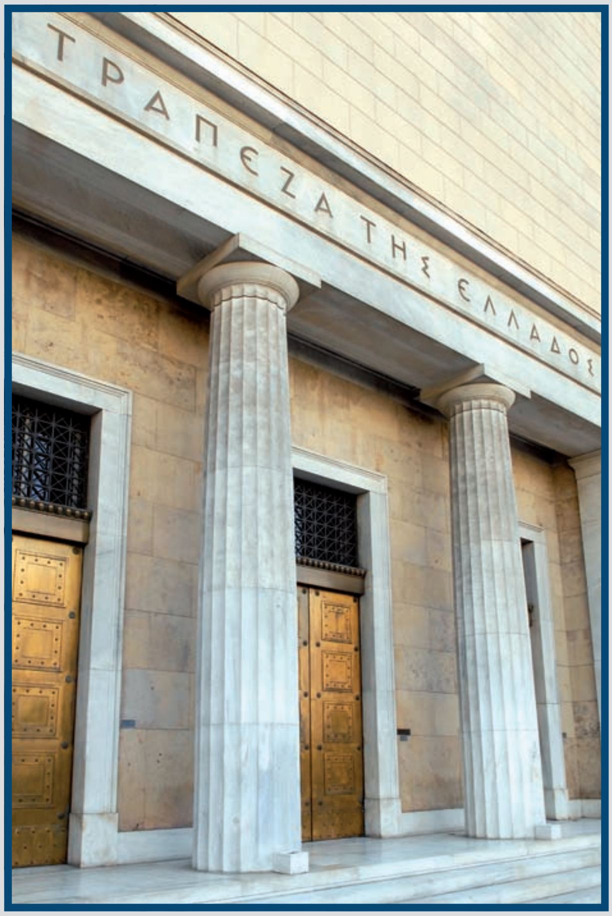
ANNUAL REPORT
2009



APRIL 2010

BANK OF GREECE
EUROSYSTEM

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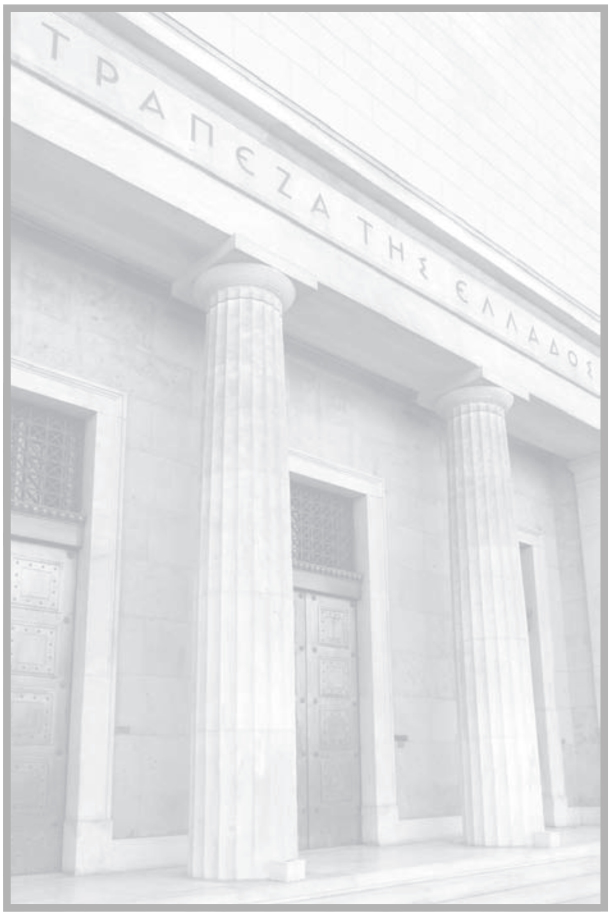
Presented to the 77th General Meeting of Shareholders
on 27 April 2010 by Governor George Provopoulos



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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 Oikonomou	»	
Ioannis Gozadinos	Member	*Expiry of term of office: 2010*[*]
Georgios Kassimatis	»	*Expiry of term of office: 2010*[*]
Ulysses Kyriacopoulos	»	
Georgios Mylonas	»	
Christos Polyzogopoulos	»	
Michael Chandris	»	
Christos Dziounis	Government Commissioner	

* The term of office of General Council Members Messrs Ioannis Gozadinos and George Kassimatis, elected by the Annual General Meeting of 24 April 2007, expires at the current Annual General Meeting, in accordance with Article 21 of the Bank's Statute.

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I FINANCIAL RESULTS FOR 2009

The Bank's Profit and Loss Account for 2009 shows total net revenue of €1,139.5 million and total operating expenses (including depreciation and provisions) of €911.3 million. Net profit thus reached €228.2 million, compared with €225.1 million in 2008.

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, as in 2008. The total dividend per share would thus come to €2.40 (current number of shares: 19,864,886). From the balance of net profits —after the allocation of €17.5 million to an increase in the extraordinary reserve and the deduction of €15.9 million in income tax on distributed profits— an amount of €147.1 million (compared with €139.3 million in 2008) shall be transferred to the State in accordance with Article 71 of the Bank's Statute.

In greater detail, the Bank's revenue and expenses in financial year 2009 can be broken down as follows:

Total net income from interest, 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), increased by a substantial 41.3%, from €806.2 million in 2008 to €1,139.5 million in 2009.

Net interest income rose by 8.6% to €766.7 million, against €706.2 million in 2008, as a result of the high yields of the Bank's portfolios.

Net gains from financial operations increased by €21.2 million to €58.2 million, compared with €37 million in 2008, mainly as a result of higher gains from operations in debt securities.

Net fee income rose by 21.4% to €174.8 million, against €144.0 million in 2008.

Income from equity shares and participating interests increased by €28.8 million to €67 million, compared with €38.2 million in 2008. This sharp increase was due to an inflow of €63.4 million (2008: €34.4 million) from the ECB, corresponding to the Bank of Greece's allotted share in the ECB's seigniorage income and net profit.

The Bank's net result from the pooling and reallocation of monetary income within the Eurosystem improved by a substantial €53.4 million, compared with €-134.7 million in 2008. This reversal can be explained by the fact that, whereas the results for 2008 had been negatively affected by Greece's share of €149.5 million in the funding of a provision against counterparty risks in the Eurosystem's monetary policy operations, income for 2009 benefited from the release of €45 million from this provision following an upward revaluation of collateral and a downward reassessment of relevant risk exposures.

Finally, other income totalled €19.4 million, compared with €15.5 million in 2008. The bulk of this amount concerns income from activities carried out by the Banknote Printing Works (IETA) on behalf of the Greek State, as well as the proceeds from the sale of real estate associated with the downsizing of some of the Bank's branches into outlets as part of the Bank's broader restructuring plan.

Total expenses in 2009 grew by 56.8% to €911.3 million, from €581.1 million in 2008, mainly on account of a rise in provisions against future risks and other liabilities of the Bank, but also because of an increase in depreciation. More specifically:

Provisions established in 2009 amounted to €472.2 million. In 2008, risk provisions had amounted to €168.8 million, plus a further €149.5 million for the above-mentioned special provision against Eurosystem counterparty risks.

Depreciation increased to €59.8 million, from €27.8 million in 2008. This item consists mainly of depreciation of banknote production costs incurred in previous years.

Operating expenses excluding provisions and depreciation (staff costs and pensions, administrative and other costs) declined by 1.4% to €379.3 million, from €384.5 million in 2008.

Organisational developments

The Bank's total number of staff decreased by a further 160 members in the course of 2009 to 2,344 at year-end. The Bank went ahead with the reorganisation of its branch network, adapting it to the new conditions within the Eurosystem.

In this context, the Sparta and Florina branches were downsized into outlets as from 23 February and 18 May 2009, respectively. Also, the operation of eighteen (18) of the Bank's Cash Reserves in branches of the National Bank of Greece was discontinued.

Meanwhile, organisational restructuring continued in order to ensure better operating standards. This involved organisational changes in the Bank's Legal Department, as well as adjustments in the structure of the Thessaloniki Branch following the creation of the new Cash Processing and Distribution Centre in Thessaloniki.

As part of its operations modernisation programme, the Bank of Greece joined the DIAS CREDIT TRANSFER (DCT) scheme that provides credit transfer services in compliance with SEPA (Single Euro Payments Area) standards. An infrastructure for electronic document management was also set up to ensure staff access to Bank of Greece circulars. In the meantime, the necessary conditions were created for a decentralised Human Resources Management System (HRMS) and its interoperability with other systems, while the development of a three-year strategic action plan for the Bank's departments was further advanced.

Buildings and technical projects

In 2009, the Bank added to its premises the newly constructed Cash Processing and Distribution Centre in the district of Pylaia, Thessaloniki. Apart from its outstanding architectural design, this building boasts a number of innovative eco-friendly features. The Centre was completed in September 2009 and is already fully operational, with a capacity to process (i.e. count, check for authenticity and sort) 240 million banknotes per year, which corresponds to 25-30% of the total output of the Bank's network nationwide.

Meanwhile, the Bank's Technical Services Department pursued its maintenance and remodelling of the Bank's premises both in Attica and elsewhere in the country, as part of a programme to improve working conditions, enhance the physical security of facilities and operations and switch over to more eco-friendly installations (e.g. heating systems using natural gas).

By virtue of decisions of the General Council under the Bank's Statute, the building of the former Argostoli branch (Cephallonia), and two buildings of the branch in Xanthi were sold to the respective municipalities and the Red Cross. Similar procedures are well under way for the sale of the former branch premises in Agrinio and Florina to the municipality of Agrinio and the prefecture of Florina. These property sales are in conformity with the Bank's standard policy of safeguarding the integrity of its assets, while screening prospective buyers to ensure that their profile and the use intended for the property best serve the public interest.

Other activities

In 2009, the Bank of Greece successfully pursued its mandate in all of its areas of responsibility. As in the past, this would not have been possible without the commitment, dedication and competence of the Bank's staff, which, apart from its in-house duties, continued to worthily represent the Bank on Eurosystem committees and working groups and at other European and international fora. With its consistent performance in fulfilling its statutory obligations, including Eurosystem-related tasks, the Bank has won itself widespread recognition and a special place in the country's institutional landscape, as more recently evidenced by the plans of the Greek government to entrust the Bank with the supervision of insurance companies and the management of the financial assets of insurance organisations.

Apart from its core central bank tasks in the fields of monetary policy, banking supervision and financial stability, the Bank developed a number of initiatives in the course of 2009 and in the first quarter of 2010, the most important of which are listed below:

Statistics. With a view to enhancing the availability of reliable and timely statistics to the public, the Bank of Greece, as of early 2010, now issues a monthly press release on the central government net borrowing requirement on a cash basis.

With a similar objective in mind, the Bank has developed short-term statistics on the domestic housing market, including a new house price index series, based on data reported by credit institutions operating in Greece. Stepping up its focus on this key market, the Bank also held a conference entitled "Real estate market: recent developments and prospects" in April 2009.

Economic research. Economic research was pursued at the Bank of Greece in 2009 and mainly resulted in the publication of a total of 16 working papers and in the Bank's biannual Economic Bulletin. Joint research projects were also carried out, bringing together Bank of Greece staff, distinguished members of the academic community and post-graduate university students. In May 2009, a conference on "The cost of the financial crisis: Planning an exit strategy" was co-organised with the Hellenic Observatory of the London School of Economics (LSE) and hosted by the Bank of Greece.

In addition, the Bank of Greece helped advance research on several structural issues of special interest. More specifically:

- The Bank of Greece staff prepared fifteen studies, focusing on the competitiveness of the Greek economy and the external deficit, and presented them to the research community in a series of seminars. A volume with all of these studies is scheduled to be published later this year.

- The Bank hosted a conference in March 2010, where researchers from the Bank of Greece and other Greek and foreign institutions presented their studies of the Greek labour market, its characteristics and developments, as well as the challenges facing it.

Recognising the need to raise awareness on the issue of global warming, the Bank of Greece set up a Climate Change Task Force, in order to help make up for the lack of solid scientific analysis and information on the subject of climate change, its impact on the Greek economy, and possible ways of dealing with it. A conference, with a presentation of the progress of the Task Force's work, was held at the Bank in March 2010.

In early 2010, the Bank of Greece launched a new survey, on the business developments and outlook of the 100 largest Greek firms from all business sectors. The purpose of the survey, to be conducted twice annually, is to take the pulse of entrepreneurship and capture business conjuncture as best as possible using both quantitative and qualitative data. The results of the first survey were presented in the Bank's Monetary Policy Report of March 2010, while a special event was hosted at the Bank for the survey participants one month later.

International relations. The Bank of Greece continues to show a keen interest in South-East Europe (SEE) because of Greece's increasingly close economic ties with these countries. A number of bilateral meetings were held, at the governor and senior officer level, between the SEE central banks and Greek banks actively present in the region, to discuss the implications of the latest economic developments and the presence of Greek banks in each country. The Bank of Greece hosted a conference on the "Challenges and Prospects of South East European Economies in the Wake of the Financial Crisis", organised with Oxford University (October 2009), as well as the 3rd South-Eastern European Economic Research Workshop, co-organised with the Central Bank of Albania (November 2009). In March 2010, the Bank of Greece had the privilege of hosting the second meeting of the "Vienna initiative" as part of the collaboration between the supervisory authorities of the countries of Central and Eastern Europe (CEE) and with the supervisory authorities from the countries of origin of the credit institutions with an active presence in the CEE region. Launched in January 2009, this initiative promotes coordination in the European banking sector in an aim to alleviate the impact of the global crisis on the economies of Emerging Europe.

The Bank of Greece, in conjunction with other central banks of the ESCB, participates in two programmes sponsored by the European Commission and co-ordinated by the European Central Bank, to deliver technical assistance to the central banks of Russia (TACIS II) and Egypt (MEDA II) in support of the implementation of the Basel II framework. It also participates in the ECB programme aimed at transmitting know-how on matters of banking supervision to the EU candidate countries of SE Europe.

The Museum of the Bank of Greece: In early 2010 the Bank of Greece launched the operation on a pilot basis of its Museum, housed in the Bank's new building on Amerikis Street, in Athens. The museum highlights the role of the Bank of Greece in the country's economic developments, especially in matters related to the operation of the financial system.

Using custom-built interactive multimedia applications and in line with state-of-the-art museological practices, the Museum traces the numismatic and economic history of Modern Greece, from the introduction of the first monetary system in 1828 to the creation of the euro area and Greece's entry. The exhibits also provide an insight into the processes and equipment used in the design and production of the banknotes and coins of Modern Greece.

The Museum is a contribution of the Bank of Greece to Greek society and aspires to provide opportunities for financial education, through exhibitions and seminars.

End of term of office for two General Council members

Today's Annual General Meeting marks the end of tenure of General Council members Ioannis Gozadinos and Georgios Kassimatis, elected by the Annual Ordinary General Meeting of 24 April 2007 in accordance with Article 21 of the Bank's Statute. The General Meeting will therefore be called upon to elect two new General Council members for a three-year term. The outgoing General Council members are eligible for re-election.

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

1 THE DEEP ECONOMIC CRISIS AND THE PROBLEM OF PUBLIC DEBT FINANCING

The Greek economy is in the midst of a deep crisis, characterised mainly by a large fiscal deficit, huge debt and a continued erosion of its competitive position. These problems were already present prior to the global crisis of 2008 and it was inevitable, in the absence of bold and decisive action, that they would sooner or later lead to an impasse. As no such action was taken, the situation deteriorated, culminating in fiscal derailment in 2008 and 2009, and in the subsequent widening of the yield spread of Greek government bonds over German ones. Meanwhile, the global crisis amplified the cumulated negative effects of these chronic weaknesses and accelerated the downturn of the economy.

The Bank of Greece had repeatedly issued timely and clear warnings about the gravity of the situation in its reports of October 2008 and of February, April and October 2009. These reports stressed that the large macroeconomic imbalances and the structural weaknesses would only become more severe and more difficult to address as the global economic situation worsened. Warning was also given that the cost of borrowing was likely to rise and that a widening of the yield spread would increase the future burden on taxpayers. Moreover, the Bank stressed the urgent need to send a clear message to the markets that Greece was determined to implement a multiyear plan of fiscal consolidation and structural reforms.

Unfortunately, the developments that followed confirmed these dire warnings. Since April 2009, Greece has been subject to the Excessive Deficit Procedure (EDP), as the deficits of both 2007 and 2008 exceeded the reference value set by the Maastricht Treaty. In 2009, confirming the Bank of Greece's timely warning, the general government deficit widened to a double-digit percentage of GDP (12.9% according to the EDP notification of 21.10.2009 and 13.6% according to revised data released by Eurostat on 22.4.2010), while the public debt climbed to 115.1% of GDP.

These negative developments triggered successive downgradings in Greece's credit ratings and a large widening in the yield spread between Greek and German government bonds through mid-April of this year, resulting in increased borrowing and debt servicing costs for the Greek government. This situation, as long as it persists, worsens Greece's fiscal position, makes fiscal consolidation even more difficult to achieve and seriously hurts the real economy and the banking system. The Greek economy seems to have been caught in a dangerous vicious circle, with only one way out: the drastic reduction of the fiscal deficit and debt so that the current adverse trend can be immediately reversed.

Moving in this direction, the Greek government prepared and published its Updated Stability and Growth Programme 2010-2013 on 14 January 2010, setting quite ambitious fiscal consolidation targets and outlining the structural reform policies to be pursued. On 9 February and 3 March, important fiscal measures were announced, including an increase in indirect tax rates and measures to reduce staff costs and restrict recruitment in the public sector.[1] The law on tax reform was submitted to Parliament on 24 March and passed on 20 April, while the broad lines of the draft law on social security reform were made public on 31 March. In addition, the independence of the national statistical services was consolidated with the establishment of the Hellenic Statistical Authority (ELSTAT).[2]

These economic policy initiatives were welcomed by the institutions of the European Union:

- On 11 February the Heads of State or Government of the European Union stated that they fully support the efforts of the Greek gov-

1 These measures were incorporated into Laws 3815, 3828 and 3833 of 2010.
2 Law 3832/2010.

ernment and its commitment to do whatever is necessary, adding that the Member States would take determined and coordinated action, if needed, to safeguard financial stability in the euro area as a whole.

• On 16 February, the ECOFIN Council adopted an opinion on the latest update by Greece of its Stability and Growth Programme and called on Greece to ensure a budgetary adjustment of at least 4% of GDP in 2010 and to bring its deficit back under 3% of GDP by 2012. The Council issued a recommendation that Greece bring its economic policies into line with the EU's broad economic policy guidelines by adopting a bold and comprehensive structural reform package designed to address the macroeconomic imbalances and structural weaknesses of the Greek economy.

• On 3 March, the Governing Council of the European Central Bank welcomed the "convincing additional and permanent fiscal consolidation measures", announced by the Greek government earlier that day, and viewed as positive both the envisaged very swift implementation of these measures and the Greek government's recognition of the need to rapidly adopt and implement structural reforms in line with the ECOFIN Council Decision of 16 February.

• On 9 March, the European Commission concluded, after thorough assessment, that the additional fiscal measures announced by the Greek government on 3 March appeared sufficient to safeguard the budgetary targets for 2010. This was endorsed by the ECOFIN Council on 16 March.

• On 25 March, the Heads of State and Government of the euro area reaffirmed their statement of 11 February and further stated that the euro area Member States were ready to contribute to coordinated bilateral loans, as part of a financing mechanism involving substantial International Monetary Fund (IMF) financing and a majority of European financing.

However, the markets maintained a wait-and-see approach, at best, and remained sceptical about both the measures taken by the Greek government and the stance and decisions of the EU institutions. This was reflected by the continued widening of the bond yield spread and by Fitch's further downgrading of Greece's debt rating by two notches on 9 April. This reaction of the markets can be attributed to:

• The serious confidence and credibility deficit that the Greek economy still faces, as well as the markets' impatience for immediate and measurable results from the policy actions announced or beginning to be implemented.

• The vagueness of the modalities of the financial support mechanism agreed upon, in principle, on 25 March.

• Mounting concern among current and prospective holders of Greek government securities about the Greek economy's competitiveness and *medium-term* growth prospects, which will largely determine fiscal sustainability in the future and the public sector's ongoing ability to deliver essential services. In other words, the markets are concerned about the debt dynamics, which depends not only on current budgetary results or on the interest rate on government debt, but also on nominal GDP growth.[3]

Furthermore, it has been argued[4] that the increase in spreads from autumn 2009 till recently could also reflect a speculative strategy among some market participants that Greece would default. This strategy took advantage of the Greek government's delay in adopting additional fiscal measures as well as of the relatively protracted indecision of the euro area countries about the conditions of activation and operation of a financial support

3 See, for instance, the article by Arnaud Marès, Senior Vice-President at Moody's Sovereign Risk Group, published in the Athens daily *Kathimerini* (6.12.2009), as well as the rationale of Fitch Ratings behind the latest downgrading of Greek public debt (9.4.2010).

4 See Lorenzo Bini Smaghi (Member of the ECB's Executive Board), "Has the financial sector grown too big?", speech at Kyoto, 15.4.2010.

mechanism for Greece. Indeed, as this strategy delivered capital gains over time, it attracted an increasing number of investors, with an ability to influence the final outcome, thus further adding to market pressure. The investors who took positions based on a default hypothesis had a strong incentive to do all they could to ensure that this would actually happen – and, conversely, stood to lose a lot if it did not. Thus, the hypothesis eventually became a self-fulfilling prophecy. According to the same analysis, in markets characterised by conflicts of interest, colluding behaviour and lack of transparency, actions by individual agents can lead to outcomes which do not reflect market efficiency and an optimal allocation of resources. These considerations point to a need for a more efficient decision-making process within the euro area, aimed in particular at preventing similar situations from occurring in the future and eventually at solving them more efficiently.

In view of the above, it is particularly encouraging that, on 11 April, the Eurogroup specified the terms of the financial support to Greece. In this context, the euro area Member States were ready to contribute for their part up to €30 billion in 2010 in a joint support programme co-financed by the IMF.

As soon as the Eurogroup's decision was made public, the bond yield spreads declined, but then rose again.

On 15 April, the Greek Ministry of Finance sent a letter to the European Commission, the European Central Bank and the IMF requesting discussions with all three institutions "on a multi-year programme of economic policies building on the ECOFIN conclusions of February that could be supported with financial assistance from the euro area Member States and the IMF, if the Greek authorities were to decide to request such assistance".

Regarding the advisability of Greece's recourse to the financial support mechanism, the following points should be made:

• Under the current circumstances, i.e. for as long as the markets are sceptical about Greece's ability to achieve its budgetary targets and, at the same time, preserve its medium-term growth prospects (thereby ensuring smooth debt servicing over the medium term), *exclusive* reliance on the markets for financing the public debt could exacerbate the problem which the markets are concerned about. This could trigger a vicious circle, where high borrowing costs lead to a need for fiscal tightening, which, in turn, would undermine growth prospects and give rise to higher borrowing requirements and higher borrowing costs, and so on.

• Obviously, responsibility for correcting the omissions, delays and failures of the past that have led to the present situation lies entirely with Greece. In this sense, as already mentioned, the only way out of the crisis is to drastically reduce the deficit and debt, through an appropriate policy response. The time factor must however also be taken into account. Some policy measures, in particular most of those aimed at enhancing growth and competitiveness, cannot possibly yield immediate results. On the other hand, even those that can bear fruit immediately —such as specific expenditure cuts or raising indirect taxes— run the risk of being compromised, at least in part, if the markets remain sceptical and overly high interest rates on government debt persist. In such an event, a significant part of the expenditure saving achieved through discretionary fiscal policies would be offset by higher interest payments. If, for instance, the Greek government's borrowing programme for the current year were to be covered by market-based financing at an interest rate 2 percentage points higher than the corresponding rate of 2009, this would imply an additional burden of roughly 0.5% of GDP for 2010 alone, i.e. nearly half the amount to be saved through the cuts in government staff costs adopted on 3 March. Furthermore, *the burden would weigh on the budgetary position in the years to come*. Even if the new borrowing rate over the next five years is only one percentage point higher than that of 2009, the additional interest burden over the same period would exceed €8 billion, which is roughly equal to the additional tax revenue expected for 2010.

- It is, therefore, of critical importance to address the concerns of foreign investors, domestic enterprises and workers about the effective implementation of the fiscal consolidation plan, as well as about the economy's medium-term growth prospects (which will determine both smooth debt servicing and the level of well-being). Against this backdrop, an eventual recourse to the support mechanism would not only provide financing, but would also enhance fiscal discipline and foster the conduct of appropriate structural policies, drawing on the expertise of EU institutions and the IMF in order to ensure the rapid planning and the effective implementation of needed fiscal reform. This would lower the risk of "non-implementation" of economic policy, help build a more positive climate and boost confidence.

As is evident from the above, the support mechanism could serve as an additional policy instrument, provided that it is used not as a *partial substitute* for the national economic policy needed to correct the macroeconomic imbalances and to address the structural weaknesses, but as a *tool for bolstering* this policy, by giving it time to bear its fruit, while fostering its more effective implementation.

High fiscal deficits and debts can, of course, also be found in other countries. Unlike Greece, however, these countries are able to finance their deficits mainly from domestic saving. Greece's gross national saving, public and private combined, was just above 7% of GDP in 2008 and 5% in 2009, i.e. not even sufficient to finance investment to replenish fixed capital. This shortfall in national saving is primarily due to Greece's large fiscal deficits, but also to the strong growth of private consumption over the past few years, which was underpinned by fiscal relaxation. During the five-year period 2004-2008, private consumption at constant prices rose at an average annual rate of 3.8%, compared with 1.5% in the euro area. Moreover, between 1996 and 2008, private consumption accounted on average for 72% of GDP in Greece, against 57% in the euro area.

Given the low level of saving, the public debt cannot be financed from domestic sources; as a result, the current account deficit has been widening for several years now and external debt has been growing. Thus, the problem of the fiscal deficit is intertwined with the problem of the external deficit and debt, and the twin deficits emerge as the main source fuelling the dangerous vicious circle mentioned previously.

The main visible aspects of this situation were growing fiscal imbalances, rising public debt and competitiveness losses clearly reflected in the current account deficit. But the crisis is not limited to just this: it is also taking its toll on the entire economy, hampering the functioning of the banking system, undermining confidence, creating unprecedented uncertainties, and challenging social and economic attitudes and behaviour patterns that have prevailed in the country for decades. The ramifications of the economic crisis are spreading across all of society, which is now called upon not only to recognise the problem, but also to radically change attitudes and practices.

Key macroeconomic indicators and related forecasts reveal the multiple facets of the crisis that the Greek economy is going through.

After a decade of positive performance, GDP contracted by 2% in 2009, mainly because of a sharp fall in investment, but also due to declines in private consumption and exports. Needless to say, this contraction would have been more pronounced without buoyant public consumption. A negative rate of GDP change is projected for 2010 as well, although its level will ultimately depend on the effectiveness and the pace of implementation of the economic policy measures recently announced.

In its Report *Monetary Policy 2009-2010* released in March, the Bank of Greece estimated that GDP would decline this year by around 2%. This projection is surrounded by high uncertainty, and there are strong chances that the contraction may be even sharper, if certain risk factors should materialise. It is also important to note that the recession is hitting the Greek economy later than the rest of the world, where the recovery is already under way, albeit at a faltering pace. The euro area, in particular, has begun to post positive growth since the third quarter of 2009. However, recovery worldwide remains fragile, having been largely driven by expansionary fiscal policies, which will gradually have to be reversed, given that they have led to the accumulation of large fiscal deficits and debts in most advanced economies. The recovery of the global economy has additionally been fostered by accommodating monetary policies, primarily measures for the provision of ample liquidity, which are also being gradually and cautiously phased out.

The recession in the Greek economy has spread to all sectors of activity, negatively impacted on employment and led to higher unemployment. In 2009, total employment declined by 1.1%, the number of employees fell by 1.6% and the unemployment rate rose to 9.5%.

The adverse developments in economic activity and, most importantly, in Greece's fiscal aggregates, together with the blows to market confidence, ultimately took their toll on the banking system. Unlike what was the case with many other countries, where the crisis originated in the financial sector before spilling over to the real economy, the Greek banking system, which is fundamentally sound, only began to face liquidity constraints when the severe fiscal imbalances led to successive downgradings of the country's credit ratings, thereby restricting bank access to funding sources and raising their borrowing costs. Meanwhile, the slowdown in deposit growth, due *inter alia* to the recession, affected the domestic supply of credit. It is worth noting that, in spite of these problems, the annual rate of credit expansion to the private sector remained positive throughout 2009, contrary to the situation in the euro area as a whole, where there have also been periods of negative credit growth rates. As the Bank of Greece has repeatedly stressed, the Greek banking system showed remarkable resilience during the global crisis. The ability of the banking sector to maintain this resilience in the future will be conditional upon dealing with the exogenous factors that hamper its functioning, and restoring market confidence in the future of the economy.

In response to the serious challenges posed by the multi-faceted crisis, economic policy has been oriented towards decisions that signal a strong resolve to reverse the negative trends of previous years. As mentioned above, the Budget for 2010 and the Stability and Growth Programme were supplemented in February and March with measures that enhance the feasibility of the fiscal targets.

Clearly, reversing a trend that has accumulated many problems and led to a dangerous impasse will not be an easy task, nor will it be achieved soon. It will require an equally prolonged effort to break the vicious circle that is pushing the economy into a state of decline, and threatening to undermine the standard of living. If implemented effectively, the recently announced economic policy measures, which mark the start of a large-scale effort, will activate a durable virtuous circle capable of bringing the Greek economy back onto a path of sustainable growth and economic and social progress. In this way, economic policy will live up to the expectations of Greek society and, at the same time, dissipate market concerns about the medium-term prospects of the Greek economy.

However, in order for this to happen, the economic policy measures announced must be implemented promptly and rigorously, according to strict time schedules for concrete measures and interventions, without any faltering, procrastinating and wavering, and using all available tools, including the financial support mechanism, if and when needed. **Furthermore, it would be of crucial importance if fiscal consolidation on the expenditure side progressed further than currently planned and achieved a deficit reduction this year of more than 4% of GDP, by drastically curtailing the squandering of public funds and by merging or eliminating public sector entities that are not really productive. Cutting expenses is, in any case, the suitable option for the next two years too, as any further increase in the already heavy tax burden could have very adverse repercussions on economic activity, given the strong tax competition in Europe. The recommended acceleration of fiscal adjustment and consolidation would also favourably surprise the markets and contribute decisively to restoring confidence, which in turn would have a dampening impact on the cost of government borrowing, with favourable chain effects on banks' borrowing capacity and costs and, further down the line, on borrowing costs for businesses and households.** In this respect, valuable lessons can be learned from the cases of other euro area countries such as Ireland, which was the first country to adopt drastic fiscal adjustment measures and has succeeded in reducing government borrowing costs and stabilising them at levels clearly lower than prior to the adoption of the measures; or Spain, which is also planning to reduce its fiscal deficit by more than 8% of GDP by 2013. It is therefore evident, under the present circumstances, that fiscal consolidation is a *sine qua non* for relaunching growth.

The very next step for economic policy, without any room for delay, is to support the recovery process through structural reforms aimed at substantially bolstering competeviness, steadily improving production and employment conditions and modernising the growth model with special emphasis on two interlinked components, investment and export orientation, so as to ensure the dynamism and openness of the economy.

It must be understood that, as the effort to correct the macroeconomic imbalances of the Greek economy over the next few years will entail a smaller contribution of private as well as public consumption to growth, it is necessary to drastically increase the growth contribution of investment and exports. To this end, we must accustom ourselves to the idea that, just as we strive to meet specific quantitative targets in terms of fiscal deficit reduction, we can and must also start doing so for the enhancement of competitiveness, using relevant benchmarks.

The crisis that the Greek economy is facing today is all-encompassing and multi-faceted. It therefore calls for a bold response of the same kind: sustainable, ongoing and convincing fiscal consolidation, especially on the expenditure side, coupled with groundbreaking structural reforms aimed at improving the operation of markets and enhancing competitiveness. Most importantly, Greece must break with the patterns of behaviour, attitudes and policies that have brought us to the present situation.

2 THE ROOTS OF THE CRISIS AND THE INTERNATIONAL CONTEXT IN WHICH IT IS UNFOLDING

The crisis in the Greek economy stems mainly from chronic problems, but also reflects the impact of the global crisis, which has entered a second, difficult phase, despite a recovery of economic activity worldwide. Apart from its other woes, the Greek economy faces an unprecedented confidence and credibility deficit.

Since October 2008, the Bank of Greece has made a number of important points in its reports, most notably the following:

- The only safe way to shield the economy from exogenous shocks and maintain strong non-inflationary long-term growth is to effectively tackle its imbalances and structural weaknesses, in order to set into motion a far-reaching, more outward-looking, stronger and sustainable growth dynamics. Such a dynamics would be based primarily on enhancing the productive base through investment and a qualitative upgrading of human capital, strengthening market competition and implementing a wide range of structural reforms, particularly in the broader public sector (October 2008).

- The supply of government (and corporate) securities on the global market will increase significantly, as a result of the fiscal stimulus and bank liquidity support packages implemented in other countries; this will exert upward pressure on bond yields and possibly on yield spreads across individual countries and, as a result, raise the Greek government's borrowing costs. The widening yield spread translates into a cost for the entire economy, given that banks and non-financial corporations obtain funding from the international markets at less favourable terms than the government, and in addition will entail a higher future burden on taxpayers. If the confidence of markets and economic agents is restored through an immediate and drastic reduction of the fiscal deficit, a *prima facie* restrictive fiscal policy could have an expansionary effect by securing lower borrowing rates. Conversely, a *prima facie* expansionary policy would turn out to be restrictive, as it would entail fiscal costs several times higher over both the short and the medium term (February 2009).

- Never, in any part of the world, has a country achieved sustainable growth based on chronic fiscal deficits. On the contrary, numerous are the examples of countries whose growth process has been undermined by high deficit and debt levels (April 2009).

- Countries like Greece with twin deficits and debts face the serious risk of a much more difficult and slower exit from the crisis and of a protracted period of low growth. The necessary multi-annual fiscal consolidation plan must therefore be made public as soon as possible, so that the markets will know beforehand what the Greek authorities intend to do (and how they intend to do it). It is essential that the markets be conveyed the message that Greece remains committed to the medium-term target of a sound fiscal position, as this will enhance the country's credibility in international markets and generate positive expectations (October 2009).

The multi-faceted and all-encompassing crisis that the Greek economy is confronted with today is, due to its seriousness, also affecting the state, the institutions and finally society at large. The main features of this crisis can be summarised as follows:

First, the accumulated negative repercussions of chronic structural weaknesses and distortions as well as of macroeconomic imbalances have now emerged in full force, as the factors that had previously concealed them, i.e. factors that fostered strong economic growth over the 1996-2007 period (albeit unsustainably, as has now become apparent), have now been exhausted. The explosive fiscal imbalances were compounded by a major credibility problem, which spread from Greece's statistics to its economic policy and to its overall reputation.

Second, the effects of the global crisis on Greece's real and financial sectors are manifesting themselves with some lag. Due to domestic distortions, Greece may not be able to reap the full benefits of the recovery that has begun to gain traction in the rest of the world.

Third, the crisis in the European and the global economy has entered a second phase, characterised by a recovery that is proceeding at a faltering pace and is uneven across countries.[5] In this phase, the dominant question is how to

5 In the United States, the business cycle dating committee of the National Bureau of Economic Research (NBER) recently announced that on the basis of current data it would be premature to determine a possible date of the trough in economic activity marking the end of the recession that began in December 2007 in the United States (see NBER press release, 8 April 2010). In the euro area, the quarterly rate of change in GDP, albeit positive in the third quarter of 2009, was zero in the fourth quarter (Eurostat, News release, 7 April 2010).

address the surge in fiscal deficits and debts in all the advanced economies attributable to the fiscal stimulus and credit support packages. In other words, how to design the appropriate exit strategies so as to strike the difficult balance between the need to counter the risks to fiscal sustainability in time and the need to avert a return to recession as a result of a premature withdrawal of the fiscal stimulus measures. At the same time, in the context of fast-rising public debt in advanced economies, a new phenomenon has emerged that further complicates the situation: a shift in pressure towards government paper markets. This development has also been favoured by the hesitant steps so far in building a new architecture for the international financial system, especially with a view to expanding the scope of regulatory supervision to include other categories of financial institutions and instruments, such as hedge funds and credit default swaps (CDS).

All of the above factors have contributed to the confidence and credibility deficit currently faced by the Greek economy, amid negative assessments of its recent performance and negative forecasts about its medium-term prospects, taking into account its chronic structural weaknesses and macroeconomic imbalances. This confidence deficit is primarily reflected in the higher cost and greater difficulty that Greece faces in financing its public debt, which received a lot of publicity from domestic as well as foreign media. Characteristically, the yield spread between the ten-year Greek bond and the corresponding German one, after declining during the April-September 2009 period, widened considerably in the last three months of 2009, mainly as a result of the rising yields of the Greek bond. This trend continued during the first three months of 2010, although there were signs of a reversal in March. By end-March 2010, the yield of the ten-year Greek government bond had climbed to 6.48%, from 5.69% in December 2009 and 4.59% in August 2009, before soaring to 7.54% in the first ten days of April 2010. Underlying this negative development were: (a) the uncertainty surrounding the operational details of the financial support mechanism announced in the statement by the Heads of State and Government of the euro area countries on 25 March; and (b) the high volatility in the market for Greek government bonds, which discourages potential investors, as shown by the low participation in the seven-year Greek government bond issue of end-March 2010 amid concerns about the country's ability to correct its fiscal imbalances. After the technical modalities of the financial support mechanism were clarified by the Eurogroup on 11 April, it is reasonable to expect a gradual improvement in market conditions (although the yield spread continued to widen in the third week of April). Generally speaking, fiscal imbalances, changes in a country's credit rating, the liquidity situation in the secondary market and, of course, the long-term growth outlook (which has a decisive impact on the external debt dynamics) are considered important determinants of government bond yield spreads.

3 THE MANIFESTATIONS OF THE TWIN CRISES AND THE CRUCIAL ROLE OF SAVING AND COMPETITIVENESS

The close interconnection between the public deficit and debt problem and the external deficit and debt problem highlights the urgent need to increase national saving from its currently very low level, to improve the Greek economy's competitiveness and to upgrade productive capacity so that it can better meet domestic and external demand.

The current twin crises are reflected in the twin deficits and twin debts.

Fiscal deficit and public debt

Greece's large fiscal deficit and huge public debt are only to a small extent attributable to the economic recession. Rather, they are the cumulative result of chronic macroeconomic imbalances, which were not addressed when there was still room to do so and worsened in the absence of a proper, bold policy response. The global crisis simply aggravated Greece's fiscal performance and prospects, which had already begun to deteriorate in the second half of 2007 for reasons unassociated with the economic downturn. Indeed, the fiscal deficit has been above 3% of GDP almost every year for the past decade.

Greece has been subject to the excessive deficit procedure (EDP) since April 2009, as its deficits for both 2007 and 2008 had exceeded the reference value set by the Treaty. The general government deficit turned out at 3.6% of GDP in 2007, 7.7% in 2008 and 12.9% in 2009, according to the EDP notification to Eurostat on 21 October 2009. However, according to revised data notified on 1 April 2010 and released by Eurostat on 22 April 2010, the deficit came to 5.1% in 2007, 7.7% in 2008 and 13.6% in 2009. These adverse budgetary developments, as already mentioned, triggered the downgrading of Greece's credit rating and a sharp widening in the yield spread of Greek government bonds vis-à-vis German ones in late 2009 through to mid-April 2010.

As the economic crisis unfolded in 2009, high general government deficit ratios were posted by several other countries, such as the United States (12.5%), the United Kingdom (11.5%), Ireland (14.3%), Spain (14.3%) and Portugal (9.4%). However, the case of Greece is different, as it is associated with a dangerous mix of problems stemming from the economy's structural weaknesses. The high public debt (which at 115.1% of GDP in 2009 was the highest in the euro area along with that of Italy and is expected to keep rising at least through 2014, according to certain projections) and the anticipated additional budgetary burden over the medium to long term as a result of population ageing (pension expenditure is projected to grow from 11.7% of GDP in 2008 to 24.0% in 2050, as stated in the Updated Stability and Growth Programme (USGP) 2009-2013) underscore the magnitude of the long fiscal effort that will be required. Specifically, according to Bank of Greece staff projections, the debt dynamics is unfavourable, as it is estimated that the fiscal adjustment envisaged in the USGP will only lead to a stabilisation of the debt-to-GDP ratio in 2014, and —what is more— at very high levels (over 130%), on the basis of conservative assumptions regarding nominal GDP growth over the next few years and the nominal interest rate on public debt.[6] Should fiscal adjustment exceed the USGP targets, the debt ratio could stabilise at around 130% by 2012, whereas if the primary fiscal balance turns out lower than envisaged in the USGP, the evolution of public debt over time will be unsustainable. Meanwhile, it is estimated that reducing the debt ratio to below 100% of GDP will require a systematic fiscal effort over a number of years, at a time when it is essential to restart the growth process and ensure that strong economic performance is restored within a reasonable time frame. An additional effort will also be required to effectively and promptly address a number of significant future risks, such as the budgetary implications of population ageing. Social security reform must therefore signal resolve, which would be assessed as positive not only by the markets but also by future pensioners, who seek reassurance that their prospects of receiving a decent pension are not in jeopardy as current trends might suggest. Thus, a social security reform capable of successfully meeting future challenges, the strict implementation of the fiscal consolidation plan included in the USGP, and the promotion of structural reforms and growth-enhancing initiatives constitute the only option.

This fiscal effort, however, must be carried out and yield results in an environment of considerable risks to the sustainability of public finances worldwide. These risks stem from: (a) the sharp increases in the fiscal deficits and public debt of advanced economies; (b) adverse demographic prospects due to population ageing; and (c) the assessment that a

6 More pessimistic projections have been made by foreign analysts, while in Greece there have also been more optimistic projections: see Alpha Bank, Economic Research Division, *Weekly Economic Report*, 8 April 2010, pp. 2-4 (in Greek).

return of potential growth and employment to pre-crisis levels should not be expected soon. Additional risks stem from the vulnerability of public finances to market-driven shocks, where market uncertainty about the timing and pace of exit from fiscal stimulus measures leads to a widening in the yield spreads of government bonds. At the same time, as investors increasingly shy away from government securities, the advanced economies are expected to face higher interest rates on their public debt, while their growth figures will fall below pre-crisis levels. The wider the growth-interest rate gap, the larger the fiscal adjustment needed to halt the upward trend of the public debt-to-GDP ratio. Therefore, structural reforms are required in advanced countries in order to boost potential growth. As shown above, these remarks apply *a fortiori* to Greece.

