internationally accepted accounting standards, have been adjusted to reflect the specific status of the national central banks (NCBs) of the Eurosystem.

Any issues that are not covered by the aforementioned rules or ECB guidelines or are governed by non-mandatory provisions are to be treated either in accordance with the ECB recommendations or in accordance with the Bank's Statute and Law 2190/1920 on sociétés anonymes.

Main accounting principles

The main accounting principles that apply to the Eurosystem (i.e. the ECB and the euro area NCBs, including the Bank of Greece) are the following:

• ***Transparency:*** accounting and financial reporting must reflect the Bank's real financial situation.

• ***Prudence:*** Unrealised valuation gains on financial instruments in foreign currency and securities are not recognised as income in the Profit and Loss Account, but are transferred directly to revaluation accounts. By contrast, unrealised valuation losses at the year-end in excess of previous unrealised valuation gains are recognised as expenses and are taken to the Profit and Loss account.

• ***Post-balance-sheet events:*** Assets and liabilities are adjusted for events that occurred between the annual balance sheet date and the date on which the financial statements were approved, if such events affect the condition of assets or liabilities on the balance sheet date.

• ***Materiality and non-deviation from accounting rules.***

• ***Going concern basis:*** Accounts are prepared on a going concern basis.

• ***The accruals principle:*** Income and expenses are recognised in the accounting period in which they were earned or incurred and not in the period in which they were received or paid.

• ***Consistency and comparability:*** The criteria for balance sheet valuation and income recognition are applied consistently to ensure comparability of data in financial statements.

Accounting approaches

• Financial transactions denominated in euro are recorded on settlement date in accordance with the cash/settlement approach.

• Foreign exchange transactions, financial instruments denominated in foreign currency and related accruals are recorded using the economic approach, according to which:

– Transactions are recorded on off-balance sheet accounts on trade date.

– On settlement date, the off-balance sheet booking entries are reversed, and the transactions are booked on balance sheet accounts.

– Using the economic approach, the foreign currency positions, realised gains and losses arising from net sales, and the calculation of average cost are affected on trade date.

• Interest, premium or discount accrued related to financial instruments denominated in foreign currency is calculated and booked on a daily basis.

Balance sheet valuation rules

• Assets and liabilities in foreign currency and gold are converted into euro at the exchange rate prevailing on the balance sheet date, as derived from the ECB's daily quotation of reference exchange rates.

• Income and expenses are converted into euro at the exchange rate prevailing at the trade date.

• No distinction is made between the price and currency revaluation differences for gold. Instead, a single gold valuation is accounted for on the basis of the price in euro per fine ounce of gold, which is derived from the exchange rate of the euro against the US dollar on the balance sheet date.

• The revaluation of foreign exchange assets and liabilities, including on-balance-sheet and off-balance-sheet instruments, is performed on a currency-by-currency basis.

• Marketable debt securities recorded under asset items 2.2, 3.2, 4.1 and 7 are valued at the average market prices prevailing at the Balance Sheet date on the basis of their ISIN code; for the financial year ending on 31 December 2008, the average market prices of 31 December 2008 were used.

• Debt securities held to maturity and various holdings are valued at amortised cost.

Income recognition

• Realised gains and losses arising from the sale of foreign exchange, gold and securities are taken to the Profit and Loss Account. Such realised gains and losses are calculated using the average cost of the respective asset at the date when they are realised.

• Unrealised gains (revaluation gains) are not recognised as income, but are transferred directly to revaluation accounts.

• Unrealised losses (revaluation losses), when in excess of previous revaluation gains registered in the corresponding revaluation account, are taken at year-end to the Profit and Loss Account and are not netted against new revaluation gains in subsequent years. Unrealised losses in any one security, in any one currency or in gold holdings are not netted against unrealised gains in other securities, currencies or gold. The average cost of a financial asset giving rise to unrealised loss at year-end shall be valued at the end-year foreign exchange rate or market price.

• Premiums or discounts arising on purchased securities are calculated and presented as part of interest income and are amortised over the remaining life of the assets.

Off-balance sheet instruments

Foreign exchange forward transactions are included in the net foreign currency position for the purpose of calculating foreign exchange gains and losses.

Banknotes in circulation

The ECB and the 15 euro area NCBs, which together comprise the Eurosystem, issue euro banknotes.[1]

The ECB has been allocated a share of 8% in the total value of euro banknotes in circulation, while the remaining 92% is allocated to the NCBs. The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month according to their banknote allocation keys.[2]

The share of banknotes in circulation that has been allocated to the Bank of Greece is disclosed under the Balance Sheet liability item 1 "Banknotes in circulation".

The difference between the value of euro banknotes allocated to each NCB according to its banknote allocation key and the value of euro banknotes that the NCB actually puts into circulation produces "Intra-Eurosystem claims/liabilities". These interest-bearing claims or liabilities[3] are disclosed under the sub-item "Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem".

For financial years 2002 to 2007, "intra-Eurosystem claims" and "intra-Eurosystem liabilities" arising from the allocation of euro banknotes are adjusted in order to avoid sharp fluctuations in the monetary income of NCBs relative to previous years.

The amounts of these adjustments were calculated taking into account the differences between the average value of banknotes in circulation of each NCB during the period from 1 July 1999 to 30 June 2001 and the average value of banknotes that would have been allocated to them during the same period in accordance with the ECB's capital key.

The small further adjustments of balances in 2008 reflect changes in the balances of NCBs joining the Eurosystem, which affect those of the participating NCBs.

Interest income and interest expenses on these claims/liabilities are netted in the ECB accounts and are disclosed in the Profit and Loss Account of each NCB under "Net interest income".

The Governing Council of the ECB has decided that the income from the ECB's share (8%) in the total value of euro banknotes in circulation issued on its behalf (seigniorage) will be recognised on the NCBs' balance sheets in the same financial year it accrues and will be distributed to the NCBs on the second working day of the following year, in the form of an interim distribution.[4] This income shall be due in full, unless the ECB's net profit for the year is less that its income earned on euro banknotes in circulation and also subject to any decision of the Governing

1 ECB Decisions of 6 December 2001, 18 December 2003 and 22 April 2004 on the issue of euro banknotes.
2 "Banknote allocation key" means the percentages that result from taking into account the ECB's share (8%) in the total euro banknote issue and applying the subsequent capital key to the NCB's share in the total.
3 ECB Decision of 6 December 2001 on the allocation of monetary income of the national central banks of participating Member States from the financial year 2002 (ECB/2001/16, amended by ECB Decision ECB/2003/22 of 18 December 2003 and ECB/2006/7 of 19 May 2006).
4 ECB Decision of 17 November 2005 (ECB/2005/11) on the distribution of the income of the European Central Bank on euro banknotes in circulation to the national central banks of the participating Member States.

Council in respect of expenses incurred by the ECB in connection with the issue and handling of euro banknotes.

For the year 2008, the Governing Council of the ECB decided that €1,024.8 million of its total income (€2,230.5 million) earned from the ECB's share in total banknotes in circulation would be retained and set aside in the provision against foreign exchange rate, interest rate and gold price risks. The remaining €1,205.7 million was allocated to participating NCBs according to their subscription key to the ECB capital.

NOTES ON THE BALANCE SHEET

ASSETS

1. Gold and gold receivables

Holdings and receivables in standard gold	31.12.2008	31.12.2007	Change
Volume in fine troy ounces (thousands)	4,706	4,673	33
Volume in tonnes	146.4	145.3	1.1
Value (€ million)	2,924.8	2,654.6	270.2

The amounts reported above comprise the Bank's gold holdings (3,618 thousand ounces) and gold receivables from the Greek State (986 thousand ounces) corresponding to Greece's participation in the IMF (the gold component of Greece's quota has been paid by the Bank of Greece on behalf of the Greek State), as well as scrap gold and gold coins for melting (102 thousand ounces). The largest part of gold holdings is kept in banks abroad.

The increase by 33 thousand ounces in the volume of gold holdings and receivables reflects purchases of gold from private individuals, while the significant €270.2 million increase in the value of gold in euro is mainly due to the appreciation of the euro in 2008.

The total amount arising from the increase in the price of gold (value as at 31 December 2008 compared with the average acquisition cost – unrealised profit) came to €1,209.8 million and is disclosed under liability item 13 "Revaluation accounts". This sum will serve as a buffer against any losses from gold price movements in the future.

Gold has been valued at its euro price per fine troy ounce as at year-end according to the ECB's reference exchange rate, i.e. €621.542 on 31 December 2008 compared with €568.236 on 31 December 2007. This price was derived from the USD price of gold quoted on the London market on 31 December 2008 and the euro/USD exchange rate on that same date.