Against this background, the manner in which each country finances its deficit and debt is of crucial importance. Japan, for instance, had a gross debt of 217.6% of GDP in 2009, but was able to finance it through domestic sources, given its high level of national saving (23% of GDP) and a current account surplus of 2.8% of GDP in 2009. In the United States, the public debt (83.2% of GDP in 2009, forecast for 2010: 92.6%), as well as the current account deficit (4.9% of GDP in 2008, 2.9% of GDP in 2009) are financed with US dollars, an international reserve currency, whereas national saving is relatively low (10.8% of GDP in 2009, compared with 18.7% in the euro area). In Italy, where the public debt was 115.8% of GDP in 2009 (almost as high as Greece's), national saving is relatively high (15.5% of GDP) and reliance on external financing is low (the current account deficit was only 3.4% of GDP in 2009). In Greece, however, national saving is very low, resulting in heavy reliance on capital inflows in order to finance the debt, as implied by the high current account deficit. Portugal is in a similar position to Greece (with national saving at only 8.1% of GDP in 2009, a current account deficit of 10.1% of GDP and —as mentioned previously— a relatively high fiscal deficit), but its public debt is not far above the euro area average, even though it is on an upward trend (2009: 76.6% of GDP, forecast for 2010: 85%).

Current account deficit and external debt

Greece's current account deficit, after widening continuously over the past few years, reached 14.6% of GDP in 2008. It declined temporarily to 11.2% in 2009, exclusively owing to the recession, but is expected to rise again this year (this forecast is supported by available data for the first two months of 2010, adjusted for the effects of extraordinary and temporary factors). Meanwhile, the total gross external debt (public and private) is also very large, having increased from 151.6% of GDP at end-2008 to 170% of GDP at end-2009. The gross external debt of general government accounted for 53.2% of the total external debt at end-2009 and was equivalent to 90.4% of annual GDP. Moreover, Greece's negative net international investment position, i.e. the difference between residents' financial assets and liabilities vis-à-vis non-residents, which best captures the country's external position, stood at 83.1% of GDP at end-2009. In the past, it was often thought that the current account deficit could be financed relatively easily in the context of euro area participation, but it was sometimes underestimated that persistently high deficits imply growing external debt, the financing of which can be hampered, no longer because of a lack of reserve assets, but because of increased credit risk. In other words, the current account deficit must not be ignored or underestimated, for two reasons: First, because, as was the case during the past few months, it can lead to an excessive increase in risk premia on the country's borrowing. And second, because, in the long run, it leads to a decline in the standard of living, as the economy runs the risk of becoming trapped in a quagmire of low production potential, increased interest rates on government borrowing and a substantial transfer abroad of resources and income for external debt servicing purposes.

By definition, a current account deficit reflects a shortfall in national saving relative to domestic investment spending, which is equivalent to the shortfall in aggregate domestic output relative to aggregate demand and expenditure. This insufficiency in output is due to large cumulative losses in international competitiveness.

The shortfall of national saving relative to domestic investment over the past decade is attributable to the concurrent fast growth of consumption and investment, spurred by the sharp drop in interest rates as a result of Greece's participation in EMU, robust credit expansion, the over-optimism of households and firms and, of course, large fiscal deficits. The insufficiency of gross national saving and its continuous decline as a percentage of GDP over the past twenty years are clearly reflected in national accounts data:[7] gross national saving dropped from 18.5% in the five-year period 1992-1996 to 14.0% (1997-2001), 10.5% (2002-2006), 7.6% (2007), 7.1% (2008) and further to 5.0% in 2009. These percentages are the lowest in the euro area.

Gross saving of the private sector dropped from 24.6% of GDP (1992-1996) to 14.5% (1997-2001), 12.5% (2002-2006), 10.0% (2007) and 9.8% (2008), but is estimated to have increased in 2009 (to roughly 15%).[8]

Finally, the evolution of general government gross saving reflected changes in the fiscal policy stance. From negative (-6.1% of GDP) in the period 1992-1996, general government saving came close to zero (-0.5%) over the following five-year period (1997-2001), before becoming increasingly negative (2002-2006: -2.0%, 2007: -2.5%, 2008: -2.7%, 2009: around -10%).

According to national accounts data, gross national saving, at only 7.1% of GDP in 2008 and 5.0% in 2009, was not sufficient to finance total investment, which came to 20.9% and 18.1% of GDP, respectively. The gap (as in previous years) was covered through the current account deficit (13.8% of GDP in 2008 and 13.1% in 2009 on a national accounts basis, 14.6% of GDP in 2008 and 11.2% in 2009, based on Bank of Greece balance of payments statistics). The problem is, in fact, far more serious, considering that net national saving, net of depreciation (which amounted to 12.2% of GDP in 2008 and 13.1% in 2009), was negative in the period 2000-2009 (-5.1% of GDP in 2008 and -8.1% in 2009), with the exception of the years 2001 and 2004, when it was positive, but did not exceed 0.2% of GDP. What this means is that saving was not even sufficient to replace depreciated fixed capital. It should be pointed out that net saving in the euro area was positive both in 2008 (5.8% of GDP) and in the twelve months through September 2009 (3.4% of GDP). As far as private sector saving in Greece is concerned, it is worth noting that, whereas both gross and net corporate saving have been positive, household gross saving was practically nil between 2001 and 2008 (+0.1% of GDP on an average annual basis) and net saving was strongly negative (-6.4% of GDP on an average annual basis).

The above data show how the large deficits of the public sector and the low levels of private sector saving have fuelled the external imbalances. This is supported by relevant research showing that the deterioration in the external balance reflects both increased investment and lower saving, which is associated with a rise in household borrowing.[9] The years from 1996 through 1999 were marked by an effort to achieve fiscal consolidation in order to secure euro area entry, as well as by a concurrent drop in private sector saving owing to the favourable conditions created by financial lib-

7 See European Commission, *Autumn 2009 Economic Forecasts*, Tables 43 to 45, USGP 2009-2013 and NSSG data (March 2010) for the period 2008-2009.
8 The nominal disposable income of the private sector increased at a low rate in 2009 (reflecting a rise in pre-tax income as well as increased tax and contribution evasion), while private consumption declined in nominal terms. As a result, gross private saving rose.
9 See Moschovis and Capo Servera (2009), "External imbalance of the Greek economy: the role of fiscal and structural policies", European Commission, DG Economic and Fiscal Affairs, *Country Focus*, Vol. 6 (6), and European Commission (2009). *Quarterly Report on the Euro Area*, Vol. 8 (1). See also: Brissimis et al. (2009), "Current account determinants and sustainability in periods of structural change", Bank of Greece (soon to be published).

eralisation, while the years 2000 through 2004 were marked by strong investment activity, mainly infrastructure-related, in preparation for the Olympic Games, as well as by a new widening of public deficits. The limited fiscal consolidation effort made in 2005 and 2006 was not continued in the next three years, while at the same time private saving began to drop significantly, mainly because the rise in residential investment was financed through loans. These developments have made it imperative to achieve drastic fiscal consolidation and, as pointed out in previous Bank of Greece reports, to develop an alternative growth model, not based exclusively on private consumption (with a high import content and excessive reliance on strong credit expansion) or on private residential investment.[10]

The losses in competitiveness, to which the large current account deficit is directly attributable, are mainly related to the structural weaknesses of the economy, such as product and labour market rigidities, fiscal policy relaxation at a time when rapid growth would have called for and allowed bold fiscal consolidation, and —finally— a bloated, ever-expanding, inefficient public sector, with insufficiently transparent accounting practices. Labour and product market rigidities have contributed to keeping wage and price growth rates steadily higher than in the euro area as a whole.

In the nine years from 2001 through 2009, average annual inflation in Greece exceeded the euro area rate by 1.1-1.2 percentage points, while the cumulative increase in average nominal earnings came to 63% in Greece, compared with 25.6% in the euro area. Meanwhile, the real effective exchange rate (EER) of the euro, weighted vis-à-vis Greece's 28 major trading partners, recorded a cumulative increase of 18.6% in terms of the CPI-based index or 26.6% in terms of the ULCT-based index as estimated by the Bank of Greece (according to ECB and European Commission estimates, the increase in the ULCT-based EER comes to 20.7% and 15.5% respectively). In respect to Greece's euro area partners, this index is obviously not affected by changes in the *nominal* exchange rate of the euro and is estimated to have recorded a cumulative increase of 9.2% based on relative prices, or 17.6% based on relative unit labour costs.

The ensuing large losses in price competitiveness have worsened the problems caused by the structural weaknesses in production and are one of the primary factors underlying both the persistently low "structural" competitiveness and the limited ability of domestic output to adequately and flexibly meet the composition of and changes in external and domestic demand. These conclusions are confirmed by Bank of Greece studies, soon to be published, on the current account deficit. These studies suggest that the current account deficit is unsustainable, as it is not due to temporary factors, and that productivity in the economy is negatively affected by a number of problems at the institutional level (such as corruption, the poor quality of the legal framework, in particular the plethora of laws), product and labour market rigidities, the shortcomings of the educational system and the inadequacy of infrastructures. The shortfall in production capacity is evident both in manufacturing and in sectors where Greece has traditionally had a comparative advantage, such as tourism.

A recent study by the European Commission on competitiveness and current account balances in the euro area countries, some of which are in deficit and others in surplus, points out that Greece is "in a league of its own", combining large and persistent imbalances and protracted losses of competitiveness.[11] This has been repeatedly underscored in reports by the Bank of Greece.

10 See Brissimis et al. (2009), *op. cit.*, Moschovis and Capo Servera (2009), *op. cit.*, European Commission (2009), *op. cit.* Also, Daniel Gros, "Greek burdens ensure some Pigs won't fly", *Financial Times*, 28.1.2010, which stresses the need to address both the fiscal problem and low private saving if Greece wants to succeed in exiting from the crisis.

11 See European Commission, *Quarterly Report on the Euro Area,* Volume 9, No. 1 (2010), special issue: "The impact of the global crisis on competitiveness and current account divergences in the euro area", 1.4.2010.

It is important to note that on 15 March the Ministers of Economy and Finance of the euro area (Eurogroup) recognised that competitiveness divergences and current account imbalances are a matter of common concern for all euro area countries. The required policy response should be comprehensive, tailored to the specific needs of each Member State, and cover measures in four key areas: budgetary and wage policies, the labour market, product and services markets and the financial sector. Measures targeted at boosting labour productivity and potential growth, improving resource allocation by the financial sector and ensuring sustainable public finances would benefit all the Member States by helping to correct imbalances and to underpin the recovery. Action, however, is also needed in Member States that have accumulated large current account surpluses. In these countries, policies should aim to identify and implement structural reforms that help strengthen domestic demand. The Ministers committed:

- to address the issue of competitiveness divergences and macroeconomic imbalances swiftly and effectively;

- to put in place an ambitious and comprehensive policy response covering appropriate measures in all four areas mentioned previously;

- to make sure that the agreed policy response is coordinated in the euro area, designed to address the specific vulnerabilities and needs of each country and facilitate the smooth functioning of EMU; and

- to review progress on a regular basis.

4 THE PROSPECTS FOR THE MAIN MACROECONOMIC AGGREGATES IN 2010

In March, GDP was forecast to fall by around 2% over 2010 as a whole. This forecast is surrounded by high uncertainty, while there is a strong possibility of an even sharper drop. Crucial among the conditions required for generating favourable chain effects that will offset the immediate contractionary impact of certain fiscal measures is the prompt promotion and implementation of structural policy measures. Employment will continue to decline in 2010, probably at a quicker pace, while the unemployment rate will rise further. Inflation will pick up, but may hover just above 3% if part of the indirect tax increases is not passed on to prices. Reduced employee earnings will lead to lower unit labour costs or slower unit labour cost growth in the economy as a whole, but in the business sector this deceleration will be limited. The overall prevailing conditions (mainly on the demand side) foreshadow that business profit margins will be squeezed, the number of loss-making firms will rise and more enterprises, particularly SMEs, may be forced to shut down.

As regards **economic activity**, the present Report estimates that GDP will contract at a rate of around 2% in 2010, taking into consideration:

(a) the downward revision of 2009 GDP growth to -2.0% and, in particular, the fact that year-on-year growth was -2.5% in the last quarter;

(b) the continued (in late 2009 and early 2010) unfavourable evolution of certain key short-term activity and confidence indicators; and

(c) the adoption of further austerity measures announced on 2-9 February and 3 March (on top of those taken into account in the preparation of the Updated Stability and Growth Programme – USGP), which will lead to reduced incomes, lower public investment spending and higher inflation (and thus a larger decrease in real incomes).

However, this forecast of a fall of around 2% is clouded by higher than usual uncertainty and an increased likelihood of an even sharper contraction. In any event, the final impact of all the fiscal policy measures announced (those in the USGP plus the additional ones) will depend on:

- their efficient and prompt implementation;

- the relative balance struck between the contractionary and expansionary effects of each individual measure and of the package as a whole; for instance, the increased VAT rates feed into inflation, while the restrictive income policy measures drive down incomes and demand, but also help reduce both the fiscal deficit and unit labour costs – a development that can lead to contained inflation and higher competitiveness (thus also encouraging investment); and

- enriching the economic policy mix with other, non-fiscal structural policy measures, primarily ones generating a low or zero fiscal cost and quick results, e.g. slashing red tape, removing product and labour market rigidities, and swiftly utilising the EU funds available under the National Strategic Reference Framework (NSRF) – Community Support Framework IV, in order to improve the business environment and the investment climate as soon as possible, and thus foster conditions for recovering lost competitiveness in international markets.

Equally crucial will be the speed of implementation of the fiscal measures and the extent to which these measures, plus any structural measures designed to complement them, will boost the confidence of international markets and domestic economic agents in the Greek economy's fiscal and growth prospects. Eliminating market scepticism will help lower the cost of borrowing for the Greek government, thus generating favourable chain effects on Greek banks' access to funding and funding costs and, ultimately, on borrowing costs for businesses and households. In turn, these favourable effects could offset —at least in part— the immediate contractionary impact of certain fiscal measures. It should be stressed that the positive effect generated through the confidence channel and lower borrowing costs effectively depends on the resolved implementation of the announced policy and its enrichment with the aforementioned structural measures, as well as on the full use of all the available tools, including the financial support mechanism (the operating conditions of which were clarified by the Eurogroup on 11 April), if and when deemed advisable.

As regards the **labour market**, based on indications currently available for the relevant aggregates and the projected developments in activity, employment is expected to continue to decline in 2010, possibly at a higher rate than in 2009. In more detail, total employment could fall at a rate of around 1.5% (compared with -1.1% in 2009) and the number of employees could decrease by almost 2% (compared with -1.6% in 2009), while the unemployment rate may exceed 10.5% (from 9.5% in 2009).

Turning to **inflation**, the net balance between upside and downside risks to price stability suggests that average annual HICP inflation should come close to or just over 3% in 2010, up from 1.3% in 2009. Core inflation is also expected to rise and hover at or just above 2.5%, from 2.2% in 2009.

- Downside risks to the inflation outlook include the continued contraction in domestic demand this year, an expected decline or deceleration in unit labour costs in total economy, and squeezed business profit margins due to subdued demand for goods and services.

- Upside risks include the projected course of oil and other commodity prices in international markets, coupled with the depreciation of the euro vis-à-vis other major currencies, and the increases in indirect taxation (VAT and special consumption taxes) decided in February and on 3 March. In more detail, it is estimated that a full pass-through to prices of these higher indirect taxes would add almost 2.5 percentage points to HICP inflation, pushing it up to roughly 4%. Nevertheless, there are signs that —mainly due to adverse demand conditions— a considerable part of this increase in indirect taxes will be absorbed by businesses and not passed onto consumers. Hence, inflation could be contained at approximately 3%.

Furthermore, taking into account: (i) the announcements of 9 February and 3 March regarding the salaries of civil servants and employees of the broader public sector (which lead to substantially reduced earnings); and (ii) the working assumptions that collective bargaining in the private sector will result in zero increases or increases in the order of 1% (which, together with a carryover effect of 1.7-1.9% from the raises granted in 2009, would represent an average annual increase of around 1.7-1.9% or 2.7-2.9%), **average gross earnings** in the whole economy should fall by 1.4% or 0.8% in nominal terms, for the first time in 35 years, compared with a rise of 4.6% in 2009. Moreover, in real terms, average gross earnings should decrease by 4.3% or 3.7%. Compensation per employee (which includes both employer contributions and public sector employee pensions) is expected to fall by 0.5% or to remain practically stagnant (up by 0.1%), after rising by 4.9% in 2009. Assuming that GDP and dependent employment will decline by 2% and 1.9% respectively, labour productivity should be 0.1% lower. In such an event, **labour cost** growth in total economy would decrease by 0.4% or increase by 0.2% (2009: +5.3%). In the business sector, however, labour costs should rise by 1.6% or 2.5% (2009: 3.4%), i.e. the deceleration will be limited, mainly due to the carryover effect from the previous year. **This means that 2010 would see a continued erosion of competitiveness in terms of relative unit labour costs.** Unit labour cost growth in the business sector could be even higher if GDP contracts by more than 2%, or lower if wage employment falls by more than 1.9% and/or firms resort even more than in 2009 to cutting average working hours (and corresponding wage costs).

Finally, business **profit margins** are expected to be squeezed by subdued demand and higher costs of imported raw materials. Most likely, these developments will not be fully offset by the projected further deceleration in labour cost growth, which in the business sector will be limited, as mentioned above. At the same time, the number of loss-making firms is expected to rise, while more enterprises, in particular SMEs, may be forced to shut down, further worsening the unemployment outlook.

5 PRECONDITIONS FOR EXITING THE CRISIS AND ACHIEVING SUSTAINABLE GROWTH

Slashing the budget deficit is the only option for the Greek economy to survive. Fiscal consolidation is today a precondition for any step forward and for sustainable economic growth. In this sense, it is, under the present circumstances, the number one growth-generating measure. However, the final impact of the fiscal measures on the deficit outcome and the course of economic activity will depend on the pace and effectiveness of their implementation, as well as on the planned structural policy measures, which must be adopted and implemented as soon as possible.

The dramatic deterioration in Greece's **public finances** and the large widening in the spreads between Greek and German government bonds, if not reversed, will continue to lead to higher borrowing and debt servicing costs for the Greek government, and thus to put a further burden on fiscal balances, deflecting resources from other actions (public investment, education, health, etc.). They will also entail higher funding costs and limited access to funding for Greek banks and, ultimately, higher borrowing costs for businesses and households, with obvious dire consequences for growth prospects. Reducing the government deficit and debt is therefore a *sine qua non* for the survival of the Greek economy. The recent decision of the Eurogroup (11 April), which clarified the technical modalities of the financial support mechanism, can help ease market concerns, even though into the third week of April the spreads were still widening. However, dispelling concerns about the economy's medium-term growth prospects calls for a mapping out in detail and a prompt implementation of the structural reforms (outlined in the USGP), in addition to the reforms already underway.[12] Moreover, as mentioned earlier, possible recourse to the support mechanism would not only provide financing resources, but would also strengthen fiscal discipline and foster the conduct of appropriate structural policies, thus helping to consolidate a more positive climate and bolster confidence.

A fundamental premise of the warranted fiscal policy[13] is that the drastic and sustainable reduction of the government deficit and debt must be achieved not only by broadening the tax base and combatting tax and contribution evasion, but also by clamping down on squandering and by rationalising primary expenditure, in particular personnel outlays, operating expenses and social security and protection costs (through *targeted cutbacks* to reduce the misuse of healthcare resources and a stricter definition of arduous and hazardous occupations in order to restrict early retirement). In this context, the top priority of any exit strategy must be to restore the sustainability of public finances by generating substantial primary surpluses over a long period of time. Fiscal adjustment efforts must include a wide range of actions: (i) drastic reduction of the public debt; (ii) ensuring a sound institutional framework for the designing and implementation of budgetary policy; (iii) overhauling the pension system; (iv) tightening control over healthcare spending; (v) slowing down the growth of other primary expenditure; (vi) broadening the tax base; (vii) improving government asset/liability management; and (viii) ensuring that a well-functioning and well-targeted social safety net is in place. Of particular importance, in this respect, is the fight against corruption. As estimated by Daniel Kaufmann in a study to be published by the Brookings Institution, government revenue equal to at least 8% of GDP is lost every year to corruption, and even a moderately better control of corruption would enable Greece to reduce its budget deficit by 4% of GDP.[14]

As already mentioned, Greece would stand to gain a lot if fiscal consolidation on the expenditure side progressed even further than planned so far, and if the deficit could be reduced this year by more than 4% of GDP, by drastically curbing resource squandering and by merging or even eliminating public sector entities that are not really productive. It should be recalled that the outlays of the "other government" sector (i.e. excluding central government) climbed to almost 50% of GDP in 2009, from 20% in the 1960s, and were thus largely accountable for Greece's recent fiscal derailment.[15] The suggested acceleration of fiscal consolidation through cuts in expenditure is, at any rate, the option of choice for the next two years, given that any further increase in the already high tax burden on honest taxpayers could have extremely adverse repercussions on economic activity in the current environment of strong tax competition throughout Europe.

It is obvious that improving the quality of public finances is equally essential. An effective and efficient use of scarce public resources and a better-structured and efficient tax system will strengthen long-term potential growth, by ensuring that fiscal adjustment will indeed contribute to the long-term sustainability of public finances. According to relevant studies, expenditure in sectors such as education, R&D, public infrastructure, health or environmental protection foster economic growth.

12 Such as tax reform, restructuring regional/local government, social security reform, and simplification, decentralisation and enhanced efficiency of the National Strategic Reference Framework (NSRF) procedures.

13 The basic orientations for achieving deficit reduction were outlined in the USGP for 2009-2013, announced on 15 January, and complemented by additional policy measures announced on 2-9 February and 3 March. Detailed policy suggestions have also been made in previous Bank of Greece reports. Meanwhile, on 3 February the European Commission issued an opinion regarding Greece's stability programme, a recommendation on the correction of the excessive deficit under Article 126 (9) of the Treaty, as well as a recommendation on structural reforms under Article 121 (4) of the Treaty, while on 16 February the ECOFIN Council issued its own opinion on Greece's USGP, a binding decision giving notice to Greece to correct its deficit by 2012, and a recommendation to Greece on measures to be taken in order to bring its economic policies into line with the EU's broad economic policy guidelines.

14 See Marcus Walker, "Tragic flaw: Graft feeds Greek crisis", *Wall Street Journal*, 15 April 2010.

15 See Bank of Greece, *Monetary Policy 2009-2010.*

However, this link is not automatic and depends on the extent to which the desired results are achieved (in terms e.g. of improved skills or increased privately-funded research), as well as on the overall regulatory framework. According to estimates, the effectiveness and efficiency of Greek public expenditure in some of these sectors is below the EU-27 average. It is therefore imperative to put an end to the squandering of public funds and to restructure public spending in favour of more efficient alternatives that foster economic growth, through the development and upgrading of human capital, the use of new technologies and the enhancement of infrastructures.

Today, fiscal consolidation is a *sine qua non* for fostering growth and for the economy to move forward. Beyond that point, it is obvious that in order **to recoup competitiveness, improve production conditions and eventually accelerate potential growth over the medium term, profound and far-reaching structural changes** are today of the utmost urgency that would:

First, reduce unit production costs and, within a reasonable time span, reverse the erosion of cost and price competitiveness; and

Second, contribute to modernising the production model, i.e. to shifting resources to the sector of internationally tradable goods and services, achieving higher productivity, and developing a new structure of domestic production – capable of meeting the domestic and foreign demand of 2015, rather than that of 1970 or even of 1990.

Such changes must also be conducive to restoring the sustainability of the current account deficit. This calls for a policy mix that will re-establish macroeconomic and microeconomic equilibrium and improve the economy's competitiveness and productivity on a sustainable basis. Given that during the long period of rapid growth in Greece consumption patterns essentially exceeded the economy's productive capacity, from now on —in order to prevent a permanent drop in consumption levels— what the country precisely needs is to increase its productive capacity, i.e. the level and growth rate of its potential output, which has declined markedly in the last two years.

Naturally, due to the cumulative effect of past procrastinations or mistakes and the delays since the outbreak of the global crisis, at this point there is no "silver bullet" for the Greek economy, and the policy decisions made in the last few months were inevitable. As mentioned earlier, the final impact of the announced fiscal package will depend on its effective and prompt implementation and the net balance between the contractionary and expansionary effects of each measure and of the package as a whole. Meanwhile, the outcome of fiscal policy will also depend on the prompt promotion and implementation of structural and growth policy measures, preferably of low or zero budgetary cost and with quick results.

The crucial structural measures —highlighted, for one, in ECOFIN's recommendation (16 February) to Greece to bring its economic policies into line with the EU's broad economic policy guidelines, as well as in a recent OECD report[16]— include:

- slashing red tape;

- removing product and labour market rigidities;

- promptly absorbing the EU funds available under the National Strategic Reference Framework (NSRF) – Community Support Framework IV;

16 OECD, *Greece at a glance – Policies for a sustainable recovery*, 15 March 2010. In its summary of recommendations, the OECD points out the need to: simplify and modernise the tax system; improve the budget preparation process; tighten control over public spending; urgently reform the pension system; raise labour market flexibility and tackle poverty; enhance the effectiveness of competition policy; strengthen the efficiency of the education system; foster innovation and knowledge-based activities and promote a green fiscal reform; and resolutely pursue efforts to restore confidence in the management and impartiality of the State.

- promoting clean or green growth and changing the current production and energy consumption patterns (on this matter, see another recent OECD report on Greece's environmental performance[17]); and

- upgrading the education system and encouraging innovation and research.

Progress in these directions can help reduce unemployment (particularly among the young) and increase the rates of employment, fixed capital formation and total factor productivity, so as to substantially strengthen potential growth, which has declined markedly on account of the crisis.

In addition, against the background of a pick-up in inflation due to the increase in indirect taxation and the rising prices of oil and other commodities, strengthening market competition is particularly important if wage and profit formation is to be compatible with the objective of increasing competitiveness.

Finally, of utmost importance is the pace at which the recent fiscal measures will be put into practice and produce results, and at which the aforementioned structural interventions will be decided and implemented based on a concrete timetable. The progress made in these two directions will determine, among other things, how soon the international markets and the domestic economic agents will regain confidence in the Greek economy's fiscal and growth prospects. As mentioned earlier, restored confidence will lead to lower costs of government borrowing, which will have favourable chain effects on Greek banks' funding costs and access to funding and, further down the line, on borrowing costs for businesses and households. In turn, these favourable effects will —at least partly— offset the immediate contractionary impact of certain fiscal measures. Naturally, in order to actually boost confidence and reduce borrowing costs so as to ultimately have a positive effect on growth prospects, the fiscal measures must be coupled with and supported by structural policies as soon as possible. This policy mix must convince both foreign investors and domestic firms and employees that not only will the necessary fiscal tidying-up take place, but also that the Greek economy will not suffer a "slow death" (as certain foreign commentators have suggested) and that its growth engine will soon be back in motion, running this time with new technology and on new fuel.

If the fiscal adjustment measures are implemented piecemeal, amid a climate of uncertainty, there is a risk that they may have only contractionary results. This is exactly why they must be implemented promptly and effectively, in a manner as frontloaded as possible, alongside a rapid promotion of the legislative action envisaged in the USGP regarding the tax system, the pension reform, the budget preparation process and control over public spending, as well as concretising and implementing the other structural reforms under the USGP. This is the only way to turn the unfavourable climate around as soon as possible, dissipate uncertainty and expedite and bolster recovery.

Empirical studies point to the unambiguous long-term positive effect that fiscal adjustment can have on economic growth, as it drives down the debt and long-term interest rates and frees resources for more productive uses or allows for tax cuts. As regards the composition of fiscal adjustment, international experience has shown that an adjustment based mainly on cutting non-immediately productive spending (e.g. transfer payments, staff costs, etc.) is more likely to succeed and has a positive effect on economic growth. Moreover, the contribution of fiscal consolidation to long-term economic growth is greater when the initial size of the public sector is large and the economy is burdened by a high and unsustainable debt-to-GDP ratio. Recent studies have shown that when the debt ratio exceeds 90%, any increase in the debt has negative effects on long-term growth (due to higher long-term interest

17 OECD, Greece – *Environmental Performance Review*, 15 March 2010.

rates). In such cases, fiscal adjustment through a cut in non-productive spending can have a positive effect on economic growth.

All the above lead to the conclusion that, **although there is a risk of a sharper drop in GDP (e.g. in the event of an ineffective or delayed implementation of the measures), there is also a strong possibility that the future may turn out better than what currently seems likely. This will only happen if the measures are rigorously implemented, without any deviation, and are promptly complemented by structural measures focused as much on product and labour markets as on a drastic curtailing of fund squandering in the public sector and the elimination or merger of public entities that are not really productive (as already planned by the government). This will indeed create the necessary conditions for a virtuous circle of growth-generating synergies, thereby enabling the Greek economy to pull itself sooner out of its quagmire.**

6 CHALLENGES FACING THE BANKING SYSTEM

In 2010, Greek banks will need to maintain comfortable capital buffers above the supervisory minimums; to ensure adequate provisioning for credit risk in particular; and to manage their alternative funding sources with prudence and flexibility. Restoring the confidence of the markets and the international community in Greece's fiscal prospects will be key to safeguarding the stability of the banking sector and of the financial system as a whole. As post-crisis conditions will be very different, banks should redesign their strategic objectives and their overall business models.

The main developments in the banking sector during 2009 were an improvement in Greek commercial banks' capital adequacy, despite a considerable fall in their profitability; a further deterioration in the quality of their loan portfolios; and, finally, the virtual drying-up of funding sources, which resulted in increasingly high reliance on the Eurosystem.

As the global financial crisis affected the Greek economy with some lag, there was a marked deceleration in credit expansion to the private sector (households and businesses) in the course of 2009, which had a direct impact on banks' interest and fee income. In addition, the worsening of the financial condition of households and firms called for higher provisioning for credit risk.

These developments inevitably weighed on key profitability ratios such as the net interest rate margin, the return on assets (ROA) and the return on equity (ROE). (Individual banks were able to avoid larger drops in profitability or even losses thanks to profits from financial operations and valuation gains on securities, which, however, are typically volatile income sources.) The efficiency ratio (operating costs to operating income) showed a small improvement.

Banks' regulatory own funds improved considerably in both quality and quantity terms in 2009, as reflected in the Capital Adequacy Ratio and the Tier I Ratio. Underlying this positive development were recapitalisation through the issuance of preference shares under Law 3723/2008; further recapitalisation by certain banks through capital increases in cash; the issuance of hybrid securities and internal financing from undistributed profits. Moreover, the leverage ratio of Greek banking groups declined considerably at the end of 2009, remaining well below the ones of large banking groups in the euro area.

Turning to banking risks, the deterioration in the macroeconomic environment inevitably affected the quality of Greek banks' loan portfolios, which worsened considerably in 2009. The ratio of non-performing loans to total loans (NPL ratio) rose to 7.7% at end-2009, up 2.7 percentage points from December 2008 (5.0%).[18] Marked increases in NPL ratios were

18 Excluding data on foreign bank subsidiaries in Greece, non-performing loans came to 6.9% of total loans at end-2009, up from 4.4% in 2008.

seen across *all* categories of loans, but especially consumer loans. Another adverse development was a decrease in the coverage ratio. Meanwhile, the ratio of net NPLs (i.e. NPLs less accumulated provisions for credit risk) to total regulatory capital rose. All of these developments call for a substantial increase in the stock of provisions for credit risk, considering in particular the impact on banks' loan portfolios of the negative GDP growth projected for Greece once again in 2010.

During the last months of 2009 and especially in the first quarter of 2010, Greek banks saw their liquidity risk increase considerably, on account of tight funding conditions and a small-scale outflow of deposits. These funding constraints reflected the Greek economy's serious chronic macroeconomic imbalances, which became more evident during the crisis and triggered successive downgradings of Greece's credit rating, thereby restricting bank access to, and the cost of, market-based funding. Against this background, Greek banks relied heavily on the Eurosystem for liquidity in 2009 and continued to do so in the first months of 2010; this should be seriously taken into account in view of the ECB's plans to phase out its enhanced credit support measures. Such concerns were simply eased by the ECB President's recent announcement that the ECB had decided to maintain the minimum credit threshold for marketable and non-marketable assets in the Eurosystem collateral framework at investment-grade level beyond the end of 2010. Another cause for concern regarding banks' liquidity conditions is the slowdown in deposit growth observed in 2009 and the recent deposit outflow trend, due to heightened uncertainty about the fiscal situation and to the attractive yields of Greek government bonds. However, it should be stressed that the deposit base remains the primary source of funding for Greek banks. At end-December 2009, both the loan-to-deposit ratio (banks: 106.6%, banking groups: 113.7%) and the supervisory liquidity ratios remained at very satisfactory levels.

A favourable impact on liquidity conditions came from the recourse to the measures provided for in Law 3723/2008. By end-2009, banks had managed to recapitalise €3.8 billion through the issuance of preference shares, to draw an amount of €4.6 billion in liquidity using Greek government securities as collateral and to obtain €1 billion in loans using State guarantees. A similarly favourable impact is expected from the extension of the measures provided for under Law 3723/2008 until the end of June 2010. By early April 2010, banks had applied for €2.4 billion in liquidity using Greek government securities as collateral and for €8.9 billion using State guarantees. It is expected that by end-June 2010 the entire amount of €28 billion originally envisaged in Law 3723/2008 will have been used.

To sum up, for the year 2010, Greek banks will seriously have to take into account the unprecedented economic conditions that have unfolded in Greece and the forthcoming changes to the international regulatory framework. Against this background, they should maintain substantial capital buffers above the supervisory minimums; form adequate provisions, in particular for credit risk; and manage their alternative funding sources with prudence and flexibility.

However, these measures are, by themselves, not enough for the banks to address the current difficult conjuncture. Consolidating market confidence, as well as the confidence of the international community in Greece's fiscal prospects, will be key and catalytic to safeguarding banking sector and financial stability. Characteristically, whereas in many other countries the crisis first broke out in the financial system and from there spread to the real economy, in Greece things worked the other way round. Consequently, if the Greek banking system is to continue to retain the remarkable resilience it displayed even at the height of the crisis, it is essential that the fiscal and macroeconomic uncertainties that are currently affecting it in a negative way be eliminated. Even then, however, the new conditions that will emerge will be very different from the ones under which banks have operated in the past. Over the medium term, mergers in the banking sector will probably be inevitable. Furthermore, sound financial fundamentals, effective and transparent risk management and operating standards that can support robust business models will be key to bolstering bank resilience to shocks and ensuring adequate access to liquidity, thus laying the foundations for sustainable growth and financial stability.

7 ISSUES HIGHLIGHTED BY THE CRISIS

Being multi-faceted and all-encompassing, the current crisis calls for a radical reorientation of economic policy. The exit from the crisis will require painstaking and sustained efforts over a number of years, which is why we must all assume our responsibilities.

The developments of the past few months have brought some particularly crucial issues to the fore.

- Given that the current crisis is multi-faceted and pervades all aspects of the Greek economy, but also the state, the country's institutions and society at large, its ramifications, present everywhere, only amplify the negative impact on the economy. Recourse to piecemeal, one-dimensional or short-term remedies is therefore not an option. In response to the twin causes that led us to the crisis in the first place, what is needed is a radical reorientation of economic policy towards twin medium-term goals: sustainable fiscal consolidation and a policy of structural reforms that will steadily enhance competitiveness.

- The changes needed are of the utmost urgency. The major problems that we have been so reluctant to address now stand before us. The cost of inaction on our part would not only increase multifold, but would also spill over to the entire Greek economy and society.

- Even more crucial are the historical responsibilities that we must all assume in the face of this huge challenge. The road out of the crisis will be long and arduous, over ground that cannot possibly be covered in just one year. This is why greater and longer-lasting efforts will be needed from us all. The path that we will embark upon in the years ahead will largely be determined by the goal we set ourselves and our commitment to achieving it: do we want a country that is trapped in a low-level equilibrium or do we want to make Greece modern and dynamic? What is certain is that we can no longer rely on recipes of the past, with prefabricated answers to problems that either present themselves today in a different light or are totally new. Nor can we keep on perpetuating our dogmatic misinterpretations of reality and our vested interests at the expense of society at large, our short-termist pursuit of maximum possible gain, our selective and at will compliance with laws and regulations, our shifting of responsibility onto others, our refusal to make the slightest effort towards consensus-building. The public's apparently widespread awareness of the economy's serious problems should make it easier to build the consensus necessary to effectively address the crisis.

The crisis is challenging us to actually bring about the necessary reforms at a rapid pace, instead of just engaging in endless discussions. The cost that we will have to bear if we put off the reforms is enormous. **We must realise that today's crisis is unlike anything we have experienced before, at least in our post-war history,** and that it cannot be tackled with the logic of the past. On the one hand, there is the huge cost of inaction. Yet, on the other, there is the well-founded hope and the possibility of setting a durable virtuous circle into motion that will lead us out of our decline towards progress and growth. This virtuous circle will not be long in manifesting itself, provided that we do not deviate from the policies decided upon and that we reinforce them without delay with the necessary structural reforms. The sooner we realise what is at stake, the easier it will be to find and follow the lead that will guide us to a definitive exit from the crisis and set us on a sound and safe course toward durable economic progress. **We have one very difficult problem to solve: to achieve drastic fiscal adjustment and consolidation and, at the same time, safeguard the economy's medium-term growth prospects, amid adverse conditions for government borrowing worldwide. However, if we use all the policy instruments at our disposal with prudence and level-headedness, we can succeed.**

III THE SINGLE MONETARY POLICY AND THE EUROSYSTEM'S INTERVENTIONS IN THE MONEY MARKET[1]

From the beginning of 2009 through May, the Governing Council of the ECB continued the gradual reduction of its key interest rates, which began in October 2008. Between June 2009 and April 2010, the key interest rates were kept unchanged (see Table III.1).

Moreover, during 2009 and the first four months of 2010, the Governing Council continued to implement "non-standard" monetary policy measures, described as such because they involve significant changes in the operational framework – i.e. the instruments and procedures used by the Eurosystem for the implementation of monetary policy. These measures improve the financing conditions and support the flow of credit to the economy through the financial system —that is, for the euro area, mainly banks— more than could be possibly achieved through key interest rate cuts alone. In so doing, such measures safeguard financial stability and help restore normal conditions in the interbank market in

1 Based on the introductory statements of the President of the ECB at the press conferences following the first Governing Council meeting of each month, in which monetary policy is discussed, during 2009 and the first four months of 2010. Various other announcements by the Governing Council and the ECB have also been taken into account.

Table III.1 Changes in key ECB interest rates

(percentages per annum)

With effect from:[1]		Deposit facility	Main refinancing operations		Marginal lending facility
			Fixed rate tenders (fixed rate)	Variable rate tenders (minimum bid rate)	
2000	6 October	3.75	-	4.75	5.75
2001	11 May	3.50	-	4.50	5.50
	31 August	3.25	-	4.25	5.25
	18 September	2.75	-	3.75	4.75
	9 November	2.25	-	3.25	4.25
2002	6 December	1.75	-	2.75	3.75
2003	7 March	1.50	-	2.50	3.50
	6 June	1.00	-	2.00	3.00
2005	6 December	1.25	-	2.25	3.25
2006	8 March	1.50	-	2.50	3.50
	15 June	1.75	-	2.75	3.75
	9 August	2.00	-	3.00	4.00
	11 October	2.25	-	3.25	4.25
	13 December	2.50	-	3.50	4.50
2007	14 March	2.75	-	3.75	4.75
	13 June	3.00	-	4.00	5.00
2008	9 July	3.25	-	4.25	5.25
	8 October	2.75	-	-	4.75
	9 October	3.25	-	-	4.25
	15 October	3.25	3.75	-	4.25
	12 November	2.75	3.25	-	3.75
	10 December	2.00	2.50	-	3.00
2009	21 January	1.00	2.00	-	3.00
	11 March	0.50	1.50	-	2.50
	8 April	0.25	1.25	-	2.25
	13 May	0.25	1.00	-	1.75
	11 March	0.50	1.50	-	2.50
	8 April	0.25	1.25	-	2.25
	13 May	0.25	1.00	-	1.75

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.

order to facilitate the flow of bank credit to business firms and households in the euro area.

In December 2009, given the gradual normalisation of conditions in financial markets, the ECB Governing Council outlined the phasing-out of these measures. On 4 March and 8 April 2010, the ECB announced further details in this respect.

The Governing Council defines monetary policy with a view to achieving the Eurosystem's primary objective, which is price stability in the euro area over the medium term. (Price stability is defined in the context of the Eurosystem's monetary policy strategy as annual inflation rates of below, but close to, 2%). During 2009 and the first four months of 2010, the ECB Governing Council placed particular emphasis on keeping medium- to long-term inflation expectations anchored at levels consistent with price stability. The anchoring of inflation expectations is a key condition for GDP and employment growth in the euro area and helps safeguard financial stability.

An important role in anchoring inflation expectations during 2009 was played by the ECB Governing Council's commitment to gradually withdraw, at the appropriate time, its extraordinary liquidity support measures once they become less necessary. As mentioned earlier, this commitment is being put into action in 2010. It was also announced that the Eurosystem will, when necessary, conduct operations to absorb liquidity from the banking system in order to prevent inflationary risks from materialising over the medium and long term.

The Governing Council repeatedly pointed out that, after the latest interest rate cut (May 2009), the key ECB interest rates were appropriate for price stability to be maintained over the medium term, as also implied by inflation expectations. The consolidation of price stability would help increase the purchasing power of household incomes in the euro area.

In the period from January to July 2009 inflationary pressures eased to low levels. According to the Governing Council's economic analysis, this development reflected declines in world crude oil and other commodity prices in the second half of 2008. It was also associated with the economic downturn, which became more pronounced in the context of the intensification of the financial turmoil in late 2008. The Governing Council anticipates moderate GDP growth and weak price increases in 2010 and 2011. An outlook of low inflationary pressures over the medium term is confirmed by the Governing Council's monetary analysis, conducted alongside the economic analysis.

On the basis of its economic and monetary analyses, the Governing Council cut the interest rate of the main refinancing operations on four occasions[2] between January and May 2009, by a cumulative 150 basis points, bringing it to 1% in May 2009, down from 2.5% in December 2008 (see Chart III.1).[3] The ECB key interest rates remained unchanged in the June 2009-April 2010 period, but additional non-standard monetary policy measures were introduced.

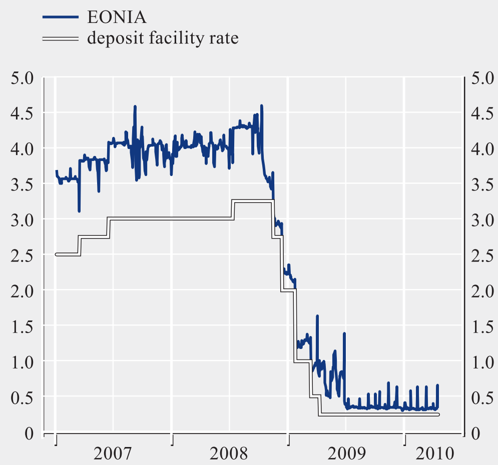
Starting with the economic analysis underlying the Governing Council's decisions, in the third quarter of 2009, GDP grew by 0.4% quarter-on-quarter in the euro area, after five consecutive quarters of decline. GDP remained unchanged in the last quarter of 2009, but economic recovery resumed in early 2010. Quarterly growth rates are likely to fluctuate in 2010, but are expected to remain at moderate levels. The growth outlook for the euro area primarily reflects the temporary nature of the impact from factors that are currently supporting economic growth, namely the financial system support and fiscal stimulus measures

2 In January and March by 50 basis points and in April and May 2009 by 25 basis points.

3 With regard to the Eurosystem's other key interest rates, the marginal lending rate was gradually cut by 125 basis points, to 1.75% in May 2009 from 3% in December 2008, and the deposit facility rate by 175 basis points, to 0.25% in April 2009 from 2% in December 2008.

Chart III.1 Overnight interest rate (EONIA) and deposit facility rate (January 2007-April 2010)

(percentages per annum; daily data)



Source: ECB.

adopted by several Member States. Moreover, the balance-sheet restructuring efforts of financial and non-financial corporations and households in the euro area and elsewhere are expected to subtract from the growth rate. A dampening effect on growth is also expected from rising unemployment and low capacity utilisation in industry. For 2011, GDP growth is projected to strengthen.

Inflation continued to fall from the beginning of 2009 until July, and remained in negative territory between June and October 2009. It turned positive again in November 2009 and hovered around 1% in the December 2009-February 2010 period, before rising to 1.4% in March. This mainly reflected the evolution of energy prices, while core inflation developments were more subdued. The drop in inflation in the first seven months of 2009 was largely due to a strong base effect related to the higher levels of oil and other commodity prices one year earlier. Likewise, the pick-up in inflation from August 2009 onwards reflected the fact that crude oil prices – already on the rise since late 2008 – came increasingly closer to their 2008 levels and exceeded them in October 2009.

The ECB Governing Council expects that inflation rates will remain moderate over the medium term, as aggregate demand is not likely to rebound soon in the euro area and other economic regions.

According to the latest ECB staff projections (4 March 2010), average annual HICP inflation is expected to be between 0.8% and 1.6% in 2010 and between 0.9% and 2.1% in 2011. However, this projection is subject to upside risks, associated with the possibility of larger than expected increases in indirect taxes and administered prices in the context of Member States' fiscal consolidation efforts. Further risks to the inflation outlook could stem from oil and other commodity prices if they do not develop in line with the path assumed by the projections. Still, as mentioned earlier, throughout 2009 and in the January-April 2010 period the ECB Governing Council continued to stress its assessment that, on the basis of inflation expectations, price stability should be maintained in the euro area over the medium term.

Cross-checking with monetary analysis confirmed that inflationary pressures had eased and would remain low over the medium term. This conclusion was based on the decline in the underlying rate of monetary growth,[4] accounted for by the ongoing weakening during 2009 (as was also the case in 2008) in both M3 (December 2008: 7.5%, December 2009: -0.3%, February 2010: -0.4%) and bank loans to the private sector (December 2008: 5.7%, December 2009: -0.1%, February 2010: -0.4%).

The non-standard monetary policy measures in 2009 continued to be geared towards facilitating the refinancing of euro area credit institutions and making up for the dysfunctioning of the money market. The supply of liquidity to credit institutions needed to be supported in

4 Underlying monetary expansion is calculated by the ECB using various alternative techniques (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 correlated to inflation (taking into account the entailed lags) than headline M3 growth.

order to prevent the financial turmoil from threatening the soundness of the banking system and to ensure that banks continue to provide credit to households and non-financial corporations on terms compatible with the Eurosystem's monetary policy stance. Non-standard monetary policy measures provided ample liquidity, as credit institutions' demand for funding was satisfied without any quantitative limit and at low cost. In particular, the use of non-standard monetary policy measures enabled the volume of refinancing of credit institutions through the Eurosystem's open market operations to double, from €449 billion in mid-September 2008 (4.8% of the euro area GDP in 2008) to €897 billion (10% of GDP in 2009) in late June 2009. Subsequently, liquidity provision to banks fell, reaching €737 billion by mid-April, i.e. about 8% of the GDP forecast for 2010.

In 2009, additionally to the other forms of interbank market intervention launched in October 2008, the Eurosystem used the following non-standard monetary policy measures:

- Three 12-month longer-term refinancing operations were conducted.[5]

- Starting in July, the Eurosystem implemented a Securities Markets Programme, whereby it purchased covered bonds issued by banks. These bonds are backed by a pool of loans originated by the issuing credit institutions and are thus doubly secured. Covered bond holders, as opposed to holders of other loan-backed assets such as structured bonds, are regarded as creditors of the originator bank and have preferential claims over other investors on the assets of the cover pool, which comprises loans fulfilling specific safety criteria. By the end of March 2010, the Eurosystem had acquired covered bonds totalling €45 billion.

- The European Investment Bank (EIB) became an eligible counterparty in the Eurosystem's monetary policy operations as from July 2009.

In view of an improvement in financial market conditions, in December 2009[6] the ECB Governing Council decided, as mentioned earlier, to initiate a phasing-out of those non-standard monetary policy measures that were no longer necessary. The remaining non-standard measures will remain in place for a while, continuing the policy of enhanced credit support with the provision of liquidity by the Eurosystem to the banking system in the euro area on favourable terms. However, as the Governing Council has pointed out, maintaining non-standard monetary policy measures longer than necessary could result in market distortions. (The availability of unlimited liquidity at a low cost could, for instance, foster complacency among banks, which may thus delay undertaking the required balance-sheet adjustments.)

Specifically, in 2010:

(a) Main refinancing operations will continue to be conducted as fixed-rate tender procedures with full allotment for as long as needed and at least until 12 October 2010.

(b) There will be no more open market operations with a maturity of 12 months.[7]

(c) One last 6-month longer-term refinancing operation (LTRO) was conducted on 31 March using a full allotment fixed-rate tender procedure; the rate will be calculated ex post in the same manner as for the last 12-month longer-term refinancing operation.[8]

(d) Special-term refinancing operations with a maturity of one maintenance period will con-

5 The following longer-term refinancing operations (LTROs) with a maturity of less than 12 months were conducted in 2009: twelve 6-month LTROs, twenty-four 3-month LTROs and twelve operations with a maturity of one maintenance period.
6 The modalities for phasing out the non-standard monetary policy measures were announced on 4 March and 8 April 2010.
7 The last 12-month LTRO was conducted on 16 December 2009. The rate will be calculated ex post as the average fixed rate/minimum bid rate of the MROs conducted over the life of this operation, i.e. over the 53 weeks between the date of the operation and the maturity date.
8 The interest rate will be calculated ex post as the average bid rate of the MROs to be conducted over the life of the operation, i.e. over the 26 weeks between the date of the operation and the maturity date (30 September 2010).

tinue to be conducted for as long as needed and at least until 12 October 2010, as fixed-rate tenders with full allotment (the fixed rate will be equal to the rate used in the respective MROs).

(e) The 3-month refinancing operations scheduled for the first quarter were also conducted through a similar procedure.

(f) Regular 3-month LTROs through variable rate tenders will be resumed as from 28 April 2010. The allotment amounts will be determined taking into account the need to ensure normal conditions in money markets.

(g) Moreover, in the course of the 2009, the Eurosystem gradually narrowed its set of open market operations aimed to provide US dollar liquidity to euro area credit institutions. After January 2010, the last remaining USD one-week liquidity-providing operations and one-week EUR/CHF foreign exchange swaps were discontinued.

It should be recalled that in mid-October 2008, in order to address bank liquidity constraints and the intensification of the financial turmoil, the list of assets eligible to be used as collateral in Eurosystem credit operations was expanded. In particular:

First, a new category of eligible collateral was added to the list, namely: (a) marketable debt instruments issued in the euro area and denominated in US dollars, pounds sterling and Japanese yen; and (b) debt instruments issued by credit institutions (including certificates of deposit) and traded on certain non-regulated markets deemed acceptable by the ECB.[9]

Second, the credit quality threshold for marketable assets was lowered from A- to BBB-[10] (irrespective of category[11]), with the exception of asset-backed securities. It should be noted that the Eurosystem applies an additional haircut of 5% on assets of the lowest acceptable rating category, i.e. BBB-. The amount of credit that a counterparty can obtain against eligible collateral is calculated by deducting a certain percentage (haircut) from the market value of the underlying assets. The haircut typically depends on parameters such as the remaining maturity. As mentioned above, all assets rated BBB-, further to the haircut derived from these parameters, are automatically subject to an add-on of 5%. In the case of assets denominated in US dollars, pounds sterling or Japanese yen, this haircut add-on is 8%, while for certificates of deposit (CDs) it is 5%.

Initially, in October 2008 it was announced that the expansion of the Eurosystem collateral framework would apply until the end of 2009. In May 2009, with the launching of one-year longer-term refinancing operations, it was announced that the expanded list would remain in place until the end of 2010. On 25 March 2010, the President of the ECB, in his speech before the plenary session of the European Parliament, announced that the BBB- rating would be kept beyond the end of 2010 as the minimum credit threshold for collateral accepted as eligible by the Eurosystem. This important decision was adopted by the ECB Governing Council on 8 April. In addition, the Governing Council decided to apply, as of 1 January 2011, a schedule of graduated valuation haircuts to the assets rated in the BBB+ to BBB- range.[12] Finally, the Governing Council confirmed that the additions to the list of eligible assets (marketable debt instruments denominated in currencies other than the euro, certificates of deposit, etc.) will no longer be eligible as collateral as from 1 January 2011.

Given that the non-standard monetary policy measures implemented from September 2008

9 Certificates of deposit (CDs) are not traded on regulated markets.
10 Moody's credit rating scale is different from the one used by Fitch and Standard & Poor's, and the credit assessments of a given issuer or a given issue can differ across rating agencies. This is why the Eurosystem defines its minimum credit threshold for eligible collateral as with a long-term rating of Baa3 by Moody's or BBB- by Standard & Poor's or Fitch. If no credit rating is available for a given asset offered as collateral, the minimum credit threshold refers to the rating assigned to the issuer or debtor of the asset.
11 E.g. categories based on the currency of denomination.
12 As rated by Fitch or Standard & Poor's or, equivalently, Baa1/Baa2/Baa3 by Moody's.

onwards have contributed to creating conditions of excess liquidity in the interbank market, since the last quarter of 2008, with the exception of a few short intervals, the EONIA rate has been lower than the prevailing rate on MROs (and LTROs).

The first twelve-month LTRO conducted in late June 2009 had a marked impact on interbank interest rates, as it significantly increased the liquidity surplus. As a result, the EONIA rate fell further, and its negative differential from the fixed MRO rate widened. Specifically, between July and December 2009 and from early 2010 to mid-April, the EONIA rate fluctuated within a narrow range around 0.35%, i.e. 10 basis points above the deposit facility rate.

Euribor rates continued to decline during 2009 (although at a weakening pace in the course of the year), as well as in the first months of 2010 until early April.

The decline in Euribor rates was associated with: (a) the cuts in ECB key interest rates between January and May 2009; (b) improvements in liquidity due to the non-standard monetary policy measures; (c) the resulting drop in the EONIA rate mentioned above; (d) a decline in short-term expectations regarding the overnight money-market interest rate; and (e) lower counterparty risk in the interbank market, as a result of the Eurosystem's enhanced credit support policy and the financial system support measures put in place by EU Member State governments from October 2008 onwards.

The drop in interbank market rates and the evolution of medium- and long-term government bond yields[13] relative to 2008 created the conditions for successive (and considerable on a cumulative basis) cuts in interest rates across all deposit and loan categories in 2009 and early 2010 in the euro area. The lower costs of bank credit and financing through debt issuance are having a favourable impact on economic activity.

Banks, on their part, face the challenge of adjusting their size and balance sheets without impairing the flow of credit to the non-financial sector of the euro area economy, taking into consideration that many business firms do not have access to financing through capital markets. To meet this challenge, banks should take advantage of the improved conditions in credit markets and further strengthen their capital base, using, where needed, the recapitalisation opportunities offered by the financial sector support packages of Member State governments.

The monetary policy measures taken by the ECB Governing Council since the intensification of the financial turmoil in September 2008, i.e. cuts in key ECB interest rates and enhanced credit support, have helped secure bank liquidity and underpin the economic upturn of the euro area. These measures will continue to have a beneficial effect on the euro area economy for a protracted period, given the well-known lag in monetary policy transmission.

13 Based on quarterly averages, yields have exhibited a clear downward trend since the fourth quarter of 2008.

IV ECONOMIC ACTIVITY IN GREECE

1 DEVELOPMENTS IN ACTIVITY IN 2009

According to the latest national accounts estimates from the NSSG (released on 11 March 2010), which led to a downward revision of previous estimates, annual GDP growth rates remained negative throughout 2009 (first quarter: -1.0%, second quarter: -1.9%, third and fourth quarters: -2.5%), averaging -2.0% for the year as a whole (2008: +2.0%, see Table IV.1). The deteriorating performance is also confirmed by developments in the coincident economic activity indicator compiled by the Bank of Greece (see Chart IV.1A).[1] On the other hand, the economic sentiment indicator for Greece (compiled by the European Commission on the basis of IOBE's business and consumer surveys) showed some improvement in the April-October period, before declining almost continuously from November 2009 to March 2010 (see Chart IV.1B).

The output gap of the Greek economy is estimated to have been negative in 2009, even though the potential growth rate fell substantially relative to 2008, reflecting a significant decline in the contribution of capital, due to lower investment.[2]

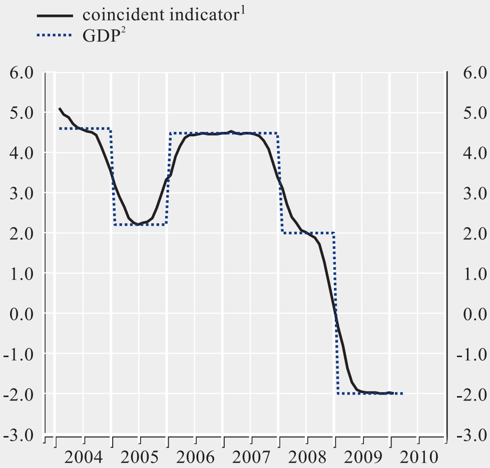
Domestic demand, for the first time since 1992, made a negative contribution to GDP growth in 2009, mainly as a result of declines in **investment** and **private consumption. Government consumption** made a positive contribution to GDP growth. The negative developments in final domestic demand were only partly offset by a positive contribution from net trade, which reflected the fact that imports declined more strongly than exports in the context of the recession.

The 1.8% decrease in private consumption at constant prices was most apparent in the strong declines in the volume of retail sales excluding cars and fuels (-9.3%) and new passenger car registrations (-17.4%) (see Table IV.2 and Chart IV.2).

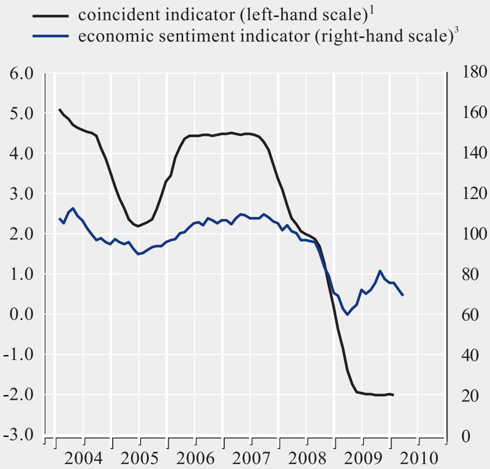
Lower **private consumption** is attributable to a fall in employment (see Chapter V) and the

Chart IV.1 Economic activity indicators

A. The coincident indicator of economic activity compiled by the Bank of Greece
(January 2004 - January 2010)



B. The coincident indicator of economic activity compiled by the Bank of Greece and the European Commission's economic sentiment indicator for Greece
(January 2004 - March 2010)



Sources: Bank of Greece (coincident indicator, as well as GDP for 2010), NSSG (GDP 2004-2009) and European Commission (economic sentiment indicator).

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

1 This index summarises information contained in a set of key short-term indicators and reflects the change in underlying economic activity, smoothing out any excess volatility of individual short-term indicators.

2 The potential growth rate, after averaging around 3.5% from 2000 to 2007, decreased to 2.2% in 2008 and is estimated to have fallen below 1.5% in 2009.

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	2003	2004	2005	2006	2007	2008	2009
1. Private consumption	98,627	3.3	3.6	4.6	5.3	3.3	2.3	-1.8
2. Public consumption	24,271	-0.9	3.5	1.1	-0.1	8.4	0.6	9.6
3. Gross fixed capital formation	29,450	11.8	1.4	-4.5	9.8	4.6	-7.4	-13.9
3.1a By investor: general government	...	...	...	...	...	...	...	...
3.1b other sectors	...	...	...	...	...	...	...	...
3.2a By type: construction	17,944	14.4	-2.9	-6.2	14.3	-5.3	-19.1	-11.3
3.2b equipment	10,415	9.1	7.1	-2.6	4.7	20.9	6.3	-19.0
3.2c other investment	1,091	2.1	8.1	-1.5	2.9	-14.4	-14.6	33.8
4. Domestic final demand[1]	152,348	4.3	3.1	2.1	5.4	4.3	0.0	-2.4
5. Change in inventories and statistical discrepancy (% of GDP)	2,328	1.2	0.5	-0.3	0.1	0.8	1.9	1.8
6. Exports of goods and services	33,882	2.9	17.4	2.4	5.3	5.8	4.0	-18.1
6.1 Exports of goods	14,253	4.3	9.6	6.1	11.7	1.5	3.7	-11.6
6.2 Exports of services	19,629	2.0	22.8	0.1	1.0	9.0	4.1	-22.6
7. Final demand	188,558	5.2	4.8	1.5	5.7	5.2	1.5	-5.2
8. Imports of goods and services	52,277	3.0	5.2	-0.3	9.1	7.1	0.2	-14.1
8.1 Imports of goods	40,730	2.4	4.5	-1.4	9.6	6.6	-3.1	-14.4
8.2 Imports of services	11,547	5.1	8.4	3,9	6.8	9.0	13.6	-13.0
GDP at market prices	136,281	5.9	4.6	2,2	4.5	4.5	2.0	-2.0
		Contribution to GDP change (percentage points)						
1. Private consumption		2.4	2.6	3.3	3.9	2.4	1.7	-1.3
2. Public consumption		-0.2	0.6	0.2	0.0	1.3	0.1	1.5
3. Gross fixed capital formation		2.7	0.3	-1.1	2.2	1.1	-1.7	-2.9
3.1a By investor: general government		...	...	...	...	...	...	...
3.1b other sectors		...	...	...	...	...	...	...
3.2a By type: construction		1.9	-0.4	-0.8	1.7	-0.7	-2.3	-1.1
3.2b equipment		0.8	0.7	-0.3	0.4	1.9	0.7	-2.1
3.2c other investment		0.0	0.1	0.0	0.0	-0.1	-0.1	0.2
4. Domestic final demand [1]		5.0	3.5	2.3	6.0	4.8	0.0	-2.6
5. Inventories and statistical discrepancy		1.5	-0.7	-0.8	0.4	0.8	1.1	-0.1
6. Exports of goods and services		0.6	3.6	0.6	1.2	1.3	0.9	-4.3
6.1 Exports of goods		0.4	0.9	0.6	1.1	0.2	0.4	-1.2
6.2 Exports of services		0.2	2.6	0.0	0.1	1.2	0.6	-3.1
7. Final demand		7.1	6.4	2.1	7.6	7.0	2.1	-7.1
8. Imports of goods and services		-1.1	-1.8	0.1	-3.1	-2.5	-0.1	5.0
8.1 Imports of goods		-0.7	-1.2	0.4	-2.6	-1.9	0.9	3.9
8.2 Imports of services		-0.4	-0.6	-0.3	-0.5	-0.7	-1.0	1.1
9. External balance of goods and services		-0.4	1.8	0.7	-1.8	-1.2	0.9	0.7
GDP at market prices		5.9	4.6	2.2	4.5	4.5	2.0	-2.0

Source: NSSG, National Accounts, provisional estimates for 2004-2009, March 2010.
1 Excluding inventories and statistical discrepancy.

Table IV.2 Indicators of consumer demand (2009-2010)

(annual percentage changes)

	2008	2009	2010 (available period)
Volume of retail sales (excl. fuel and lubricants)	-1.4	-9.3	5.4 (Jan.)
Food-beverages-tobacco[1]	-0.1	-6.1	5.2 (Jan.)
Clothing-footwear	-5.5	1.4	3.0 (Jan.)
Furniture-electrical appliances-household equipment	-4.3	-15.3	3.4 (Jan.)
Books-stationery-other	-1.3	-24.0	12,8 (Jan.)
Revenue from VAT (constant prices)	0.8	-10.2	-7,3 (Jan.-Feb.)
Retail trade business expectations index	-15.3	-21.4	7.5 (Jan.-March)
New passenger car registrations	-7.0	-17.4	17.2 (Jan.-March)
Tax revenue from mobile telephony[2]	5.3	13.2	71.7 (Jan.-Feb.)
Outstanding balance of consumer credit[3]	16.0 (Dec.)	2.0 (Dec.)	1.1 (Feb.)

Sources: NSSG (retail sales, cars), Ministry of Finance (VAT revenue, tax revenue from mobile telephony), IOBE (expectations), Bank of Greece (consumer credit).
1 Comprising big food stores and specialised food-beverages-tobacco stores.
2 Monthly service fee per subscription until July 2009. As of August 2009, new progressive rates apply to mobile telephony contracts and different fees to prepaid mobile telephony.
3 Comprising bank loans and securitised loans and taking into account loan write-offs, foreign exchange valuation differences and a transfer of loans by one bank to a domestic subsidiary finance company in 2009.

weaker growth of available income, including for workers who without losing their jobs faced cuts in average hours worked. The decline in private consumption is also evidenced by a strong deceleration in consumer credit growth (to 2.0% in December 2009, from 16.0% at end-2008) and is associated with a weakening in consumer confidence – in particular, consumers' worsened assessment of their financial situation over the next twelve months, which caused them to postpone major purchases and cut back on other expenses. Another factor that may have dampened private consumption was the decline in the market value of household wealth,[3] i.e. mainly a drop in house prices by nearly 4% (see Section 3 below) and, to a lesser extent, an average annual decline in the Athex composite index by 35.6% (despite its recovery overall between end-2008 and end-2009 (see Chapter IX, Section 6).[4]

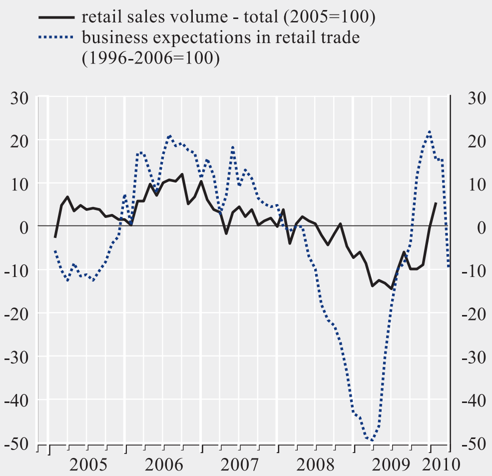
Public consumption rose by 9.6% at constant prices (compared with just 0.6% in 2008), reflecting an increase in the general government's pay bill (see also Chapter VI) and higher intermediate consumption.

Gross fixed capital formation (public and private) fell by 13.9% at constant prices in 2009, after dropping by 7.4% in 2008. General government investment, on a national accounts basis, rose by around 3.5% at constant prices. The sharp drop in investment expenditure in the private sector (see also Table IV.3) was primarily associated with a 21.7% drop in residential investment (after a decline of 29.1% in 2008), also reflected in the strong slowdown in the annual growth rate of housing credit to 3.7% in December 2009, from 11.5% one year earlier. It was also associated with a sharp decline in equipment investment (-19.0%). The fall in business investment reflected the overall adverse business climate, as well as heightened uncertainty, particularly in the last quarter of 2009, in anticipation of new economic policy measures.[5]

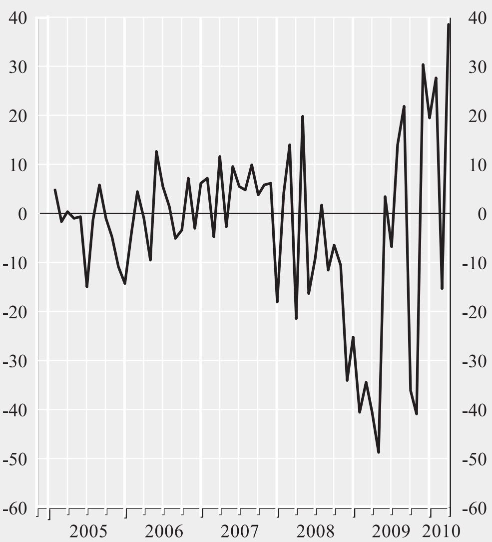
3 However, such an impact has yet to be empirically confirmed for Greece.
4 Houses are the main asset of Greek households, while their equity holdings are rather small.
5 The IOBE investment survey conducted in October and November 2009 indicated that, for the first time in the past few years, the unavailability of capital had a negative effect on investment in 2009, while the negative impact of economic policy in general, already recorded in 2008, increased further.

Chart IV.2 Consumer demand indicators

A. Retail trade volume and business expectations[1]
(January 2005 - March 2010)



B. New private passenger car registrations[1]
(January 2005 - March 2010)



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

1 Percentage changes over same month of previous year.

Meanwhile, the annual rate of credit expansion to businesses decelerated substantially to 5.1% in December 2009, from 18.7% in December 2008. The decline in investment for the second consecutive year subtracted from the growth of both actual and potential output.

Turning to **supply-side** developments, the value added of the agricultural sector, according to national accounts data from the NSSG, rose by 2.4% in 2009 at constant prices, following an increase of 1.5% in 2008 and a decline of 7.1% in 2007, while real per capita agricultural income, according to Eurostat, increased by 1%, compared with an average decline of 12.2% in the EU. (For developments in the output of major agricultural products, as well as changes in producer input and output prices, see Tables IV.4 and IV.5). In any case, the structural problems faced by the agricultural sector do not appear to have abated, since, according to estimates of the Ministry for Agricultural Development,[6] the cumulative decline in the real per capita agricultural income from 2000 to 2009 came to 16.7%,[7] compared with a decline of 10.7% in the EU-15, while the agricultural trade balance deteriorated sharply, with its deficit rising from €1.6 billion in 2002 to €2.7 billion in 2008. Lastly, it should be noted that the growth prospects for the agricultural sector are stymied by difficulties in supporting the restructuring of agricultural production (given the fiscal tightening) as well as by other factors, such as disinvestment trends and rural population ageing. According to Eurostat data,[8] only 8% of Greek farmers are younger than 35, while 55% are over 55. (Regarding the outlook for the CAP, see Chapter VIII, Box VIII.3).

The value added of the secondary sector (manufacturing, energy, construction), at constant prices, declined further in 2009 (-8.8%, 2008: -8.0%), owing to a substantial drop in industrial activity including energy (-9.8%), as well as a continued decline in construction activity (-6.0%, against -34.1% in 2008).

6 Note submitted to the recent EU Agriculture and Fisheries Council (22 February 2010).
7 According to the same note, the prices of basic agricultural products, such as olive oil, fruit and milk, dropped significantly from 2004 to 2009.
8 Farm Structure Survey in Greece 2007. See Eurostat, *Statistics in focus*, 96/2009.

Table IV.3 Indicators of investment demand (2008-2010)

(annual percentage changes[1])

	2008	2009	2010 (available period)
Capital goods output	-7.4	-21.7	-11.7 (Jan.-Feb.)
Capacity utilisation rate in the capital goods industry	(77.5)	(73.4)	(67.5) (Jan.-March)
Bank credit to domestic enterprises[2]	18.7 (Dec.)	5.1 (Dec.)	4.9 (Feb.)
Disbursements under the Public Investment Programme	9.3	-2.8	-48.2 (Jan.-March)
Volume of private construction activity (on the basis of permits issued)	-17.1	-27.6	...
Cement production	-3.1	-21.4	-4.8 (Jan.-Feb.)
Construction business expectations index	3.0	-31.4	-20.9 (Jan.-March)
Outstanding balance of total bank credit to housing[3]	11.5 (Dec.)	3.7 (Dec.)	3.6 (Feb.)

Sources: NSSG (capital goods output, volume of private construction activity, cement production), IOBE (capacity utilisation rate, business expectations index), Bank of Greece (bank credit to domestic enterprises, disbursements under the Public Investment Programme).
1 Except for the capacity utilisation rate in the capital goods industry, which is measured in percentages.
2 Comprising loans, corporate bonds, securitised loans and securitised corporate bonds. The rates of change are adjusted for write-offs, foreign exchange valuation differences, as well as loans and corporate bonds transferred by domestic MFIs to their subsidiaries abroad and to one domestic subsidiary finance company in 2009.
3 Comprising loans and securitised loans. The rates of change are adjusted for loan write-offs, foreign exchange valuation differences and a transfer of loans by one bank to a domestic subsidiary finance company in 2009.

Table IV.4 Production of basic agricultural products

(thousand tonnes)

Product	2002	2003	2004	2005	2006	2007	2008*	2009*
Soft wheat	427	323	274	270	432	466	525	500
Durum wheat	1,902	1,309	1,500	1,491	1,144	918	1,414	1,330
Maize	2,194	2,206	2,210	2,169	1,647	1,928	2,472	2,352
Tobacco	116	116	112	108	22	22	21	23
Cotton (natural)	1,137	972	1,035	1,100	481	432	670	600
Industrial tomatoes	1,000	985	1,180	900	990	758	630	800
Sugar beets	2,531	2,200	2,095	2,800	1,650	855	902	1,600
Olive oil	414	310	435	424	366	449	305	320
Lemons	109	102	36	42	41	45	27	33
Oranges	1,176	849	765	1,017	856	970	727	970
Apples	262	203	275	247	263	262	240	231
Peaches	706	123	948	769	618	737	746	734
Meat, total	488	480	486	483	464	469	468	472
Milk, total	1,928	1,927	1,948	1,866	1,866	1,895	1,892	1,845

Source: Ministry of Agriculture.
* Provisional data.

Moreover, according to NSSG short-term indicators, total industrial output decreased significantly in 2009 (-9.4%), after declining by 4.0% in 2008, while the drop in manufacturing output was even more pronounced (2009: -11.2%, 2008: 4.7%, see Tables IV.6 and IV.7 and Chart IV.3).[9]

9 In January and February 2010, industrial output dropped further (year-on-year, -3.1% and -9.2%, respectively), while manufacturing output presented a smaller decline (-1.6% and -7.6%, respectively).

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

(2005=100)

Product	Weights	2001	2002	2003	2004	2005	2006	2007	2008	2009
		Percentage changes in producer prices (output prices)								
Plant production	71.5	1.5	11.8	12.4	-4.0	1.2	8.8	14.5	-6.0	-0.3
Livestock production	28.5	6.4	-1.5	1.2	2.3	4.9	4.3	0.2	4.7	0.6
General producer price index	**100.0**	**3.0**	**7.6**	**9.2**	**-2.4**	**2.3**	**7.5**	**10.6**	**-3.3**	**-0.1**
		Percentage changes in input prices								
Consumables	64.8	1.6	2.3	4.1	8.1	5.5	4.2	8.4	14.8	-8.6
Fixed capital	35.2	4.2	5.1	2.8	3.2	3.4	3.2	2.8	3.7	-0.1
General input price index	**100.0**	**2.5**	**3.3**	**3.7**	**6.3**	**4.8**	**3.9**	**6.4**	**11.0**	**-6.0**

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

Table IV.6 Industrial production

(2005=100)

	Weights 2005		Average annual percentage changes 2007	2008	2009	Level 2009 (2005=100)
INDUSTRY	**100.0**		**2.3**	**-4.0**	**-9.4**	**89.7**
1. Mining and quarrying	***6.1***	***100.0***	***-0.3***	***-4.5***	***-11.8***	***81.5***
Mining of coal and lignite		56.6	0.7	0.4	-2.3	92.9
Extraction of crude oil and natural gas		1.9	-18.2	-17.1	31.2	82.7
Mining of metal ores		9.1	-2.1	2.2	-23.3	63.9
Other mining and quarrying		32.4	-0.6	-13.1	-27.8	66.5
2. Manufacturing	***69.8***	***100.0***	***2.2***	***-4.7***	***-11.2***	***88.2***
Food		18.2	2.8	0.5	-2.6	100.8
Beverages		6.0	8.4	-0.5	-4.8	104.3
Tobacco		1.9	4.1	-3.3	-2.7	90.4
Wearing apparel		3.1	2.1	-21.7	-27.7	52.9
Clothes		3.4	7.9	-16.9	-23.6	62.9
Leather and releted products		0.6	2.9	-4.5	-14.9	79.2
Wood and cork		1.2	-11.5	-9.5	-24.9	57.1
Paper and paper products		2.3	2.4	-4.5	-3.6	96.8
Printing and reproduction of recorded media		1.9	-3.5	-4.9	-11.6	87.9
Coke and refined petroleum products		11.3	3.0	-4.3	-0.1	104.8
Chemicals and chemical products		5.3	4.1	-4.8	-13.1	84.9
Basic pharmaceuticals		2.5	10.8	2.9	16.6	147.7
Rubber and plastic products		4.2	4.3	-2.8	-14.0	91.4
Non-metallic mineral products		10.3	-6.2	-6.6	-24.0	69.4
Basic metals		8.0	2.0	-6.4	-17.9	82.7
Metal products		5.1	-3.2	-9.8	-18.2	79.1
Computers, electronics and optical products		1.2	-18.1	-2.7	-61.6	27.7
Electrical equipment		3.0	1.2	-1.6	-20.1	82.4
Machinery and equipment n.e.c.		2.1	-0.4	-0.5	-35.9	72.1
Motor vehicles, trailers and semi-trailers		0.8	18.3	-15.4	-15.9	70.6
Other transport equipment		1.6	14.8	-2.4	-12.2	91.1
Furniture		1.5	3.5	-2.1	-27.2	77.6
Other manufacturing		0.5	-2.3	-16.4	-14.3	70.5
Repair and installation of machinery and equipment		4.1	5.1	-9.2	-9.5	80.2
3. Electricity	***20.8***	***100.0***	***3.5***	***-2.8***	***-4.2***	***94.7***
4. Water supply	***3.3***	***100.0***	***1.2***	***2.5***	***-3.1***	***103.0***
INDUSTRY	**100.0**		**2.3**	**-4.0**	**-9.4**	**89.7**
Main industrial groupings						
Energy	36.8		2.9	-2,4	-2,9	97.5
Intermediate goods	28,0		0.8	-6,7	-18,3	78.7
Capital goods	8.6		-1.6	-7,4	-23,0	71.0
Consumer durables	2.3		0.3	-5,7	-20,7	77.6
Consumer non-durables	24.3		4.8	-2,0	-4,2	98.3

Source: NSSG.

Table IV.7 Other indicators of industrial activity (2008-2010)

(annual percentage changes[1])

	2008	2009	2010 (available period)
1. Industrial turnover index[2]	6.9	-22.9	3.4 (Jan.-Feb.)
Domestic market	7.7	-22.3	2.1 (Jan.-Feb.)
External market	4.9	-25.5	7.5 (Jan.-Feb.)
2. Industrial new orders index[3]	-1.9	-27.9	-2.1 (Jan.-Feb.)
Domestic market	-0.3	-24.8	-9.5 (Jan.-Feb.)
External market	-3.8	-34.5	9.6 (Jan.-Feb.)
3. Index of business expectations in industry	-10.6	-21.5	14.8 (Jan.-March)
4. Industrial capacity utilisation rate	75.9	70.5	68.4 (Jan.-March)
5. Purchasing Managers' Index (PMI)[4]	50.4	45.3	42.9 (March)

Sources: NSSG (industrial turnover and new orders), IOBE (expectations, industrial capacity utilisation rate), Markit Economics and Hellenic Purchasing Institute (PMI).
1 Except for the industrial capacity utilisation rate, which is measured in percentages, and the PMI index.
2 The index refers to the sales of industrial goods and services in value terms.
3 The index reflects developments in demand for industrial goods in value terms.
4 Seasonally adjusted index; values over 50 indicate growth.

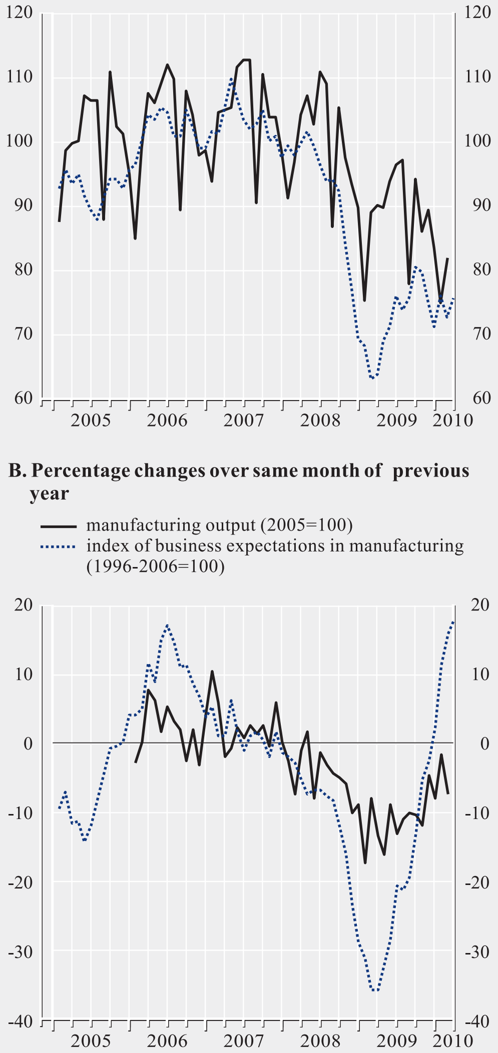
The recession in the industrial sector is also evident in the relevant IOBE survey and the Purchasing Managers' Index (PMI) in manufacturing (see Chart IV.4). In particular, capacity utilisation in 2009 (as reported in the IOBE survey) declined from 75.9% in 2008, to 70.5% in 2009, i.e. its lowest level in the last few years, while the Purchasing Managers' Index (PMI) fell to 45.3 on average in 2009, from 50.4 in 2008.[10] As suggested by all the available data (both from the NSSG and from individual surveys), the tentative recovery seen in industrial indices after early 2009 was not able to withstand the weak economic environment of the last months of 2009 and reversed, although the relevant indices (output, expectations, capacity utilisation) at year-end did not fall as low as in early 2009.

Developments in 2009 were also negative in the **construction sector**, as reflected in the construction output index compiled by the NSSG (-20.4%), in **cement production** (-21.4%) and in the strong deterioration in the assessments and expectations of businesses as recorded in the IOBE survey, which points to a decline in activity (in both private and public construction projects) throughout the year, due to weak demand and funding constraints,[11] at least as far as private construction is concerned (see also Chart IV.5).[12]

The value added of the tertiary sector (services) rose, at constant prices, by 1.2% in 2009, against 4.0% in 2008.[13] However, a significant drop in activity (-4.9%, following an increase of 4.5% in 2008) was recorded for major branches of the services sector, i.e. trade (wholesale and retail), transport, telecommunications and hotels-restaurants.[14] Moreover, according to NSSG survey data, the turnover (at current prices) of transport and transport supporting services, telecommunications, wholesale trade and retail car sales, as well as tourism-related activities (see also Chapter

10 According to the latest IOBE survey results, capacity utilisation during the first three months of 2010 dropped even lower (68.6% on average), while the PMI in March 2010 posted its lowest reading (42.9) since April 2009.
11 The annual rate of credit expansion to construction companies fell to 2.7% in December 2009, from 35.2% in December 2008.
12 As for developments in public construction projects, a significant percentage of construction companies do not elucidate the reasons for the decline in activity.
13 Stronger increases in gross value added, at constant prices, were recorded for financial and real estate services (6.1%), as well as for other services, i.e. public administration, health, education and other social services (7.8%).
14 The combined share of these branches in gross value added at current prices was 33.5% in 2009.

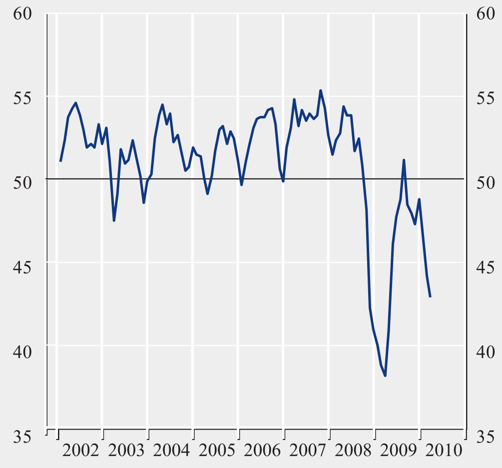
Chart IV.3 Output and business expectations in manufacturing (January 2005 - March 2010)



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.

Chart IV.4 Purchasing Managers' Index (PMI) in manufacturing (January 2002 - March 2010)

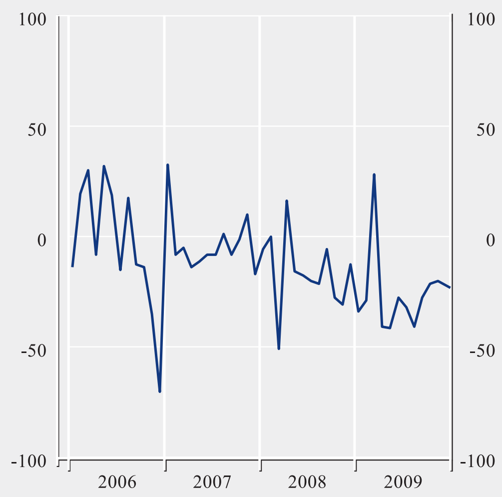
(seasonally adjusted; values over 50 indicate growth)



Sources: Markit Economics and Hellenic Purchasing Institute.