2. Claims on non-euro area residents denominated in foreign currency

This item consists of: receivables from the IMF (in SDRs); balances on correspondent accounts; time deposits with banks abroad; securities holdings; and the value of non-euro banknotes held in the Bank's vaults.

2.1 Receivables from the IMF

These arise from Greece's participation in the IMF and include the following:

Specifically, they include:

– The Bank's holdings of special drawing rights (SDRs);

– The SDR component of Greece's quota in the IMF. This has been financed by the Bank, which is entrusted with the management of the relevant assets. The euro component of Greece's quota in the IMF, amounting to €795 million, is disclosed under liability item 5 "Liabilities to non-euro area residents denominated in euro". Greece's overall quota amounts to SDR 823 million and must remain unchanged (i.e. the euro component and the SDR component must always add up to SDR 823 million).

Receivables from the IMF	**31.12.2008**		**31.12.2007**		**Change**	
(in millions)	***SDRs***	**€**	***SDRs***	**€**	***SDRs***	**€**
Greece's SDR quota						
SDR holdings	104.7	115.7	54.0	58.1	50.7	57.6
Special non-interest-bearing	15.5	17.1	17.4	18.7	-1.9	-1.6
deposit in SDRs	5.4	6.0	5.4	5.8	0	0.2
Total	**125.6**	**138.8**	**76.8**	**82.6**	**48.8**	**56.2**

The increase in SDRs reported above was solely due to a shift in the composition of the quota, following an increase in Greece's SDR component that reflected amounts collected by the Bank from third countries in line with IMF instructions. This necessitated a commensurate decrease in the euro component, in order to restore the overall Greek quota to the stable level of SDR 823 million.

The increase in the amount in euro was, apart from the reason mentioned above, also due to the depreciation of the euro against the SDR in 2008.

The above receivables from the IMF were valued at the SDR/euro exchange rate as at 31 December 2008, based on the ECB's reference exchange rates, i.e. 1 SDR = €1.048, compared with €1.074 as at 31 December 2007.

2.2 Balances with banks and security investments, external loans and other external assets

This item consists of claims on non-euro area residents denominated in foreign currency, e.g. deposits (mainly time deposits), debt securities and non-euro banknotes.

Asset category	**31.12.2008**	**31.12.2007**	**Change**
	(in € millions)		
Time deposits with foreign banks	63.9	109.4	-45.5
Current account balances with foreign correspondents	48.0	18.4	29.6
Marketable debt securities (bonds, Treasury bills, commercial paper)	10.8	196.1	-185.3
Cash holdings of foreign currency	40.1	32.6	7.5
Total	**162.8**	**356.5**	**-193.7**

The largest part of these assets as at 31 December 2008 is denominated in US dollars.

3. Claims on euro area residents denominated in foreign currency

This item consists of claims on general government that stem from long-term loans, time deposits with correspondent banks in other euro area countries, holdings of marketable securities (commercial paper) and claims arising from the Bank's reverse transactions with domestic credit institutions.

3.1 Claims on general government

These claims include:

– a long-term loan of GBP 75 million, concluded on 6 September 1985 with foreign banks on behalf of the Greek State. The corresponding liability of the Bank to foreign banks is disclosed under liability item 7.1 "Deposits and other liabilities";

– loans in SDRs granted to the Greek State to finance its participation in the IMF, relating to the SDR component of Greece's quota;

– loans in USD and gold-linked loans to the Greek State to finance its participation in international organisations.

These claims amounted to €265.4 million on 31 December 2008, up from €283.3 million on 31 December 2007. The €17.9 million decrease stems from the appreciation in 2008 of the euro against the pound sterling.

3.2 Other claims

This sub-item consists primarily of claims on domestic credit institutions, arising from a US dollar liquidity-providing reverse operation conducted in the context of the Term Auction Facility, following an agreement between the ECB and the Federal Reserve.

Under this agreement, the Federal Reserve System made US dollars available to the ECB through a temporary reciprocal currency arrangement (swap line) in order to provide short-term liquidity, in US dollars, to Eurosystem counterparties.

In turn, the ECB conducted swap operations with the Eurosystem NCBs, which used these funds to conduct liquidity-providing operations with Eurosystem counterparties (credit institutions).

These operations generated non-interest bearing balances within the Eurosystem between the ECB and the NCBs. For the Bank of Greece, the corresponding balance is included in the overall balance of the TARGET2 account (liability item 9.3 "Net liabilities related to transactions with the ESCB–TARGET2").

This item also includes foreign currency time deposits with euro area correspondents, as well as holdings of marketable securities denominated in foreign currency issued by euro area residents.

Categories of claims	31.12.2008	31.12.2007	Change
	(in € millions)		
Reverse transactions with domestic credit institutions	2,170.7	96.3	2,074.4
Time deposits	8.7	216.5	-207.8
Marketable debt securities (bonds, commercial paper)	28.7	104.6	-75.9
Total	**2,208.1**	**417.4**	**1,790.7**

4. Claims on non-euro area residents denominated in euro

4.1 Balances with banks, security investments and loans

This item includes holdings of euro-denominated bonds issued by non-euro area residents as of 31 December 2008.

Categories of claims	31.12.2008	31.12.2007	Change
	(in € millions)		
Marketable debt securities			
Bonds	830.6	459.5	371.1
Treasury bills	0	438.2	-438.2
Current account balances with foreign correspondents	0.3	0.2	0.1
Time deposits	0	104.5	-104.5
Total	**830.9**	**1,002.4**	**-171.5**

5. Lending to euro area credit institutions related to monetary policy operations, denominated in euro

This item consists of outstanding balances of lending to credit institutions in Greece mainly against collateral of Greek government securities and securities issued by other euro area countries, in the context of the single monetary policy.

Liquidity is chiefly provided through main refinancing operations (with a maturity of one week) and longer-term refinancing operations (with a maturity of three or six months), against eligible collateral (marketable debt securities and other assets).

– Main refinancing operations (MROs) are liquidity-providing open market operations conducted by the Eurosystem in the form of reverse operations executed through weekly standard tenders with a maturity of one week.

– Longer-term refinancing operations (LTROs) are liquidity-providing open market operations conducted by the Eurosystem in the form of reverse operations executed through monthly standard tenders with a maturity of three or six months.

Operations	31.12.2008	31.12.2007	Change
	(in € millions)		
MROs (maturity of 7 days)	22,765.3	6,759.0	16,006.3
LTROs (maturity of 3 or 6 months)	15,584.0	1,968.3	13,615.7
Marginal lending facility	5.6	0	5.6
Total	**38,354.9**	**8,727.3**	**29,627.6**

The average level of these operations during 2008 came to €12,402 million compared with €4,653 million during 2007.

This substantial change is due to Eurosystem interventions in the money market, especially in the last quarter of 2008, aimed at restoring financial stability.

In this context, the Bank of Greece, as a member of the Eurosystem, provided the necessary liquidity to domestic credit institutions against adequate collateral.

6. Other claims on euro area credit institutions denominated in euro

This item mainly includes current account balances with correspondent banks, as well as time deposits.

These claims came to €76.8 million on 31 December 2008, down from €232.1 million on 31 December 2007. The decrease was due to a substitution of marketable debt securities for time deposits.

7. Securities of euro area residents denominated in euro

This item represents the Bank’s trading and held-to-maturity portfolios of euro-denominated bonds, Treasury bills and commercial paper issued by euro area residents other than the Greek government, as well as Greek government bonds.

According to the revised accounting policy applied by the ECB as from 31 December 2008, debt securities to be held to maturity are reclassified from the balance sheet item "Other financial assets" to the appropriate asset item depending on the currency of denomination (euro or foreign currency) and the origin of the issuer (euro area resident or non-euro area resident).

Type of securities	31.12.2008	31.12.2007	Change
	(in € millions)		
Marketable debt securities issued by euro area governments other than held to maturity			
Bonds	1,382.6	4,742.6	-3,360.0
Treasury bills	4,850.1	5,147.6	-297.5
Commercial paper	921.5	661.3	260.2
Zero-coupon bonds	49.6	55.2	-5.6
Total	**7,203.8**	**10,606.7**	**-3,402.9**
Held to maturity marketable debt securities			
Greek government bonds	2,809.0	3,032.6	-223.6
Bonds issued by other euro area governments	4,516.3	3,366.8	1,149.5
Total	**7,325.3**	**6,399.4**	**925.9**
Grand total	**14,529.1**	**17,006.1**	**-2,477.0**

In this context, debt securities that the Bank intends to hold to maturity were transferred on 31 December 2008 from "Other financial assets" to this asset item and will continue to be valued at amortised cost. In order to ensure comparability between the two financial years, the 2007 figures have been revised accordingly.