Chart IV.5 Volume of new buildings and extensions on the basis of permits issued (January 2006 - December 2009)

(percentage change over same month of previous year)



Source: NSSG.

VIII), fell significantly in 2009. A marked decline in 2009 was also recorded in the turnover of other services, such as those related to legal/accounting and architectural/engineering services, where turnover had trended strongly upward over the previous three years, while the turnover of advertising and market research services declined (see Table IV.8). For details on the banking sector, see Chapter IX, Section 8. The downturn in the services sector is also evident in the relevant IOBE survey, which for 2009 reports a

Table IV.8 Activity indicators in the services sector (2008-2010)

(annual percentage changes)

	2008	2009	2010 (available period)
Services turnover indicators			
Car retail sales	-7.9	-15.6	...
Wholesale trade	9.4	-9.3	...
Telecommunications	-1.0	-8.7	...
Land transport	5.1	-31.5	...
Sea transport	10.2	-22.8	...
Air transport	6.5	-12.6	...
Storage and supporting transport activities	3.1	-33.3	...
Travel agencies and related activities	3.5	-15.8	...
Tourism (accomodation and food service activities)	3.2	-9.1	...
Legal, accounting and management consulting services	10.9	-12.4	...
Architectural and engineering services	9.0	-18.6	...
Advertising and market research	2.6	-18.3	...
Passengers			
Passenger-kilometres of Olympic Airlines	-8.6	-17.4 (Jan.-Sept.)	...
Passenger traffic of Aegean Airlines[1]	14.4	9.9	...
Piraeus port passenger traffic	0.7	-3.8	...
Business expectations index in the services sector	**-8.3**	**-28.3**	**-0.6 (Jan.-March)**

Sources: NSSG (services turnover), Olympic Airlines, Aegean Airlines, Piraeus Port Authority and IOBE (expectations).
1 Including charter flights.

decrease of 28.3% in the services confidence indicator (excluding retail trade and banking) (2008: -8.3%), thus reflecting the acutely negative assessments and forecasts of firms about activity and demand.[15]

2 ACTIVITY PROSPECTS FOR 2010

The Updated Stability and Growth Programme for 2010 (USGP – 15 January 2010) projected an only moderate drop in GDP (baseline scenario: -0.3%, alternative scenario: -0.8%). However, in its latest report on monetary policy (*Monetary Policy 2009-2010*, released in March) the Bank of Greece estimated that the drop in GDP would be in the order of 2%, taking into account:

(i) the downward revision (following the USGP's release) of the GDP growth figure for 2009 to -2.0%, especially in view of a year-on-year GDP change of -2.5% in the last quarter;

(ii) the persistent — in the last months of 2009 and the first months of 2010 — adverse developments in certain key short-term activity and confidence indicators;

(iii) the announcement (on 2-9 February and 3 March) of further restrictive fiscal measures (in addition to the ones in place during the preparation of the USGP), the immediate implications of which will be: income reductions, cuts in public investment spending and higher inflation (therefore even greater losses in real income). However, even the projection of a 2%

15 In the first quarter of 2010, the services confidence indicator declined slightly (-0.6%) against the corresponding period of 2009 (first quarter 2009: annual rate of -41.2%), which, as noted in the IOBE quarterly report (March 2010), points to the loss that the specific sector has suffered on account of weakened demand over the past year and a half.

drop in GDP is surrounded by high uncertainty, and there is a high risk of an even stronger decline if certain risk factors materialise. In any event, the final impact of all the fiscal policy measures (those contained in the USGP and the additional ones) will depend on:

- their effectiveness and pace of implementation;

- the net balance between the contractionary and expansionary effects of each measure and of the package as a whole. For instance, increased VAT rates fuel inflation, while the restrictive incomes policy reduces incomes and demand; on the other hand, though, they help reduce the fiscal deficit as well as unit labour costs, which could contain inflation, boost competitiveness and foster investment;

- the enrichment of the economic policy mix with the timely advancement and implementation of other, non-budgetary, structural policy measures. These should include, as a matter of priority, low or zero cost and quick-yielding measures such as cutting red tape, removing the barriers in product and labour markets and speeding up the utilisation of EU funds available from the National Strategic Reference Framework – CSF IV, with a view to rapidly improving the business environment and the investment climate and to reinforcing the conditions for the recovery of the Greek economy's international competitiveness.

The announcement and rapid implementation of the fiscal measures and their reinforcement with structural measures should boost the confidence of international markets and of domestic economic agents (firms, workers, households) in the fiscal and growth prospects of the Greek economy. Once this is achieved and the markets' initial scepticism is overcome, this course of action will help reduce the borrowing costs for the Greek State and, through a series of positive chain reactions, will reduce the borrowing costs for Greek banks and, ultimately, businesses and households. This favourable impact would, in turn, at least partially offset the direct contractionary effect of certain fiscal measures. It should be stressed that the positive impact expected through the confidence channel, in terms of lower borrowing costs, will ultimately depend on the decisiveness with which the announced policy is implemented and on its reinforcement with the structural measures outlined above.

Based on the available data, developments in the first quarter of 2010 do not bode particularly well. The economic sentiment indicator dropped considerably in February and March, echoed by similar drops in the respective confidence indicators for businesses and consumers (households). As mentioned earlier, similar developments were recorded for the Purchasing Managers' Index (PMI) in manufacturing, which in March fell to its lowest level since April 2009. Moreover, the annual rate of decrease in industrial output, still moderate in January, strengthened in February. On the other hand, the retail sales volume (excluding cars and fuel) posted a positive annual rate of change (+5.4%) in January 2010, probably reflecting a base effect given its very low level in January 2009. In any case, according to the IOBE consumer survey, households' attitudes towards making major purchases in the next twelve months remained strongly negative through March. On a more positive note, following the announcements of 3 March and the enactment of the tax bill on 15 April, uncertainty could abate in the months ahead. Additionally, the adverse expectations of a further decline in domestic demand (in terms of both public and private consumption and investment) are partly offset by the favourable expectations of a recovery in external demand, although the global economic performance was more sluggish in the last quarter of 2009 than initially expected and fluctuated in the first quarter of 2010.

The results of the business developments and prospects survey, recently launched by the Bank of Greece using a sample of 100 large enterprises across all sectors of the Greek economy, are also instructive. The responses of 56% of the sample firms collected by 6 April 2010 confirm the negative economic outlook, although businesses were not more pessimistic, as a whole, about the second half of the year than they were about the first half. As regards the impact of the crisis on business operation and the desired policy interventions, the following can be noted:

- A large majority of businesses have either abandoned or cut back on their investment plans as a result of the financial and economic crisis.

- Construction, shipping and trade firms plan to change the composition of their sources of financing, shifting away from bank credit towards market-based financing (corporate bonds and equity);

- Businesses have reduced their prices, renegotiated terms and conditions with their customers and suppliers and reorganised their activities.

- Tax reliefs, incentives for the purchase of capital equipment and subsidisation of borrowing costs are perceived as effective policy actions at the current juncture.

The surveyed firms consider that the shortfall in productivity of the Greek economy can mainly be attributed to the absence of adequate incentives (e.g. wages are inadequately linked to productivity), bureaucratic red tape, an unpredictable and non-transparent institutional framework, a lack of infrastructures and the low level of vocational training. Manufacturing firms also reported using pricing policies as a way to boost their export performance.

The number of firms expecting a deterioration of the outlook of the Greek economy over the next 1-2 years came to 28, i.e. more than those expecting that the outlook will remain unchanged (15) or improve (7). In response to the question about how the outlook could be improved, most firms pointed to the need for a stable economic climate and a stable tax framework, as well as for an enhancement of infrastructures, greater efficiency in the public sector and effective education. A significant number of respondents also mentioned the role that banks must play in the short term to restore liquidity.

* * *

As regards some of the key factors that will be affecting the main components of demand this year, the following points can be made:

(i) Private consumption will be negatively affected: household real disposable income, which – as mentioned in Chapter VI – had risen in 2009, is projected to decline this year, due to a decrease in pre-tax nominal income (at least for wage-earners) in conjunction with a drop in employment and an expected pick-up in inflation (see Chapters V and VI).

(ii) Both private consumption and (residential and business) investment will be negatively affected, with the annual rate of credit expansion to the private sector projected to slow down further this year and to fluctuate at particularly low levels until year-end (see Chapter IX, Section 3).

(iii) Moreover, government consumption, which according to the USGP had already been projected to fall by 4.4% in 2010, could in fact decline considerably more once the additional measures announced on 3 March are factored in.

(iv) Business investment is expected to be affected by the slump in demand, declining business profitability in 2009 and the expected tightening of banks' lending policies. On the other hand, the realisation of the investment-related institutional and administrative initiatives contained in the USGP[16] should improve the busi-

16 For instance, the shifting of business plans towards green actions, the improvement in administrative procedures brought about by Law 3614/2007, the revision of development law within the first half of 2010, the accelerated assessment of 2,700 business plans of a total amount of €8 billion, the further enhancement of projects co-financed by the public and the private sector (Public-Private Partnerships) and the promotion of legislation to eliminate investment disincentives.

ness environment, although an impact on the size of investment expenditure should probably not be expected before mid- or late-2010.

(v) Residential investment (which accounts for roughly one-third of total investment) is expected to continue its downward course —albeit at a decelerating pace—, as reflected by the decline in the volume of private construction activity on the basis of permits issued (at an annual rate of 27.6% in 2009, which fell to -21.3% in the last quarter of the year – see also Chart IV.5). Meanwhile, the growth of housing credit is expected to be very low, reflecting both demand- and supply-side factors.

(vi) According to the USGP, public investment was expected to trend upward, increasing by €800 million. However, it was announced on 3 March that the Public Investment Programme would be cut by €700 million, meaning that Public Investment Budget (PIB) expenditure will rise by only €100 million or 1.1% at current prices.

(vii) Lastly, as mentioned above, exports of goods and services are expected to recover moderately, while imports should continue to decline, though less than in 2009.

3 HOUSING MARKET DEVELOPMENTS AND PROSPECTS

3.1 HOUSE PRICES

The decline in the growth rates of apartment prices in Greece observed since early 2007 continued in 2008, while negative rates of change were recorded for the prices of both

Table IV.9 Index of apartment prices by age

Period	Total			New (up to 5 years old)			Old (over 5 years)		
	Index (2007=100)	Percentage change over: Previous period	Percentage change over: Previous year	Index (2007=100)	Percentage change over: Previous period	Percentage change over: Previous year	Index (2007=100)	Percentage change over: Previous period	Percentage change over: Previous year
2006	94.4	...	...	93.3	...	...	95.1	...	...
2007	100.0	5.9	5.9	100.0	7.2	7.2	100.0	5.2	5.2
2008	101.7	1.7	1.7	102.3	2.3	2.3	101.3	1.3	1.3
2009*	97.7	-3.9	-3.9	99.8	-2.4	-2.4	96.4	-4.9	-4.9
2006 I	90.7	...	...	92.1	...	...	89.8	...	...
II	93.3	2.9	...	92.3	0.2	...	93.9	4.6	...
III	94.8	1.6	...	91.7	-0.6	...	96.7	2.9	...
IV	98.8	4.2	...	97.0	5.7	...	99.9	3.3	...
2007 I	98.6	-0.2	8.7	98.0	1.1	6.4	98.9	-1.0	10.1
II	99.6	1.1	6.8	100.1	2.2	8.5	99.3	0.4	5.7
III	100.7	1.0	6.2	100.2	0.1	9.2	100.9	1.6	4.4
IV	101.2	0.5	2.4	101.6	1.4	4.8	100.9	-0.1	1.0
2008 I	101.4	0.2	2.9	101.3	-0.3	3.4	101.5	0.6	2.6
II	101.4	0.0	1.7	101.9	0.6	1.7	101.0	-0.4	1.7
III	102.2	0.8	1.6	103.0	1.1	2.8	101.7	0.7	0.8
IV	101.8	-0.4	0.6	103.0	0.0	1.3	101.0	-0.7	0.1
2009 I*	98.0	-3.7	-3.4	97.6	-5.2	-3.6	98.2	-2.8	-3.3
II*	98.7	0.8	-2.6	101.5	4.0	-0.3	97.0	-1.2	-4.0
III*	97.1	-1.6	-5.0	100.4	-1.1	-2.5	95.1	-2.0	-6.5
IV*	97.1	-0.1	-4.6	99.8	-0.6	-3.1	95.3	0.3	-5.6

Source: Bank of Greece, data reported by credit institutions.
* Provisional data.

new and old apartments throughout 2009.[17] Specifically, based on data from banks, the prices for apartments as a whole (in nominal terms) are estimated to have decreased at an average annual rate of 3.9% in 2009 (Q1: -3.4%, Q2: -2.6%, Q3: -5.0% and Q4: -4.6%, respectively). The decline was slightly stronger for old apartments (-4.9%) than for new ones (-2.4%), which seems to reflect the comparatively greater resilience of prices for newly-built apartments put up for sale by constructing firms (see Table IV.9).

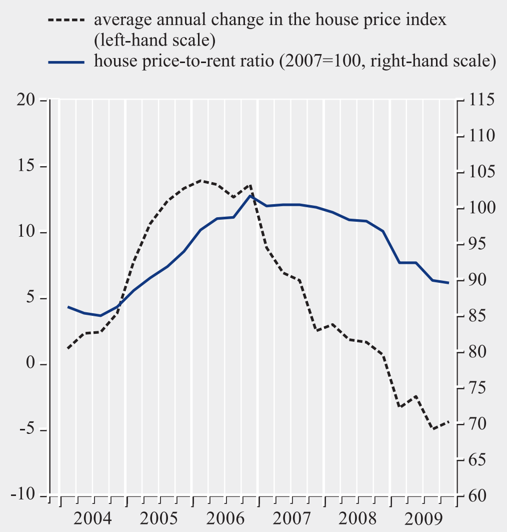
Residential price developments were similar across most geographical areas (Athens, Thessaloniki, other cities, etc.), with the positive annual rates of change decelerating significantly until end-2008 and negative rates setting in thereafter. For 2009 as a whole, apartment prices are estimated to have declined by an annual average of 5.0% in Athens, 6.2% in Thessaloniki, 2.9% in other cities and 1.7% elsewhere in the country (see Table IV.10).[18]

On the basis of available data, the Greek housing market has displayed price resilience[19] and has not shown signs of a major overvaluation, with the house price-to-rent ratio gradually receding over the past three years (see Chart IV.6).[20] The latter development came mainly as a result of the continued weakening of the growth of house prices after 2006 and the broadly steady increase in rents (average annual change: 4.5% in 2007, 3.9% in 2008 and 3.6% in 2009 – see Table IV.11). The house price-to-rent ratio is expected to keep falling at a moderate pace in the following quarters, again as a result of a further small decline in house prices.

3.2 DEMAND, SUPPLY AND NUMBER OF TRANSACTIONS

The Greek real estate market has been characterised, over the past two years, by relative caution on the demand side, as well as by excess supply. The reluctance of households to purchase a home arises mainly from the uncertainty about employment and future incomes,

Chart IV.6 House price-to-rent ratio



Source: Bank of Greece, data reported by credit institutions.

17 In the context of a new initiative by the Bank of Greece involving a systematic monitoring and analysis of housing market developments, a number of new indicators on the prices, number and volume of transactions in the residential market were released (see Press release of 16 December 2009). These indicators are compiled using detailed data collected from all credit institutions operating in Greece. The collection of such data has since early 2009 been the responsibility of the Real Estate Market Analysis Section of the Bank of Greece, under Bank of Greece Governor's Act 2610/31.10.2008 on "Reporting by credit institutions of data on residential property which is financed or used as collateral for loans granted by credit institutions". Among other things, the data refer to banks' estimates on the current market value of residential property, as well as information on quality characteristics. The announced number of estimates (until end-March 2010) reached around 455 thousand items (69.3% concerns apartments, 18.6% houses, 5.0% maisonettes, 4.8% building plots). For a detailed discussion on these data as well as the data collection mechanism, see "Statistical data and real estate price indices: A new Bank of Greece initiative" in: *Real estate market: Recent developments and prospects,* Bank of Greece, Proceedings of a conference held on 29 April 2009 (in Greek).

18 It should be recalled that for the past decade the Bank of Greece has released a house price index for "other urban areas" which covers a limited number of cities, goes as far back as the last quarter of 1993 and is compiled from data gathered by the branches of the Bank of Greece mainly from real estate agents. Based on this index, residential prices fell at an average annual rate of 1.8% in 2009, compared with 2.6% and 3.8% in 2008 and 2007, respectively.

19 The broad resilience of Greek house prices can perhaps be associated with specific features of the Greek housing market, such as: the high rate of owner-occupancy (already well above 80%), low residential mobility and real estate resale frequency, the limited number of transactions relative to the available stock, the high costs of transactions, the impact of tax measures, as well as the rather large number of construction companies (especially in housing construction). Moreover, the real estate market is characterised by high heterogeneity of products (e.g. residential and commercial property) which makes it even more difficult to assess developments, especially price changes.

20 The house price-to-rent ratio is typically used in combination with other indicators (e.g. interest rates, returns on alternative types of investment, cyclical position) to determine whether there might be a bubble in current real estate prices.

Table IV.10 Index of apartment prices by geographical area

	Athens			Thessaloniki			Other cities			Other areas		
		Percentage change over:			Percentage change over:			Percentage change over:			Percentage change over:	
Period	Index (2007=100)	Previous period	Previous year	Index (2007=100)	Previous period	Previous year	Index (2007=100)	Previous period	Previous year	Index (2007=100)	Previous period	Previous year
2006	94.2	...	...	93.4	...	...	94.0	...	...	95.6	...	...
2007	100.0	6.2	6.2	100.0	7.0	7.0	100.0	6.3	6.3	100.0	4.6	4.6
2008	100.9	0.9	0.9	101.5	1.5	1.5	101.8	1.8	1.8	103.3	3.3	3.3
2009*	95.9	-5.0	-5.0	95.1	-6.2	-6.2	98.9	-2.9	-2.9	101.5	-1.7	-1.7
2006 I	91.2	...	...	86.7	...	...	89.5	...	...	92.4	...	...
II	93.7	2.7	...	91.0	5.0	...	91.8	2.6	...	94.9	2.7	...
III	94.1	0.5	...	95.4	4.8	...	95.3	3.8	...	95.4	0.5	...
IV	97.6	3.7	...	100.7	5.5	...	99.5	4.4	...	99.7	4.5	...
2007 I	99.0	1.4	8.5	99.1	-1.6	14.3	97.9	-1.6	9.4	98.1	-1.6	6.1
II	98.9	-0.1	5.6	99.7	0.6	9.5	100.2	2.4	9.2	100.4	2.4	5.8
III	100.7	1.7	7.0	99.9	0.2	4.7	100.8	0.6	5.8	100.8	0.4	5.7
IV	101.4	0.7	3.9	101.4	1.6	0.7	101.0	0.3	1.5	100.7	-0.1	1.0
2008 I	101.3	-0.1	2.3	101.6	0.2	2.5	102.2	1.1	4.4	100.8	0.1	2.8
II	101.4	0.1	2.5	100.9	-0.7	1.2	100.9	-1.3	0.7	101.9	1.1	1.5
III	100.3	-1.1	-0.3	100.7	-0.2	0.8	102.6	1.7	1.8	106.4	4.4	5.6
IV	100.6	0.3	-0.8	102.7	2.1	1.3	101.5	-1.1	0.5	104.0	-2.3	3.3
2009 I*	96.7	-3.9	-4.5	95.2	-7.3	-6.3	99.0	-2.5	-3.2	100.7	-3.1	0.0
II*	96.4	-0.3	-4.9	94.3	-0.9	-6.5	99.2	0.2	-1.7	104.9	4.2	2.9
III*	94.9	-1.6	-5.4	95.7	1.5	-5.0	98.5	-0.7	-4.0	101.0	-3.7	-5.1
IV*	95.5	0.6	-5.1	95.3	-0.3	-7.2	98.8	0.2	-2.7	99.4	-1.6	-4.4

Source: Bank of Greece, data reported by credit institutions.
* Provisional data.

Table IV.11 Summary table of key short-term indicators for the real estate market

Indicators	Average annual percentage changes						
	2004	2005	2006	2007	2008	2009	2010
1. Indices of prices of dwellings (BoG) and rents (NSSG)							
1.1 Indices of apartment prices (new series)							
a. All apartments (Greece)	-	-	-	5.9	1.7	-3.9	...
a1. New (up to 5 years old)	-	-	-	7.2	2.3	-2.4	...
a2. Old (over 5 years)	-	-	-	5.2	1.3	-4.9	...
b1. Athens	-	-	-	6.2	0.9	-5.0	...
b2. Thessaloniki	-	-	-	7.0	1.5	-6.2	...
b3. Other cities	-	-	-	6.3	1.8	-2.9	...
b4. Other areas	-	-	-	4.6	3.3	-1.7	...
1.2 Indices of prices of dwellings (historical series)							
a. Urban areas	2.3	10.9	12.4	5.1	1.7	-3.4	...
a1. Athens	0.3	8.6	11.7	6.2	0.9	-5.0	...
b1. Other urban areas[1]	4.7	13.4	13.0	3.8	2.6	-1.8	...
1.3 Price index of rents	5.3	4.2	4.4	4.5	3.9	3.6	3.1 (3 months)
1.4 House price-to-rent ratio (2007=100)[2]	85.5	90.9	98.7	100.0	97.9	90.8	...
2. Indices of residential property transactions with MFI intermediation (BoG)							
2.1 Number of transactions	-	-	-	36.8	-21.7	-39.6	...
2.2 Volume of transactions (in square metres)	-	-	-	36.6	-23.5	-41.2	...
2.3 Value of transactions	-	-	-	41.1	-20.0	-42.1	...
3. Construction cost indices of (new) residential buildings (NSSG)							
3.1 Total cost	3.2	3.4	4.3	4.6	5.1	-0.3	
3.2 Work categories price index	2.4	2.6	2.9	2.8	4.2	-0.2	...
3.3 Labour cost	2.3	3.1	2.6	2.4	3.3	0.3	...
3.4 Material cost	3.9	3.6	5.6	6.3	6.4	-0.7	1.8 (Feb./Feb.)
4. Private building activity (NSSG)							
4.1 Greece, total							
a. Number of building permits	-1.4	17.6	-14.4	-5.3	-15.6	-14.3	...
b. Floor space (in square metres)	-2.3	41.8	-24.4	-7.5	-18.1	-25.4	...
c. Volume (in cubic metres)	-3.4	35.2	-19.5	-5.0	-17.1	-27.6	...
4.2 Athens							
a. Number of building permits	-6.2	29.4	-14.9	-4.7	-23.2	-17.2	...
b. Floor space (in square metres)	-8.5	54.2	-24.6	-14.3	-24.5	-22.3	...
c. Volume (in cubic metres)	-10.6	49.8	-20.2	-13.3	-24.1	-21.3	...

Sources: BoG: Bank of Greece, NSSG: National Statistical Service of Greece, IOBE: Foundation for Economic and Industrial Research, TCG: Technical Chamber of Greece.
1 Data collected by Bank of Greece branches mainly from real estate agencies.
2 In absolute terms.

Table IV.11 Summary table of key short-term indicators for the real estate market *(continued)*

Indicators	Average annual percentage changes						
	2004	2005	2006	2007	2008	2009	2010
5. Construction activity							
5.1 Cement production volume (NSSG)	-2.3	2.4	3.1	-9.2	-3.1	-21.4	-4.8 (2 months)
5.2 Public investment programme disbursements (in euro, BoG)	11.7	-21.0	8.9	7.6	9.3	-2.8	-48.2 (3 months)
5.3 Production indices for construction (NSSG)							
a. General index	-15.8	-38.8	3.9	15.1	2.8	-20.4	...
b. Building	-16.5	-15.3	-9.2	6.9	0.0	-26.1	...
c. Civil engineering	-15.5	-49.9	18.1	21.8	4.8	-16.8	...
5.4 Civil engineer fees (TCG)							
a. Total fees	-	-	-5.3	23.5	6.2	-16.2	5.1 (3 months)
b. Building permit issuance fees	-	-	-8.4	19.0	11.0	-14.5	1.6 (3 months)
c. Construction supervision fees	-	-	1.5	32.5	-2.4	-19.6	12.3 (3 months)
6. Business expectations (IOBE)							
6.1 Business confidence in the construction sector (private activity)	-29.1	-22.7	44.6	1.5	3.0	-31.4	-20.9 (3 months)
a. Total private construction	-16.4	-11.7	12.8	1.9	-8.4	-43.2	42.6 (3 months)
b. Residential	-3.2	-9.0	27.6	-14.0	-28.4	-32.4	-36.9 (3 months)
c. Non-residential	-20.2	-12.5	2.9	13.4	0.9	-46.8	75.2 (3 months)
6.2 Months of assured production in construction[2]							
a. Total construction	12.6	13.9	15.7	16.8	17.3	15.9	12.1 (March)
b. Residential	12.0	11.3	14.7	15.4	11.7	11.0	7.1 (March)
c. Non-residential	10.0	8.7	9.3	10.1	9.8	8.4	7.9 (March)
d. Public works	13.4	15.9	18.4	19.5	21.1	19.8	14.2 (March)
6.3 Activity relative to previous quarter[3]							
a. Total construction	8.0	-27.3	11.8	10.2	10.0	-16.0	-41.5 (March)
b. Residential construction	6.0	-2.0	24.0	-11.0	-22.0	-31.0	-52.3 (March)
6.4 Planned future activity[3]							
a. Total construction	-25.0	-58.0	-45.0	-33.0	-29.0	-43.0	-77.9 (March)
b. Residential construction	-17.0	-41.0	-22.0	-22.0	-39.0	-52.0	-84.6 (March)
7. Investment in construction (NSSG) and capital inflows (BoG)							
7.1 Investment in construction[4]							
a. Total construction	-2.9	-6.2	14.3	-5.3	-19.1	-11.3	...
b. Residential construction	-0.9	-0.7	29.6	-8.6	-29.1	-21.7	...
7.2 Net capital inflows from abroad for the purchase of real estate property in Greece	73.0	48.0	55.4	66.5	-58.2	-24.4	-48.1 (2 months)
8. Domestic MFI credit to households (BoG)[5]							
a. Total (stock)	30.4	31.0	25.7	22.4	12.8	3.1	2.7 (Feb.)
b. Housing loans (stock)	27.6	33.0	26.3	21.9	11.5	3.7	3.6 (Feb.)
9. Housing loan rates (BoG)[6]							
a. Interest rates on new housing loans[5]	4.8	4.3	4.7	4.9	5.3	4.1	3.6 (Feb.)
b. Interest rates on outstanding housing loans with an initial maturity of over 5 years	5.1	4.8	4.9	5.1	5.1	4.3	3.9 (Feb.)

Sources: BoG: Bank of Greece, NSSG: National Statistical Service of Greece, IOBE: Foundation for Economic and Industrial Research, TCG: Technical Chamber of Greece.
2 In absolute terms.
3 Weighted percentage balances of positive and negative answers.
4 At constant prices.
5 Annual percentage change, end-of-period balances. Comprising loans and securitised loans.
6 Including non-interest charges (handling fees, mortgage registration fees, etc.).

Table IV.12 Indices of residential property transactions

Period	Transactions			Volume of transactions (total m²)			Value of transactions		
	Number	Percentage change over: Previous period	Percentage change over: Previous year	Index (2007=100)	Percentage change over: Previous period	Percentage change over: Previous year	Index (2007=100)	Percentage change over: Previous period	Percentage change over: Previous year
2006	108,253	...	...	73.2	...	...	70.9	...	...
2007	148,125	36.8	36.8	100.0	36.6	36.6	100.0	41.1	41.1
2008	116,034	-21.7	-21.7	76.5	-23.5	-23.5	80.0	-20.0	-20.0
2009*	70,133	-39.6	-39.6	45.0	-41.2	-41.2	46.3	-42.1	-42.1
2006 I	22,500	...	...	62.5	...	...	55.8	...	...
II	25,034	11.3	...	69.1	10.5	...	64.0	14.7	...
III	27,251	8.9	...	72.7	5.2	...	71.4	11.6	...
IV	33,467	22.8	...	88.5	21.8	...	92.3	29.2	...
2007 I	39,745	18.8	76.6	108.1	22.1	72.9	108.0	17.0	93.5
II	38,824	-2.3	55.1	105.6	-2.3	52.8	105.8	-2.0	65.3
III	32,660	-15.9	19.8	87.9	-16.7	20.9	86.2	-18.5	20.7
IV	36,896	13.0	10.2	98.5	12.0	11.2	100.0	15.9	8.3
2008 I	32,008	-13.2	-19.5	85.9	-12.8	-20.5	87.8	-12.2	-18.6
II	34,918	9.1	-10.1	91.2	6.2	-13.6	95.5	8.7	-9.8
III	28,095	-19.5	-14.0	73.8	-19.1	-16.1	77.7	-18.6	-9.9
IV	21,013	-25.2	-43.0	55.2	-25.1	-43.9	59.1	-23.9	-40.9
2009 I*	16,261	-22.6	-49.2	42.5	-23.0	-50.5	43.8	-25.9	-50.2
II*	17,759	9.2	-49.1	46.2	8.5	-49.4	49.1	12.2	-48.6
III*	15,618	-12.1	-44.4	39.8	-13.7	-46.0	40.8	-17.0	-47.5
IV*	20,495	31.2	-2.5	51.5	29.2	-6.8	51.6	26.6	-12.7

Source: Bank of Greece, data reported by credit institutions.
* Provisional data.

which has been compounded lately by the uncertainty about the overall economic outlook, also given the fiscal consolidation effort. Meanwhile, the households' expectations of even lower house prices in the future may be causing them to postpone such a decision. In addition, banks' greater cautiousness and tightened credit standards for new housing loans, as a result of the current financial crisis, are estimated to have also contributed to a decrease in household demand for home purchases.[21]

On the supply side of the housing market, the excess stock that had accumulated over the past few years is apparently being gradually absorbed, despite the relative caution on the demand side. The decrease in private construction activity in 2007 and 2008 significantly outpaced the corresponding drop in the number of real estate transactions: the number of new building permits fell by 5.3% in 2007 and 15.6% in 2008, against corresponding declines of 3.0% and 5.8% in the number of transfer notarisations.[22] Meanwhile, the volume of pri-

21 The lower demand for house purchases is also apparent in the continued deceleration in housing credit growth, especially after the recent financial crisis. More specifically, despite the declining rates of housing loans since November 2008, the annual rate of increase in the outstanding balance of bank loans to households for home purchase fell to 3.7% at end-2009 (February 2010: 3.6%), from 11.5% at end-2008 and 21.9% at end-2007.

22 Based on NSSG data collected from notaries nationwide, the number of notarial acts for real estate transactions fell from 172.9 thousand in 2006 to 167.7 thousand in 2007 and 158.0 thousand in 2008.

vate construction activity on the basis of permits issued fell by 5.0% in 2007, 17.1% in 2008 and 27.6% in 2009 (see Table IV.11). It is worth noting, however, one of the salient features of the Greek real estate market, i.e. the lagged supply response to changes in demand (mainly for objective reasons: the shortage of building plots and the time needed to issue a permit, to complete a building project, to obtain financing, etc.).

The gradual absorption of the excess stock in the real estate market is estimated to have continued in 2009. For the regions of Greece already entered in the Hellenic National Cadastre, the number of real estate transactions recorded by "Ktimatologio S.A." fell by 16.3% in 2009 (Q1: 20.6%, Q2: 27.4%, Q3: 9.5% and Q4: 6.9%, respectively). Moreover, based on data from the Notary Association of Athens, Piraeus, the Aegean Islands and the Dodecanese, 2009 saw a sharp decline (of around 40%) in the total number of real estate transaction contracts. The decline was stronger for large newly-built houses (over 100 m^2) usually situated in expensive areas, than for older and smaller apartments, in increasing demand from economic migrants.[23]

The number of residential property transactions carried out with the mediation of the banking system fell by 39.6% in 2009, against a decline of 21.7% in 2008 (data collected from credit institutions – see Table IV.12), while the corresponding declines in the volume index (down by 41.2% on the basis of total square meters in 2009) and, even more so, in the total value index (down by 42.1%) of these transactions were slightly stronger. The fact that transaction volume and value indices during the crisis fell at a slightly faster rate than the number of transactions suggests that households' interest has been gradually shifting towards smaller, less costly apartments. Additionally, the significantly larger drop in the number of residential property transactions with bank intermediation during the current financial crisis, relative to the total number of real estate purchases and sales (National Cadastre data) is consistent with the conclusions of the survey of real estate agencies, which points to an increase in the share of purchases paid for in cash, as well as in the share of cash in the total financing of real estate purchases.

3.3 EXPECTATIONS AND PROSPECTS

According to the survey conducted by the Real Estate Market Analysis Section of the Bank of Greece among major real estate agencies in Greece, the conditions prevailing in the housing market improved slightly in the first three quarters of 2009.[24] However, survey results for the fourth quarter of 2009 recorded a slight deterioration in expectations among respondents (real estate agents). Regarding the next quarter (i.e. the first quarter of 2010), over 25% of all respondents estimated that the conditions in the residential property market would deteriorate somewhat, with slight decreases in the number of transactions and prices. The slight deterioration in expectations seems to be associated with uncertainty about changes in property taxes (objective values, tax scales and tax-free amounts, etc.) as well as with the country's broader economic difficulties (fiscal issues, structural changes, etc.).[25]

As the financial markets gradually return to normal, the risk of an abrupt correction in Greek real estate market prices becomes all

23 As shown by the same data, vacation home purchases decreased drastically in 2009, with the number of transactions shrinking, year-on-year, by around 50%. The same applies to land plots smaller than 2 hectares. By contrast, purchases of land plots over 2 hectares recorded some decline on Greece's islands and coastal areas, but rose in mountainous areas.

24 As regards house selling prices, the percentage of respondents that considered them to be "reasonable" fell to 22% in the fourth quarter of 2009 (from 23% in the first quarter, 37% in the second quarter and 46% in the third quarter), while the percentage of respondents that considered them to slightly or much too high was more constant (Q1: 77%, Q2: 63%, Q3: 54% and Q4: 56%).

25 The significant decline in expectations in the real estate market is also recorded in the business expectations index in construction (which includes all types of construction), which fell by an average annual rate of 31.4% in 2009 (first quarter of 2010: -20.9%), against an increase of 3% in 2008 and 1.5% in 2007. Especially for firms constructing houses, according to an IOBE survey, the corresponding decline in business expectations in 2009 was 32.4% (first quarter of 2010: -36.9%) against 28.4% in 2008 and 14.0% in 2007, while the estimated number of secured months of production fell to 11.0 on average in 2009 (first quarter of 2010: 7.0), from 11.7 in 2008 and 15.4 in 2007.

the more remote, even though downward pressure on prices is expected to continue in the months ahead. The strength of this pressure will mainly depend on the economic and financial conditions prevailing in Greece. The recovery of the real estate market in the next quarters is directly related to households' expectations in terms of employment and future income, the availability of bank credit to the market, as well as the overall economic recovery. The clear messages about the ability to effectively address Greece's fiscal and structural problems are expected, among other benefits, to give a boost to the real estate market. Beneficial effects can also be expected from the finalisation of the measures pending on property taxes (objective values, settling of building code violations, Large Real Estate tax scales and exemptions, etc.), as both house supply and demand are strongly affected by such measures.[26]

26 The decline (for the first time in several years) in the total cost of residential construction costs in 2009 could prompt residential construction firms to undertake new investments in the following months, as a result of the lower real estate replacement costs. Indeed, according to the index published by the NSSG, the total construction costs of new residential buildings fell by 0.3% on an annual basis in 2009, after it had risen by 5.1% in 2008. Even more significant in 2009 was the 0.7% decline in the building materials price index, which has a 56.7% weight in the overall building cost index, against a small increase of 0.3% in the labour cost index (weighting: 43.3%).

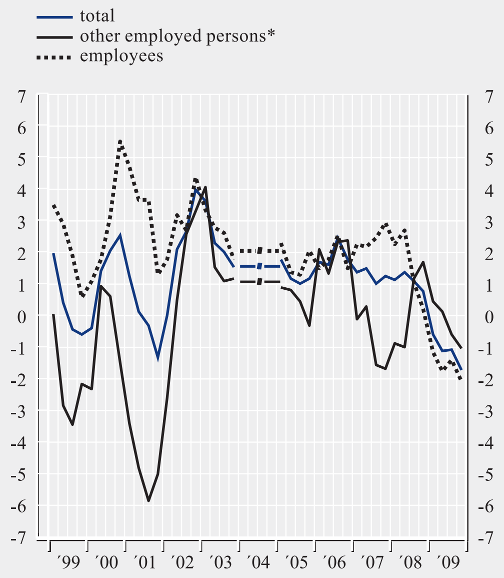
V EMPLOYMENT AND UNEMPLOYMENT: DEVELOPMENTS AND PROSPECTS

Following the decline in economic activity and the deterioration in competitiveness, the situation in the labour market deteriorated gradually in the course of 2009, as evidenced by the data from the NSSG Labour Force Survey (LFS). In 2009, **the average number of employees was on a year-on-year basis lower** by 1.1%. In line with the changes in economic activity, the annual rate of decrease picked up in the course of the year, from -0.6% in the first quarter to -1.7% in the last quarter (see Chart V.1). The average **employment rate** for people aged 15-64 stood at 61.2% in 2009, from 61.9% in 2008 (see Table V.1 for the second quarter).

The decrease in employment in 2009 is mostly due to an increase in the number of people laid off and to an increase in the number of individuals whose contracts expired and were not renewed and, to a lesser extent, to a drop in job creation. On the other hand, compared to previous years, a higher share of the newly hired employees were hired on fixed-term contracts (2007: 50.1%, 2008: 54.1%, 2009: 54.6%).

Chart V.1 Employment (1999-2009)

(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, as 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.

In 2009, the number of dependent employees declined by more (-1.6%) than the total number of employees (see Chart V.1). However, the annual rate of decrease in the last quarter was significantly higher (-2.1%) than the year average. In 2009, the total number of **self-employed** grew, albeit marginally (+0.09%), due to a rise in the number of self-employed without personnel, which increased throughout the year. The increase in the number of self-employed reflects an expansion of the labour force and a shift of some individuals from dependent to self-employment.

In 2009, compared to 2008, besides the drop in total employment, the average **hours worked** per employee (regular and overtime) also declined by 1.3% in the non-agricultural private sector.

Sectoral developments suggest that the decrease in employment in the first half of 2009 stemmed from the secondary sector (manufacturing and construction), while, both in the agricultural and in the tertiary sectors, employment did not decline overall, despite a decrease in certain sectors. However, in the second half of the year, employment decreased in the secondary as well as in the tertiary sector as a whole. The decline in employment in the tertiary sector is due to a significant drop in jobs in retail trade, professional services and the financial sector, which was only partly offset by a rise in employment in communication, transport, and accommodation and catering services.[1]

The groups that are most vulnerable to recent developments are **unskilled employees** (sales assistants, unskilled workers and technicians) and **younger workers** (see Box V.1), groups

1 In 2009, according to LFS data, the changes in employment in construction, manufacturing and retail trade contributed -0.6, -0.6 and -0.3 percentage points, respectively, to the rate of decline in employment.

Table V.1 Population, labour force and employment

	Q2 2009 (thousands of persons)	Annual percentage changes Q2[4] 2005	2006	2007	2008	2009
Population aged 15+[1]	9,262	0.5	0.5	0.6	0.2	0.3
Population aged 15-64[1]	7,220	0.1	0.3	0.8	0.3	-0.1
Labour force[1]	4,974	0.5	0.6	0.8	0.4	0.7
Employment[1]	4,532	1.2	1.6	1.5	1.4	-1.1
– Primary sector[1]	530	-0.1	-1.7	-2.6	-0.6	2.1
– Secondary sector[1]	957	1.0	-0.2	3.1	1.1	-6.4
– Tertiary sector[1]	3,045	1.5	2.9	1.7	1.9	0.1
Labour force participation rate[2]		66.8	67.0	67.0	67.2	67.7
Employment rate[3]		60.3	61.0	61.5	62.2	61.6
Unemployment as a percentage of the labour force		9.6	8.8	8.1	7.2	8.9

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 population aged 15-64.
4 Average annual changes and average year levels are reported in the main text.

which were overrepresented in the people who lost their jobs in 2009 compared with their representation in total employment. Due to the large number of unskilled workers among immigrants (whose average age is below that of Greek workers), the employment rate of immigrants declined between 2008 and 2009 (2008: 68.7%, 2009: 66.9%) more than the overall employment rate.

The average number of unemployed according to the International Labour Office definition[2] was 471.1 thousand in 2009, up by 93.2 thousand over 2008. The average unemployment rate in 2009 was 9.5%, i.e. by 1.9 percentage points higher than in 2008 (see Chart V.1). The rise in unemployment accelerated in the course of the year, from one percentage point in the first quarter of 2009 to 2.4 percentage points in the last quarter.

The gap between the increase in the number of unemployed and the drop in the number of employed corresponds to the rise in the labour force (+0.9%) and reflects the increased number of immigrants and women (see Table V.2) recorded by the LFS.[3] As a result of these developments, **the participation rate of persons aged 15-64 in the labour force** rose from 67.1% in 2008 to 67.8% in 2009.[4] The unemployment rate is higher for immigrants (10.5%) than for Greeks (9.4%).

The increase in labour supply is also reflected in the rise of the percentage of employed who

2 According to the ILO definition, individuals aged between 15-74 who were neither employed during the reference week, nor were temporarily absent from work, and who were available to start work and who were either actively looking for work or had already found work which they would take up within the next three months were unemployed. Individuals aged 15 and over who, during the reference week, worked for over one hour for profit or gain, or worked – without gain – in the family business, or who were self-employed but were temporarily out of work (due to illness, leave, etc.) are defined as employed. See NSSG, http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A0101/Other/A0101_SJO01_MT_QQ_01_1998_04_2009_01_F_EN.pdf.