8. General government long-term debt denominated in euro

This item consists of the long-term loans in euro extended by the Bank to the Greek State up to 31 December 1993 and, more specifically:

– interest-bearing loans extended to the Greek State up to 31 December 1993;

– interest-bearing loans extended by the Bank of Greece to the Greek State on 31 December 1993, in settlement of the balance of the account “Exchange rate valuation differences – Law 1083/80”;

– interest-free loans in euro extended by the Bank to the Greek State for the purpose of financing its euro-denominated participation in the IMF. The amount of this participation, which is deposited by the IMF with the Bank, is disclosed under liability item 5 “Liabilities to non-euro area residents denominated in euro”.

Outstanding balance as at 31.12.2008	€ 7,778.0 million
Outstanding balance as at 31.12.2007	€ 8,231.6 million
Decrease	€ 453.6 million

The decrease stems from the gradual repayment of interest-bearing loans.

9. Intra-Eurosystem claims

9.1 Participation in the capital and reserve assets of the ECB

The table below shows the items related to the ECB capital and the Bank's participation therein.

As at 31.12.2008	*(%)*	*(in € millions)*	
ECB's subscribed capital (applying to all 27 EU Member States)		**5,760.7**	
Bank of Greece's key for subscription to the ECB's capital (capital key)	1.8168		
ECB capital paid up by the 15 Eurosystem NCBs		**4,015.0**	
Weighting of the Bank of Greece in the subscribed capital key	2.60674		
Bank of Greece's share in the subscribed capital			104.7
Bank of Greece's contribution to the ECB's reserves			285.8
Bank of Greece's total contribution to ECB's capital and reserves as at 31.12.2008			**390.5**

According to Article 28 of the Statute of the European System of Central Banks (ESCB), the national central banks of the ESCB are the sole subscribers to and holders of the capital of the ECB.

The subscription to the ECB's capital is based on a key assigned to each NCB and is equal to the sum of 50% of the share of its respective Member State in the gross domestic product of the European Union and 50% of the share of its respective Member State in the population of the European Union (Article 29.1 of the ESCB Statute).

On 31 December 2008, the participation of the Bank of Greece in the capital, together with its contribution to the reserves and the equivalent provisions of the ECB, amounted to €390.5 million.

The share of the Bank of Greece in the ECB's capital is €104.7 million and has been paid up in full. It corresponds to 1.8168% (capital key) of the ECB's total subscribed capital (27 NCBs of the ESCB), which amounts to €5,760.7 million and to 2.60674% (capital key weighting) of the ECB capital paid up by the 15 NCBs of the Eurosystem, which after the adjustments of 2008 amounts to €4,015 million.

The remaining amount (€285.8 million) relates to the Bank's contribution to the reserves and provisions of the ECB. This contribution was paid up upon the entry of the Bank of Greece into the ESCB on 1 January 2001.

Under Article 29.3 of the Statute of the ESCB, the NCBs' keys for subscription to the ECB capital are adjusted every five years after the establishment of the ESCB. Also, according to Article 49.3 of the ESCB Statute, the ECB's subscribed capital is automatically increased when a new Member State joins the EU and its NCB joins the ESCB.

On 1 January 2008, after Cyprus and Malta adopted the euro as their national currency and their central banks joined the Eurosystem, the Bank of Greece's key for subscription to the ECB's capital changed from 2.61375 % to 2.60674 % and the weighting of the Bank of Greece in the ECB's capital key was adjusted from 2.4045 % to 2.398 %. The Bank's share in the capital and the reserves of the ECB did not change.

9.2 Claims equivalent to the transfer of foreign reserves to the ECB

As at 31.12.2008	*(%)*	*(in € millions)*
Total foreign reserve assets transferred to the ECB by the 15 NCBs of the Eurosystem		40,149.6
Bank of Greece's subscribed capital key	2.60674	
Claims of the Bank of Greece on 31.12.2008 arising from the transfer of foreign reserve assets to the ECB		**1,046.6**

These claims stem from the transfer of foreign reserve assets to the ECB, in accordance with the provision of the Accession Agreement (Article 30 of the Statute of the ESCB).

Out of the said foreign reserve assets, determined on the basis of the Bank's share in the paid-up capital of the ECB, 85% were transferred in the form of assets denominated in USD and JPY and 15% in the form of gold.

These claims are expressed in euro, taking into account the exchange rates prevailing at the time of transfer, and are remunerated at the latest available marginal rate for the Eurosystem's MROs (adjusted to reflect a zero return on the gold component).

9.6 Other claims within the Eurosystem (net)

This item, amounting to €46.3 million, comprises:

– €14.9 million corresponding to the balance between the monetary income of €702.6 million accrued to the Bank during 2008 and the monetary income of €717.5 million allocated to the Bank according to its share in the paid-up capital of the ECB;

– €31.4 million corresponding to the income accrued to the Bank from the distribution of part of the ECB's seigniorage income.

These claims were recorded as accruals in financial year 2008 and were collected in January 2009.

10. Items in course of settlement

These include balances, in the course of settlement, of various intermediate accounts, which serve to monitor: receivable cheques issued by banks abroad, cheques settled through clearing offices and transactions between Bank of Greece branches.

Outstanding balance as at 31.12.2008	€ 0.6 million
Outstanding balance as at 31.12.2007	€ 3.3 million
Decrease	€ 2.7 million

11. Other assets

11.1 Coins

This item represents the value of coins issued by the 15 euro area countries and held by the Bank of Greece on the Balance Sheet date.

Coins put in circulation by the Bank of Greece are recorded in a special account of the Greek State, included in liability item 4.1 "General government".

Outstanding balance as at 31.12.2008	€ 44.8 millions
Outstanding balance as at 31.12.2007	€ 50.6 millions
Decrease	€ 5.8 millions

11.2 Tangible and intangible fixed assets

Fixed assets comprise: real estate (land, buildings and fixtures, buildings under construction), furniture, machinery, hardware and software and the production cost of euro banknotes. Fixed assets other than real estate, which is valued at market prices determined by independent assessors, are valued at acquisition cost.

The value of fixed assets as at 31 December 2008 is reported less accumulated depreciation.

Depreciation is calculated on a straight-line basis over the expected lifetime of the asset.

Undepreciated value of fixed assets

Asset category:	31.12.2008	31.12.2007	Change	Depreciation rate (%)
	(in € millions)			
Land	503.2	506.4	-3.2	0
Buildings and fixtures	209.0	207.6	1.4	2.5
Buildings under construction	10.3	7.1	3.2	0
Other equipment	34.1	39.5	-5.4	8-24
Capitalised expenses (software costs, etc.)	1.3	3.7	-2.4	20-24
Banknote production costs	46.3	58.5	-12.2	20
Total	**804.2**	**822.8**	**-18.6**	

11.3 Other financial assets

This item includes the Bank's holdings in DIAS Interbanking Systems SA, the Hellenic Deposit and Investment Guarantee Fund (TEKE), the Hellenic Exchanges Holding SA, SWIFT, as well as in the Bank for International Settlements (BIS), denominated in SDRs.

These assets, valued at acquisition cost, came to €29 million on 31 December 2008.

Until financial year 2007, this item also included debt securities held to maturity. As from 31 December 2008, after the Eurosystem revised its disclosure policy for securities transactions with a view to enhancing further the transparency of the financial statements, such debt securities are classified under the appropriate asset items, depending on the currency of denomination (euro or foreign currency) and the origin of the issuer (euro area resident or non-euro area resident). In this context, an amount of €7.3 billion representing debt securities held to maturity was transferred to asset item 7, "Securities of euro area residents denominated in euro".

11.4 Accruals and prepaid expenses

This item includes accrued interest on securities, written-off premia on securities and also interest and other income accrued but not collected by 31 December 2008. The other income accrued is to be collected in the current financial year and relates mainly to interest income on lending, securities holdings and deposits with banks, as well as to interest income on the claim corresponding to the transfer of foreign reserve assets to the ECB. Also included is the value of drachma banknotes, estimated at €247.5 million, which had not been exchanged for euro banknotes by 31 December 2008 and are treated as accruals.

Outstanding balance as at 31.12.2008	€ 713.2 million
Outstanding balance as at 31.12.2007	€ 710.2 million
Increase	€ 3.0 million

11.5 Sundry

This item primarily consists of balances on the Bank's suspense debit accounts and the outstanding balances of loans to the Bank's personnel.

Outstanding balance as at 31.12.2008	€ 575.7 million
Outstanding balance as at 31.12.2007	€ 526.4 million
Increase	€ 49.3 million

This change is due to an increase in the balances of suspense debit accounts and of loans to the Bank's personnel.

LIABILITIES

1. Banknotes in circulation

Outstanding balance as at 31.12.2008	€ 18,291.3 million
Outstanding balance as at 31.12.2007	€ 16,269.7 million
Increase	€ 2,021.6 million

This item consists of the Bank's share in total euro banknotes in circulation, calculated on the basis of the banknote allocation key (2.398%). The change resulted from the rise in total euro banknotes in circulation both inside and outside the euro area, to €762.8 billion as at 31 December 2008, compared with €676.6 billion as at 31 December 2007 (see "Banknotes in circulation" under "Accounting policies").

The average value of euro banknotes put into circulation by the Bank of Greece on the basis of the banknote allocation key rose to €16.5 billion during 2008, from €15.1 billion in 2007.

	31.12.2008	31.12.2007	Change
	(in € millions)		
Value of euro banknotes put into circulation by the Bank	20,776.0	18,669.0	2,107.0
Less:			
– Liability resulting from the ECB's share in the total euro banknote issue (8% of the total value of euro banknotes in circulation)	-1,590.7[5]	-1,414.9	-175.8
– Liability resulting from the allocation of euro banknotes within the Eurosystem	-894.0[5]	-984.4	90.4
Value of euro banknotes in circulation based on the banknote allocation key of the Bank of Greece	**18,291.3**	**16,269.7**	**2,021.6**

5 Recorded under liability item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

2. Liabilities in euro to euro area credit institutions related to monetary policy operations

2.1 Current accounts (including minimum reserve holdings)

These accounts include credit institutions' reserve holdings with the Bank of Greece, which can also be used as settlement accounts for transactions with the central bank.

Outstanding balance as at 31.12.2008	€ 4,930.9 million
Outstanding balance as at 31.12.2007	€ 6,603.0 million
D e c r e a s e	€ 1,672.1 million

The average balance on these accounts in 2008 amounted to €4.9 billion, compared with €4.1 billion in 2007.

2.2 Deposit facility

This relates to the deposit facility offered by the Eurosystem to credit institutions, in the context of the implementation of the single monetary policy in the euro area.

In more detail, it consists of overnight deposits placed by credit institutions with the Bank of Greece at a pre-specified interest rate.

Outstanding balance as at 31.12.2008	€ 2,863.0 million
Outstanding balance as at 31.12.2007	€ 5.0 million
I n c r e a s e	€ 2,858.0 million

2.3 Fixed-term deposits

The collection of fixed-term deposits is one type of open market operation conducted by the Eurosystem through fixed rate tenders for fine-tuning purposes in order to absorb liquidity in the market. No deposits of this type existed as at 31 December 2008.

3. Other liabilities to euro area credit institutions denominated in euro

These are non-interest-bearing, fixed-term deposits by credit institutions as a result of sanctions for infringements of credit rules. No deposits of this type existed as at 31 December 2008.

4. Liabilities to other euro area residents denominated in euro

4.1 General government

This item comprises deposits by the Greek State (central government), public entities and the Deposits and Loans Fund.

Outstanding balance as at 31.12.2008	€ 1,520.7 million
Outstanding balance as at 31.12.2007	€ 1,159.3 million
I n c r e a s e	€ 361.4 million

The average balance of these deposits in 2008 amounted to €3.6 billion, compared with €1.5 billion in 2007.

4.2 Other liabilities

This sub-item records the balances of non-interest bearing deposits held by various entities

Outstanding balance as at 31.12.2008	€ 76.8 million
Outstanding balance as at 31.12.2007	€ 56.2 million
I n c r e a s e	€ 20.6 million

5. Liabilities to non-euro area residents denominated in euro

Outstanding balance as at 31.12.2008	€ 803.6 million
Outstanding balance as at 31.12.2007	€ 838.6 million
Decrease	€ 35.0 million

This item includes deposits by various entities.

The bulk of these liabilities (€795 million) consists of a deposit account in euro held by the IMF with the Bank and corresponding to Greece's euro-denominated participation (quota) in the IMF. Through this account, the Bank effects financial transactions with third countries, according to IMF instructions.

The observed decrease reflects payments by the Bank to third countries, following IMF instructions, and was largely offset by an (upward) valuation adjustment as a result of the appreciation of the SDR vis-à-vis the euro in 2008 (see note to asset item 2.1).

6. Liabilities to euro area residents denominated in foreign currency

These liabilities mainly stem from interest-bearing deposits by public entities, denominated in foreign currency.

Outstanding balance as at 31.12.2008	€ 103.3 million
Outstanding balance as at 31.12.2007	€ 81.2 million
Increase	€ 22.1 million

7. Liabilities to non-euro area residents denominated in foreign currency

7.1 Deposits and other liabilities

The largest component of this sub-item is the long-term loan of GBP 75 million raised on behalf of and assigned to the Greek State on 6 September 1985. The corresponding claim on the Greek State is disclosed under asset sub-item 3.1 "General government".

Outstanding balance as at 31.12.2008	€ 78.8 million
Outstanding balance as at 31.12.2007	€ 102.3 million
Decrease	€ 23.5 million

The decrease is due to a valuation adjustment as a result of the appreciation on 31 December 2008 of the euro vis-à-vis the pound sterling.

8. Counterpart of special drawing rights allocated by the IMF

This item comprises the Bank's liabilities to the IMF stemming from the cumulative allocation of special drawing rights (SDR 103.5 million) to Greece between 1970 and 1981.

Outstanding balance as at 31.12.2008	€ 114.4 million
Outstanding balance as at 31.12.2007	€ 111.2 million
Increase	€ 3.2 million

The increase in the amount of these interest-bearing liabilities, when expressed in euro terms, is solely due to valuation effects, i.e. the depreciation of the euro against the SDR.

9. Intra-Eurosystem liabilities

9.2 Net liabilities related to the allocation of euro banknotes within the Eurosystem

This item shows liabilities that stem from the allocation of euro banknotes within the Eurosystem (see "Banknotes in circulation" under "Accounting Policies").

Outstanding balance as at 31.12.2008	€ 2,484.7 million
Outstanding balance as at 31.12.2007	€ 2,399.3 million
Increase	€ 85.4 million

The balance as at 31 December 2008 is broken down as follows:

– €1,590.7 million refer to the value of euro banknotes issued by the Bank of Greece on behalf of the ECB (8% of the total value of banknotes in circulation are issued on behalf of the ECB). The Bank's share in this amount is calculated in proportion to its share in the subscribed capital of the ECB. This amount was €175.8 million higher than on 31 December 2007 (€1,414.9 million), due to the general increase in euro banknotes in circulation.

– €894 million represent an adjustment (reduction) in the amount of euro banknotes that the Bank has actually put in circulation. The purpose of this adjustment is to equalise the bank's share in total euro banknotes in circulation (liability item 1) with its banknote allocation key.

The average balance of these liabilities during 2008 came to €1,462 million, from €1.570 million in 2007.

9.3 Net liabilities related to transactions with the ESCB (TARGET2)

These are net liabilities to the ECB, stemming from the Bank's cross-border transactions with the other national central banks of the Eurosystem, the ECB and the non-euro area EU NCBs that participate in the TARGET2 system.

TARGET2 account, year-end balances

31.12.2002	31.12.2003	31.12.2004	31.12.2005 (in € millions)	31.12.2006	31.12.2007	31.12.2008
17,411.2	15,353.1	6,545.9	7,216.8	8,183.5	10,796.6	35,348.3

The €24.6 billion increase observed year-on-year as at 31 December 2008 was largely due to the increased liquidity that the Bank provided to credit institutions during 2008 in the context of the single monetary policy; the largest part of this liquidity was transferred abroad by credit institutions through the TARGET2 system.

TARGET2 account, average annual balances						
2002	2003	2004	2005	2006	2007	2008
			(in € millions)			
13,872.0	16,331.9	13,363.3	12,019.0	11,762.0	9,298.0	14,650.0

The creation of these liabilities in 2001 and their continuous increase through to 2003 reflect outflows of excess liquidity from domestic credit institutions to other EU countries. This excess liquidity resulted from the gradual release of credit institutions' reserve holdings (in euro and foreign currency) with the Bank of Greece when Greece joined EMU on 1 January 2001 and became subject to the single monetary policy of the Eurosystem.

This change has had no effect on the Bank's financial results, since the amount of interest paid by the Bank to the ECB in respect of these liabilities has replaced the interest paid until 2001 to domestic credit institutions as remuneration of their reserve holdings.

In the years 2004-2007 these liabilities gradually decreased, while banknotes in circulation increased, reflecting capital inflows aimed at meeting credit institutions' increased funding needs in the face of strong demand for credit by households (housing and consumer loans) and non-financial corporations.

The reversal of the trend during 2008, which resulted in a significant increase in the balance, is due to the transfer abroad of the bulk of liquidity provided to credit institutions in the context of the implementation of the single monetary policy of the Eurosystem.