3 It is not possible to assess the extent to which the increased share of immigrants in the labour force is due to the increased recent inflow of immigrants in the country or to the increasingly better coverage of immigrants in the LFS – a result of, inter alia, their legalisation. However, it should be noted that LFS information on the number of years for which non-Greek citizens have been resident in Greece shows that the inflow of immigrants has continued in recent years.

4 In 2009, the male participation rate stood at 79.0% (the same as in 2008) and the female participation rate stood at 56.4% (2008: 55.1%). The participation rate of immigrants in 2009 was 74.8% (2008: 73.6%).

Table V.2 Population, labour force, employment and unemployment: Q2

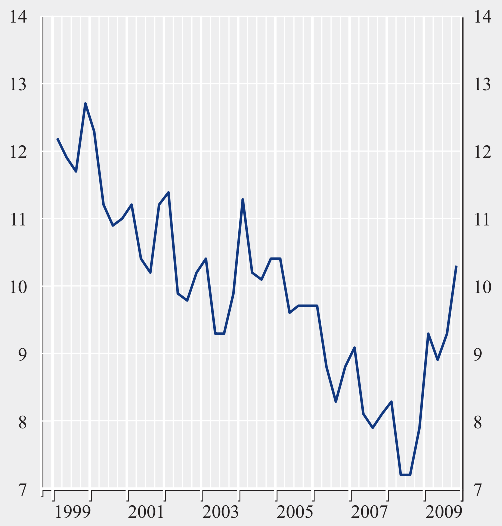
(thousand persons)

	Population					Labour force					Employed persons					Unemployed persons					Unemployment rate				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Men and women																									
– total (aged 15+)	9,103	9,150	9,207	9,230	9,262	4,849	4,880	4,918	4,939	4,974	4,382	4,453	4,520	4,582	4,532	467	427	398	357	443	9.6	8.8	8.1	7.2	8.9
– 15-64 years	7,133	7,152	7,208	7,228	7,220	4,767	4,792	4,827	4,854	4,887	4,301	4,366	4,431	4,497	4,445	466	426	397	357	442	9.8	8.9	8.2	7.3	9.0
– 15-24 years	1,232	1,216	1,172	1,151	1,123	417	395	364	349	343	312	298	284	277	259	106	97	80	72	84	25.3	24.5	22.0	20.6	24.5
– aged 25+	7,871	7,935	8,034	8,079	8,140	4,432	4,485	4,554	4,591	4,632	4,070	4,155	4,236	4,305	4,273	361	331	318	285	358	8.2	7.4	7.0	6.2	7.7
Men																									
– total (aged 15+)	4,428	4,454	4,490	4,503	4,518	2,873	2,887	2,906	2,925	2,915	2,706	2,726	2,762	2,789	2,730	167	161	144	137	185	5.8	5.6	5.0	4.7	6.3
– 15-64 years	3.550	3,567	3,602	3,615	3,613	2,812	2,821	2,841	2,862	2,854	2,645	2,661	2,698	2,726	2,670	166	160	143	136	184	5.9	5.7	5.0	4.8	6.5
– 15-24 years	616	611	590	579	564	228	223	203	197	192	189	184	174	167	157	40	38	29	30	34	17.5	17.3	14.1	15.1	18.0
– aged 25+	3,812	3,842	3,900	3,924	3,954	2,644	2,664	2,703	2,728	2,723	2,517	2,542	2,587	2,622	2,573	127	122	115	107	150	4.8	4.6	4.3	3.9	5.5
Women																									
– total (aged 15+)	4,675	4,696	4,717	4,728	4,744	1,976	1,994	2,012	2,014	2,059	1,676	1,727	1,758	1,794	1,802	300	267	254	221	254	15.2	13.4	12.6	10.9	12.5
– 15-64 years	3,582	3,586	3,605	3,613	3,607	1,955	1,971	1,986	1,991	2,033	1,656	1,705	1,733	1,771	1,776	299	266	254	221	508	15.3	13.5	12.8	11.1	12.7
– 15-24 years	616	604	583	572	559	189	172	161	152	151	123	114	109	110	101	66	58	52	42	305	34.8	33.9	32.1	27.7	32.9
– aged 25+	4,058	4,092	4,134	4,155	4,186	1,787	1,821	1,851	1,862	1,908	1,553	1,613	1,649	1,684	1,700	235	208	202	178	202	13.1	11.4	10.9	9.6	10.9

Source: NSSG, Labour Force Surveys.

Chart V.2 Total unemployment rate (1999-2009)

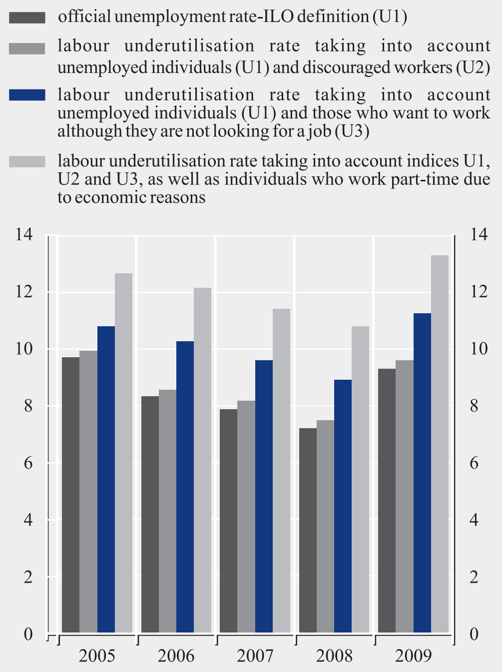
(percentage of labour force)



Source: NSSG, Labour Force Surveys.

Chart V.3 Alternative measures of labour underutilisation (2005 - 2009)

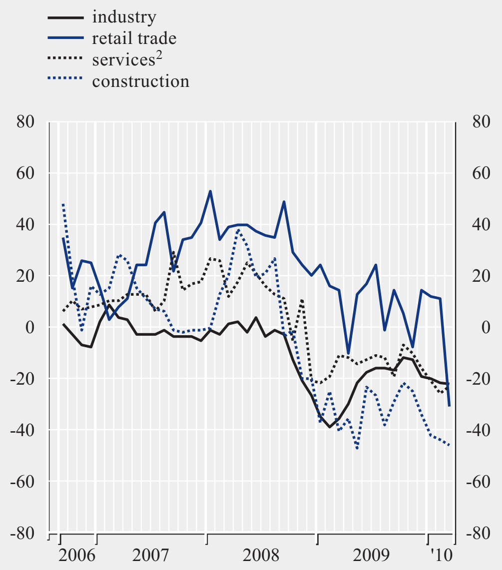
(percentages-Q3 data)



Source: NSSG, Labour Force Surveys.

Chart V.4 Employment expectations[1] (September 2006 - March 2010)

(percentage balances)



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

wish to work for more hours per week (2008: 3.7%, 2009: 4.3%).

The unemployment rate based on the ILO definition constitutes an index of underemployment of the population. Alternative indices of underemployment and labour force availability (used by e.g. the U.S. Bureau of Labor Statistics) are presented in Chart V.3. Certainly, a change in the definition would give a different unemployment rate; however, the main issue is the differential between these indices and its evolution over time. The chart shows that there is a noticeable gap between these indices. Taking for example into account the ILO unemployed, as well as individuals not seeking work because they believe they will not find work and those who would like to work but are not seeking work for any reason, as well as people who work part time because they cannot find a full-time job, the unemployment rate in the third quarter of 2009 would increase from 9.3% to 13.3%. However, the differential between these indices has not increased significantly in recent years (although it is higher in 2009 compared with 2005).[5]

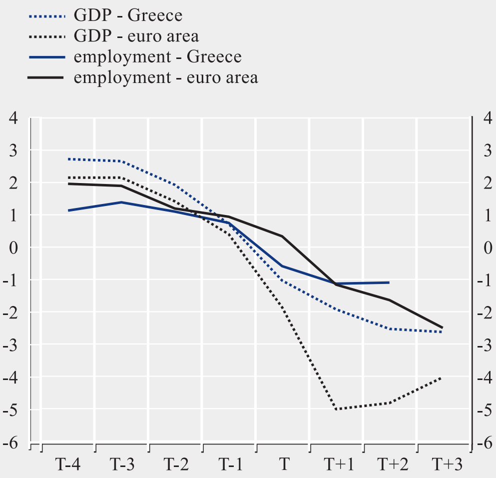
In March 2010, firms' **short-term employment intentions**, as reflected in the business surveys of the Foundation for Economic and Industrial Research (IOBE) (see Chart V.4), were negative for all sectors and much lower than the average expectations for the 1998-2009 period.

A comparison of developments in the Greek labour market with those in the euro area after the outbreak of the economic crisis (see Chart V.5) suggests that until now – according to provisional national accounts data – the labour market impact from the recession was greater in Greece than in the euro area as a whole. This is probably due to the relatively large number of unskilled workers in the Greek economy, as well as to the fact that the construction sector is more important in Greece compared with several other countries.

Based on the available indications regarding the labour market, as well as the forecasts of developments in economic activity (see Chapter IV), it is expected that employment will continue to fall in 2010, at a pace probably higher than in 2009 (in line with developments in economic activity).

Chart V.5 GDP and employment: Greece and the euro area

(annual percentage changes; quarterly data)



Sources: NSSG, national accounts and Labour Force Survey data, and Eurostat.
T stands for the quarter in which GDP fell for the first time on an annual basis. For the euro area, T=Q4 2008; for Greece, T=Q1 2009. T-1, T-2...indicate 1, 2...quarters earlier.

5 The extent of underemployment must be taken into account also in the calculation of the potential output of the economy.

Box V.1

THE NEGATIVE IMPACT OF THE ECONOMIC CRISIS ON YOUTH LABOUR MARKET PARTICIPATION

In times of economic crisis, youth are one of the population groups most at risk. Frequently employed under fixed-term contracts and with little or no work experience, they are more vulnerable than other age groups to changes in economic activity. Indicatively, while the unemployment rate of the "30 and over" age group increased by 1.6 percentage points between 2008 and 2009, the corresponding rates for the 15-24 (and 15-29) age groups rose by 4.2 (and 3.5) percentage points, respectively. This can be explained both by the higher number of youth who lost their jobs in 2009[1] and by the lengthier school-to-work transition. These developments only worsened matters in a market already characterised by long school-to-work transition.[2]

Greek youth have one of the lowest labour market participation rates and one of the highest unemployment rates across the OECD. The low participation rate reflects (i) the fact that Greek

1 The number of youth aged 15-24 (15-29) who lost their jobs in 2009 corresponded to 6.2% (4.6%) of employed youth of the same age group in 2008. For the 25 and over (30 and over) age groups, the respective shares were 2.6% (2.4%).
2 See, e.g., Karamessini, M. (2006), "From education to waged labour: empirical exploration of the labour market integration of youth in Greece", *Social Cohesion and Development*, 1:1, 67-84 (in Greek); OECD (2010), *Jobs for youth – Greece 2010*, Paris.

youth do not combine work and study as much as their EU counterparts,[3] and (ii) the relatively large share of youth in Greece —again compared with other EU countries— who are neither in employment nor in education or training (NEET) for a long period of time.[4] The small share of Greek youth combining work and study may also be due to limited part-time job opportunities. This share has, however, been on the rise in recent years, as a result of the expansion of retail trade and tourism, i.e. sectors offering part-time employment opportunities.

According to a recent study by the OECD,[5] Greece's high youth unemployment rate is attributable, among other factors, to:

- **First,** the fact that there is no sub-minimum wage for youth or trainees (as in other countries), as well as high non-wage labour costs. In Greece, unlike in other EU countries, employers' social security contributions do not vary according to the age of the employees.

- **Second,** a bias towards protecting the employment of older age groups, encouraged by the legal framework, as well as by prevailing social attitudes.

- **Third,** the very short probationary employment period (just two months) that applies before indefinite employment contracts are offered.

- **Fourth,** insufficient job creation in the private sector – largely due to heavy regulation of the economy, which hampers business activity.

- **Finally,** skill mismatches.

As regards **non-wage labour costs**, the Greek Manpower Organisation (OAED) recently announced (in early April 2010) plans to reduce employers' social security contributions for SMEs with net employment growth that hire unemployed persons (especially in younger age groups and up to a total of 65,000 jobs).

The **bias towards protecting employment of older age groups** is indeed —to some extent— attributable to prevailing social attitudes, which are reinforced by the relatively limited protection against unemployment (in terms of the amount and duration of unemployment benefits) and the heavy reliance of families on the head of the household income. In addition, certain measures adopted in the past to tackle unemployment (e.g. early retirement schemes) are also associated with the misconception that there are a fixed number of jobs in the economy ("lump of labour fallacy").

The **skill mismatch** can be attributed to the quality of education, as well as to the content of both academic-type education and vocational education. The recent OECD study mentioned earlier recommends raising the age of compulsory schooling. Today, compulsory schooling extends as far as lower secondary education or age 16. However, Greek pupils typically complete their lower secondary education by the time they are roughly 15 (sometimes even 14), whereas in half of the

3 In 2004, the share of youth aged 20-24 combining work and study was 36.7% in Greece, compared with 42.3% on average in the EU-15 and around 60% in Denmark and Finland.
4 Roughly 11% of Greek youth aged 15-24 is NEET, i.e. neither in employment nor in education or training (compared with 13% on average in the OECD). A striking difference in the case of Greece is that its NEET youth remains in this situation longer than in the OECD on average.
5 OECD (2010), ibid.

OECD countries compulsory schooling runs through the equivalent of the first year of Greek upper secondary education and several OECD countries are planning to raise the compulsory education requirement even further. However, extending compulsory schooling in Greece will only lead to earlier labour market entry for youth if coupled with an improvement of the education system.

With particular regard to the link between skill mismatches and the quality of secondary education (academic-type and vocational), as well as with the quality and fields of tertiary education, the following should be noted:

• Despite the substantial improvement in the educational level of younger generations,[6] the performance of Greek 15-year-old pupils, as assessed by the OECD Programme for International Student Assessment (PISA), is below standard and points to a failure of the Greek education system to meet the needs of a modern society. In both 2003 and 2006, Greek pupils scored the lowest among the EU-15 in reading and, particularly, mathematical literacy.

• In terms of the link between education and labour market outcomes later on, there is evidence that participation in high-quality early-childhood education and care can help reduce dropout rates.[7] The recent confirmation that preschool attendance will become mandatory and, starting from school year 2010-11, will have a duration of two years[8] is a welcome development. However, Greece's childcare infrastructure still lags considerably behind that of other OECD countries, where the majority of children aged 3-5 are enrolled in preschool education programmes.

• As regards vocational education and training, the limited use of on-the-job training programmes and the fact that employers are rarely involved in the design of vocational curricula are definite shortcomings, one consequence, as noted also by the OECD (2010), being that secondary vocational education suffers from a very bad image in Greece.

The **duration of youth unemployment**, much longer in Greece than elsewhere in Europe, is associated with the degree of urbanisation, the level of education and the field of study.[9] More specifically, given their education level and other characteristics, the youth living in rural areas tend to find jobs faster than their urban area counterparts. Although the graduates from schools with programmes that combine academic education with professional training often find jobs faster, there are no immediate plans to introduce similar programmes at other schools.

The **professional integration of tertiary graduates** is frequently hampered by the employment of graduates in jobs unrelated to their field of study and for which they are usually overqualified. This can be partly attributed to the fact that Greek tertiary education curricula are not designed to provide the skills required by the economy or to meet the expectations of prospective students. In this respect, a useful distinction is made in the literature between "transition to work" and "entry into professional life". The former concept encompasses permanent, as well as temporary (fixed-term) and flexible employment, while the latter refers to positions with good prospects for professional advancement. A recent survey of Greek tertiary graduates shows that, roughly six years

6 Indicative of the increased demand for education services is the fact that the difference between the share of the population aged 25-34 with an upper secondary qualification and the respective share of the population aged 55-64 is one of the highest across the OECD.
7 See, e.g., OECD (2001), *Starting Strong: Early Childhood Education and Care*, Paris.
8 See statement by the Deputy Minister of Education on 1 December 2009.
9 See, e.g., Nicolitsas, D. (2007), "Youth participation in the Greek labour market: developments and obstacles", Bank of Greece, *Economic Bulletin*, 29; and Mitrakos, Th., P. Tsakloglou and I. Cholezas (2010), "Determinants of youth unemployment in Greece with an emphasis on tertiary education graduates", Bank of Greece, *Economic Bulletin*, 33.

after graduation, 84% have achieved “transition to work”, but only 43% have actually attained “entry into professional life”.[10]

Policies for tackling unemployment can be either “passive” (unemployment benefits) or “active” (programmes designed to facilitate/encourage job finding). **Passive policies** are sometimes thought to generate counterincentives to work. This however does not apply to young job seekers who, due to insufficient work experience, do not qualify for unemployment benefits. As for the **active policies**, the relevant expenditure by Greece as a percentage of its GDP (and in relation to the number of unemployed) is much lower than elsewhere in the EU-15. However, the major drawbacks of active policies, as currently implemented in Greece, are that the unemployed who receive counselling from the Employment Promotion Centres, unlike in other countries, are not required to actively seek work and do not lose their entitlement to unemployment benefits or counselling services if they turn down job offers, while there is no rigorous evaluation of activation programmes. There was only one evaluation in 2008 of two one-year programmes implemented in 2005.[11]

The economic crisis calls for the prompt adoption of measures to facilitate active youth participation in education or training programmes and in the labour market. Protracted unemployment leads to the erosion of skills (contributing to lower potential output), while the long-term unemployed also face other social setbacks the longer they remain out of work.

10 Karamessini, M. (2008), *The absorption of university graduates by the labour market*, Athens, Dionikos Publications, 2008 (in Greek).

11 According to the evaluation results (see http://portal.oaed.gr/portal/page/portal/OAED/axiologisi), some 67% of the 10,000 people who participated in a subsidised employment programme in 2005 (New Jobs Programme) were still employed in 2008, while 75% of the self-employed who participated in the Programme for the Young Self-Employed in 2004 were still active in 2008 and had on average a 25% higher employment rate.

VI INFLATION, WAGES AND BUSINESS PROFITS: DEVELOPMENTS AND PROSPECTS

1 PRICE DEVELOPMENTS IN 2009

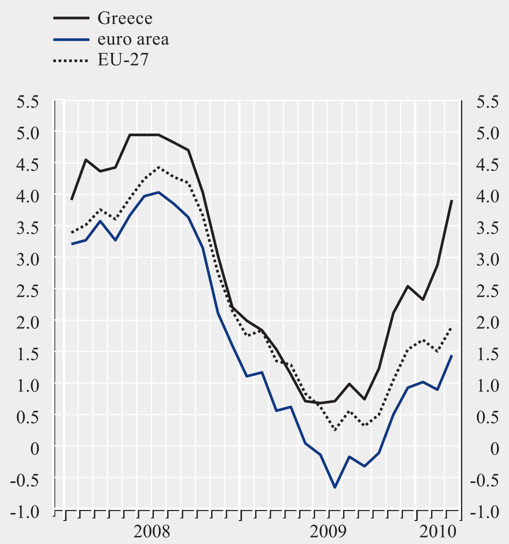
Average annual inflation (based on the Harmonised Index of Consumer Prices – HICP) fell to 1.3% in 2009, from 4.2% in 2008. Specifically, the year-on-year annual rate of inflation, which had started decelerating in August 2008, continued to decline until September 2009, when it stood at 0.7%. However, it resumed an upward trend in October and even more so in November, mainly on account of the significant increase in oil prices from the very low levels observed in the last two months of 2008 (base effects), and rose to 2.6% in December (see Table VI.1 and Chart VI.1). Core inflation, which does not include energy and unprocessed food prices, recorded an almost continuous decline from October 2008 onwards and, as a result, in December 2009 stood at 1.8%, its average level in 2009 being significantly lower than in 2008 (2.2%, against 3.4% – see Chart VI.2).

The significant drop in headline inflation in 2009 largely reflected a sharp decline in oil and other commodity prices in the second half of 2008. Although the US dollar prices of crude oil in the global market have rebounded since early 2009, in euro terms their annual rate of change remained negative up through October, thereby continuing to contribute to low inflation levels. **Moreover, the fall in aggregate demand played a significant role in the decline in core inflation.** In 2009, unlike previous years, the demand side exerted deflationary pressures. **The weakening of demand was coupled with a stagnancy or narrowing in corporate profit margins, as well as with a noteworthy deceleration in labour cost growth (particularly in the business sector) – i.e. with developments which dampened inflation also from the supply side.**

However, core inflation has remained higher in Greece than in the euro area as a whole (by 0.9 percentage point in 2009, compared with 1.0 percentage point in 2008), as the Greek economy is still characterised by inadequate competition in input markets, which has an adverse effect on price formation. Similarly, the annual HICP inflation differential vis-à-vis the euro area was 1.0 percentage point in 2009

Chart VI.1 Harmonised index of consumer prices in Greece, the euro area and the European Union (January 2008 - March 2010)

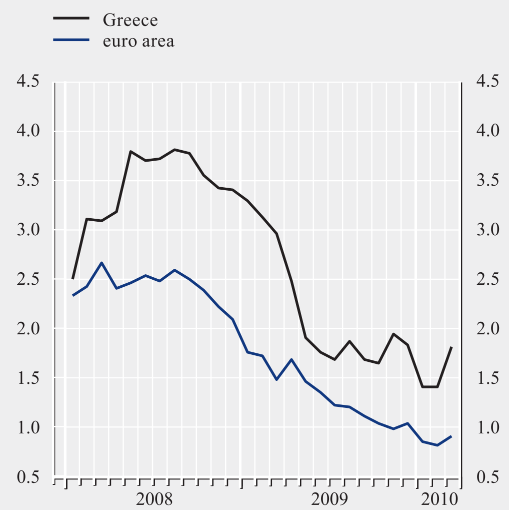
(year-on-year percentage changes)



Sources: NSSG and Eurostat.

Chart VI.2 Core inflation in Greece and the euro area on the basis of the HICP excluding energy and unprocessed food (January 2008 - March 2010)

(year-on-year percentage changes)



Sources: NSSG and Eurostat.

Table VI.1 Price indicators

(annual percentage changes)

Year or quarter	Consumer Price Index								Industrial Producer Price Index					Import price index in industry	
		Sub-indices							Domestic market				External market		
										Sub-indices					
	General index	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	General index excl. energy	Interme-diate goods	Consumer goods	General index	General index	General index excl. energy
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
2009	1.2	-0.5	3.6	2.4	2.6	1.9	5.3	-15.7	-5.8	-0.1	-1.2	0.9	-6.0	-1.8	0.5
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
2009 Q1	1.5	-0.5	4.3	3.2	3.3	3.6	8.2	-22.6	-5.2	1.1	0.5	1.5	-7.8	-2.4	1.4
Q2	0.7	-1.5	3.7	2.3	2.5	2.7	11.0	-23.0	-8.8	-0.7	-2.2	0.5	-9.5	-4.4	0.5
Q3	0.7	-1.2	3.3	2.1	2.3	2.1	8.3	-18.5	-9.1	-1.0	-2.9	0.8	-8.2	-3.7	-0.2
Q4	2.0	1.0	3.2	2.0	2.4	-0.7	-5.8	4.8	0.4	0.4	0.1	0.7	2.0	3.7	0.1
2010 Q1	3.0	2.8	3.3	1.7	2.1	-1.7	-9.4	33.0	...	...	...	...	...	...	...

Source: NSSG.

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

(annual percentage changes)

	2008	2009	2009 June	2009 July	2009 Aug.	2009 Sept.	2009 Oct.	2009 Nov.	2009 Dec.	2010 Jan.	2010 Feb.	2010 March
A. Euro area												
Harmonised Index of Consumer Prices (HICP) and its components												
Overall index	**3.3**	**0.3**	**-0.1**	**-0.7**	**-0.2**	**-0.3**	**-0.1**	**0.5**	**0.9**	**1.0**	**0.9**	**1.4**
Goods	3.8	-0.9	-1.6	-2.4	-1.5	-1.8	-1.4	-0.3	0.5	0.7	0.6	1.3
Food	5.1	0.7	0.7	0.0	-0.1	-0.2	-0.4	-0.1	-0.2	-0.1	-0.1	0.3
Processed food[1]	6.1	1.1	1.1	0.8	0.6	0.5	0.3	0.5	0.7	0.6	0.6	0.5
Unprocessed food	3.5	0.2	0.0	-1.1	-1.2	-1.3	-1.6	-1.3	-1.6	-1.3	-1.2	-0.1
Industrial goods	3.1	-1.7	-2.7	-3.6	-2.3	-2.6	-2.0	-0.4	0.8	1.1	0.9	1.8
Non-energy industrial goods	0.8	0.6	0.6	0.5	0.6	0.5	0.3	0.2	0.4	0.1	0.1	0.1
Energy	10.3	-8.1	-11.7	-14.4	-10.2	-11.0	-8.5	-2.4	1.8	4.0	3.3	7.2
Services	2.6	2.0	2.0	1.9	1.8	1.8	1.8	1.6	1.6	1.4	1.3	1.6
Industrial producer prices	*6.1*	*-5.1*	*-6.5*	*-8.4*	*-7.5*	*-7.6*	*-6.6*	*-4.4*	*-2.9*	*-1.1*	*-0.5*	...
B. Greece												
Harmonised Index of Consumer Prices (HICP) and its components												
Overall index	**4.2**	**1.3**	**0.7**	**0.7**	**1.0**	**0.7**	**1.2**	**2.1**	**2.6**	**2.3**	**2.9**	**3.9**
Goods	4.5	-0.1	-1.0	-0.8	-0.4	-0.8	0.0	1.4	2.5	2.2	2.7	4.3
Food	4.6	2.5	3.6	3.5	2.5	2.4	1.1	0.4	0.4	-0.3	0.3	-0.2
Processed food[1]	5.0	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.6	1.6	1.1	0.2
Unprocessed food	4.0	3.9	6.8	6.9	3.9	3.9	0.5	-1.3	-1.5	-3.2	-0.9	-0.8
Industrial goods	4.4	-1.7	-3.7	-3.5	-2.2	-2.8	-0.7	2.1	3.8	3.8	4.3	7.1
Non-energy industrial goods	2.0	0.8	0.2	0.2	0.5	0.2	0.0	0.7	0.7	-0.3	-1.0	0.2
Energy	13.8	-12.1	-18.0	-17.2	-13.6	-14.4	-5.1	5.5	15.7	20.0	24.9	36.0
Services	3.8	3.2	2.8	2.7	2.9	2.7	2.8	2.9	2.6	2.5	3.0	3.5
Industrial producer prices	*10.0*	*-5.8*	*-9.1*	*-11.1*	*-8.1*	*-7.9*	*-3.8*	*0.8*	*4.5*	*5.2*	*6.2*	...

Source: Calculations based on ECB and NSSG data.
1 Including alcoholic beverages and tobacco.

Table VI.3 Harmonised index of consumer prices: Greece and the EU (2008-2010)

(annual percentage changes)

Country	2008 (year average)	March 2009	2009 (year average)	March 2010
Austria	3.2	0.6	0.4	1.8
Belgium	4.5	0.6	0.0	1.9
Bulgaria	12.0	4.0	2.5	2.4
Cyprus	4.4	0.9	0.2	2.3
Czech Republic	6.3	1.7	0.6	0.4
Denmark	3.6	1.6	1.1	2.1
Estonia	10.6	2.5	0.2	1.4
Finland	3.9	2.0	1.6	1.5
France	3.2	0.4	0.1	1.0
Germany	2.8	0.4	0.2	1.2
Greece	**4.2**	**1.5**	**1.3**	**3.9**
Hungary	6.0	2.8	4.0	5.7
Ireland	3.1	-0.7	-1.7	-2.4
Italy	3.5	1.1	0.8	1.4
Latvia	15.3	7.9	3.3	-4.0
Lithuania	11.1	7.4	4.2	-0.4
Luxembourg	4.1	-0.3	0.0	3.2
Malta	4.7	3.9	1.8	0.6
Netherlands	2.2	1.8	1.0	0.7
Poland	4.2	4.0	4.0	2.9
Portugal	2.7	-0.6	-0.9	0.6
Romania	7.9	6.7	5.6	4.2
Slovakia	3.9	1.8	0.9	0.3
Slovenia	5.5	1.6	0.9	1.8
Spain	4.1	-0.1	-0.3	1.5
Sweden	3.3	1.9	1.9	2.5
United Kingdom	3.6	2.9	2.2	3.0[1]
European Union - 27	3.7	1.3	1.0	1.9
Euro area	**3.3**	**0.6**	**0.3**	**1.4**

Source: Eurostat.
1 Data for February 2010.

Table VI.4 Contributions to the inflation differential between Greece and the euro area (2004-2009)

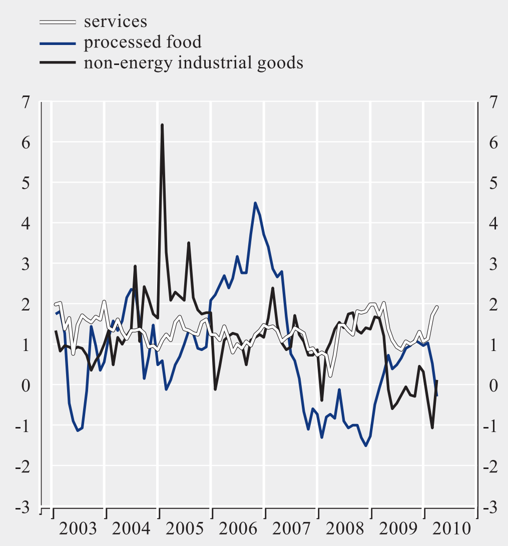
(percentage points)

	2004	2005	2006	2007	2008	2009
HICP inflation differential	0.9	1.3	1.1	0.9	1.0	1.1
Contributions:						
Core inflation	1.16	1.40	1.15	1.00	0.77	0.91
of which:						
Services	0.48	0.51	0.43	0.50	0.56	0.64
Processed food	0.20	0.10	0.44	0.13	-0.14	0.14
Non-energy industrial goods	0.48	0.79	0.28	0.35	0.35	0.13
Unprocessed food	-0.36	-0.30	-0.12	-0.06	0.03	0.39
Energy	0.10	0.20	0.11	-0.03	0.24	-0.25

Source: Calculations based on Eurostat and ECB data.

Chart VI.3 Annual inflation differentials between Greece and the euro area (2003 - March 2010)

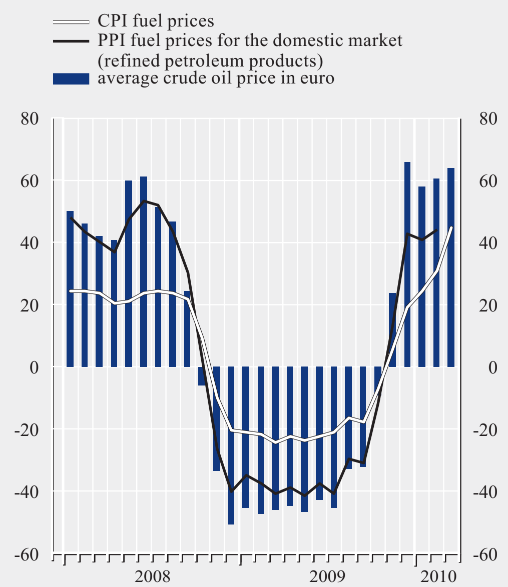
(selected price indicators, differentials in percentage points)



Source: Calculations based on Eurostat and ECB data.

Chart VI.4 Evolution of CPI/PPI fuel prices and of the Brent crude oil price (in euro) (January 2008 - March 2010)

(percentage changes over same month of previous year)



Source: Calculations based on NSSG data and, for crude oil prices (UK Brent), on ECB data.

(compared with 0.9 percentage point in 2008 – see Tables VI.2, VI.3 and VI.4 and Chart VI.3).

2 MAIN DETERMINANTS OF INFLATION IN 2009

World Brent crude oil prices in US dollars, which had risen continuously until July 2008, fell sharply through December, before starting to rebound from January 2009 onwards. Thus, in December 2009, oil prices in euro terms were 60.7% higher than in December 2008, but the average annual oil price was 32.3% lower for 2009 as a whole. These developments affected the prices of imported fuels in the domestic market accordingly (see Charts VI.4 and VI.5).[1] Moreover, the average annual growth rate of **non-energy import prices** (according to the relevant NSSG indicator for industry) slowed down significantly to 0.5% in 2009, compared with 2.5% in 2008 (see Chart VI.6), which also contributed to lower inflation. This deceleration in import price growth in euro terms reflected a significant fall in the US dollar prices of non-energy commodities[2] and in inflation rates globally; this more than offset the inflationary impact from the weaker appreciation of the euro in nominal effective terms, weighted on the basis of Greece's external trade (the nominal EER of the euro increased by 1.2% on average in 2009, compared with 2.5% in 2008 – see Chapter VIII, Table VIII.2).

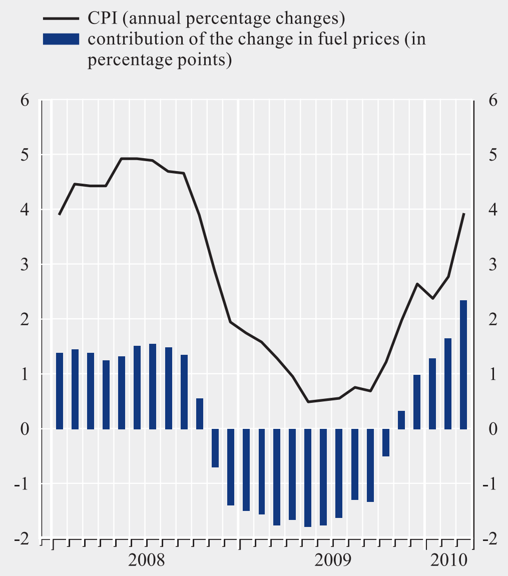
According to available estimates, the pronounced **contraction in demand** in 2009 suggests that the Greek economy's output gap was negative in 2009,[3] after being positive for sev-

1 According to the Import Price Index in Industry (NSSG), the prices in Greece of imported energy raw materials (crude oil and natural gas) fell at an average annual rate of 2.4% in 2009, while those of imported final fuel products fell at an average annual rate of 25.9%. Moreover, in the domestic market, wholesale fuel (final product) prices included in the Industrial Producer Price Index for the domestic market dropped at an average annual rate of 28.6% in 2009. Retail fuel prices included in the CPI declined at an average annual rate of 15.7% in 2009.

2 According to the IMF, the prices of non-energy commodities fell by 18.7% in 2009, compared with an increase of 7.5% in 2008 (*World Economic Outlook Update*, April 2010).

3 According to the latest released European Commission and OECD estimates, which however were calculated before Greece's 2009 GDP was revised downwards.

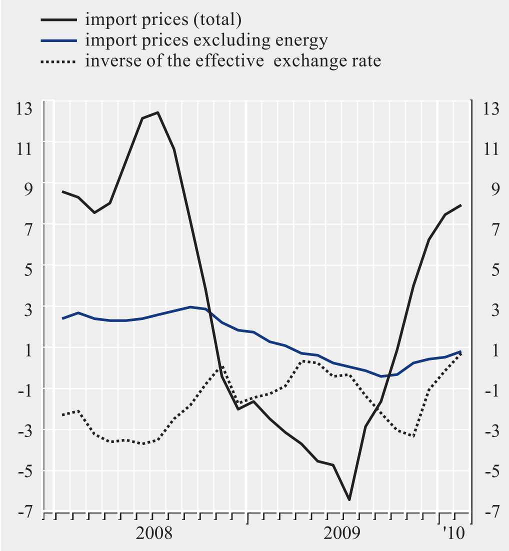
Chart VI.5 Contribution of fuel prices to inflation (January 2008 - March 2010)



Source: Calculations based on NSSG data.

Chart VI.6 Industrial import price index and the inverse of the effective exchange rate of the euro, weighted on the basis of Greece's external trade (January 2008 - February 2010)

(percentage changes over same month of previous year)



Sources: NSSG and Bank of Greece.

eral years. As already mentioned, the negative output gap contributed to lower core inflation. Core inflation, however, would have been even lower if the economy had not been characterised by imperfect competition. The demand developments and the negative output gap are also reflected in the slowdown of unit labour cost growth and in the unchanged or narrowing profit margins for 2009. The deceleration in unit labour cost growth was weaker than that of average earnings growth in the total economy, reflecting the cyclical decline in productivity, which (measured as GDP per employee) is estimated to have decreased by 0.4% in 2009, compared with an increase of 0.4% in 2008. In particular:

According to revised estimates, **unit labour cost growth** in 2009 slowed down to 5.3% for the economy as a whole[4] (6.4% in 2008), therefore remaining higher than in the euro area as a whole, where it accelerated to 3.8% in 2009 (from 3.3% in 2008), as a result of the strong drop in productivity caused by the recession (see also Table VI.6 below). In the business sector (comprising public and private enterprises and banks), unit labour cost growth is estimated to have declined to 3.4%, from 5.6% in 2008.

According to *revised estimates*, average pre-tax earnings in the total economy increased by 4.6% in 2009, compared with 6.2% in 2008 (see Table VI.5), while productivity fell by 0.4%. Compensation per employee, including employers' social security contributions and civil servants' pensions, rose by 4.9% compared with 6.8% in 2008 (according to *revised estimates*). As salaried employment decreased by 1.6% in 2009 (compared with an *increase* of 1.6% in 2008), total compensation of dependent labour rose by 3.2% in 2009, against 8.5% in 2008. These are the estimates of the Bank of Greece, which differ considerably from the NSSG national accounts figures for 2008. According to the latter, total compensation of

4 This growth rate, 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, p. 80).

Table VI.5 Earnings and labour costs (2003-2010)

(annual percentage changes)

	2003	2004	2005	2006	2007	2008	2009	2010 (forecasts)
Greece								
Average gross earnings (nominal):								
– whole economy	5.6	7.2	4.4	5.7	5.2	6.2	4,6	-1.4 or -0.8
– central government[1]	5.9	9.7	2.3	3.1	3.8	7.1	5,2	-6.9
– public utilities	10.9	9.9	7.6	7.0	7.1	8.2	7,7	-1.9
– banks	3.1[2]	8.0	1.5[2]	10.8	8.9	0.0	3,7	1.9 or 2.9
– non-bank private sector	5.8	5.8	5.6	6.8	6.1	6.5	2,8	1.7 or 2.7
Minimum earnings	**5.1**	**4.8**	**4.9**	**6.2**	**5.4**	**6.2**	**5,7**	**1.7 or 2.7**
Average gross earnings (real)	**2.0**	**4.2**	**0.9**	**2.4**	**2.2**	**1.9**	**3,3**	**-4.3 or -3.7**
Total compensation of employees	**8.3[3]**	**8.9**	**5.8**	**7.8**	**8.2**	**8.5**	**3,2**	**-2.4 or -1.8**
Compensation per employee	**5.5**	**7.6**	**3.9**	**5.9**	**5.6**	**6.8**	**4,9**	**-0.5 or 0.1**
GDP[4]	**5.9**	**4.6**	**2.2**	**4.5**	**4.5**	**2.0**	**-2,0**	**-2.0**
Unit labour costs:								
– whole economy	2.3[3]	4.1	3.5	3.2	3.5	6.4	5,3	-0.4 or 0.2
– business sector[5]	2.6[3]	2.8	3.9	3.8	4.3	5.6	3,4	1.6 or 2.5

Sources: NSSG (GDP 2003-2009), Bank of Greece estimates (for the 2010 GDP and the other annual aggregates in 2003-2009).
1 Outlays for salaries per employee.
2 The relatively low growth rate of bank employees' average earnings mainly reflects changes in staff structure.
3 Taking into account the increase (of 0.1% of gross earnings) in employees' and employers' contributions to the Workers' Fund.
4 For 2003-2009: NSSG. For 2010: Bank of Greece estimates.
5 Comprising private and public enterprises and banks.

dependent labour rose by only 5.9% in 2008 (*inter alia*, because on a national accounts basis salaried employment is estimated to have recorded a zero change, although the Labour Force Survey conducted by the NSSG shows an increase of 1.6%). For *2009*, the NSSG estimates total compensation to have risen by 3.9% and compensation per employee by 5.5%.

The evolution of wages by sector is as follows:

- **In central government**, according to recent ex post estimates of the Greek State General Accounting Office, based on which the estimates of the Introductory Report on the 2010 State Budget have been revised downwards, the wage bill in 2009 increased by 6.3%, while the wage bill plus pension expenditure rose by 7.3%.[5] In accordance with the income policy announced on 18 March 2009,[6] a one-off allowance (instead of a *raise* in base salary) was granted to low- or medium-wage civil servants in 2009, while high-wage civil servants received no raises at all. Similar provisions were also applied to central government pensioners.[7] Given that the number of employees increased by 1%, average gross earnings of civil servants grew by 5.2%, reflecting the wage arrangements for the judiciary and the medical staff of the National Health System that were implemented prior to the wage freeze and the granting of a one-off allowance. Moreover, compensation per civil servant (including pension expenditure) rose by 6.2%.

5 Based on the estimates of the General Accounting Office, the wage bill plus pension expenditure (excluding healthcare) increased by 10.0%, because an amount of €659 million referring to additional allowances under special accounts (now abolished) has been included in the 2009 figures, which are thus not comparable with those of 2008, when the corresponding amount had been €36 million only. The phasing-out of special accounts was completed in 2009.
6 Law 3758/2009, Article 17.
7 More specifically, central government employees with gross earnings (excluding family benefits) of up to €1,500 per month on 31.12.2008 received a one-off allowance of €500, while those whose gross earnings were up to €1,700 per month received €300. No raises were granted in 2009 to central government employees with higher earnings. Central government pensioners with a base pension of up to €800 received an allowance of €500, while those with a base pension of up to €1,100 received €300.

Table VI.6 Average earnings and unit labour costs in total economy: Greece and the euro area (2001-2010)

(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	2.3	2.2
2004	7.2	2.6	4.1	1.0
2005	4.4	2.2	3.5	1.3
2006	5.7	2.6	3.2	1.1
2007	5.2	2.6	3.5	1.6
2008	6.2	3.2	6.4	3.3
2009	4.6	1.5	5.3	3.8
2010 (forecast)	1.4 or 0.8	1.6	0.4 or 0.2	-0.5

Sources: For Greece, Bank of Greece estimates. For the euro area: European Commission, *Autumn 2009 Economic Forecasts*; *Statistical Annex of European Economy*, Autumn 2009; and ECB, *Monthly Bulletin*, April 2010.