10. Items in course of settlement

This item mainly consists of the float of cheques and payment orders whose settlement is pending, totalling €25.9 million as at 31 December 2008 (31 December 2007: €43.9 million).

11. Other liabilities

11.1 Accruals and income collected in advance

This sub-item represents interest expenses accrued up to 31 December 2008 and other expenses. Such expenses shall be paid within the new financial year and mainly involve tax on interest income from Greek State bonds and various categories of interest payable (on the outstanding balance of the TARGET2 account, on credit institutions' reserve holdings and on other liabilities).

Outstanding balance as at 31.12.2008	€ 114.3 million
Outstanding balance as at 31.12.2007	€ 70.4 million
Increase	€ 43.9 million

11.2 Sundry

This sub-item comprises: the distributable profit for the year; tax on dividends; other taxes to be paid; the Bank's liability towards the Greek State regarding Greece's SDR-denominated participation in the IMF (the corresponding claim of the Bank on the IMF is recorded under asset item 2.1 "Receivables from the IMF"); and the balances of credit suspense accounts and other accounts on behalf of third parties (suppliers, etc.).

Also included, as from 2 January 2003, is the equivalent of drachma banknotes not withdrawn from circulation (deadline for exchanging drachma for euro banknotes: 1 March 2012).

Sundry liabilities	**31.12.2008**	**31.12.2007**	**Change**
	(in € millions)		
Dividends to be distributed	47.7	50.9	-3.2
Tax on dividends	15.9	17.0	-1.1
Profit to be transferred to the Greek State	139.3	180.9	-41.6
Value of drachma banknotes in circulation	247.5	251.4	-3.9
Liability to the Greek State (Greece's SDR-denominated participation in the IMF)	115.7	58.0	57.7
Other liabilities	48.5	37.6	10.9
Total	**614.6**	**595.8**	**18.8**

12. Provisions

Category of provisions	**31.12.2008**	**31.12.2007**	**Change**
	(in € millions)		
Provision for general risks under Article 71 of the Statute	148.0	50.3	97.7
Special provision against risks from the Eurosystem's monetary policy operations	149.5	0.0	149.5
Provision for future obligations of the Bank to its personnel insurance funds	1,081.5	1,002.9	78.6
Other provisions for doubtful claims	127.8	120.4	7.4
Total	**1,506.8**	**1,173.6**	**333.2**

– The provision of €148 million, set up under Article 71 of the Statute, is aimed at covering credit risk associated with doubtful claims and liabilities, possible general risks and the risk of asset depreciation (foreign exchange rate, interest rate and gold price risks).

– The special provision against risks from Eurosystem monetary policy operations was established in 2008 following a decision by the Governing Council of the ECB.

– The provision for future obligations to the Bank's personnel insurance funds amounted to €1,081.5.

– The category "Other provisions for doubtful claims" was aimed at covering special cases of doubtful claims.

13. Revaluation accounts

In accordance with the accounting principles set out by the European Central Bank for the NCBs of the European System of Central Banks, especially the principle of prudence, unrealised valuation gains on gold, financial instruments in foreign currency and securities are not recognised as income in the Profit and Loss Account but are transferred directly to revaluation accounts (functioning as reserves for these particular assets only). By contrast, unrealised valuation losses at year-end are recognised as expenditure and are taken to the Profit and Loss Account (see "Income recognition" under "Accounting policies").

Valuation at end-2008 produced unrealised gains of €1,249.1 million (almost exclusively stemming from gold, see breakdown below), which were transferred to the corresponding revaluation accounts.

Unrealised valuation gains	**31.12.2008**	**31.12.2007** *(in € millions)*	**Change**
–on foreign currency instruments	2.4	0	2.4
–on securities	36.9	4.1	32.8
– on gold	1,209.8	961.3	248.5
Total	**1,249.1**	**965.4**	**283.7**

Unrealised losses of €11.9 million, as a result of the valuation made on 31 December 2008, were taken to the Profit and Loss Account.

14. Capital and reserves

On 31 December 2008 the Bank's own funds amounted to €793.9 million, against €774.8 million on 31 December 2007.

In more detail, the composition of the Bank's own funds as at 31 December 2008 is as follows:

14.1 Capital

The Bank's capital, following the increases effected by virtue of Legislative Decrees 413/1970 and 889/1971, Laws 542/1977 and 1249/1982, Ministerial Decision E.2665/1988, Law 2065/1992, Ministerial Decision 1281/30 October 1996 and Cabinet Acts No. 8/4 February 2000, 32/23 May

2002, 17/4 July 2005 and 8/10 June 2008, **has reached €111,243,362 divided into 19,864,886 shares of a par value of €5.60 each.**

In 2008 the Bank's share capital was increased by €22,248,671, with the capitalisation of part of real estate revaluation gains.

The increase was effected by the issuance of 3,972,977 new bonus shares of a par value of €5.60 each, which were allotted to current shareholders in a proportion of one new share for every four existing shares.

14.2 Ordinary reserve

The Bank's ordinary reserve amounts to €111,243,362. After the latest increase in the Bank's share capital by €22,248,671, the ordinary reserve was increased by the same amount, in accordance with Articles 10 and 71 of the Statute, so as to remain equal to the share capital. The amount of €22,248,671 was transferred from the profits for the year 2008.

14.3 Extraordinary reserve

An extraordinary reserve of €55,000,000 was created out of the profits for the years 2006 and 2007.

14.4 Special reserve from the revaluation of land and buildings

This special reserve was established during financial year 2004 with the capital gains from the restatement of land and buildings at fair (market) value (as determined by an independent assessor). At that time, it amounted to €492,267,534.

In 2005, an amount of €22,248,671 from the special reserve was capitalised through the issuance of 3,972,977 new bonus shares of a par value of €5.60 each, which were allotted to current shareholders, in a proportion of one new share for every three existing shares.

In financial year 2007, the Bank's land and buildings were revalued (at fair value) by independent assessors. The resulting revaluation gains of €71,531,825 were transferred to the above special reserve, which came to €541,550,688.

In financial year 2008, an amount of €22,248,671 from the special reserve was capitalised through the issuance of 3,972,977 bonus shares of a par value of €5.60 each, which were allocated to current shareholders in a proportion of one new share for every four existing shares.

Moreover, realised revaluation gains of €3,126,022 (value of real estate sold) were transferred to the profit for 2008.

14.5 Special reserve from assets transferred gratis to the Bank

This special reserve amounts to €275,033 and represents the value of fixed assets (mostly buildings) transferred gratis to the Bank.

OFF-BALANCE SHEET (MEMORANDUM) ITEMS

	31.12.2008	31.12.2007	Change
	(in € millions)		
– Greek government securities management of the “Common fund of public entities and social security organisations” under Law 2469/97)	19,345.0	19,361.1	-16.1
– Greek government securities and other debt securities (management and safe custody on behalf of public entities, social security organisations and private-sector agents)	7,726.3	13,474.8	-5,748.5
– Other off-balance sheet accounts*	54,996.0	13,461.8	41,534.2
Total	**82,067.3**	**46,297.7**	**35,769.6**

* These accounts reflect:

– eligible assets (marketable debt instruments, other assets) provided by domestic credit institutions to the Bank of Greece as collateral in Eurosystem credit operations and in the context of domestic interbank payments. An increase in this sub-item was the main factor behind the observed substantial increase in the item "Other off-balance-sheet accounts";

– swap transactions related to the Bank’s portfolios;

– documentary credits to be executed, third-party guarantees of good performance, coins in storage at the Bank, etc.;

– forward liabilities to the ECB, to be settled after 31.12.2008, in connection with the US dollar Term Auction Facility. Under this programme, US dollars were provided by the Federal Reserve to the ECB by means of a temporary reciprocal currency arrangement (swap line), with the aim of offering short-term US dollar funding to Eurosystem counterparties (see note on Assets item 3.2 “Other claims”).These operations generated non-interest bearing balances within the Eurosystem between the ECB and the NCBs. For the Bank of Greece, the corresponding balance is included in the overall balance of the TARGET2 account (liability item 9.3 “Net liabilities related to transactions with the ESCB–TARGET2”);

– forward claims in the framework of the above agreement, resulting from swap transactions with domestic credit institutions;

– forward liabilities to the ECB and forward claims on domestic credit institutions, which arose in connection with the provision of Swiss franc liquidity to Eurosystem counterparties. Through swap operations with Eurosystem NCBs, the Swiss National Bank provided the ECB with Swiss francs. The ECB simultaneously entered into back-to-back swap transactions with euro area NCBs, which used the resulting funds to conduct Swiss franc liquidity-providing operations with Eurosystem counterparties in the form of swap transactions.

GENERAL NOTES ON THE PROFIT AND LOSS ACCOUNT FOR 2008

The Bank's net profits in 2008 amounted to €225.1 million, compared with €284.7 million in 2007, having fallen by 20.9%.

The decrease in net profit resulted mainly from increased provisioning against risks related to the Eurosystem's monetary policy operations during the year 2008, as well as against future risks and other liabilities of the Bank.

In addition, an amount of €22.2 million was transferred from 2008 profits to the ordinary reserve, bringing it to €111.2 million, equal to the share capital of the Bank, as required by Articles 10 and 71 of its Statute.

ANALYSIS OF THE PROFIT AND LOSS ACCOUNT FOR 2008

INCOME

• ***The Bank's total net income in 2008*** was slightly lower than in the previous financial year (having decreased by 0.2% to €823.5 million, from €825.5 million in 2007).

This result was solely due to the establishment of a new special provision against risks related to the Eurosystem's monetary policy operations, whereas income from the Bank's main sources increased significantly in 2008.

The special provision was established following a decision by the Governing Council of the ECB, given the exceptionally adverse conditions which prevailed in the money market during 2008 and which affected also the Eurosystem's liquidity-providing monetary policy operations.

In this context, the Governing Council of the ECB, in line with the general accounting principle of prudence, deemed it appropriate to establish a provision totalling €5,736 million as a buffer against counterparty risks in monetary policy operations.

In accordance with the Statute of the European System of Central Banks (ESCB) and of the ECB, this provision will be funded by all the national central banks of the participating Member States in proportion to their subscribed shares in the capital of the ECB.

Accordingly, the Bank of Greece established a provision of €149.5 million, which affected negatively the net result of pooling and reallocation of monetary income within the Eurosystem.

Developments in individual income categories:

• ***Net interest income*** amounted to €706.2 million, having increased by 30.6% from €540.9 million in 2007, as a consequence of the high returns on the Bank's portfolios.

• ***Net income from fees and commissions*** rose by 9.3% to €144.0 million, compared to €131.7 million in 2007. This income mainly concerns commissions received by the Bank from the Greek State for transactions conducted on the latter's behalf, as well as commissions from the management of the Common Capital of Legal Persons in Public Law and Social Security Funds.

• ***Income from equity shares and participating interests*** increased by €34.8 million to €38.2 million, from €3.4 million in 2007. An important inflow under this item was the payment by the European Central Bank of €34.5 million, corresponding to the Bank's allotted share of the ECB's seigniorage income and net profit.

• ***The net result of financial operations, write-downs and risk provisions*** fell by €67.3 million to €37 million, from €104.3 million in 2007. Results in 2007 had benefited from net realised gains of €93.4 million from swap operations, with which a special provision was created. It should be noted that 2008 saw higher realised gains from foreign exchange operations and debt securities and significantly lower portfolio valuation losses as at year-end relative to 2007, despite the adverse international financial market environment.

• ***Finally, other income,*** mainly comprising income from the activities of the Banknote Printing Works (IETA), amounted to €32.9 million, compared with €38.6 million in 2007.

EXPENSES

Total expenses (excluding the provision against counterparty risks in the Eurosystem's monetary policy operations) increased by 10.7% to €598.5 million in 2008, from €540.8 million in 2007.

This development was mainly due to an increase in provisions against future risks and other liabilities of the Bank.

Specifically:

• ***Other provisions*** (further to the aforementioned Eurosystem-related provision) set aside during the financial year 2008 rose to €197.4 million, from €148.1 million in 2007 (increased by 33.3%). The largest part of the amount of €197.4 million relates to a provision against future counterparty risks arising from the conduct of Eurosystem monetary policy operations.

• ***Operating expenses excluding provisions*** (staff costs, pensions, administrative and other expenses, depreciation) increased by only 2.1% to €401.1 million, from €392.7 million in 2007. The respective increase for the previous year was 9.5%.

DETAILED INCOME AND EXPENSE STATEMENT

NET OPERATING INCOME *(in euro)*

	2008	2007
1. NET INTEREST INCOME	**706,174,175**	**540,872,459**
1.1 Interest income	**1,656,126,765**	**1,195,032,737**
a. Interest on lending to credit institutions related to monetary policy operations	508,098,689	188,544,374
b. Interest on securities and deposits with non-resident credit institutions	632,885,968	517,820,392
c. Interest on Greek government debt securities	132,250,421	145,621,771
d. Remuneration of long-term euro-denominated claims arising from the transfer of foreign exchange reserves to the ECB	36,504,242	35,456,978
e. Interest on long-term claims against the Greek State	341,697,820	302,331,036
f. Interest on deposits and SDR holdings with the IMF	1,114,672	2,090,874
g. Interest on loans to the personnel of the Bank of Greece	3,455,013	3,126,747
h. Other interest income	119,940	40,565
1.2 Interest expense	**-949,952,590**	**-654,160,278**
a. Interest and expenses on intra-ESCB balances (TARGET2)	-545,219,686	-369,671,588
b. Interest on net liabilities related to the allocation of euro banknotes within the Eurosystem	-59,924,649	-62,396,937
c. Interest on banks' current accounts in the context of monetary policy operations (including minimum reserves)	-203,895,586	-166,076,828
d. Interest on deposits by the Greek State	-134,362,811	-47,383,741
e. Interest on foreign exchange deposits by public entities	-3,455,963	-3,916,693
f. Interest on the allocations of SDRs	-2,866,817	-4,701,903
g. Other interest expense	-227,078	-12,588
2. NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS	**36,999,655**	**104,237,125**
3. NET INCOME FROM FEES AND COMMISSIONS	**144,003,938**	**131,739,075**
4. INCOME FROM EQUITY SHARES AND PARTICIPATING INTERESTS	**38,150,051**	**3,383,702**
5. NET RESULT OF POOLING OF MONETARY INCOME	**-134,653,569**	**6,690,797**
6. OTHER INCOME	**32,872,186**	**38,574,547**
TOTAL NET INCOME	**823,546,436**	**825,497,705**

NOTES ON NET OPERATING INCOME ACCOUNTS

The Bank's net operating income was slightly lower in 2008, falling by 0.2% to €823.5 million, from €825.5 million in 2007.

This result was due to the establishment of a new special provision of €149.5 million against risks related to the Eurosystem's monetary policy operations, whereas income from the Bank's main sources increased significantly in 2008.

In greater detail:

1. Net interest income

Net interest income (interest income less interest expense) increased by 30.6% to €706.2 million, from €540.9 million in the previous financial year. This change was due to the high yields on the Bank's portfolios.

The individual categories of interest are as follows:

1.1 Interest income

Interest income increased by 38.6% to €1.7 billion, from €1.2 billion in 2007.

Specifically:

a) Interest on lending to credit institutions related to monetary policy operations

This refers to the financing of domestic credit institutions through the liquidity-providing open market operations conducted by the Eurosystem in the context of the single monetary policy of the euro area.

In 2008, this category more than doubled, to €508.1 million from €188.5 million in 2007. This mainly reflects the enhanced provision of liquidity to credit institutions, particularly during the last three months of 2008, in order to meet credit institutions' increased liquidity needs in the context of the financial crisis.

The interest rate on Eurosystem main refinancing operations averaged 4.036% in 2008, compared with 3.931% in 2007.

Interest on lending to credit institutions	**2008**	**2007**	**Change**
	(in € millions)		
– main refinancing operations (MROs)	239.1	100.6	138.5
– longer-term refinancing operations (LTROs)	267.3	87.7	179.6
–fine-tuning reverse operations	0.9	0.2	0.7
– marginal lending facility	0.8	0	0.8
Total	**508.1**	**188.5**	**319.6**

b) Interest on securities and deposits with non-resident credit institutions

This includes interest on securities and deposits in euro and in foreign currency with credit institutions both within and outside the euro area.

Interest by type of asset	**2008**	**2007**	**Change**
	(in € millions)		
– on securities	620.9	462.0	158.9
– on time deposits and current accounts	12.0	55.8	-43.8
Total	**632.9**	**517.8**	**115.1**

c) Interest on Greek government debt securities

Interest on the Bank's holdings of Greek government securities dropped by €13.3 million against the previous financial year (2008: €132.3 million, 2007: €145.6 million). The total value of holdings came to €2.9 billion as at 31 December 2008, from €3.1 billion as at 31 December 2007.

d) Remuneration of long-term euro-denominated claims arising from the transfer of foreign reserve assets to the ECB

This refers to interest on the Bank's euro-denominated claim against the ECB with respect to the foreign reserve assets transferred to the ECB, in accordance with Article 30 of the Statute of the ESCB. This claim is remunerated at 85% of the latest marginal MRO rate. This item rose by €1 million in 2008 to €36.5 million (2007: €35.5 million), exclusively on account of the increase in the MRO rate.

e) Interest on long-term claims against the Greek State

This refers to interest on loans granted by the Bank of Greece to the Greek State up to 31 December 1993.