- **In the non-bank private sector**, the two-year National General Collective Labour Agreement signed in 2008 provided for an average annual increase of 5.7% in minimum wages for 2009. Meanwhile, based on the two-year collective agreements concluded at the sectoral and the occupational level, contractual earnings were expected to rise at an average annual rate of 5.8%. However, on account of the adverse economic conditions, the anticipated increase in contractual earnings did not translate into a corresponding increase in average actual earnings, as many enterprises had to cut back on overtime and reduce working hours (effectively reducing compensation), while a relatively small number of enterprises even had to cut regular earnings. Against this background (and also taking into account the weaker seniority effect), it was tentatively calculated that the rise in average actual earnings in the non-bank private sector was limited to 2.8% in 2009 (compared with 6.5% in 2008).[8]

- **In banks**, while some business-level agreements were reached in 2009, the arbitration decision issued in late September and applicable to the sector as a whole provided for increases of 3.0% in base salary as from 4 June 2009 and of 2.5% as from 1 October 2009. Together with the carryover effect from the previous arbitration for 2008, these arrangements imply an average annual rise of 7.4% in contractual earnings for 2009. However, actual earnings increased far less, mainly due to reductions in overtime. Based on the annual financial results of major banks, staff costs grew by 4.7%, average annual employment rose by 1% (despite having fallen by 0.3% between December 2008 and December 2009); as a result, compensation per employee increased by 3.7%.

- Lastly, the two-year collective agreements signed in 2008 with certain **public utilities** provided for an average annual increase of 6.2% in contractual earnings in 2009, while actual earnings (due to the seniority effect) are estimated to have increased by roughly 7.5%.

8 These tentative calculations of average actual earnings in the non-bank private sector were based on the following assumptions: (i) only 40% of the persons employed received the entire increase in contractual earnings and a very small positive adjustment for seniority; (ii) for 50%, the increase in actual earnings was much smaller than the one in contractual earnings, due to a 4% reduction in average weekly working hours as a result of cutbacks in overtime; and (iii) 10% agreed to temporary wage cuts of approximately 10%.

In the light of the above, **average real (deflated) earnings in the total economy** rose by 3.3% in 2009, compared with 1.9% in 2008. Taking into account that the number of salaried employees decreased by 1.6%, the total pre-tax income of salaried employees is estimated to have grown by 1.7% in real terms. In the absence of this development, the decrease in domestic demand in 2009 would have been much stronger. However, this positive effect was offset to a significant extent by worsened household confidence.

In any event, despite the weakening of unit labour cost growth in the total economy, the price and cost competitiveness of the Greek economy in 2009 continued to decline. It is estimated that, in the nine years from 2001 to 2009, the real effective exchange rate of the euro vis-à-vis Greece's 28 major trade partners increased by 18.6% on the basis of relative consumer prices, or by 26.6% on the basis of relative unit labour cost in the total economy (Bank of Greece revised estimates – see Chapter VIII, Table VIII.2; for other estimates, see Box VIII.2). Calculated on the basis of Greece's partners in the euro area, the real EER of the euro rose by 9.2% and 17.6% respectively (see Table B of Box VIII.2 in Chapter VIII).

For most non-financial corporations, **profits** in 2009 are estimated to have decreased more than corporate turnover, meaning that profit margins will have continued to narrow. This development was driven by adverse demand conditions in the domestic and foreign markets. The lower cost of imported raw materials and slower labour cost growth only partly offset decreased profitability due to subdued demand. However, based on data from a sample of 221 Athex-listed firms,[9] sales in 2009 fell by 18.6%, while net pre-tax profits rose by 10.0%. Excluding from the sample the two oil refineries that saw considerable increases in profitability, corporate net profits are estimated to have decreased by 13.1% and turnover by 11.5%, meaning that net profit margins would have shrunk slightly to 5.8% (after contracting sharply to 5.9% in 2008).

3 THE INFLATION OUTLOOK FOR 2010

HICP inflation fell slightly to 2.3% in January 2010, before picking up to 2.9% in February and 3.9% in March (euro area: 1.4%), reflecting the hikes in excise duties and VAT rates. Core inflation fell to 1.4% in January and remained unchanged in February, before rising to 1.8% in March (euro area: 0.9%). At the same time, households' inflation expectations for the next 12 months, which had generally weakened in 2009, appeared to be on the rise in the first quarter of the current year. Conversely, business forecasts concerning price developments were negative in March in the construction and —to a lesser extent— the services sector, but slightly positive in manufacturing and retail trade (i.e. the percentage of firms expecting an increase in prices was slightly higher than the percentage expecting a decrease).

The Update of the Hellenic Stability and Growth Programme (January 2010) projected an average annual inflation rate of 1.4% for this year, i.e. almost the same as in 2009. However, taking into account the policy measures announced after the drafting of the Update of the Hellenic Stability and Growth Programme and the balance of risks to inflation, it can be concluded that average annual HICP inflation may stand at 3% or slightly higher in 2010. Core inflation will also increase, possibly to 2.5% or slightly higher.

- Downside risks to inflation include the continued decline in domestic demand this year, the projected slower unit labour cost growth (see below) and the expected profit margin squeeze.

- Upside risks to inflation include the projected course of oil and other commodity prices in the global market, coupled with the depreciation of the euro against other major currencies, and the indirect tax hikes decided

9 The Public Power Corporation (DEH) and the Hellenic Telecommunications Organisation (OTE) are not included in the sample.

in February and on 3 March 2010. Specifically: **First**, according to the ECB staff projections (4 March 2010), crude oil prices in US dollars will average $75.1 per barrel (up by 21.3%), while the IMF forecasts an even higher increase (in the order of 30%).[10] Non-energy commodity prices (in US dollars) are expected to increase by 18.4% according to the ECB staff. **Second**, it is estimated that the increases in indirect taxes (VAT rate and excise duties), if fully passed through to prices, would lead to an HICP growth rate of around 4%, to which they would contribute nearly 2.5 percentage points. (The impact of these measures on the core inflation outcome is smaller as energy —i.e. oil and electricity— prices are not included in that index.) However, there are indications that —mainly due to adverse demand conditions— an important part of the increase in indirect taxes will be absorbed by businesses and will not be passed through to consumers. Thus, it is estimated that inflation may be limited to about 3%.

Moreover, taking into account (i) the announcements of 9 February and 3 March on the wage policy for the central government and the broader public sector (calling for significant wage cuts – see below, as well as Table VI.5); and (ii) the working assumptions that collective bargaining in the private sector will lead to no raises or raises in the order of 1% (which, together with the carryover effect of 1.7-1.9% from raises granted in 2009, would entail an average annual increase of 1.7-1.9% or 2.7-2.9%), it can be estimated that average gross earnings in the total economy will fall by 1.4% or by 0.8% in nominal terms, for the first time in the 35 years (against an increase of 4.6% in 2009). Moreover, in real terms, gross average earnings will decrease by 4.3% or 3.7%.[11] Compensation per employee (including employer social security contributions and civil servants' pensions) is expected to decline by 0.5% or to remain virtually unchanged (+0.1%), compared with an increase of 4.9% in 2009. Assuming in the meantime that GDP and salaried employment will decrease by 2% and 1.9% respectively, productivity will drop by 0.1%. In this eventuality, labour costs in the total economy would decrease by 0.4% or increase by only 0.2% (2009: +5.3%). In the business sector, however, labour costs will rise by 1.6% or 2.5% (2009: 3.4%), meaning that the slowdown will be limited, mainly on account of the carryover effect from the 2009 increases. Unit labour cost growth in the business sector may be higher if the decline in GDP exceeds 2%, but lower if the decline in salaried employment is more than 1.9% and/or if business firms apply short-time work schemes on a larger scale than in 2009 (and thereby further reduce wages).

Lastly, corporate profit margins are expected to continue to narrow due to weakened demand and higher raw material import costs. These developments will, most probably, not be fully offset by the further slowdown in labour cost growth, which, as mentioned previously, will be smaller in the business sector.

4 THE INCOME POLICY OF CENTRAL GOVERNMENT FOR 2010

According to some conservative assumptions and estimates, the central government income policy, announced on 9 February and fully delineated on 3 March (Law 3833/2010), implies that civil servants' *nominal* average gross earnings will decrease by 6.9% this year, while their *real* average gross earnings will fall by roughly 9.5% (if inflation comes to around 3%) and that the nominal gross annual income of central government pensioners will decline by 1.4%. Moreover, from the figures in the Introductory Report on the 2010 State Budget and the Hellenic Stability and Growth Programme, it can be deduced that the number of civil servants may decrease by 2.8%, while the number of central government pensioners may

10 *World Economic Outlook*, April 2010.
11 According to Bank of Greece estimates for the past 35 years, average real earnings fell by 0.1% in 1979, 3.4% in 1980, 0.4% in 1981, 2.5% in 1983, 8.7% in 1986, 4.7% in 1987, 4.0% in 1991, 3.5% in 1992 and 1.7% in 1993.

increase by 3.5%. In this light, it is estimated that compensation per civil servant (including pension expenditure) will decrease by 3.9% in nominal terms in 2010, i.e. by around 6.5% in real terms.

Specifically, according to the Greek Ministry of Finance,[12] the initial decision to cut allowances by 10% would correspond to an average wage reduction of 4% in nominal terms. Furthermore, according to a statement by the Greek Minister of Finance,[13] civil servants' monthly gross earnings will be cut by 1-5.5% (in nominal terms). On the basis of the above, it can be assumed that the average nominal reduction in monthly regular earnings would amount to 3.25% (i.e. the unweighted arithmetic mean of 1% and 5.5%). However, following the decision of 3 March to cut allowances by 12%, the average nominal reduction in monthly regular earnings is now expected to reach 3.9%. These cuts will be partly offset by "automatic" wage raises associated with changes in seniority/previous experience and family status, in the order of 1.7%.[14] Therefore, at first sight, the net decrease is 2.2% and concerns 12 out of the 14 salaries paid out annually.

As announced on 3 March (Law 3833/2010), the two other salaries (Christmas bonus, Easter bonus and holiday allowance) will be reduced by 30% (in addition to the general cut of 2.2%), implying a total cut of 31.5%. Consequently, the sum of the 14 salaries is expected to decrease by 6.4%. However, the one-off allowance granted in 2009 (instead of a wage increase) was equivalent to a 0.5% increase in annual income. Since such an allowance will not be included in 2010 income, the nominal decrease in civil servants' gross (pre-tax) annual income will reach 6.9% (93.6/100.5=93.1); in real terms, the decrease will be in the order of 9.5%.

All of the above concern civil servants' average gross earnings. In order to calculate the compensation per civil servant, it is necessary to calculate both the wage bill (around 75% of total compensation) and pension expenditure (around 25% of total compensation). In more detail:

As regards the **wage bill**, average gross earnings will drop by 6.9%, while the number of employees is expected to decrease by 2.8%. More specifically, the following were taken into account: (i) according to the Introductory Report on the 2010 State Budget, civil servants numbered 511,900 in June 2009; (ii) based on 2008 and 2009 data, 14,000 civil servants are likely to retire; (iii) according to the Hellenic Stability and Growth Programme, there will be only 1,000 new hirings in law enforcement, 3,000 in the health sector and 3,000 in education, while 7-8,000 fewer substitute teachers will be recruited. The number of civil servants will thus fall to 497,400 in 2010, while the wage bill will be reduced by 9.5% [(-6.9%) + (-2.8%)].

As regards **pension expenditure**, it was decided that no raises in pensions will be granted. However, as in the case of civil servants, account must be taken of the one-off allowance granted last year (instead of a raise), which is estimated to have contributed to the 1.4% increase in pensioners' annual income in 2009. As such an allowance will not be granted in 2010, annual income this year will decrease by 1.4% (100.0/101.4). Furthermore, it is assumed that the number of pensioners will rise by 14,000 in 2010 (as much as in 2008 and 2009), i.e. by 3.5% over 2009 (June 2009: 403,000 central government pensioners, according to the Introductory Report on the 2010 State Budget). Pension expenditure will therefore increase by 2.05% [(-1.4%) +3.5%].

In the light of the above, **the central government's wage bill plus pension expenditure will drop by 6.6% in 2010** [(0.75 x -9.5%) + (0.25 x 2.05%) = -6.6%]. It should be recalled that

12 *Hellenic Stability and Growth Programme Newsletter*, 17 February 2010, p. 3.
13 Press conference, 9 February 2010.
14 Based on examples presented by the Ministry of Finance on 9 February 2010.

the Budget projected an increase of 2.8%. **This differential implies savings of €2.4 billion, i.e. 1% of GDP**. Furthermore, if the number of civil servants decreases by 2.8%, compensation per civil servant will drop by 3.9% in nominal terms and by approximately 6.5% in real terms.

Apart from civil servants, Law 3833/2010 also stipulates that the **employees of private-law legal persons that are either state-owned, regularly subsidised from the government budget or are public corporations, within the meaning of paragraphs 1, 2 and 3 of Article 1 of Law 3429/2005**, will see their earnings cut by 7%, while Christmas and Easter bonuses, as well as the holiday allowance will be curtailed by 30%. Allowances related to family status or advancement, as well as to unhealthy or hazardous occupations and postgraduate studies shall not be subject to cuts. It is estimated that this measure concerns some 50% of the persons employed in public utilities (e.g. it does not apply to OTE and DEH staff).

VII FISCAL DEVELOPMENTS, PROBLEMS AND PROSPECTS*

1. PUBLIC SECTOR BORROWING REQUIREMENTS AND THEIR FINANCING

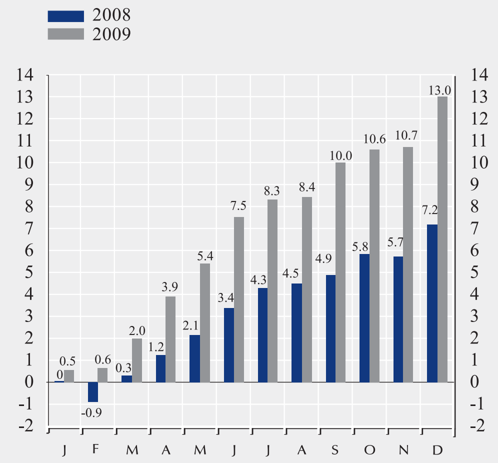
As has been repeatedly noted, the global financial and economic crisis brought to the fore in the most dramatic manner the chronic structural weaknesses and macroeconomic imbalances of the Greek economy. Among other things, the crisis accelerated and heightened the deterioration of public finances in Greece, which had effectively begun in the second half of 2007, i.e. before the Greek economy was hit by the adverse international developments. In 2007, the deficit exceeded the Maastricht Treaty reference value of 3.0% of GDP. In 2008, the deficit continued to rise and stood at high levels (5.6% of GDP, later revised to 7.7%), while the debt-to-GDP ratio also rose,[1] for the first time after eight years of continuous fall. As a result of the high deficits in 2007 and 2008, which exceeded the Treaty reference value, the Excessive Deficit Procedure was initiated against Greece in April 2009. Thus, in late 2008, when the impact of the global crisis was felt in Greece, the fiscal developments and prospects were already negative. Despite the sharp deterioration of fiscal aggregates, the measures taken in the course of 2009 were not sufficient given the size of the problem neither were they part of a comprehensive programme to address the crisis; thus, the crisis in Greece manifested itself as a predominantly fiscal one.

The large widening of yield spreads of Greek bonds vis-à-vis German bonds in late 2008 and in the first quarter of 2009 was certainly associated with the peak of the global crisis at the time, but also reflected market concerns over Greece's deteriorating fiscal situation, its very high public debt (99.2% at end-2008), its inability to contain budgetary deficits and its exceptionally high current account deficit.

In 2009, fiscal aggregates deteriorated further rapidly (see Chart VII.1).[2] Yet, despite the deterioration of public finances, an unprecedented increase in yield spreads between Greek and German government bonds in the first months of 2009 and the launching of the Excessive Deficit Procedure against Greece, there was a failure to take the action required to address the problem in a timely manner or specify the measures that were to be submitted to the European Commission by the deadline of 27 October 2009 set by the relevant decision of ECOFIN. The tax collection mechanism, starting to become laxer in 2008, became even more so in 2009, while some of the measures taken in 2009 led to higher expenditure. As a result, the general government deficit rose further and settled at a two-digit percentage of GDP.

Chart VII.1 Net borrowing requirement of central government on a cash basis (January 2008 - December 2009)

(percentages of GDP)



Source: Bank of Greece.
Note: The "monthly" data reported here are cumulative percentages as of the start of the respective year.

* This chapter draws data on the general government deficit and debt (in 2009 and previous years) as notified to Eurostat on 21 October 2009 and included in the Updated Stability and Growth Programme of January 2010. The deficit-to-GDP ratio has been calculated on the basis of NSSG's revised GDP figures. On 1 April 2010, the Greek statistical authority (ELSTAT) notified revised debt data for 2009 and some of the previous years. These revised data are not included in this chapter (e.g. in Table VIII.1), as they were published after it had been printed (Eurostat's news release was issued on 22.4.2010). A brief reference to revised data can be found in Chapter II.

1 The debt dynamics began to strengthen in 2007. See Bank of Greece, *Annual Report 2007*, April 2008, p. 129.

2 The *Monetary Policy 2008-2009* report of the Bank of Greece (February 2009) discussed extensively the fiscal problem and the huge risks it entailed, called for immediate fiscal adjustment and made concrete recommendations aimed at containing public expenditure, reducing tax evasion and achieving an immediate stabilisation of the debt ratio (see e.g. pp. 15-16, Box I.1 pp. 35-41, pp. 99-105).

Table VII.1 General and central government deficits

	2004	2005	2006	2007	2008	2009*
General government deficit[1]	**-7.5**	**-5.2**	**-2.9**	**-3.7**	**-7.7**	**-12.9**
(national accounts data – convergence criterion)						
– Central government	-9.6	-6.2	-4.2	-5.1	-8.3	-13.7
– Social security organisations, local authorities, legal entities in public law	2.1	1.0	1.3	1.4	0.6	0.8
Central government deficit[2]						
(administrative data)	**-6.9**	**-5.8**	**-3.9**	**-4.6**	**-6.1**	**-13.0**
Central government deficit[3]						
(cash data)	**-8.4**	**-7.4**	**-5.0**	**-6.0**	**-7.2**	**-13.0**

Sources: Bank of Greece, Ministry of Economy and NSSG.
* Provisional data.
1 Ministry of Economy data as notified to the European Commission (Excessive Deficit Procedure).
2 State General Accounting Office data, as shown in the state budget.
3 Bank of Greece data, referring to the borrowing requirement of the 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.

Against this background, in 2009 the general government deficit soared to 12.9% of GDP as estimated in the Updated Stability and Growth Programme 2009-2013, from 7.7% of GDP in 2008 (see Table VII.1). It should be noted that the deficit target in 2009 was set initially at 2.0% and was subsequently revised (USGP 2008-2011) to 3.7% of GDP. Meanwhile, the primary *deficit* of general government reached 7.8% of GDP in 2009, compared with 3.2% in 2008.

According to the estimates of the USGP 2009-2013, the widening of the deficit stemmed solely from central government, whose deficit rose from 8.3% in 2008 to 13.7% of GDP in 2009. By contrast, the surplus of social security organisations, local authorities and other public law legal entities increased marginally from 0.6% of GDP in 2008 to 0.8% of GDP in 2009 (see Table VII.1).

It should be noted that in 2009 high fiscal deficits were recorded in all euro area countries except for Luxembourg and Finland; as a result, the euro area deficit more than tripled reaching 6.3% of GDP in 2009, from 2.0% of GDP in 2008. However, those countries faced a much deeper recession than Greece and, in addition, some of them paid large amounts to provide financial support to the banking sector. Greece, on the other hand, faced a rather mild downturn (-2.0%), suggesting that the deficit of 2009, similarly to that of 2007 and 2008,[3] was mainly structural in nature. Moreover, the modest Greek bank support packages did not affect the deficit of any year, but only had a small impact on the public debt of 2009 (1.6% increase of GDP).

The large deterioration in public finances is also reflected in the central government deficit on an administrative basis,[4] which more than doubled in 2009 reaching 13.0% of GDP, up from 6.1% of GDP in 2008 (see Table VII.1). Developments in state budget figures are detailed in Section 2 of this chapter.

The cash deficit (net borrowing requirement) of central government, as derived from movements in bank account balances of central gov-

3 It should be recalled that in 2007 and 2008 the Greek economy recorded relatively high growth rates.
4 Data from the state budget, which is compiled by the State General Accounting Office on an administrative basis.

ernment and OPEKEPE,[5] also rose from 7.2% of GDP in 2008 to 13.0% in 2009 (see Tables VII.1 and VII.2). It should be clarified that central government data as calculated on a national accounts, administrative and cash basis are comparable with each other, since they comprise the same entities. By contrast, they are not comparable with general government data, which further include social security organisations, local authorities and a considerable number of public law legal entities. It is noted that the discrepancy between the central government deficit on a national accounts basis (13.7% of GDP) and on a cash basis (13.0% of GDP) is largely explained by the fact that certain transactions of central government are not reflected in the national accounts balance, but are included in the borrowing requirement on a cash basis. Moreover, cash data record total cash flows within a year, while national accounts data, according to ESA 95, are compiled on an accruals basis, i.e. at the time when the liability or claim is generated regardless of when it is paid or collected respectively. For these reasons, the borrowing requirement of central government typically differs from the respective national accounts deficit and sometimes moves in the opposite direction.

Central government borrowing requirement and its financing

The central government borrowing requirement (cash deficit) almost doubled in 2009 reaching 13.0% of GDP, compared with 7.2% in 2008 (see Table VII.2). Throughout 2009, it remained well above the corresponding 2008 figure, implying a strong year-on-year increase in the deficit (see Chart VII.1). As in 2008, the increase in the deficit mainly stemmed from the ordinary budget, whose deficit doubled from 5.3% of GDP in 2008 to 10.7% of GDP in 2009. The deficit of the public investment budget also widened, by some 50% compared with the previous year (2008: 2.0% of GDP, 2009: 3.1% of GDP). By contrast, the account of the Payment and Control Agency for Guidance and Guarantee Community Aids (OPEKEPE) showed a large surplus of 0.7% of GDP (compared with a surplus of 0.1% in 2008), thus subtracting 0.7 percentage points of GDP from the central government deficit in 2009. OPEKEPE's surplus is due, on the one hand, to subsidy payments due in 2009 but made in late 2008 and, on the other hand, to the fact that only 40% of the foreseen agricultural subsidies had been paid in December 2009, owing to delays in the "digital mapping" of farms.[6]

As was also the case in 2008, the ordinary budget deficit increased considerably due to a large shortfall in revenue and an overrun of expenditure relative to the 2009 budget forecasts, as revised in January 2009 with the USGP 2008-2011. However, it should be noted that the 2009 revenue outcome also reflects the economic downturn, which resulted in an unprecedented shortfall in revenues, despite various tax measures adopted during the year (some of which were eventually not implemented). On the expenditure side, besides usual overruns, measures taken during the year entailed additional expenses. Finally, in 2009 the deficit of the public investment budget widened significantly, owing to a large shortfall of €1,642 million in receipts from the EU Structural Funds as compared with budget forecasts, as well as to an overrun in investment expenditure.

After rising steeply in the December 2008-March 2009 period, partly as a result of the downgrade of Greece's credit rating by S&P on 14.1.2009, the yield spread of Greek government bonds vis-à-vis German bonds began to decline. This downward trend continued throughout the summer as the international crisis moderated and the international banking system partly resumed its normal functioning. By 1st September 2009 the yield spread of the 10-year bond had fallen to 126 basis points,

5 OPEKEPE (Payment and Control Agency for Guidance and Guarantee Community Aids) 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).

6 The remaining income subsidies were paid in the first quarter of 2010.

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

(million euro)

	2006	2007	2008	2009*
1. State budget	**11,500**	**12,432**	**17,361**	**32,622**
Percentage of GDP	5.4	5.4	7.3	13.7
– Ordinary budget[2]	7,020[4]	8,512[5]	12,585[6,7]	25,318[8]
– Public investment budget	4,480	3,920	4,776	7,304
2. ELEGEP – OPEKEPE[3]	**-1,033**	**1,160**	**-254**	**-1,778**
3. Central government (1+2)	**10,467**	**13,592**	**17,107**	**30,844**
Percentage of GDP	5.0	6.0	7.2	13.0

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) as from 3 September 2001.
4 Including extraordinary income of €149.7 million from the settlement of revenue collected by the Hellenic Telecommunications 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 of Greece shares, €597.4 million from the sale of Postal Savings Bank shares, €364.4 million from the sale of Emporiki Bank shares. Also including expenditure of €422.9 million for a grant to the Agricultural Insurance Organisation (OGA).
5 Including privatisation proceeds of €1,107.5 million from the sale of Hellenic Telecommunications Organisation (OTE) shares and €502.8 million from the sale of Postal Savings Bank shares. Also including expenditure of €264.9 million paid as emergency relief to fire victims and a grant of €465.7 million to OGA.
6 Including proceeds of €430.8 million from the sale of OTE shares, as well as expenditure for a grant of €570.8 million to OGA, but excluding the payment of Greek government debt to the Social Insurance Insitute (IKA) by the issuance of bonds (€1,172 million).
7 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 this latter amount is also taken into account, the net borrowing requirement of the state budget rises from 7.3% to 7.4% of GDP and the net borrowing requirement of the central government from 7.2% of GDP to 7.3% of GDP.
8 Excluding expenditure of €3,769 million for the acquisition of preference shares of Greek banks pursuant to Law 3723/2008 and of €1,500 million for the issuance of bonds to cover the capital increase of the Credit Guarantee Fund for Small and Very Small Enterprises (TEMPME SA), but including proceeds of €673.6 million from the sale of OTE shares, and €72.3 million from the privatisation of Olympic Airlines, as well as the payment of Greek government debt to OGA by the issuance of bonds of €531 million.

compared with 314 basis points on 6 March 2009. At the same time, short-term interest rates stood at very low levels. In the Treasury bill issue of 13 October, the interest rate on 6-month bills stood at 0.59% and on 1-year bills at 0.91%. One week later (20 October), the interest rate on 3-month Treasury bills stood at 0.35%.

On 22 October 2009, Eurostat officially announced that the deficit for 2009 was estimated at 12.5% of GDP and the debt at 113.4% of GDP, and on the same day Fitch Ratings downgraded Greece's credit rating, triggering a new round of reassessments of the Greek economy's credit rating and a new widening of the yield spread, mostly for medium-term bonds. Although with its Budget bill, submitted on 20 November, the government affirmed its intention to ensure a deficit reduction of 3.6 percentage points of GDP, the markets saw that as insufficient and pressures continued to build as the measures were not adequately detailed. Moreover, the Budget included expenditure up to a total of 0.9% of GDP to keep the government's pre-election promises, which was not welcome by the markets.

Under these circumstances, on 8 December Fitch Ratings downgraded Greece's credit rating for the second time in one month and a half, followed by Standard & Poor's on 16 December. As a result, the yield spread between Greek and German bonds increased by 58 and 93 basis points, for 10-year and 5-year maturities respectively, within ten days.[7]

7 In particular, between 7 and 17 December 2009, the 5-year bond yield spread rose from 184 basis points to 277 basis points and that on 10-year bonds from 195 basis points to 253 basis points.

On 22 December, another downgrade of Greece's credit rating came from Moody's. These developments caused the yield curve of Greek government bonds to shift upwards in December 2009 compared with December 2008.

On 6 January 2010, the government announced that the deficit would be reduced by 4.0 percentage points in 2010 and fall below the Maastricht Treaty reference value of 3.0% of GDP within three years instead of four. The USGP 2009-2013, announced on 15 January, incorporated this announcement on a frontloaded fiscal adjustment and detailed many of the measures to meet these targets. Nevertheless, markets and the international press retained their negative stance; as a result, spreads reached 288 basis points for 5-year bonds and 266 basis points for 10-year bonds.

On 26 January 2010, the Greek government launched a 5-year syndicated bond issue of €8.0 billion with a rate of return of 6.1%. Demand outstripped supply (€20 billion in bids), but the spread over the corresponding German bond was high, at 381 basis points. On the same day, the spread of the 10-year bond was 299 basis points. In the next two days (27 and 28 January), yield spreads over the corresponding 10-year German bonds increased further (to 320 basis points on 27 January and 369 basis points on 28 January), as markets reacted nervously to various press reports. These developments reflected persistent market concerns, fuelled by negative press reports.

For some time thereafter, yield spreads continued to rise. In response, important fiscal policy measures were taken on 9 February and on 3 March, which are discussed in detail below. On 4 March 2010, a 10-year syndicated bond of €5.0 billion was issued at an interest rate of 6.25%. Demand once again outstripped supply (€15.0 billion in bids). Moreover, on 29 March 2010, a 7-year syndicated reference bond of €5.0 billion was issued at an interest rate of 5.9%. Thus, by end-March the yield curve had shifted further upwards.

Despite the European Council's Decision of 25 March to support Greece in case of inability to refinance its public debt in the international markets, the yield on the 10-year bond increased further to 7.54% in the first half of April 2010, compared with 6.48% at end-March and 5.69% at end-December 2009. These negative developments presumably reflected the initial uncertainty about the exact terms of the support mechanism, as well as the high volatility of Greek bond spreads in the secondary securities market. It should be noted here that sales of bonds in the secondary market lead to reductions in bond prices (and, consequently, to increases in spreads over the corresponding German bonds), which translates into capital losses for bond holders selling them, offsetting the high yields and making Greek bonds unattractive. In general, increased yields reflect investors' concerns over the fiscal outlook and the medium-term growth prospects.

On 9 April, news that an agreement was soon to be reached on the details of the functioning of the support mechanism for Greece led to a slight decrease in the spreads of Greek bonds. However, on the same day Fitch Ratings downgraded the credit rating of the Greek government by two notches, from BBB+ to BBB–. On 11 April, the Eurogroup have agreed upon the terms of the financial support that will be given to Greece. The mechanism entails bilateral loans from the Member States of the euro area under the coordination of the European Commission. For 2010, the contribution of Member States will be €30 billion, which will be topped up by IMF resources. For the following two years, additional funds will be made available. The cost will be some 5% for fixed-rate loans with a maturity of three years and less than 4% for floating-rate loans, while a much lower interest rate will be applied to loans from the IMF.

It thus becomes clear that in 2009 (and in the first months of 2010) government borrowing

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

(million euro)

	2006		2007		2008		2009*	
	Amount	% of total	Amount	% of total	Amount	% of total	Amount	% of total
Greek Treasury bills and government bonds[1]	11,342	108.4	15,310	112.6	17,283[4]	101.0	39,953[5]	129.5
Change in the balances of central government accounts with the banking system[2]	-1,145	-10.9	418	3.1	-3,850	-22.5	-6,390[5]	-8.8
External borrowing[3]	270	2.6	-2,136	-15.7	3,674	21.5	-2,719	-20.7
Total	**10,467**	**100.0**	**13,592**	**100.0**	**17,107**	**100.0**	**30,844**	**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.
3 Comprising borrowing abroad and securities issuance abroad (all currencies). Excluding non-residents' holdings of bonds issued in Greece but including the change in government deposits 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.
5 Including the issuance of bonds of €3,769 million for the acquisition of preference shares of Greek banks to help strengthen their liquidity position, as well as the issuance of bonds of €1,500 million for covering the capital increase of the Credit Guarantee Fund for Small and Very Small Enterprises (TEMPME SA).

took place in an unfavourable environment, which pushed interest rates upwards. The impact of higher interest rates will weigh on public finances for several years. Due to the high deficit, net government borrowing increased by 80.3% in 2009 relative to 2008. As in previous years, this borrowing took almost entirely the form of medium- and long-term Treasury security issues (in euro) in Greece; these securities were mainly sold to foreign investors (see Table VII.3). At the same time, however, domestic short-term borrowing also increased considerably on the back of exceptionally low short-term interest rates, but short-term foreign borrowing decreased accordingly. Thus, total short-term borrowing remained almost unchanged in 2009. This development is reflected in a significant decrease in foreign borrowing and in the issuance of securities abroad (all currencies included). A stronger decline was also seen in total credit to central government by domestic monetary financial institutions (MFIs); this partly reflects, however, capital injections from the government to banks worth a rough €3.8 billion.

2. THE EVOLUTION OF FISCAL AGGREGATES

2.1 STATE BUDGET

As mentioned above, the unprecedented fiscal derailment mainly stems from the state budget, the deficit of which (on an administrative basis) doubled from 6.1% of GDP in 2008 to 13.0% in 2009, compared with a target of 3.4% of GDP (later adjusted[8] to 5.0% of GDP). Similarly, the primary deficit of the state budget increased more than fivefold, from 1.4% of GDP in 2008 to 7.8% in 2009, against a revised target[9] of 0.2% of GDP (see Table VII.10).

The worsening is mainly attributable to the deficit of the ordinary budget, which more than doubled, from €9,974 million (or 4.2% of GDP) in 2008 to €23,334 million (or 9.8% of GDP) in 2009, compared with a targeted deficit of €7,591 million. Besides, the deficit of the public investment budget also overshot considerably the budget forecast.

8 USGP 2008-2011.
9 USGP 2008-2011. Initially, the 2009 budget forecast a primary surplus of 1.2% of GDP.

An ordinary budget deficit outturn of more than triple than the budgeted amount was driven, for the reasons analysed below, both by a very large shortfall of revenue and by a marked overrun of expenditure relative to the overambitious targets of the 2009 budget, as revised in January 2009 with the USGP 2008-2011. It should be noted that the higher deficit of 2009 includes expenditure of €1,502 million for the partial repayment of past debts of public hospitals, as well as of €489 million for the payment of the first instalment of the social solidarity pension supplement (EKAS). These outlays, which increase the deficit by about 0.8% of GDP, were not forecast in the 2009 budget. It should be noted that precisely the same had happened in 2008:[10] the deficit more than doubled, revenue fell by far short of forecasts and expenditure overshot considerably the budgeted amount. These trends, which emerged in 2007-2008 and were left unaddressed, were compounded in 2009 by the recession of the Greek economy and led to an unprecedented fiscal derailment.

Ordinary budget revenue

The main feature of adverse developments in 2009 was an unprecedented shortfall of budget revenue compared with forecasts. According to the revised target (USGP 2008-2011), revenue in 2009 should have reached €62,987 million, against an outturn of €53,420 million, implying a shortfall of €9,567 million (see Tables VII.4 and VII.10). However, if account is taken of the additional tax measures adopted in the course of the year (in February, March and June) which were expected to generate revenue totalling €3,177 million, the shortfall of ordinary budget revenue in 2009 comes to €12,744 million (or 5.4% of GDP).

This shortfall was mainly due to:

- the overambitious budget forecasts,[11] including a 13.9% increase in revenue, despite the significant shortfall in 2008;

- a surge in tax evasion, especially in relation to VAT, partly due to reduced tax audits;

- weaker economic activity, which exerted a negative effect mainly on indirect tax revenue; and

- the non-implementation of certain tax measures taken in the course of the year (e.g. taxation of the so-called semi-outdoor spaces in apartments, tax on gambling, etc.).

Direct tax revenue increased by 2.7% in 2009, compared with a revised[12] target of 24.1% (see Table VII.4). This shortfall stemmed mainly from corporate income and real estate tax, given that the largest part of the single tax on real estate (ETAK) for 2009 has not been collected yet.[13] By contrast, direct tax revenue benefited from the extraordinary tax levied on high incomes and the extension of the deadline for the tax amnesty programme announced in March 2009 (Law 3578/2009), as well as taxation on distributed dividends[14] at a rate of 35% (instead of 25% applicable until 2008). A positive effect also came from withholding tax on employees' and pensioners' income; this revenue increased by 5.5%, despite the declines in employment and average hours worked. All other categories of personal income tax yielded lower revenue compared with 2008.

Revenue from indirect tax *decreased* by 6.4%, compared with an annual targeted increase of 7.3%, despite the positive impact of the measures adopted in February and June 2009[15] (see Table VII.4). This decline was larger than what

10 See Bank of Greece, *Annual Report 2008*, April 2009, p. 102.
11 The Bank of Greece underlined that "...meeting the revenue target (for 2009) is considered to be difficult ...". See *Annual Report 2008*, April 2009, p. 113.
12 The revision took into account data and information included in USGP 2008-2011, according to which revenue in 2009 would be €2,420 million lower than the forecasts of the 2009 Budget. This figure was revised slightly in the 2010 Budget.
13 These bills were ready to be sent to taxpayers in September 2009, but their posting was suddenly postponed.
14 Specifically, revenue from the tax on distributed dividends came to €370 million and revenue from the extraordinary tax to €274 million. Yields from the extension of the deadline for tax amnesties are estimated at €350 million for the entire year. Without such revenue, the rate of change in revenue from direct taxes would be negative (about -2.1%).
15 Taxes on tobacco and alcoholic beverages were raised in February 2009 and taxes on liquid fuel, road excise duties ("green fees") and mobile telephony charges were increased in June (those measures were finally implemented).

Table VII.4 Ordinary budget revenue[1]

(million euro)

	2006	2007	2008	2009*	Percentage changes 2007/2006	2008/2007	2009*/2008
I. Direct taxes	**18,704**	**19,832**	**20,864**	**21,428**	**6.0**	**5.2**	**2.7**
1. Income tax	15,006	16,092	16,670	16,585	7.2	3.6	-0.5
– Personal	9,275	10,160	10,816	10,838	9.5	6.5	0.2
– Corporate	4,438	4,659	4,191	3,790	5.0	-10.0	-9.6
– Special categories of income tax	1,293	1,272	1,583	1,878	-1.6	24.4	18.6
(tax on shipping)	9	12	11	13	37.0	-13.0	21.2
(tax on interest income from bonds, deposits, etc.)	441	492	635	504	11.6	29.0	-20.6
2. Property taxes	464	434	486	526	-6.4	11.8	8.3
3. Direct taxes collected on behalf of third parties	2	5	1	2	150.0	-79.2	92.5
4. Tax arrears	1,848	1,742	2,077	2,446	-5.7	19.2	17.8
5. Extraordinary and other direct taxes	1,384	1,559	1,631	1,869	12.6	4.6	14.6
II. Indirect taxes	**26,287**	**28,572**	**30,220**	**28,292**	**8.7**	**5.8**	**-6.4**
1. Customs duties and special contributions on imports-exports	276	326	320	254	18.1	-1.9	-20.6
2. Consumption taxes on imports	2,922	3,233	3,246	2,230	10.6	0.4	-31.3
– VAT	2,026	2,236	2,403	1,756	10.4	7.5	-26.9
– Cars	839	936	783	441	11.5	-16.3	-43.7
– Special consumption tax	57	61	59	33	7.0	-2.6	-44.4
3. Consumption taxes on domestic products	20,372	22,190	23,798	23,758	8.9	7.2	-0.2
– Turnover tax	296	17	1	1	-94.2	-96.6	72.1
– VAT	13,799	15,145	15,840	14,826	9.8	4.6	-6.4
– Fuel	2,608	2,862	3,679	4,279	9.7	28.6	16.3
– Tobacco	2,415	2,582	2,516	2,566	6.9	-2.5	2.0
– Road duties	794	820	997	1,046	3.2	21.6	4.9
– Special levies and contributions on cars	72	76	73	63	5.1	-3.3	-14.0
– Other[2]	388	690	693	977	77.8	0.4	41.1
4. Transaction taxes	1,867	2,242	2,063	1,454	20.1	-8.0	-29.5
– Capital transfers	1,045	1,323	1,130	831	26.6	-14.6	-26.5
– Stamp duties	710	684	685	459	-3.7	0.2	-33.0
– Licence fees for gambling	112	236	247	164	110.6	4.8	-33.7
5. Other indirect taxes	850	581	793	596	-31.6	36.6	-24.9
III. Total tax revenue	**44,991**	**48,404**	**51,084**	**49,720**	**7.6**	**5.5**	**-2.7**
IV. Non-tax revenue	**3,694**	**3,372**	**4,238**	**3,699**	**-8.7**	**25.7**	**-12.7**
V. Total ordinary budget revenue	**48,685**	**51,777[3]**	**55,322**	**53,420**	**6.4**	**6.8**	**-3.4**

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 Airlines.

the contraction in nominal GDP (-0.7%) would justify and implies income elasticity of indirect taxes equal to 9.1, which is an unprecedented figure. The shortfall of indirect tax revenue mainly stemmed from the following categories of tax:

• VAT with receipts[16] down by 9.1%, compared with a targeted increase of 6.7%, in the context of the economic downturn and increased tax evasion;

• tax on real estate transfers (-25.0%), owing to a large decrease in demand for real estate;

• taxes on stock market transactions (-38.7%), due to falls in share prices and transactions;

• car registration fees (-43.7%), because of a slump in demand for cars, as well as a 50% cut in registration fees for four months; and

• duties on imported goods (-20.4%), as a result of a drop in imports from third countries.

By contrast, a significant increase was recorded in receipts from taxes on fuel (16.3%) and alcoholic beverages (12.2%) as well as mobile telephony charges, as a result of the relevant measures taken in the course of the year (see footnote 15 above).

Finally, non-tax revenue declined by 12.7%, mainly due to a 21.4% decrease in receipts from the business activity of general government (reduced dividends and profits from public enterprises, the Deposits and Loans Fund, casinos, etc.).

Ordinary budget expenditure

Ordinary budget expenditure (including tax refunds) rose by 17.5% to €76,754 million in 2009, compared with a revised[17] target for an 8.1% increase (see Tables VII.5 and VII.10). As mentioned above, this expenditure includes €1,502 million for the repayment of part of past hospital debts and €489 million for the payment of the first instalment of the social solidarity pension supplement, which were not forecast in the budget. If these amounts (totalling €1,991 million) are not taken into account, then the growth rate of expenditure in 2009 fell from 17.5% to 14.5%, compared with an 11.9% increase in 2008. Moreover, €522 million was transferred to the Intergenerational Solidarity Fund and has not been spent.[18]

Still, irrespective of any correction, the growth rate of expenditure in 2009 remains at a two-digit level, *representing a large increase in expenditure for a year in which GDP declined in both real and nominal terms.* This implies that in 2009 the government's marginal propensity to spend tended to infinity.[19] Clearly, this is not sustainable and calls for continuous and systematic efforts to drastically cut spending.

The expenditure overrun against the revised target was €6,176 million. Excluding the non-budgeted payments associated with hospital debt and the social solidarity pension supplement, the overrun comes to €4,185 million and was mainly driven by three expenditure categories: (i) outlays for grants to social security organisations (about 56% of total overrun), especially grants to the Insurance Organisation for the Self-Employed (OAEE), the Social Security Foundation (IKA) and the Public Power Corporation (DEH) Personnel Fund; (ii) payments for tax refunds; and (iii) various other expenses, such as the payment of €294 million to Olympic Air following a court ruling, election expenses,[20] payments to the European Union, grants to agencies of the Ministry of Culture and Tourism (€111 million in addition to budgeted appropriations), pupil transportation costs, etc.

Personnel outlays rose by 10.2% and turned out at €26,536 million, close to the budgeted

16 It should be noted that revenue from VAT levied on goods imported from third countries declined by 26.9%, while revenue from VAT levied on domestic goods decreased by 6.4% (see Table VII.4).
17 The target was revised taking into account the projection in USGP 2008-2011 (January 2009), that expenditure in 2009 would rise by €1,300 million compared with the initial forecasts of the 2009 Budget. Of this amount, €400 million related to tax refunds.
18 This amount is mirrored in the surplus of social security organisations and does not affect the general government deficit.
19 "Marginal propensity to spend in the public sector" is defined as the change in spending as a percentage of GDP change. See R. Musgrave and P. Musgrave, *Public Finance in Theory and Practice*, 3rd edition, McGraw-Hill, 1980, p. 146.
20 Payments for the holding of elections for the European and the national parliament amounted to €244 million, while the relevant budget appropriation was only €50 million.

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

(million euro)

	2006	2007	2008	2009*	2007/06	2008/07	2009*/08
I. Outlays under the ordinary budget	**52,508**	**58,357**	**65,296**	**76,754**	**11.1**	**11.9**	**17.5**
1. Personnel outlays[1]	20,549	22,009	24,082	26,536	7.1	9.4	10.2
of which: pensions	4,576	5,052	5,904	6,493	10.4	16.9	10.0
2.Interest payments[2]	9,589	9,796	11,207	12,325	2.2	14.4	10.0
3. Payments to the European Union	2,172	3,265	2,649	2,484	50.3	-18.9	-6.2
of which: for retroactive contributions	-	1,108	-	-	-	-	-
4. Transfer of revenue collected on behalf of third parties	4,085	4,313	4,624	4,775	5.6	7.2	3.3
5. Tax refunds	2,392	2,624	3,654	4,952	9.7	39.3	35.5
6. Subsidies to farmers	694	733	758	665	5.6	3.4	-12.3
7. Grants	10,478	12,084	15,552	21,490	15.3	28.7	38.2
– to social security organisations[3]	8,210	9,240	12,790	16,289	12.5	38.4	27.4
– to the Intergenerational Solidarity Fund	-	-	-	522	-	-	-
– extraordinary social solidarity aid	-	-	-	489	-	-	-
– for the repayment of public hospitals' arrears	-	-	-	1,502	-	-	-
– other grants	2,268	2,581	2,762	3,177	13.8	7.0	15.0
– to fire victims	-	263	-	-	-	-	-
8. Other	2,549	3,533	2,770	3,527	38.6	-21.6	27.3
of which:							
– Olympic Airlines	-	839	-	294	-	-	-
– conduct of elections	124	134	-	244	-	-	-
II. Outlays under the public investment budget	**8,184**	**8,809**	**9,624**	**9,588**	**7.6**	**9.3**	**-0.4**
1. Project execution	2,060	2,155	2,819	...	4.6	30.8	...
2. Grants	6,058	6,569	6,689	...	8.4	1.8	...
3. Administrative costs	66	85	116	...	28.8	36.5	...
III. Total (I+II)	**60,692**	**67,166**	**74,920**	**86,342**	**10.7**	**11.5**	**15.2**
Primary expenditure under the state budget	51,103	57,370	63,713	74,017	12.3	11.1	16.2
Primary expenditure under the ordinary budget	42,919	48,561	54,089	64,429	13.1	11.4	19.1
Amortisation payments	16,954	23,543	26,246	29,140	38.9	11.5	11.0
Procurement of defence equipment	1,590	2,380	2,597	2,175	49.7	9.1	-16.2

Source: State General Accounting Office.
* Provisional data.
1 Including healthcare expenditure for civil servants.
2 Including "other expenditure" for public debt servicing.
3 Including expenditure for the implementation of social welfare measures (e.g. Social Solidarity Pension Supplement – EKAS, allowance to families with many children, etc.).

level of €26,480 million. It should be noted that the amounts saved[21] due to the strict incomes policy (a freeze on wages and pensions in central government) decided in March 2009, after the budget had been prepared, was largely offset by support payments to central government's low wage-earners and low pensioners in the form of an one-off tax-free ben-

21 Given that regular wages are taxed and the extraordinary one-off allowance was tax-exempt, the net expenditure saving entailed by the tight income policy in central government in 2009 was small.

efit of €300 and €500, respectively, representing a total expenditure of €148 million. They were also offset by overruns in outlays for hospital staff salaries and NHS doctors' on-call compensation under the recently introduced new pay scale for medical doctors.

Payments for tax refunds increased by 35.5% in 2009 to €4,952 million, compared with an initial forecast of €3,300 million later revised to €3,700 million. This development is not consistent with the economic downturn (-2.0%) and the 0.7% decrease in nominal GDP, given that the bulk of tax refunds related to VAT refunds.

Finally, interest payments increased by 10.0% to €12,325 million in 2009, only slightly overshooting the revised budget forecast of €12,100 million. This increase was due both to a rise in the average cost of new government borrowing to 4.7% in the previous year (from 4.2% in 2007) and an increase in the stock of public debt in 2008.

Public investment budget

In 2009, investment spending declined only marginally (0.4%) compared with 2008 and came to €9,588 million. However, compared with the budget forecast, it recorded an overrun of €788 million or 0.3% of GDP (see Tables VII.5 and VII.10). Especially in the first half of 2009, investment payments increased significantly, as the deadline for eleven out of a total of thirteen CSF III programmes was at end-June. By contrast, investment budget revenue (coming almost exclusively from the various EU Funds) fell short by a significant €1,659 million against the budget forecast and by 59.3% against the previous year's outturn, dropping to €2,041 million, from €5,018 million in 2008.

Due to these developments on both the revenue and expenditure sides of the investment budget, the deficit increased to €7,547 million or 3.2% of GDP, compared with a deficit of €4,606 million or 1.9% of GDP in 2008 (see Table VII.10).

2.2 SOCIAL SECURITY AND WELFARE ORGANISATIONS

According to the data included in the Introductory Report on the 2010 Budget, as well as to detailed data from the Ministry of Finance, the consolidated deficit of the six major social security and welfare organisations for 2009 widened significantly to €12,483 million or 5.3% of GDP, from 4.1.% of GDP in 2008 (see Table VIII.6).

The above organisations' total revenue grew by 9.6% to €22,019 million, following a growth of 11.5% in 2008. Strong increases were seen in the revenue receipts of IKA (8.4%), OGA (14.4%), NAT (18.4%), OEK (16.8%) and the Workers' Fund (37.5%). With respect to their administrative costs, however, the picture is negative, as they rose by 15.6% in 2009, i.e. almost as much as in 2008 (15.5%), to €33,815 million. The costs of the Workers' Fund surged by 138.5%, mainly due to strong increases in wage costs (33.6%), allowances paid to beneficiaries (169.8%), and other costs and depreciation (213.9%). OAED's total costs for 2009 were also 33.7% higher, reflecting a 14.7% and 32.6% surge in wage costs and other operating costs respectively.

Capital expenditure in 2009 grew by 19.6% to €687 million, compared with a 10.6% increase in 2008. Of this total, about 81.5% was used for investment and working capital and the remaining 18.5% for other expenditure. Higher capital expenditure is also partly responsible for the above mentioned increase in the 2009 deficit as compared with that of 2008.

Most of this deficit was covered with state budget grants. Ordinary budget grants rose by 6.6% to €9,020 million and thus financed 72.3% of the deficit. Of the remaining amount, 1.9% (or €241 million) was financed by public investment budget grants and 25.8% by net borrowing. The increase in net borrowing, from €248 million (or 0.1% of GDP) in 2007 to €1,007 million in 2008 and €3,220 million in 2009, is a source of concern, especially con-

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

(million euro)

	2006	2007	2008	2009*	Budget 2010	Percentage changes 2007/2006	2008/2007	2009*/2008	2010/2009*
A. Management account									
1. Revenue	17,219	18,021	20,095	22,019	22,733	4.7	11.5	9.6	3.2
2. Expenditure	23,862	25,330	29,261	33,815	36,219	6.2	15.5	15.6	7.1
3. Balance (1 - 2)	-6,643	-7,309	-9,166	-11,796	-13,486				
B. Capital account									
4. Revenue	0	0	0	0	0				
5. Expenditure	282	519	574	687	967	84.2	10.6	19.6	40.8
(Investment)	171	227	113	251	493	32.9	-50.1	121.6	96.3
(Working capital)	111	187	344	309	340	68.7	83.4	-10.1	10.0
(Other expenditure)		105	117	127	134		11.8	7.9	5.8
6. Balance (4 - 5)	-282	-519	-574	-687	-967				
7. Special funds									
Total result (3 + 6 + 7)	*-6,925*	*-7,828*	*-9,741*	*-12,483*	*-14,453*				
Percentage of GDP	*3,3*	*3,5*	*4,1*	*5,3*	*5,9*				
Financing									
8. Subsidies	6,568	7,578	8,731	9,261	9,467	15.4	15.2	6.1	2.2
(Ordinary budget)	6,286	7,204	8,459	9,020	9,172	14.6	17.4	6.6	1.7
(Public investment budget, EU, etc.)	282	374	272	241	295	32.6	-27.3	-11.2	22.2
9. Depreciation	3	2	2	2	2	-12.3	5.0	-1.3	0.0
10. Net borrowing requirements	354	248	1,007	3,220	4,984	-29.9	306.3	219.6	54.8
Total financing	6,925	7,828	9,741	12,483	14,453	13.0	24.4	28.2	15.8
11. Amortisation	167								
12. New commercial credit									
13. Gross borrowing requirements (10 + 11 + 12)	521	248	1,007	3,220	4,984	-52.4	306.3	219.6	54.8

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 Organisation – OGA, Manpower Employment Organisation – OAED, Workers' Housing Organisation – OEK and Workers' Fund – EE).

sidering that a further increase is expected to €4,984 million (or around 2.0% of GDP) in 2010.

Clearly, the financial results of the major social security and welfare organisations remain negative and have been steadily worsening since 2007. The deficit of these organisations widened from €9,741 million (4.1% of GDP) in 2008 to €12,483 million (5.3% of GDP) in 2009 and is expected to rise further to 5.9% of GDP or €14,453 million (see Table VIII.6).

This projected deterioration is likely to be even more severe as a result of weak economic activity in Greece. The organisations' revenue is expected to continue to shrink due to higher unemployment (implying less social security contributions from employers and employees), the observed extensive contribution evasion, squeezed total earnings and employers' con-

Table VII.7 Results of public enterprises and their financing

(million euro)

					Budget	Percentage changes			
	2006[2]	2007[2]	2008[2]	2009*	2010	2007/2006	2008/2007	2009*/2008	2010/2009*
A. Operating account									
1. Revenue	1,492	1,814	1,806	1,649	1,828	21.6	-0.5	-8.7	10.9
2. Expenditure	2,797	3,278	3,676	3,478	3,613	17.2	12.1	-5.4	3.9
3. Balance (1 - 2)	-1,305	-1,464	-1,870	-1,829	-1,785				
B. Capital account									
4. Revenue	0	0	0	0	0				
5. Expenditure	1,313	1,950	1,330	2,027	1,773	48.5	-31.8	52.3	-12.5
(Investment)	1,004	1,322	1,112	1,559	1,592	31.7	-15.9	40.2	2.1
(Working capital)	132	380	-10	372	84	188.1	-102.6	3,664.5	-77.4
(Other expenditure)	177	248	228	96	97	40.0	-7.9	-57.8	0.3
6. Balance (4 - 5)	-1,313	-1,950	-1,330	-2,027	-1,773				
7. Special funds[1]	761	1,079	1,136	1,484	1,428	41.7	5.3	30.7	-3.8
Total result (3+6+7)	*-1,857*	*-2,335*	*-2,065*	*-2,372*	*-2,130*				
Percentage of GDP	*0.9*	*1.0*	*0.9*	*1.0*	*0.9*				
Financing									
8. Ordinary budget subsidies[3]	163	185	191	200	206	13.3	3.6	4.7	2.8
9. Depreciation	254	256	255	259	265	0.9	-0.6	1.8	2.3
10. Net borrowing requirements	1,440	1,894	1,619	1,913	1,659	31.6	-14.5	18.2	-13.2
Total financing	*1,857*	*2,335*	*2,065*	*2,372*	*2,130*	*25.8*	*-11.6*	*14.9*	*-10.2*
11. Amortisation[4]	229	134	520	139	1,176	-41.5	288.1	-73.3	746.0
12. Credit repayments[4]	8	5	14	4	35	-40.1	180.0	-71.4	775.0
13. New commercial credit	96	132	38	420	205	36.6	-71.1	1.005.1	-51.2
14. Gross borrowing requirements (10+11+12-13)	1,581	1,901	2,115	1,636	2,665	20.2	11.3	-22.7	62.9

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 public enterprises replaced 19 older ones in the list of Public Enterprises and Entities (DEKO) included in the Introductory Report on the 2007 Budget, which totalled 49 in 2008 and 52 in 2009 and 2010.
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 the lack of relevant data.

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

(million euro)

	2003	2004	2005	2006	2007	2008	2009*
Short-term	3,409	2,839	1,346	1,108	1,668	5,583	...
– securities	3,084	2,568	1,156	943	1,625	5,496	...
– loans	325	271	190	165	43	87	...
Medium- and long-term	163,860	179,342	192,757	202,298	214,020	230,870	...
– securities	140,922	156,969	170,863	180,968	194,658	212,552	...
– loans	22,938	22,373	21,894	21,330	19,362	18,318	...
Coin and deposits	756	1,006	1,318	1,017	713	743	...
Total	**168,025**	**183,187**	**195,421**	**204,423**	**216,401**	**237,196**	**272,300**
% of GDP	*97.4*	*98.6*	*100.0*	*97.1*	*95.6*	*99.2*	*114.7*
– domestic debt	164,643	180,684	192,674	202,367	214,485	235,564	271,070
(of which: debt to the Bank of Greece)[2]	(9,018)	(8,488)	(7,988)	(7,991)	(7,521)	(7,051)	(6,581)
– non-euro denominated debt	3,382	2,503	2,747	2,056	1,916	1,632	1,230

Sources: State General Accounting Office and Bank of Greece.
* Provisional data.
1 According to the definition in the Maastricht Treaty.
2 The reversal of the downward trend in the euro-denominated debt to the Bank of Greece in 2006 was 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 non-euro denominated debt.

tribution arrears to social security organisations. On the expenditure side, a further increase should de expected, since the growing number of jobless persons and mass retirements will push up the total expenditure for unemployment benefits and pensions. The servicing of recent years' high (and growing) borrowing will exert a further upward effect on expenditure.

The Greek state's ability to pay satisfactory pensions in the future will hinge upon how drastically it will respond now. The measures currently being considered seem to be a step in the right direction. These measures must be implemented promptly since any delay would imply to a much more painful adjustment in the future. In addition, faced with rising interest expenses, the general government will less and less afford to support the social security organisations and the pension system.

2.3 PUBLIC ENTERPRISES

According to Law 3429/2005, public enterprises are defined as undertakings not listed on the Athens Exchange, which are under the direct or indirect financial control of central government. The financial results of such undertakings, listed in the relevant table of the annual Introductory Report on the Budget from 2005 onwards, are reported in Table VII.7.[22]

As shown in the table, total revenue under the operating account decreased by 8.7%, to €1,649 million in 2009 from €1,806 million in 2008, while operating costs declined by 5.4% to €3,478 million. The operating deficit thus narrowed to €1,829 million in 2009, from €1,870 million 2008, which is a positive development following the ongoing increase in the deficit between 2006 and 2008.

By contrast, expenditure under the capital account surged by 52.3% to €2,027 million in 2009, mainly driven by a substantial rise in investment (40.2%), as well as by higher needs for working capital (see Table VIII.7).

22 The table reports data from the Introductory Report on the Budget and analytical data, supplemented by more detailed data from the Ministry of Finance.

The deficit of the combined operating and capital accounts of public enterprises stood at €2,372 million or 1.0% of GDP in 2009, compared with 2,065 million or 0.9% in 2008. Of this amount, 80.6% was financed by borrowing, 8.4% by ordinary budget subsidies and the remaining 11.0% by depreciation allowances. Net borrowing grew by 18.2%, to €1,913 million in 2009 from €1,619 million in 2008. It should be noted that increased borrowing by public enterprises, as is also the case with social security organisations, entails the risk of a rise in pubic debt in the event that the relevant government guarantees are called in (see Table VII.7).

The persistently high deficit is primarily attributable to the large deficits of the public transport sector and most notably OSE. This suggests that any efforts to effectively reduce the deficit of public enterprises and also the corresponding state budget subsidies must be aimed at improving the financial efficiency of transport organisations.

2.4 PUBLIC DEBT AND ITS DYNAMICS

The repeated downgrades of Greece's sovereign debt rating and the substantial widening of the yield spread between Greek bonds and the corresponding German bonds in the period from December 2009 to April 2010 have patently revealed the risks entailed for any country by a very high public debt, particularly when it persists for years. Despite a significant improvement due to the GDP revision in 2007, the Greek debt ratio has remained at very high levels (the second highest in the EU) and rose steeply in the years 2008 and 2009, mainly owing to an unprecedented fiscal policy relaxation (see Table VIII.8). **Following the fiscal developments of 2009, the debt dynamics is explosive with the debt ratio theoretically tending to infinity. This is the major source of macroeconomic imbalance in the Greek economy. Against this background, fiscal adjustment and prompt stabilisation of the debt ratio have to be the top priority for economic policy.** (For alternative projections on the debt dynamics, see Box VIII.1).

Box VII.1

THE DYNAMICS OF PUBLIC DEBT

In order to investigate the prospects of fiscal adjustment and the associated possible evolution of the dynamics of public debt as a percentage of GDP, this box explores three macroeconomic-fiscal scenarios.

All three scenarios rely on the following macroeconomic assumptions:

- The initial level of public debt as a percentage of GDP in 2009 is 115.1%.

- The nominal interest rate stands on average at levels close to 5.6% for the period 2010-2015, reflecting the increased cost of borrowing for the Greek government.[1]

- GDP in nominal terms remains unchanged in 2010, before rising at an average annual rate of 1.8% in the years up to 2015.

As regards the primary balance, the **benchmark scenario (scenario 1)** incorporates the official estimates of the Stability and Growth Programme (SGP) for the years 2010 to 2013 (i.e. -3.5%,

1 According to the updated Stability and Growth Programme (SGP) for 2009-2013, the implicit interest rate on public debt in 2009 was 5.1%, calculated as the ratio of interest expenses to the absolute level of debt in the previous period.

-0.2%, 2.6% and 3.2% of GDP, respectively, from -7.7% in 2009), and then assumes a further improvement to 4.0% of GDP in 2014 and to 5.0% in 2015.

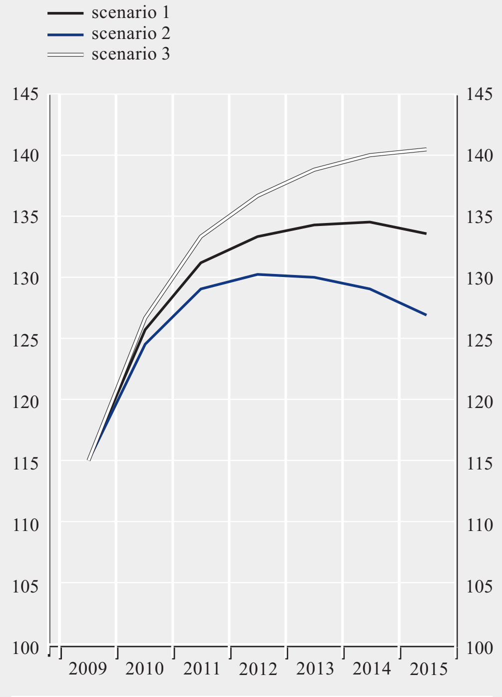
The **second (optimistic) scenario** assumes 1% higher primary balances until 2015 compared with the benchmark scenario, i.e. -2.5%, 0.8%, 3.6% and 4.2% of GDP for the years 2010 to 2013, and 5.0% and 6.0% of GDP for 2014 and 2015, respectively.

The **third (adverse) scenario** explores the consequences of 1% lower primary balances for the years 2010 to 2015 compared with the benchmark scenario, i.e. -4.5%, -1.2%, 1.6% and 2.2% of GDP for the years 2010 to 2013, and 3.0% and 4.0% of GDP for 2014 and 2015, respectively.

All scenarios assume zero "deficit-debt adjustments" and take no stock of any privatisation receipts.[2]

Government debt scenarios

(percentages)



The results of the above exercise, albeit sensitive to different assumptions about the rate of change in nominal GDP and the interest rate on public debt, provide clear evidence of the importance of the magnitude of fiscal consolidation for the evolution of public debt as a percentage of GDP over time.

Under the benchmark scenario, public debt is projected (see the chart in this box) to level out in 2014 at 134.5% of GDP. With a fiscal position (primary balance) further improved by 1.0% of GDP (under scenario 2), it would stabilise in 2012 at 130.1% of GDP.

The evolution of public debt over time appears unsustainable in the case of worse fiscal positions (scenario 3). It is worth noting that, under the adverse scenario, an increasingly high public debt would contribute to a further rise in interest rates (spiral effect), enhance the volatility of debt dynamics over time and lead to constantly increasing servicing costs. Indicatively, it has been calculated for 2010 that a rise of 100 basis points in interest rates would result in an annual increase of roughly 0.35% of GDP in interest expenses. This would call for additional measures to reverse this course. However, owing to the recent hikes in income tax and indirect tax rates, there is little room for further action to raise revenue (other than by curbing tax evasion). Therefore, under the adverse scenario, the entire additional effort would have to focus on cutting expenditure, in order to reverse the initial assumption of fiscal balances worse than those under the benchmark scenario. It should also be borne in mind that foreign investors hold the bulk of Greek

2 It is worth noting that the updated SGP includes privatisation proceeds amounting to 2.3% of GDP, and assumes that over the reviewed period the capital support of €3.8 billion to the banking system will be repaid to the government.

public debt (almost 79%), and thus collect a large share of interest payments, which leads to a reduction in domestic productive resources and therefore undermines the country's growth prospects.

It thus becomes evident that the fiscal adjustment envisaged in the updated SGP (based on the aforementioned assumptions regarding the rate of increase in nominal GDP and the nominal interest rate on public debt) will lead to a stabilisation of the debt-to-GDP ratio no sooner than 2014, and this at very high levels. According to a recent study by Cecchetti, Mohanty and Zampolli (2010), in order for Greece to achieve in five years (starting from 2011) its 2007 debt-to-GDP ratio (95.7%), average primary surpluses of some 5.4% of GDP per year would be required.[3] If this adjustment period is stretched to 10 (or 20) years, the average annual primary surplus would have to be 2.8% (or 1.5%) of GDP.

Therefore, to reduce the debt gradually to below 100% of GDP and then below 60% of GDP as required by the Treaty on European Union, systematic fiscal effort will have to be made over a number of years, while it becomes a sine qua non for the economy to immediately restart growing and achieve strong rates of GDP growth in a reasonably short period of time.

It should also be noted that the above analysis does not take stock of the future fiscal cost of population ageing, i.e. the expected higher pension and healthcare spending. According to Cecchetti, Mohanty and Zampolli (2010), unless measures are taken to limit the costs related to population ageing, the Greek public debt will climb to almost 280% of GDP in 2030. A moderate fiscal adjustment effort that would improve the primary balance by 1% of GDP per year from 2012 up to 2016 would deliver a debt-to-GDP ratio of around 200% in 2030.[4] A more ambitious effort that would combine a moderate fiscal adjustment similar to the above with a freezing of pension and healthcare spending as a percentage of GDP at the levels forecast for 2011 would result in a debt-to-GDP ratio of around 150% in 2030.

Consequently, in the light of the indicative results of the above study by economists of the Bank for International Settlements, we arrive at the conclusion that **fiscal adjustment is a necessary prerequisite for the country's economy to get back on its feet. However, considerable future risks such as the fiscal cost of population ageing also need to be tackled immediately and effectively.**

In this respect, it is quite positive that the updated SGP has adopted a more ambitious fiscal adjustment plan than the one assumed in the aforementioned study, while it also provides for social security reforms in order to successfully meet the relevant future challenges. Unyielding implementation of the updated SGP, with respect as much to fiscal adjustment as to reforms and development initiatives, is the only way forward.

3 Cecchetti, S.G., M.S. Mohanty and F. Zampolli (2010), "The future of public debt: prospects and implications", Bank for International Settlements, Working paper No. 300.

4 According to the assumptions made by the authors of the above study, for the period until 2040 the ratios of total revenue to GDP and of primary expenditure (excluding pension and healthcare spending) to GDP remain unchanged at the levels forecast by the OECD for 2011; pension and healthcare spending as a percentage of GDP rises in line with the European Commission projections; real interest rates remain unchanged at the average levels of the 1998-2007 period; and potential growth remains unchanged at the pre-crisis levels estimated by the OECD.

During the 15 years from 1994 to 2008, debt averaged around 99% of GDP, despite the GDP revision and the existence of very favourable conditions for debt reduction between the mid-1990s and the end of 2007 (namely, strong growth performance, falling

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

(percentages of GDP)

	2001	2002	2003	2004	2005	2006	2007	2008	2009*
General government debt-to-GDP ratio	103.7	101.7	97.4	98.6	100.0	97.1	95.6	99.2	114.7
Changes in the general government debt-to-GDP ratio	0.3	-2.1	-4.2	1.1	1.4	-2.9	-1.6	3.6	15.5
– Primary balance	-2.0	-0.8	0.7	2.7	0.5	-1.5	-0.8	3.1	7.7
– Change in GDP and change in interest rates	-1.0	-1.3	-4.5	-2.4	-0.4	-2.9	-2.6	-0.6	5.5
– Deficit-debt adjustment[2]	3.2	0.1	-0.4	0.9	1.3	1.5	1.8	1.2	2.3

Source: 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 at current prices
g_t = nominal GDP growth rate
i_t = average nominal rates on government debt
SF_t = deficit-debt adjustment

2 The deficit-debt adjustment includes expenditure or liabilities assumed by the general government which do not affect the deficit but increase debt, as well as proceeds (e.g. from privatisation) which do not affect the deficit, but reduce debt.

interest rates up to end-2005, high primary surpluses up to end-2001 and significant proceeds from privatisations). Difficulties in reducing the debt ratio reflect not only the existence of annual deficits (especially from 2001 onwards), but also a sizeable "deficit-debt adjustment", i.e. government transactions which are not recorded in the deficit, but increase public debt (see Table VII.9).

A reversal in these conditions triggered a dramatic increase in the debt-to-GDP ratio, especially in 2009. In greater detail, according to data from the 2009-2013 USGP, the consolidated debt of general government grew by a massive 15.5 percentage points of GDP to 114.7 of GDP in 2009 from 99.2% in 2008 and 95.6% in 2007 (see Table VII.8). In the period 2008-2009, debt increased by 19.1 percentage points of GDP and is projected to continue to expand in 2010, exceeding 120% of GDP. Considering that the debt ratio declined only gradually in the period 1997-2007 when all factors were favourable for its reduction, bringing it down would require a huge effort and a fiscal tightening in the next years.

The turnaround of the downward trend of debt was due to the fading-out and eventual reversal of the factors driving the evolution of the debt ratio, as already stressed by the Bank of Greece[23] in April 2008. More specifically, the average interest rate on new borrowing[24] by the Greek government increased gradually from 3.2% in 2005 to 4.7% in 2008. It then dropped to 4.1% in 2009, thanks to the very low interest rates on short-term borrowing. Excluding the effect of short-term rates, however, the average interest rate on new borrowing comes to 5.1%. This upward trend continued into the first quarter of 2010, with the average interest rate on new borrowing (other than short-term borrowing) reaching 6.2% (by the end of March). Meanwhile, after its growth decelerated from 4.0% in 2007 to 2.0% in 2008, the economy entered a recession in 2009 (-2.0%). These developments, coupled with the large primary deficits of 2008 (3.1%) and, most notably, of 2009, have led to a strengthening in debt dynamics.

23 Bank of Greece, *Annual Report 2007*, April 2008, p. 112.
24 Excluding bonds issued by private placement.

Lastly, it should be noted that, the surge in the debt ratio has been accompanied by an increase in government-guaranteed loans, which are only included in public debt if and when the guarantees are called in. According to the Introductory Report on the 2010 Budget,[25] these loans rose to €26.170 million or 11.0% of GDP at end-2009, from 6.2% of GDP in 2002.

3 THE BUDGET FOR 2010

3.1 THE STATE BUDGET

The budget for 2010, which was passed by the Parliament at the end of 2009, was subject to extensive de facto revisions reflecting the fiscal policy tightening and the adoption of more ambitious budgetary targets in the first quarter of 2010, as well as the unfavourable revision of the macroeconomic outlook. The revised budgetary targets imply a decrease in the general government deficit by 4.2 percentage points in 2010[26] to 8.7% of GDP and to below 3.0% of GDP by 2012 instead of 2013. This revision was meant as an answer to the markets' unwillingness to continue to finance Greece's high deficits. This stance was reflected in the yield spread of the Greek government bonds vis-à-vis German ones during the first quarter of the year and in the negative publicity that the Greek fiscal problem has received. The revision of forecasts on economic activity, on the other hand, was necessary after the announcement (on 12 February 2010) by NSSG of worse GDP figures for 2009 (a 2.0% contraction of real GDP against an earlier forecast for a contraction of 1.2%).

Changes in the 2010 Budget data are included[27] in Greece's Updated Stability and Growth Programme (USGP) submitted to the European Commission on 15 January 2010. Specifically, ordinary budget revenue is expected, according to the USGP, to be €460 million higher than the budget forecasts, and expenditure (including tax refunds) is expected to fall short by €507 million. As a result, the state budget deficit for 2010 is expected to stand at €21,569 million (i.e. 8.8% of GDP), compared with an initial forecast for €22,536 million, or 9.2% of GDP (see Table VII.10). Following the submission of the USGP, with more recent data showing that the recession of the Greek economy for 2010 would be much deeper than estimated by the USGP (-0.3%), significant additional fiscal measures were adopted on 3 March 2010[28] in order to boost revenue and contain expenditure. The rigorous implementation of these measures can ensure the achievement of reducing the general government deficit to 8.7% of GDP.

It should be stressed that these measures must be implemented in full without the slightest deviation or retraction. Otherwise, the consequences on the credibility of the current economic policy shall be disastrous. It is therefore very important that the markets are convinced that Greece shall meet its commitments and that the general government deficit will be reduced below 3% of GDP by the end of 2012.

Compared with 2009, the general government deficit is projected to decrease by 4.0 percentage points of GDP in 2010 (4.2 percentage points, if the new estimates for the 2009 GDP are taken into account). This containment of the deficit is expected to stem both from central government and from the "other general government" sector (local authorities, social security organisations and other legal entities in public law), as some of these measures (such as the cuts in wages, stricter control on contribution evasion, etc.) apply to general govern-

25 Table 4.10, p. 114.
26 The objective announced in January referred to a decrease by 4 percentage points in the deficit, at 8.7% of GDP. Later on, however, when GDP for 2009 was revised downwards on the basis of new data and the deficit for 2009 as a percentage of GDP increased to 12.9%, the target came to 4.2 percentage points of GDP.
27 The new forecasts included in the USGP are reported in Table VII.10, in the column indicated "SGP". However, it should be noted that the new fiscal measures of 9 February and 3 March could not have been incorporated in the budget forecast and are not included in Table VII.10, but they are reported in the main text of this chapter.
28 These measures are detailed in Section 3.2 below.

Table VII.10 State budget balance

(million euro)

	Annual data							Percentage changes			
				2009		2010					2010/09*
	2006	2007	2008	Stability Programme 2009	Execution*	Budget	Stability Programme 2010	2007/06	2008/07	2009*/08	Budget/ Execution
I. Revenue[1]	**52,460**	**56,652**	**60,340**	**66,687**	**55,461**	**62,210**	**62,670**	**8.0**	**6.5**	**-8.1**	**13.0**
1. Ordinary budget	48,685	51,777	55,322	62,987	53,420	58,350	58,810	6.4	6.8	-3.4	10.1
(of which: extraordinary revenue)[2]	773	437		1,372	1,128	280					
2. Public investment budget	3,775	4,875	5,018	3,700	2,041	3,860	3,860	29.1	2.9	-59.3	89.1
– Own revenue	212	...	350	200	183	150	150	...	...	-47.7	-18.0
– Revenue from the EU	3,563	...	4,668	3,500	1,858	3,710	3,710	...	...	-60.2	99.7
II. Expenditure[1]	**60,692**	**67,166**	**74,920**	**79,378**	**86,342**	**84,746**	**84,239**	**10.7**	**11.5**	**15.2**	**-2.4**
1. Ordinary budget	52,508	58,357	65,296	70,578	76,754	74,446	73,939	11.1	11.9	17.5	-3.7
– Interest payments	9,589	9,796	11,207	12,100	12,325	12,950	12,950	2.2	14.4	10.0	5.1
– Ordinary budget primary expenditure	42,919	48,561	54,089	58,478	64,429	61,496	60,989	13.1	11.4	19.1	-5.3
of which: tax refunds	*2,392*	*2,623*	*3,654*	*3,700*	*4,952*	*4,650*	*4,650*	*9.7*	*39.3*	*35.5*	*-6.1*
new expenditure[3]			*710*	*1,672*	*1,349*						
extraordinary expenditure[4]		*1,948*			*2,825*	*500*					
2. Public investment budget	8,184	8,809	9,624	8,800	9,588	10,300	10,300	7.6	9.3	-0.4	7.4
III. State budget balance	**-8,232**	**-10,514**	**-14,580**	**-12,691**	**-30,881**	**-22,536**	**-21,569**				
% of GDP	**-3.9**	**-4.6**	**-6.1**	**-5.0**	**-13.0**	**-9.2**	**-8.8**				
1. Ordinary budget	-3,823	-6,580	-9,974	-7,591	-23,334	-16,096	-15,129				
2. Public investment budget	-4,409	-3,934	-4,606	-5,100	-7,547	-6,440	-6.440				
IV. State budget primary surplus	**1,357**	**-718**	**-3,373**	**-591**	**-18,556**	**-9,586**	**-8.679**				
% of GDP	**0.6**	**-0.3**	**-1.4**	**-0.2**	**-7.8**	**-3.9**	**-3.5**				
V. General government deficit											
% of GDP (on a national accounts basis)	**-2.9**	**-3.5**	**-7.7**	**-3.7**	**-12.9**	**-9.1**	**-8.7**				
Amortisation payments	16,954	22,544	26,246	29,129	29,135	19,510	19,510	33.0	16.4	11.0	-33.0
Procurement of defence equipment	2,075	2,129	2,597	2,200	2,129	2,000	2,000	2.6	22.0	-18.0	-6.1
GDP (current prices)	210,459	226,437	239,141	254,519	237,508	244,233	244,233	7.6	5.6	-0.7	2.8

Source: State General Accounting Office.
* Provisional data.
1 For comparability purposes, tax refunds are included in expenditure and have not been deducted from revenue, in contrast to practice followed by the Ministry of Finance in the past few years.
2 Including: for **2006**: an amount of €149.7 million from the settlement of revenue collected by the Hellenic Telecommunications and Post Commission (EETT), €299.3 million (not included in the 2006 Budget) from the decrease in the capital of the Postal Savings Bank, €34 million from the decrease in the capital of the Agricultural Bank of Greece and €290 million from additional dividends of the Deposits and Loans Fund; for **2007**: "notional" revenue of €437 million from the settlement of positions vis-à-vis Olympic Airlines; for **2009**: revenue from special accounts (now abolished), amounting to €1,081 million, as well as revenue from the liquidity support package, amounting to €47 million; for **2010**: revenue from the liquidity support package, amounting to €280 million.
3 Including: for **2008**: payment of €710 million to the Insurance Funds of DEH's personnel in exchange for property; for **2009**: payments out of special accounts (now abolished), amounting to €827 million, as well as expenditure of €522 million for the Intergenerational Solidarity Fund.
4 Including: for **2007**: "notional" expenditure of €840 million from the settlement of positions vis-à-vis Olympic Airlines, as well as additional contributions to the Community Budget (€1,108 million) due to the upward revision of past GDP figures; for **2009**: an amount of €350 million paid to the National Fund for Social Cohesion (home heating subsidies to pensioners entitled to the Social Solidarity Pension Supplement (EKAS), unemployed and disabled persons), and extraordinary social solidarity aid amounting to €489 million, payments of €294 million to Olympic Airlines following an arbitration decision, expenditure of €1,502 million for the repayment of public hospitals' arrears, as well as election expenditure amounting to €190 million; for **2010**: an extraordinary social solidarity aid amounting to €500 million.

ment as a whole. The 2009-2013 USGP does not specify the new target for the state budget deficit in 2010 which will correspond to a general government deficit of 8.7% of GDP. Still, judging from the additional measures announced in early February and early March, it is reasonable to expect that the largest part of the adjustment will stem from the state budget, as most of the measures (e.g. the various tax increases) by their nature refer to the state budget. The deficit reduction (based on the revised 2009-2013 USGP target) is expected to result from a significant increase in ordinary budget revenue (10.1%) along with a *decline in relevant expenditure* (-3.7%), while a large increase (89,1%) is also anticipated in public investment budget revenue. The significant measures announced after the submission of the USGP lead to a much larger increase in revenue and a further reduction in expenditure, even though it is hard to incorporate the impact of these measures into USGP figures.[29]

The large increase in ordinary budget revenue, which according to the USGP is projected to reach €58.810 million, is expected to result from (the expected revenue gains are indicated in parentheses):

a) the change in the tax scale, the cut or abolition of many tax allowances or exemptions, and numerous other arrangements in personal income tax (€1,100 million);

b) the introduction of an extraordinary tax on corporate profits (€870 million);

iii) the curbing of tax evasion (€1,200 million);

iv) the increase in liquid fuel taxes (€930 million);

v) the increase in tobacco tax (€650 million);

vi) the increase in taxes on inheritances, gifts and parental donations;

vii) the re-introduction of large property tax (€400 million);

viii) dividend and commission fee income to be earned by the Greek State on bank liquidity support measures (€280 million); and

ix) the extraordinary tax on large real property (€180 million).

Moreover, revenue-enhancing effects come from the collection of the remaining part of the Single Tax on Real Estate (ETAK) for 2009 levied on households, as well as from the measures adopted in the second half of 2009 (e.g. increase in petrol tax, in mobile telephony duties, etc.) which will for the first time be reflected in annual figures in 2010. Finally, investment budget receipts from the EU Structural Funds are expected to be €1,852 million higher than in 2009.

It should be stressed that along with the introduction of new taxes or the increase in existing ones, it is absolutely necessary to press ahead with the restructuring and improvement of the tax-collection mechanism. Without efficient tax collection, no tax measure can yield the anticipated revenue.

Under the 2010 budget, as this was revised by the 2009-2013 USGP, ordinary budget expenditure[30] is forecast to decline by 3.7% to €73,939 million, from €76,754 million in 2009. Primary expenditure is expected to decline by 5.3%, whereas interest payments are expected to rise by 5.1%.

According to the USGP, the containment of expenditure is partly due to the fact that 2009 payments totalling a €2.8 billion will not be repeated in 2010. It is however also due to reductions in certain other categories of expenditure, specifically:

- the curtailment of civil servants' benefits by 10% on average,
- the suspension of recruitment until after 2010,

29 For this reason, the analysis below is based on USGP figures, and subsequent measures are examined separately.
30 Including expenditure for tax refunds.

• the reduction in fixed-term employment contracts,

• the cuts in operating costs,

• the reduction in grants to social security organisations, and

• the reduction of overtime work costs, civil servants' transportation costs, etc.

Overall, these measures are expected to lead to saving €1,825 million, mostly concentrated on the ordinary budget.

Expenditure for tax refunds is also expected to decrease by 6.1% or €302 million compared with 2009 and stand at €4.650 million.

Finally, interest payments are expected to rise by 5.1% to €12,950 million. An overrun could occur if recourse to short-term borrowing rises further (Treasury bills, etc.), in which case the relevant interest payments burden the current fiscal year. Conversely, the increase in the interest rates on government will have an impact on the interest payments for 2011 and the following years.

Public investment budget

Expenditure under the public investment budget was expected to rise by 7.4% to €10,300 million. However, this amount was subsequently curtailed with the measures of March 2010. Moreover, investment budget revenue (mostly coming from the various EU funds) is expected to increase strongly (89.1%) and reach €3,860 million, from €2,041 million in 2009. Revenue would thus return to 2006 levels, after a sharp drop of -59.3% in 2009.

3.2 FISCAL POLICY MEASURES AFTER THE ANNOUNCEMENT OF THE 2009-2013 USGP

On **9 February**, a number of fiscal measures were announced, some of which specified or implemented the reforms already envisaged in the USGP (e.g. laying down the details on personal income tax), while others involved new arrangements. On the expenditure side, a freeze was imposed on all earnings in the public sector, whereas in the USGP the freeze only applied to earnings of over €2,000 per month. These measures also included a reduction in the earnings of the President of the Republic, the Prime Minister, the Members of the Cabinet and the Members of Parliament.

On the revenue side, the special consumption tax on liquid fuels was raised, which was not envisaged by the USGP 2009-2013. Specifically, the tax rate on petrol taxation was raised by 29.3% and that on diesel oil by 16.6%, while the tax on heavy oil for industrial use remained unchanged. These measures are expected to generate revenue of €900 million.

On 12 February 2010 the NSSG released new, less favourable growth figures, suggesting a decline of 2.0% in economic activity in 2009, against an earlier forecast that GDP would shrink by 1.2%. This made the decline of just 0.3%, as assumed in the USGP 2009-2013, too optimistic. The achievement of the budgetary objectives set for 2010 thus became highly questionable. In response, an important fiscal package was announced on **3 March 2010**,[31] which included measures on both the revenue and expenditure sides, aiming to bring the deficit down by €4,800 million or 2.0% of GDP.

On the revenue side, the most important additional measures not included in the USGP are the following:

• An increase of around 10% in VAT rates, broken down as follows: from 19% to 21% in the standard VAT rate; from 9% to 10% in the reduced VAT rate; and from 4.5% to 5% in the special rate. According to the Ministry of Finance, this measure is expected to yield additional revenue of €1,400 million.