This interest income rose to €341.7 million in 2008, from €302.3 million in 2007 (+€39.4 million), owing to the increase in the Libor and Libid rates applicable on all loans granted to the Greek State and resulting from the conversion of the debit balances of the account "Foreign exchange rate valuation differences under Law 1083/80" (12-month Libor and Libid rates). The increase in this category of interest more than offset the decline in overall interest payments by the Greek State caused by gradual debt repayment.

f) Interest on deposits and SDR holdings with the IMF

This item comprises interest on Greece's participation in the IMF and on the Bank's SDR holdings with the IMF. This category of interest income dropped by €1 million to €1.1 million (2007: €2.1 million).

This change was the result of the significant decline in the SDR interest rate, which was partly offset by an increase in Greece's SDR-denominated quota in the IMF (accompanied by a commensurate decrease in the euro-denominated component).

g) Interest on loans to the personnel of the Bank of Greece

Interest on loans (for house purchase or personal loans) granted by the Bank of Greece to members of its staff increased by €0.4 million (2008: €3.5 million, 2007: €3.1 million).

h) Other interest income

Other interest income totalled €119,940, compared with €40,565 in 2007.

1.2 Interest expense

Interest expense increased by 45.2% to €950 million, from €654.2 million in 2007.

In greater detail:

a) Interest and expenses on intra-ESCB balances (TARGET2)

Interest and expenses on the TARGET2 account (in € millions)

2001	2002	2003	2004	2005	2006	2007	2008
320.9	458.9	384.8	273.4	252.1	333.5	369.7	545.2

The above interest and expenses are calculated on the basis of the daily balances of the account dedicated to the transactions of the Bank of Greece with the ECB and other ESCB NCBs within the TARGET2 system.

In the first two years after the Bank joined the ESCB (2001 and 2002), this interest rose significantly, due to the transfer of excess liquidity from domestic credit institutions to other EU countries, while gradual declines were observed from 2003 to 2005. In 2003 the decline was exclusively due to the lower interest rate (marginal MRO rate), while the average annual balance of the account increased.

The continued declines of 2004 and 2005 reflected lower balances on the TARGET2 account, in the absence of significant changes in the interest rate over the same period (the interest rate increase of 6 December 2005, from 2% to 2.25%, had a negligible impact).

The rise in 2006 and 2007 was due exclusively to the higher MRO rate, while the average balance on the account stood at lower levels (2005: 12.0 billion, 2006: €11.8 billion, 2007: €9.3 billion).

In 2008, especially in the last quarter in view of the financial crisis, the volume of liquidity provided to credit institutions through main and longer-term refinancing operations increased substantially. The largest part of this liquidity was transferred by domestic credit institutions to other EU countries through the TARGET2 account. However, the TARGET2-related interest expense was fully offset by an equal amount of interest income from the Bank's liquidity-providing operations with credit institutions, therefore there was no impact on the Bank's financial results.

The average balance of the account was €14.7 billion in 2008 compared with €9.3 billion in 2007.

It should be noted that this interest expense replaced the interest paid by the Bank until 2001 to domestic credit institutions on their required reserve holdings.

b) Interest on net liabilities related to the allocation of euro banknotes within the Eurosystem

This interest expense registered a fall of €2.5 million (2008: €59.9 million, 2007: €62.4 million), as a result of a decrease in the average level of these liabilities, relative to the previous financial year (2008: €1.5 billion, 2007: €1.6 billion).

This interest expense is calculated on the basis of:

– the Bank's liability corresponding to the ECB's share in the euro banknote issue (a share of 8% of the total value of euro banknotes in circulation is allocated to the ECB);

– the intra-Eurosystem claim/liability corresponding to the value of euro banknotes put into circulation by the Bank of Greece, adjusted to ensure that the Bank's share in total euro banknotes in circulation (after the deduction of the 8% share allocated to the ECB) is equal to its banknote allocation key;

– the amount of adjustment. Since 2002, intra-Eurosystem balances related to the allocation of euro banknotes have been adjusted in order to avoid sharp fluctuations in the monetary income of Eurosystem NCBs (see section "Banknotes in circulation" under "Accounting Policies", as well as the note on liability item 9.2).

c) Interest on banks' current accounts in the context of monetary policy operations (including minimum reserves)

This mainly concerns interest paid on banks' minimum reserves, in the context of monetary policy conduct in the euro area countries.

This item rose by €37.8 million in 2008 compared with the previous year (2008: €203.9 million, 2007: €166.1 million), a development which is attributed mainly to the increase in the level of reserve holdings (2008: €4.9 billion, 2007: €4.1 billion).

d) Interest on deposits by the Greek State

Interest on deposits by the Greek State rose by a considerable €87 million, to €134.4 million (2007: €47.4 million). This change mainly stemmed from the remuneration of time deposits held by the Greek State with the Bank of Greece during 2008, following the revision of the relevant agreement between the Bank and the Greek State: according to the revision, as from 29 January 2008, daily balances of more than €2 billion in government deposit accounts with the Bank of Greece are converted to time deposits.

The average daily level of total deposits of the Greek State with the Bank was €3.4 billion in 2008, compared with €1.2 billion in 2007, remunerated at an average interest rate of 4.02%, compared with 3.95% in 2007.

It should be noted that the interest paid on the Greek State's time deposits was offset by a corresponding decline in the interest paid on the balance of the TARGET2 account.

e) Interest on foreign exchange deposits by public entities

This category of interest expense decreased by €0.5 million (2008: €3.4 million, 2007: €3.9 million), mainly due to lower US dollar interest rates.

f) Interest on the allocation of SDRs

Interest on the Bank's liabilities from the allocation of IMF special drawing rights (SDRs) decreased by €1.8 million (2008: €2.9 million, 2007: €4.7 million), due to a drop in SDR interest rates.

g) Other interest expense

This category of interest expense came to €227,078, from €12,588 in 2007.

2. Net result of financial operations, write-downs and risk provisions

The net result from financial operations in 2008 declined by €67.3 million to €37.0 million, from €104.3 million in 2007.

A detailed breakdown is provided below.

2.1 Realised gains from financial operations	**2008**	**2007** *(in € millions)*	**Change**
– foreign exchange operations	12.3	9.0	3.3
– transactions in securities	26.0	7.6	18.4
– swap operations	0	93.4	-93.4
– foreign exchange valuation differences due to changes in the €/SDR parity	-6.6	9.4	-16.0
– purchases and sales of gold coins	5.3	0.2	5.1
Total	**37.0**	**119.6**	**-82.6**
2.2 Write-downs of financial assets and positions (unrealised losses)			
– from the valuation of foreign exchange	-11.7	-30.9	19.2
– from the valuation of securities	-0.2	-12.4	12.2
Total	**-11.9**	**-43.3**	**31.4**
2.3 Transfer from provisions for exchange rate and price risks	**11.9**	**28.0**	**-16.1**
Grand total	**37.0**	**104.3**	**-67.3**

As shown in the table, the significant decrease of €67.3 million in the net result from financial transactions was exclusively due to the non-realisation of gains from swap operations in 2008, although this development was partly offset by higher realised gains from transactions in securities and foreign exchange operations.

Gains from transactions in securities increased by €18.4 million, and gains from foreign exchange operations by €3.3 million. The change in the €/SDR parity gave rise to a loss of €6.6 million in 2008, compared with gains of €9.4 million in 2007.

Finally, the 2008 results include unrealised losses of €11.9 million (2007: €43.3 million) from the year-end valuation of foreign exchange and securities, as a result of the appreciation of the euro, most notably against the pound sterling, the Canadian dollar and the Australian dollar. These losses were fully covered by the special provision established for this purpose.

3. Net income from fees and commissions

Net income from fees and commissions grew by €9.3 million in 2008 to €144 million, from €131.7 million in 2007.

A breakdown is provided below.

Net income from fees and commissions	2008	2007	Change
	(in € millions)		
3.1 Income from fees and commissions			
– management of Greek government securities	33.6	32.8	0.8
– payments and receipts on behalf of the Greek State	73.7	36.3	10.4
– management of the "Common Fund" (surpluses of public entities and social security organisations) under Law 2469/1997	30.5	29.1	1.4
– other	7.7	7.7	0
Total	**145.5**	**132.9**	**12.6**
3.2 Expenditure for fees and commissions	**-1.5**	**-1.2**	**-0.3**
Total net income from fees and commissions	**144.0**	**131.7**	**12.3**

4. Income from equity shares and participating interests

Income from equity shares and participating interests increased by €34.8 million to €38.2 million in 2008, from €3.4 million in 2007.

Income from equity shares and participating interests	2008 (in € millions)	2007	Change
–from the distribution of part of the ECB's seignorage income	31.4	0	31.4
–from the distribution of the ECB's net profits	3.1	-	3.1
–other income from equity shares and participating interests	3.7	3.4	0.3
Total	**38.2**	**3.4**	**34.8**

Income from the ECB

• The Bank received an amount of €31.4 million from the distribution of part of the income earned by the ECB on its share (8%) of total euro banknotes in circulation (the ECB's seignorage). Of this total income, amounting to €2,230.5 million in 2008, €1,205.7 were distributed to the NCBs, while the remainder (€1.024.8) was transferred to the provision for foreign exchange rate, interest rate and gold price risks.

• In addition, the Bank received an amount of €3.1 million from the distribution of the remaining balance (€116.6 million) of the ECB's profit for 2008.

Other income from equity shares and participating interests

This income, amounting to €3.7 million, corresponds to deferred payments of dividends for financial year 2007 in respect of the Bank's participating interests in: the Bank for International Settlements (BIS), DIAS Interbank Systems SA and Hellenic Exchanges SA.

5. Net result of pooling of monetary income

	2008 (in € millions)	2007	Change
–Income from the reallocation of the Eurosystem monetary income	14.9	6.7	8.2
–Provision against risks from Eurosystem monetary policy operations	-149.5	0	-149.5
Total	**-134.6**	**6.7**	**-141.3**

As shown in the table, the net result from the reallocation of monetary income showed a negative change, thus turning out at €-134.6 million.

This development was due to a €149.5 million provision against risks arising from the Eurosystem's monetary policy operations in 2008.

In greater detail:

Income from the reallocation of the Eurosystem monetary income
Monetary income is the income accruing to the euro area NCBs in the performance of the Eurosystem's monetary policy function.

The amount of each NCB's monetary income is equal to its annual income derived from its assets held against the "liability base".

The liability base consists of the following liability items:

- banknotes in circulation;

- deposit liabilities to euro area credit institutions in euro, related to monetary policy operations;

- net intra-Eurosystem liabilities related to transactions with the ESCB (TARGET2);

- net intra-Eurosystem liabilities related to the allocation of euro banknotes.

Any interest paid by an NCB on items included in the liability base is deducted from the monetary income of that NCB.

The assets that are held against the liability base ("earmarkable assets") are the following:

- lending to euro area credit institutions related to monetary policy operations denominated in euro;

- intra-Eurosystem claims equivalent to the transfer of foreign reserves other than gold to the ECB;

- net intra-Eurosystem claims resulting from TARGET2 transactions;

- net intra-Eurosystem claims on euro banknotes;

- gold, including claims in respect of gold transferred to the ECB, in an amount permitting each NCB to earmark a proportion of its gold that corresponds to the application of its share in the subscribed capital key to the total amount of gold earmarked by all NCBs. Gold is deemed to generate no income.

Where the value of an NCB's earmarkable assets exceeds or falls short of the value of its liability base, the return on the difference is calculated daily on the basis of the latest available marginal rate of the Eurosystem main refinancing operations.

At the end of each financial year, the monetary income pooled by the Eurosystem is reallocated to the NCBs in proportion to their paid-up shares in the capital of the ECB.

The positive difference (€14.9 million) between the monetary income accrued to the Bank of Greece in 2008 (€702.6 million) and the amount to be allocated to it (€717.5 million) in proportion to its paid-up share in the ECB's capital is the Bank's net income from the pooling and reallocation of the Eurosystem monetary income.

The above method for allocating monetary income was established by Decision 22/2007 of the Governing Council of the ECB.

Provision against counterparty risks from Eurosystem monetary policy operations

The €149.5 million provision against risks arising from the Eurosystem's monetary policy operations was established following a decision by the Governing Council of the ECB, in view of the exceptionally adverse conditions which prevailed in the money market in 2008 and affected the liquidity-providing monetary policy operations of the Eurosystem.

In this context, the Governing Council of the ECB decided that, as a matter of prudence, the NCBs should establish their respective shares of an appropriate provision totalling €5,736 million in their annual accounts for 2008 as a buffer against risks arising from the monetary policy operations conducted in 2008.

In accordance with the Statute of the European System of Central Banks (ESCB) and of the ECB, this provision will be funded by all the national central banks of the participating Member States in proportion to their subscribed shares in the capital of the ECB.

Accordingly, the Bank of Greece established a provision of €149.5 million, which affected negatively the net result of pooling and reallocation of monetary income within the Eurosystem.

6. Other income

Other income decreased by €5.7 million to €32.9 million, compared with €38.6 million in 2007.

This change was mainly due to the reduced revenue from the activities of the Banknote Printing Works (IETA) of the Bank of Greece, which account for the bulk of the "other income" category (€27.3 million). In 2008, both the production of euro banknotes and IETA's income from the printing of passports declined.

Other income also includes the gains from the sale of real property, i.e. the buildings housing the Drama and Patras branches (€3.8 million), as well as smaller amounts representing income from the sale of obsolete equipment, accreditation fees, cashier surpluses, etc.

OPERATING COSTS, DEPRECIATION AND PROVISIONS

	2008	2007
	(in euro)	
STAFF COSTS AND PENSIONS	**311,187,990**	**291,754,246**
ADMINISTRATIVE AND OTHER EXPENSES	**47,320,801**	**58,143,853**
DEPRECIATION OF TANGIBLE AND INTANGIBLE FIXED ASSETS	**42,567,026**	**42,786,390**
TOTAL EXPENSES BEFORE PROVISIONS	**401,075,817**	**392,684,489**
PROVISIONS	**197,386,378**	**148,129,355**
TOTAL EXPENSES	**598,462,195**	**540,813,844**

NOTES ON THE EXPENDITURE ACCOUNTS

Expenditure in 2008 (apart from the provision against risks from Eurosystem monetary policy operations, which is included in the net result from the pooling and reallocation of monetary income) grew by 10.7% to €598.5 million, from €540.8 million in 2007.

This development was mainly due to increased provisions against future risks and liabilities.

In greater detail:

• ***Outlays for staff costs and pensions*** increased by 6.6% to €311.2 million, from €291.8 million in 2007.

• ***Administrative and other expenses*** decreased by 18.6%, to €47.3 million, from €58.1 million in 2007. These expenses include the expenditure of the Banknote Printing Works (IETA) for raw materials, the cost of building repair and maintenance, the procurement of computer hardware and other equipment, insurance premiums, charitable donations, overhead costs, etc.

The decrease reflected the reduced consumption of raw materials by IETA due to the downsized production and a base effect associated with non-recurring expenditure in the previous financial year. Regular administrative and other expenses were at broadly the same levels as in 2007.

• ***Depreciation*** was broadly unchanged from 2007, at €42.6 million, and for the most part concerned depreciation of previous years' banknote production costs.

It should be noted that the annual depreciation of the Bank's buildings is calculated at a rate of 2.5% on the basis of the buildings' estimated lifetime (40 years), while the annual depreciation of the banknote production costs is calculated at a rate of 20% over the average lifetime of banknotes (5 years).

• ***Other provisions*** (apart from the provision for risks arising from Eurosystem monetary policy operations conducted in 2008) amounted to €197.4 million in 2008, compared with €148.1 million in the previous year (i.e. a 33.3% increase). The bulk of this amount represents a provision against future counterparty risks in Eurosystem monetary policy operations.

NET PROFIT

Net profit amounted to €225.1 million in 2008, having decreased by 20.9% from €284.7 million in 2007.

DISTRIBUTION OF NET PROFIT

(Article 71 of the Statute)

The General Council proposes to the General Meeting of Shareholders that the net profit be distributed as follows:

	2008	**2007**
	(in euro)	
Dividend of €0.67 per share on 19,864,886 shares	13,309,473	10,647,579
Ordinary reserve	22,248,672	-
Extraordinary reserve	-	36,000,000
Additional dividend, €1,73 per share on 19,864,886 shares*	34,366,253	40,206,530
Tax on dividends (Article 6 of Law 3296/2004)	15,891,909	16,951,370
To the government	139,267,934	180,878,382
	225,084,241	**284,683,861**

* Total dividend in 2008 is €2.40 per share, compared with €2.56 per share (adjusted to the new number of shares) in 2007. Dividends are subject to withholding tax of 10%, in accordance with Article 18 of Law 3697/2008.

Athens, 11 March 2009

For the General Council
THE CHAIRMAN

GEORGE A. PROVOPOULOS
GOVERNOR OF THE BANK OF GREECE

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