31 This package was enacted with the "emergency" parliamentary procedure on 5 March 2010 (Law 3833/5.3.2010).

• Further increases of 15.1% and 8.5% in the excise taxes on petrol and diesel oil respectively. Following these increases, the tax on petrol has risen by 74.3% in total, compared with March 2009, and that on diesel oil by 30.4%. By contrast, the tax on heavy oil remains unchanged at €19/ton. This measure is expected to yield additional revenue of €616 million.

• A new hike in the excise tax on tobacco. Following this new measure, the overall tax burden (including VAT) on the price category most in demand is raised to roughly 81.0%. Moreover, it was decided to further increase the excise tax on alcohol by 20.0%. According to the estimates of the Ministry of Finance, these two measures are expected to yield additional revenue of €430 million.

• A one-off levy of 1.0% on high incomes over €100.000.

• The introduction of an excise tax on certain luxury goods, such as expensive cars, pleasure boats, etc.

• The introduction of a special tax on electricity consumption, combined with the abolition of the exemption from the excise tax on oil used exclusively for power generation.

• Finally, other measures, such as the insertion of a new bracket into the tax scale, with a maximum rate of 45%; and increases in the maximum tax rate on large property holdings to 2.0% for real estate with a value over €5 million, the tax rate on real estate owned by offshore companies and the tax rate on radiofrequencies from 0.1% to 2.0%. These provisions make taxation more progressive whilst significantly increasing the tax burden on middle and high incomes. These rates are among the highest in the euro area and higher than those in neighbouring countries.

On the expenditure side, the main additional measures announced on 3 March are as follows:

• Cuts of 30% in the Christmas and Easter bonuses and the annual leave allowances of civil servants.

• An average reduction of 12% in benefits (against a 10% forecast in the USGP).

• A freeze on all pensions paid under the budget (against a rise of 1.5% envisaged in the USGP for pensions of less than €2,000 per month), as well as a cut in grants to certain social security organisations.

• Reduction of 7% in the earnings of all employees in legal entities in private law which are owned by the state or are subsidised regularly by the state budget or constitute public enterprises within the meaning of paragraphs 1, 2 and 3 of Article 1 of Law 3429/2005.

• Cuts of €500 million and €200 million in spending under the investment budget and in appropriations to the Ministry of Education, respectively.

• Finally, a cap on the earnings of all general government staff, abolition of indexation of certain bonuses, etc.

3.3 FINANCIAL TRANSACTIONS WITH THE EUROPEAN UNION

As regards Greece's financial transactions with the EU, net receipts declined sharply by 58.2% in 2009, compared with an increase of 20.5% in 2008, and dropped to €2,021 million from €4,832 million in 2008 (see Table VII.11). This development is due to a fall in inflows (-39.8%), considering that payments to the EU were also slightly lower (-6.2%) than in 2008. The decrease in receipts is mainly focused on inflows from the European Regional Development Fund (-53.2%) and receipts from the EAGGF Guarantee Section (-10.8%), which pays farmer subsidies, and the Social Fund (-8.1%). Moreover, inflows from all other Funds other the Cohesion Fund have also declined.

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

(million euro)

	2006	2007	2008	2009*	Budget 2010	Percentage changes			
						2007/2006	2008/2007	2009*/2008	Budget for 2010/2009*
A. Receipts from the EU budget	**6,733**	**7,274**	**7,481**	**4,505**	**6,857**	**8.0**	**2.8**	**-39.8**	**52.2**
1. 10% refund on own resources collection costs	68	77	77	64	66	13.2	0.0	-16.9	3.1
2. European Social Fund	552	783	992	118	744	41.8	26.7	-88.1	530.5
3. EAFRD	382	589	504	241	548	54.2	-14.4	-52.2	127.4
4. ERDF	2,146	3,065	2,858	1,338	2,037	42.8	-6.8	-53.2	52.2
5. EAGF	3,072	2,374	2,718	2,424	2,755	-22.7	14.5	-10.8	13.7
6. Other receipts	10	17	100	19	49	70.0	488.2	-81.0	157.9
7. Cohesion Fund	482	334	200	274	608	-30.7	-40.1	37.0	121.9
8. Receipts from EFTA countries	3	2	2	1	20	-33.3	0.0	-50.0	-
9. EFF	18	33	30	26	30	83.3	-9.1	-13.3	15.4
B. Payments to the EU budget	**2,172**	**3,265**	**2,649**	**2,484**	**2,713**	**50.3**	**-18.9**	**-6.2**	**9.2**
1. Agricultural levies and duties	12	11	7	4	0	-8.3	-36.4	-42.9	-100.0
2. Sugar levies	3	0	2	2	1	-100.0	-	-	-
3. Customs duties under the Common External Tariffs	258	297	298	248	261	15.1	0.3	-16.8	5.2
4. Contribution according to the VAT base	467	473	577	512	495	1.3	22.0	-11.3	-3.3
5. Contribution on the basis of GDP	1,222	1,184	1,415	1,522	1,879	-3.1	19.5	7.6	23.5
6. Additional extraordinary contributions	2	1,108	136	150	20	-	-	10.3	-86.7
7. Contribution to the European Development Fund	33	36	40	43	47	9.1	11.1	7.5	9.3
8. Payments owing to unrealised projects	175	156	174	3	10	-10.9	11.5	-98.3	233.3
Net receipts from the EU budget (A – B)	**4,561**	**4,009**	**4,832**	**2,021**	**4,144**	**-12.1**	**20.5**	**-58.2**	**105.0**

Source: State General Accounting Office.
* Provisional data.

Net receipts are expected to double in 2010 (up by 105.0%), standing at €4,144 million. This development is expected to stem from a 52.2% increase in inflows, while payments to the European Union will rise by 9.2% (see Table VII.11).

3.4 BUDGETS OF SOCIAL SECURITY AND WELFARE ORGANISATIONS AND PUBLIC ENTERPRISES

According to the Introductory Report on the Budget for 2010, the financial results of the six major social security and welfare organisations are expected to deteriorate further. The overall deficit of these organisations will reach €14,453 million (or 6.0% of GDP) – up by 15.8% compared with 2009. Sixty-five per cent (65.5%) of the deficit will be covered by grants out of the State budget, while a large increase is forecast in the net borrowing requirements for financing 34.5% of the deficit (see Table VII.6).

The consolidated deficit of the operating and capital accounts of public enterprises is expected to decline from €2,372 million in 2009 to €2,130 million in 2010. As a percentage of GDP, the deficit is expected to drop to 0.9% (see Table VII.7).

This deficit will be financed by 9.7% through grants out of the ordinary budget and by 12.4% through depreciation allowances, while the remaining 77.9% will be covered by net borrowing. As already mentioned, the continuous increase in the borrowing requirement of public enterprises, which is typically guaranteed by the State and leads to an increase in the total outstanding amount of guaranteed loans, even though it seems to cover investment expenditure, can only be an adverse development and a potential risk for the constantly growing debt of the country.

APPENDIX TO CHAPTER VII
TAX POLICY MEASURES

A common denominator of all of the fiscal measures taken in 2009 and even more so in early 2010 was the effort to boost revenue and achieve the fiscal consolidation targets. The recent legislative interventions have sought to reform the tax system, broaden the tax base and curb tax evasion. The most important measures already adopted involved increases in excise taxes on fuel, tobacco and alcohol, as well as in VAT rates. The new tax law – passed on 15 April but still not published as the present report was going to print, hence not discussed in detail here – expanded VAT coverage and brought about major changes to property and personal income taxation, by adopting a more progressive tax scale and abolishing the separate taxation of certain types of income and other special tax regimes and exemptions.

* * *

In February 2009, in order to boost revenue, it was decided to increase the excise tax on cigarettes (the minimum rate was raised from 75% to 85%), alcoholic beverages and beer (Law 3752/2009).

In March 2009, Law 3578/2009 imposed an extraordinary levy on personal incomes of more than €60,000 for 2007; the tax amounts varied according to income bracket.[1]

In April 2009, in response to a sharp drop in car sales, vehicle registration fees were temporarily reduced. More specifically, Law 3763/2009 halved the first registration fee until 7 August 2009 and suspended until 31.12.2009 the transfer tax on second-hand vehicles and the licence fees on cars and motorcycles transferred and registered by the date when the draft law was tabled. In addition, the deadline for settling pending tax cases and tax arrears (tax amnesty) was extended until 30 June 2009. Regarding the application of the single tax on real estate (ETAK), the exempt amounts referring to the whole of real estate (and not just the main residence) were set at €100,000 for unmarried taxpayers, €200,000 for married taxpayers and €230,000 for families with three children or more.

In June 2009, Law 3775/2009 introduced a number of tax measures to address the large shortfalls in revenue. These included: a 14.2% increase in the excise tax on unleaded petrol (from €359 to €410 per 1,000 litres); a special tax on large engine capacity vehicles; an increase in the tax on mobile telephony (to between 12% and 20%, depending on the monthly bill) and the application of this tax to previously exempt prepaid connections; the abolishment of the tax-exempt amount for lottery winnings and an increase in gambling tax from 5% to 10%;[2] and, lastly, the taxation of the so-called semi-outdoor spaces in apartments.[3]

Law 3790/2009 introduced an extraordinary levy and an annual duty on pleasure boats. The extraordinary levy on commercial boats, imposed under this same law, was later revoked by Law 3809/2009.

In September 2009, the Cabinet adopted a legislative act, which allowed the VAT payments due to be made in three monthly instalments. Moreover, the act introduced financial incentives for the scrappage of old-technology cars, on an incremental basis according to vehicle type and engine capacity. Finally, it provided for the implementation of a "green" restricted traffic zone as from 1 September 2011. However, the two latter measures were abolished by an amending similar act, which instead introduced an environmental approach to road excise duties, levied at progressive rates depending on engine capacity.

1 Specifically, the tax amounts and the corresponding income brackets (based on personal income tax returns for 2007) were as follows: €1,000 for incomes of between €60,000 and €80,000; €2,000 for incomes from €80,000 to €100,000; €3,000 for incomes from €100,000 to €150,000; and €5,000 for incomes over €150,000. The levy tax was payable in three equal bimonthly instalments, as was also the case with income tax.

2 In the end, the implementation of this provision was suspended and the measure was included in the 2010 tax bill.

3 This measure remained inactive in 2009. A new draft law was submitted on 14 April 2010.

Law 3808/2009 imposed an extraordinary levy on large enterprises (based on their pre-tax profits for financial year 2008) and on large property holdings, in an aim to reinforce social solidarity. Specifically, a one-off levy was imposed on corporate profits for financial year 2009, at a rate of 5% for businesses with profits of €5-10 million in 2008, 7% for corporate profits of €10-25 million and 10% for profits over €25 million. Owners of real estate with a value exceeding €400,000 were charged with a one-off levy at rates between 0.1% for real estate with a value of €400,000-600,000 up to 1.0% for real estate with a value over €3,000,000. Later on, an additional rate of 2.0% was introduced for real estate with a value exceeding €5,000,000. Property values are to be derived from ETAK returns.[4]

The same law introduced other measures, such as the suspension of taxation on winnings from lotteries and games of chance, the postponement of a tax imposition on share surplus value, the abolition of the extraordinary levy on commercial boats and an extension of the deadline for tax amnesties.

Law 3815/2010 introduced amendments to the taxation of gratuitous transfers of property (as a result of inheritance, donation, parental gift, dowry and lottery winnings), as well as to the national customs code. Specifically, it abolished the regime whereby the above-mentioned transfers were taxed separately at a flat rate of 1%, regardless of property value, which favoured large property holdings. This marked a return to the regime applicable before 2007, including more favourable tax rates for first-degree relatives than for more distant relatives. In addition, the tax-exempt amount of parental gifts and inheritance[5] was raised to €150,000 from €95,000 for first-degree relatives and to €30,000 from €20,000 for second-degree relatives, while remaining unchanged for third-degree relatives. Tax rates for first-degree relatives range from 1% to 10%, depending on the property value.[6]

The same law increased the excise tax on cigarettes and alcohol. The ad valorem tax rate on cigarettes was increased from 57.5% to 63%, and the unit-based component from 5% to 7%. At the same time, the minimum excise tax levied on the retail price of the cigarette category most in demand was reduced from 80% to 75%. The rather high tax burden on low-cost cigarettes (imposed since 2005) was thus somewhat alleviated, whereas more expensive cigarettes were subject to heavier taxation. The excise tax on alcohol now comes to €0.91 per bottle for strong alcoholic beverages such as whisky, vodka and gin, €0.45 per bottle of ouzo, tsipouro or tsikoudia and between €0.009 and €0.02 per bottle of beer.

Under Law 3828/2010, excise taxes on petrol and diesel oil were raised by 29.3% and 16.6% respectively, as from 9.2.2010.

By Law 3833/2010, additional emergency measures were taken to address the fiscal crisis. This law included measures both on the expenditure and on the revenue sides. As regards revenue, a one-off levy at a rate of 1% was imposed on natural persons with an annual income over €100,000 for 2009. Moreover, VAT rates were raised by approximately 10%: as from 15 March 2010, from 4.5% to

4 It should be noted that the relevant values for the application of this measure were those of personal rather than household property. Also, the measure did not apply to legal persons and off-shore companies, in which cases, levy rates ranged between 0.1‰ and 0.6‰ (0.1‰ on corporate buildings, 0.3‰ on legal-person-owned land to be used for charitable purposes etc. and 0.6‰ on urban and rural land).

5 Until recently, property of a value in excess of the tax-exempt amount of €95,000 was taxed at a rate of 1%. In more detail, Law 3634/2007 abolished the inheritance and parental gift tax for first- and second-class heirs, replacing it with a duty of 1% of the objective value of the properties transferred causa mortis or as parental gift. Under the same law, the first residence was fully exempted from taxation. Real estate wealth was thus burdened by a single tax on real estate (ETAK), while the acquisition of a first residence either from parental gift, inheritance or purchase entailed zero taxation. Real estate transfers through inheritance, donation or parental gift were subject to separate taxation at a rate of 1%.

6 If the heirs are the deceased person's spouse or underage children, the estate remains untaxed up to the amount of €400,000. Amounts of money transferred (formally or informally) to family members are still taxed independently at a rate of 10% for first-degree relatives and 20% for second-degree relatives, with no tax-exempt limit. As regards inheritance, donation and parental gift tax, the law established a uniform way of payment in twelve equal bimonthly instalments, each of which (except for the last) must be at least for €500.

5%, from 9% to 10% and from 19% to 21%, while the tax base was also broadened considerably. In addition, as from 4 March 2010, the excise tax on tobacco products (cigarettes) was further increased from 63% to 65% and the one on alcohol by 20%. The excise taxes on petrol and diesel oil were increased by €0.08/litre and by €0.03/litre, respectively. The excise tax on heating oil remained unchanged.

An excise tax was also levied on electricity, while the tax exemption applicable to oil used exclusively for power generation was abolished. Lastly, another legislative act levied a special tax on luxury goods, such as cars with an ex-factory price over €17,000 (market price €35,000), pleasure boats, private helicopters, precious stones, precious metals and certain types of skins.

VIII EXTERNAL BALANCE

1 CURRENT ACCOUNT BALANCE

In 2009, the current account deficit narrowed substantially by €8.2 billion or 23.5% to €26.6 billion or 11.2% of GDP, from 14.6% of GDP in 2008 (see Table VIII.1). Meanwhile, the combined current and capital account deficit, which corresponds to the external financing requirements of the economy, narrowed by €6.1 billion or 19.8% to 10.4% of GDP (from 12.8% of GDP in 2008).

The fall in aggregate domestic demand and economic activity in Greece, as well as a number of external factors, such as low international crude oil prices and limited net imports of ships, led to a sharp decline in the net import bill. As a result of declines in the trade deficit and, secondarily, the income account deficit, the current account deficit contracted considerably, despite a large decrease in the surpluses of the services balance and the current transfers balance.

These developments are conjunctural, as the structural weaknesses of the economy that feed the current account deficit persist. It should be recalled that this deficit by definition reflects the shortfall of domestic saving relative to domestic investment spending, and is directly attributable to heavy international competitiveness losses, which are also reflected in the shrinking market shares of Greek exports in recent years, according to a recent study by the European Commission.[1] This shortfall of saving relative to investment in the last ten years was due to a concurrent rapid increase in consumption and investment, as a result of a steep fall in interest rates following Greece's EMU entry, a strong increase in credit growth, drastically improved expectations of households and firms and, of course, large fiscal deficits. Regarding the evolution of total domestic saving, as well as of saving by sector of economic activity during the last ten years, Box VIII.1 presents the relevant national accounts estimates of the NSSG.

Competitiveness losses are mainly due to the structural weaknesses of the Greek economy, such as product and labour market rigidities, fiscal relaxation and wastage (at a time when rapid growth allowed and warranted bold fiscal adjustment), and —finally— a large, inefficient and ever-expanding public sector.

Labour and product market rigidities helped maintain wage and price growth rates steadily above those of the euro area as a whole, thereby leading to a substantial appreciation of the real effective exchange rate, already mentioned in Chapter VI (see also Table VIII.2 and Box VIII.2 in this chapter). These serious losses of price competitiveness have exacerbated the problems caused by the structural weaknesses of production and have decisively contributed to keeping structural competitiveness low and limiting the ability of domestic supply to adequately and flexibly respond to the composition of, and changes in, both external and domestic demand.

In coming years, the low price and cost competitiveness of Greek products and the anticipated rises in international oil and other commodity prices will lead to a further widening of the trade deficit. As the slowdown in unit labour cost growth in the business sector will be very limited in 2010 (see Chapter VI), a further deterioration in international competitiveness, loss of market shares and therefore higher unemployment are likely. On the other hand, due to the recession, imports *at constant prices* are expected to continue to fall, albeit less than in 2009.

With respect to the services balance, in the context of the global recovery, net shipping receipts are likely to rise slightly and tourist receipts to stabilise. Overall, the financing of the current account deficit with such receipts should not always be taken for granted, since tourist and especially shipping receipts are volatile, on account of their sensitivity to the effects of external factors.

1 European Commission, *Quarterly report on the euro area*, No. 1, 2010, "Special issue: The impact of the global crisis on competitiveness and current account divergences in the euro area".

Table VIII.1 Balance of payments

(million euro)

	January – December		
	2007	2008	2009*
I CURRENT ACCOUNT BALANCE (I.A+I.B+I.C+I.D)	**-32,602.2**	**-34,797.6**	**-26,630.9**
I.A Trade balance (I.A.1 – I.A.2)	**-41,499.2**	**-44,048.8**	**-30,760.3**
Oil trade balance	-9,219.6	-12,154.6	-7,596.5
Non-oil trade balance	-32,279.6	-31,894.3	-23,163.8
Ships balance	-5,520.3	-4,705.0	-3,356.9
Trade balance excl. oil and ships	-26,759.3	-27,189.3	-19,806.9
I.A.1 Exports of goods	*17,445.5*	*19,812.9*	*15,318.0*
Oil	3,037.3	4,254.5	3,063.2
Ships (receipts)	2,275.4	1,582.0	771.7
Other goods	12,132.8	13,976.5	11,483.1
I.A.2 Imports of goods	*58,944.8*	*63,861.7*	*46,078.3*
Oil	12,256.9	16,409.0	10,659.8
Ships (payments)	7,795.7	6,286.9	4,128.6
Other goods	38,892.2	41,165.8	31,289.9
I.B Services balance (I.B.1 – I.B.2)	**16,591.7**	**17,135.6**	**12,640.2**
I.B.1 Receipts	*31,337.3*	*34,066.2*	*26,983.3*
Travel	11,319.2	11,635.9	10,400.3
Transport	16,939.3	19,188.3	13,552.2
Other services	3,078.9	3,242.0	3,030.9
I.B.2 Payments	*14,745.6*	*16,930.6*	*14,343.2*
Travel	2,485.7	2,679.1	2,424.6
Transport	7,771.3	9,316.0	7,073.4
Other services	4,488.6	4,935.5	4,845.1
I.C Income balance (I.C.1 – I.C.2)	**-9,285.8**	**-10,643.0**	**-9,803.5**
I.C.1 Receipts	*4,558.5*	*5,573.2*	*4,124.9*
Wages, salaries	366.9	344.7	294.6
Interest, dividends, profits	4,191.7	5,228.5	3,830.3
I.C.2 Payments	*13,844.3*	*16,216.2*	*13,928.4*
Wages, salaries	332.6	410.1	411.9
Interest, dividends, profits	13,511.7	15,806.1	13,516.4
I.D Current transfers balance (I.D.1–I.D.2)	**1,591.1**	**2,758.6**	**1,292.6**
I.D.1 Receipts	*6,608.1*	*6,882.7*	*5,380.7*
General government (mainly receipts from the EU)	4,361.2	4,678.8	3,527.9
Other sectors (emigrants' remittances, etc.)	2,246.9	2,203.9	1,852.8
I.D.2 Payments	*5,017.0*	*4,124.1*	*4,088.1*
General government (mainly payments to the EU)	3,825.4	2,717.6	2,679.6
Other sectors	1,191.6	1,406.4	1,408.5
II CAPITAL TRANSFERS BALANCE (II.1–II.2)	**4,332.3**	**4,090.8**	**2,017.4**
II.1 Receipts	**4,673.9**	**4,637.8**	**2,328.1**
General government (mainly receipts from the EU)	4,401.4	4,241.9	2,133.2
Other sectors	272.4	395.9	194.9
II.2 Payments	**341.6**	**547.0**	**310.7**
General government (mainly payments to the EU)	27.1	192.0	14.4
Other sectors	314.5	354.9	296.3
III CURRENT ACCOUNT AND CAPITAL TRANSFERS BALANCE (I+II)	**-28,269.9**	**-30,706.8**	**-24,613.5**
IV FINANCIAL ACCOUNT BALANCE (IV.A+IV.B+IV.C+IV.D)	**27,570.2**	**29,914.2**	**25,212.6**
IV.A Direct investment[1]	**-2,290.2**	**1,420.7**	**1,091.7**
By residents abroad	-3,832.9	-1,650.4	-1,323.3
By non-residents in Greece	1,542.7	3,071.1	2,415.0
IV.B Portfolio investment[1]	**17,441.7**	**16,428.0**	**27,863.8**
Assets	-16,351.1	-268.9	-3,773.0
Liabilities	33,792.8	16,696.9	31,636.8
IV.C Other investment[1]	**12,740.6**	**12,094.6**	**-3,636.9**
Assets	-16,266.1	-27,823.3	-23,875.7
Liabilities	29,006.8	39,917.8	20,238.8
(General government borrowing)	-2,341.7	-572.7	-2,335.0
IV.D Change in reserve assets[2]	**-322.0**	**-29.0**	**-106.0**
V ERRORS AND OMISSIONS	**699.7**	**792.6**	**-599.1**
RESERVE ASSETS	**2,491.0**	**2,521.0**	**3,857.0**

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

Box VIII.1

NATIONAL SAVING AND ITS SECTORAL COMPOSITION (ACCORDING TO NATIONAL ACCOUNTS)

Data on saving are compiled at annual frequency (for some countries, at quarterly frequency) on the basis of the European System of Accounts (ESA 95), which is applied by all EU countries. ESA 95 is built around a sequence of inter-connected accounts, which describe the various stages of the economic process: production; income generation, distribution and redistribution; use of income; stocks and flows of assets. The annual accounts of the institutional sectors of the economy form part of the national accounts under ESA 95. Institutional sectors group together institutional units with similar characteristics and economic behaviour: households, including non-profit institutions serving households (NPISH); financial corporations; non-financial corporations; and general government (see Table A). The annual accounts reflect economic flows between institutional sectors and illustrate their economic behaviour and inter-sectoral economic relations. Saving, as is the case with other key aggregates, can thus be broken down by sector, enabling the identification of sectoral contributions to the evolution of the national aggregate.

From the perspective of the economy as a whole, national saving is defined as the part of national income that does not constitute final consumption. Although it has a rich information content and is central to the analysis of equilibrium relations in an economy, saving is not measured directly in ESA 95, but rather as a residual (balancing item) derived from other, directly measurable items.

Over the past ten years, the national saving-to-GDP ratio in Greece continued to fall, having followed a downward path in the 1990-1999 period. Although this phenomenon has also been observed in other, more advanced economies, including certain EU countries and the United States, the inadequacy of saving in the economy has been much more manifest in Greece, in particular over the last three years. From an average of 18.1% of GDP in the 1990-1999 decade, the national saving rate fell to 9.5% of GDP in the 2000-2009 period. Private sector saving averaged 22.7% of GDP in 1990-1999, while general government had a negative saving rate of -4.5%. The corresponding percentages for the 2000-2008 period were 11.7% for the private sector and -1.7% for general government. Table A reports an overall decline in national saving from 11.3% of GDP in 2000 to 5.1% in 2009. Thus, after rising temporarily from 9.6% in 2002 to 12.2% in 2003 and 12.4% in 2004, national saving shrank to 5.0% of GDP in 2009 (2000-2004 average: 11.5%, 2004-2009 average: 7.6%).

The breakdown of **gross saving by sector** indicates that the decline in national saving as a percentage of GDP in the 2000-2008 period mainly reflected a change in the (negative) saving rate of general government and, to a lesser extent, a fall in the saving rate of the private sector. In more detail, the ratio of **gross general government saving** to GDP, which is correlated with the evolution of the fiscal deficit, averaged -1.2% in the 2000-2004 period, before becoming more strongly negative in the 2005-2008 period (-2.3% on average) and reaching its estimated highest 20-year negative value in 2009. The **private sector saving rate** overall fell, although less sharply, from 11.4% in 2000 to 0.8% in 2008, after rising temporarily in 2003-2004 (i.e. in the two-year period before and during the Olympic Games, associated with higher private sector investment), while in 2009 it is estimated to have risen markedly (as consumption fell and income rose in nominal terms).

These percentages imply that national saving as a percentage of GDP is very low by international standards. Moreover, **net national saving**, i.e. after deducting depreciation, as a percentage of GDP was negative or virtually zero during most of the last decade, reaching such lows as -5.1% of GDP in 2008 and -8.1% in 2009 (compared with 5.8% in 2008 and 3.4% in the October 2008-September 2009 period in the euro area as a whole).

The sectoral composition of saving exhibits an uneven pattern across sectors. The negative saving of general government was the major factor behind the decline in national saving after 2004, while as far as the private sector is concerned, household saving was the component that crucially contributed to keeping national saving rates at low levels.

Regarding households and firms, Table B (or Table A) shows that **gross business saving** accounts for 110% of private sector saving in 2008, more than offsetting negative household saving. Table C shows business saving and household saving, both as residuals, in the former case starting from firms' operating surplus, and in the latter case starting from households' gross disposable income. Under ESA 95, gross business saving is the balancing item on their accounts that record the distribution of operating surplus (profits). On the payments side, firms allocate their profits to: (a) property income payments, i.e. dividends, interest, rents, etc.; and (b) payment of taxes on profits (see Table C). On the income side, firms receive interest and other property income from their financial investment, rents etc. As shown in Table C, gross business saving is the sum of these net payments and other net current transfer payments (i.e. transfers other than social contributions and benefits, such as payments for insurance, various compensations, etc.). According to the national accounts data shown in Table C, most of the negative outturn of business saving in the reviewed period is explained by net property income, where payments by far exceeded receipts (as was also the case in other euro area countries). In 2008, net payments of property income declined, while the operating surplus increased, leading to a rise in the gross business saving rate to 10.9% of GDP, from 8.4% in 2007.

For **households, gross saving** as reported in Table C is derived from the difference between gross disposable income and consumption expenditure. Under ESA 95, the disposable income of the household sector as a whole (including NPISH) is calculated in the secondary distribution of income account as the sum of compensation of employees and current transfers, business income and net property income, minus income tax and current transfer payments (social security contributions), adjusting for other net current benefits. Table C shows the very low and, in some years, negative saving of households as a percentage of their income. Taking into account depreciation, household saving is still negative, more than offsetting the positive net business saving in 2007 and 2008. The ratio of gross saving to gross disposable income is a commonly used measure of the relative level of household saving, i.e. households' average propensity to save (alternatively, social transfers in kind to households can also be included in disposable income). This ratio was very low or negative during the period under review. In 2008 in particular, as the growth of final consumption expenditure outpaced that of gross disposable income, household saving did not merely contract, but turned negative, falling to -1.4% of disposable income, from 2.2% in 2007.

It is worth noting that **in the euro area as a whole** household saving stood at 14.6% of their gross disposable income in 2008, before rising to 15.8% in the third quarter of 2009. The low saving rate observed in Greece in 2008 is only comparable to that of the United Kingdom (1.8%), while all of Greece's partners in the euro area have substantially higher saving rates, with Portugal recording the lowest (6.4%) among them.

The inadequate household saving over the last ten years is explained by sustained strong consumer demand growth during the same period, fuelled by an impressive increase in credit to

Table A National saving and saving by sector

(% of GDP, current prices)

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
National saving	Saving, gross	11.3	11.8	9.6	12.2	12.4	9.3	8.9	7.6	7.1	5.0
	Saving, net	-0.1	0.2	-1.8	-0.2	0.2	-3.0	-3.2	-4.4	-5.1	-8.1
A. General government	Saving, gross	-0.2	-0.1	-0.8	-1.9	-3.0	-2.5	-1.7	-2.5	-2.7	-
	Saving, net	-2.2	-2.1	-2.7	-3.5	-4.7	-4.3	-3.5	-4.3	-4.6	-
B. Private sector	Saving, gross	11.4	11.9	10.4	14.1	15.4	11.8	10.6	10.0	9.8	-
	Saving, net	2.1	2.3	0.9	3.3	4.9	1.3	0.3	-0.2	-0.5	-
1. Firms[1]	Saving, gross	9.1	10.2	10.6	13.2	14.7	12.4	12.8	8.4	10.9	-
	Saving, net	5.2	6.1	6.1	9.5	11.2	8.9	9.5	5.0	7.3	-
2. Households[2]	Saving, gross	2.4	1.7	-0.2	0.9	0.7	-0.6	-2.3	1.6	-1.0	-
	Saving, net	-3.1	-3.8	-5.2	-6.2	-6.3	-7.6	-9.2	-5.1	-7.8	-

Source: NSSG. Provisional data for the period 2004-2009.
1 Comprising financial and non-financial corporations.
2 Comprising households and non-profit institutions serving households (NPISH).

Table B National saving and saving by sector

(million euro, current prices)

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
National saving[1]	Saving, gross	15,367	17,222	15,109	21,076	23,094	18,202	18,701	17,101	17,027	11,858
	Saving, net	-174	290	-2,839	-400	314	-5,781	-6,832	-10,069	-12,183	-19,342
A. General government	Saving, gross	-234	-169	-1,179	-3,236	-5,513	-4,890	-3,553	-5,594	-6,533	-
	Saving, net	-3,016	-3,103	-4,303	-6,119	-8,755	-8,435	-7,391	-9,707	-10,947	-
B. Private sector	Saving, gross	15,599	17,395	16,289	24,275	28,607	23,066	22,254	22,687	23,526	-
	Saving, net	2,841	3,396	1,466	5,683	9,069	2,628	559	-370	-1,270	-
1. Firms[2]	Saving, gross	12,359	14,974	16,535	22,735	27,308	24,190	27,004	18,951	25,979	-
	Saving, net	7,127	8,892	9,567	16,412	20,718	17,396	19,902	11,221	17,484	-
2. Households[3]	Saving, gross	3,241	2,421	-246	1,539	1,298	-1,124	-4,750	3,736	-2,453	-
	Saving, net	-4,287	-5,496	-8,101	-10,729	-11,649	-14,768	-19,343	-11,591	-18,754	-

Source: NSSG. Provisional data for the period 2004-2009.
1 For certain years, sectoral sub-totals do not add up to the total.
2 Comprising financial and non-financial corporations.
3 Comprising households and non-profit institutions serving households (NPISH).

Table C Private sector saving, operating surplus of firms and gross disposable income of households

(million euro, current prices)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
A. Firms[1]									
1. Operating surplus	28,774	31,386	32,168	37,883	43,277	44,560	49,357	53,078	55,728
2. Property income payments, net	9,573	9,244	8,694	8,649	8,991	12,261	14,713	25,560	21,432
3. Other current transfer payments, net	933	1,997	1,450	1,222	1,135	1,443	1,961	1,379	1,566
4. Current taxes on income, wealth, etc.	5,909	5,172	5,535	5,349	5,921	6,744	5,766	7,292	6,857
5. Gross saving[2] (= 1- 2- 3- 4)	12,359	14,974	16,535	22,735	27,308	24,190	27,004	18,951	25,979
6. Gross saving to GDP (%)	9.1	10.2	10.6	13.2	14.7	12.4	12.8	8.4	10.9
7. Consumption of fixed capital	5,232	6,082	6,969	6,323	6,590	6,794	7,102	7,730	8,495
8. Net saving	7,127	8,892	9,567	16,412	20,718	17,396	19,902	11,221	17,484
9. Net saving to GDP (%)	5.2	6.1	6.1	9.5	11.2	8.9	9.5	5.0	7.3
B. Households[3]									
1. Disposable income of households, gross	101,868	108,711	113,992	123,476	131,278	139,325	148,108	166,449	170,827
2. Final consumption expenditure	98,627	106,290	114,238	121,937	129,979	140,449	152,858	162,714	173,280
3. Saving, gross	3,241	2,421	-246	1,539	1,298	-1,124	-4,750	3,736	-2,453
4. Gross saving to gross household disposable income (%)	3.2	2.2	-0.2	1.2	1.0	-0.8	-3.2	2.2	-1.4
5. Consumption of fixed capital	7,527	7,916	7,855	12,269	12,947	13,644	14,593	15,327	16,301
6. Saving, net	-4,287	-5,496	-8,101	-10,729	-11,649	-14,768	-19,343	-11,591	-18,754
7. Disposable income of households, net	94,341	100,795	106,137	111,208	118,330	125,681	133,515	151,122	154,526
8. Net saving to net household disposable income (%)	-4.5	-5.5	-7.6	-9.6	-9.8	-11.8	-14.5	-7.7	-12.1

Sources: NSSG (for firms' operating surplus, property income payments, other current transfer payments and current taxes on income and wealth, etc.) and Eurostat Annual Sector Accounts (provisional data for 2004-2009).
1 Comprising financial and non-financial corporations.
2 Due to a small statistical discrepancy, gross business saving by firms does not quite equal the balance 1-2-3-4.
3 Comprising households and non-profit institutions serving households (NPISH).

households and fiscal relaxation. Household borrowing grew at very high annual rates following the liberalisation of consumer credit in 2003, while the decline in interest rates and their convergence to those in the euro area after Greece's euro area entry also boosted demand for loans. **Moreover, the change in households' saving on the back of optimistic expectations about the beneficial effects on incomes that euro area participation and the new environment of stability would involve. Households' low starting levels of indebtedness was an additional factor that encouraged the increase in their debt**.

The low national saving rates observed in recent years as a result of fiscal imbalances and the increased share of private consumption in GDP is a source of concern in the case of the Greek economy for two reasons: first, it could affect considerably the rate of sustainable non-inflationary medium-term growth and, second, it has already contributed to the creation of chronic external imbalances, i.e. a large current account deficit, high gross external debt and, by implication, a negative net investment position (see also Box VIII.4 below).

It should be pointed out that, along with growing awareness – partly thanks to insights into the importance and evolution of saving – of the need both for fiscal consolidation and for structural reforms in the private sector (as repeatedly stressed in earlier Reports), the private sector's saving behaviour has begun to change: indeed, after the downturn of the Greek economy in 2009, the declining trend of the saving rate was reversed. Similar developments in the saving rate of the private sector are also observed in other economies. **The current financial crisis creates favourable circumstances for a rise in the saving rate, as several factors are at play suggesting that in the case of Greece the necessary rise in national saving could be facilitated by the "natural" adjustment of the economy to a new equilibrium**.

Specifically, the weaker growth of credit to households, as banks are tightening their credit standards and financing terms and conditions, is contributing to lower consumption. Moreover, lower income expectations and, for some households, uncertainty about their ability to retain their jobs in the future tends to dampen their willingness to consume. Households' uncertainty regarding the economic outlook, as reflected in a decline in the consumer confidence indicator, strengthens the precautionary motive for saving. Declining asset values (stocks, bonds and real estate) can also encourage saving. Besides, for as long as general government saving remains negative, households are likely to increase their saving in anticipation of higher tax payments in the future. Similarly, expectations of a future increase in corporate taxation may induce business firms to increase their saving (e.g. by cutting wage costs). On the other hand, the currently low level of interest rates (although an upward trend is already visible) favours consumption, dampening a future growth in saving.

Therefore, to the extent that some of the factors that had driven the decrease in the saving rate of the Greek economy for a number of years (such as strong credit growth, the consumption boom and fiscal relaxation) have changed or are about to change, the downward path can be expected to be reversed. Economic policy should reinforce this trend and seek to ensure that saving continued to grow until both saving and consumption stabilise at levels compatible with sustainable non-inflationary growth.

Finally, regarding the income account balance, it should be taken into consideration that the rise in the cost of external borrowing in the past few months, as well as the prospect of rises in interest rates globally, will lead to increased interest payments in the coming years.

EU current transfers, i.e. mainly direct assistance and subsidies in the context of the Common Agricultural Policy (CAP), are expected to remain virtually unchanged relative to 2009.

Therefore, **on the basis of data available so far, the current account deficit should remain at high levels.** The deficit may be reduced by, inter alia, an appropriate fiscal policy that would lead to lower borrowing costs for the Greek State and, by extension, for Greek banks, firms and households, as well as by effectively tackling the structural weaknesses of the economy.

Trade balance

The considerable €13.3 billion reduction in the trade deficit in 2009 stemmed from decreases of €7.4 billion, €4.6 billion and €1.3 billion in the trade deficit excluding oil and ships, the net oil import bill and net payments for purchases of ships, respectively.

With respect to the trade balance excluding oil and ships, the import bill declined by €9.9 billion or 24.0%, i.e. much more than export receipts, which fell by €2.5 billion or 17.8%.[2] According to available provisional NSSG data on trade transactions, the value of Greek non-oil exports to EU markets fell by 18.5% and to third countries by 10.5%.

2 According to available provisional NSSG data for the January-December 2009 period, the value of non-oil exports dropped by 15.8% and the value of non-oil imports by 20.2%. Moreover, total export value dropped by 17.5%, while total import value (excluding ships) fell by 24.4%. It should be recalled that discrepancies between the Bank of Greece and the NSSG data on trade are largely due to the fact that the Bank of Greece data refer to receipts and payments mainly via the domestic banking system, while the NSSG data are based on customs data concerning transactions with non-EU countries and tax data (INTRASTAT) on intra-EU transactions. The decline in both exports and imports was broadly based across product categories, with the exception of agricultural products and chemicals, which fell at lower rates, according to Bank of Greece disaggregated data and the latest study of the European Commission (European Commission, *Quarterly report on the euro area*, No. 1, 2010, special issue: "The impact of the global crisis on competitiveness and current account divergences in the euro area").

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

(annual percentage changes in year averages)

	Nominal EER	Real EER: On the basis of relative consumer prices	Real EER: On the basis of relative unit labour costs in total economy
2000	-6.0	-7.3	-5.6
2001	1.9	1.1	0.5
2002	2.3	2.6	4.0
2003	5.0	5.4	3.9
2004	1.7	1.9	4.2
2005	-1.0	-0.2	0.4
2006	0.1	0.7	1.6
2007	1.3	1.6	2.3
2008	2.5	2.6	4.9
2009	1.2	1.5	2.3
Cumulative percentage change between 2001 and 2009	15.7	18.6	26.6

Sources: Exchange rates: ECB, euro reference exchange rates. CPI: ECB, HICP where available. Unit labour costs in total economy: Bank of Greece estimates for Greece, ECB for the other countries. For alternative estimates from the ECB and the European Commission, see Box VIII.2.
1 These indices are compiled by the Bank of Greece and were revised on 1 January 2010 on the basis of updated weights. They include Greece's 28 main trading partners. Weights are based on imports and exports of manufacturing goods (SITC 5-8) in the years 2004-2006 and take account of third market effects.

Box VIII.2

REVISION OF THE NOMINAL AND REAL EFFECTIVE EXCHANGE RATE INDICES FOR GREECE AND COST/PRICE COMPETITIVENESS

As from 1 January 2010, the Bank of Greece revised the nominal and real effective exchange rate (NEER and REER) indices it compiles, taking into account the significant changes that have taken place in the geographical distribution of global trade over the past ten years. These changes consist mainly of an increase in the market shares of emerging economies at the expense of advanced economies, in respect of both Greek and global trade. This box provides a brief overview of these changes, presents the new weights resulting from the shifts in trade flows and, finally, outlines the evolution of the new EER indices.

1 REVISION OF THE WEIGHTS IN THE EER INDICES FOR GREECE (1 JANUARY 2010)

REER indices reflect the comparative evolution of an economy's price and cost competitiveness vis-à-vis a group of major trading partners.[1] Therefore, the weights used to compute such indices should reflect, as accurately as possible, the current and potential developments in the geographical distribution of a country's external trade. Given this and in line with the update of ECB weights in the computation of the euro area REER,[2] the Bank of Greece also updated the weights it uses in computing the Greek EER indices. The recent weight updating is based on the average value of trade in manufacturing goods during 2004-2006 and replaces the previous one, which was based on the corresponding weights for the period 1999-2001. Each partner's weight is still calculated on the basis of manufacturing goods imports and exports (sections 5-8 of the Standard International Trade Classification – SITC), taking account of "third market" effects (double-weighting of exports).[3] Based on these newer weights and in keeping with the same methodological approach, the Bank of Greece revised as from 1 January 2010 the NEER and REER indices it compiles for Greece.

The sample of trading partners against which the Bank of Greece compiles broader EER indices consists, as before, of 28 countries, except that Slovenia has been replaced by India, whose weighting in Greek trade has already more than tripled and may increase further. According to 2008 data, these 28 countries cover 87.5% of trade in manufacturing goods and 78.1% of Greece's total external trade, while euro area countries (16 in number after 1 January 2009) account for 52.9% of Greece's manufacturing trade and 44.8% of its total external trade. It should be noted that manufacturing goods account for 65.4% of Greece's total trade.

The key development in the geographical distribution of Greece's external trade during 1999-2001 and 2004-2006 was an increase in the shares and thus the weights of, mainly, China (up by 2.4 percentage points), Turkey (1.4 percentage points) and South Korea (1.0 percentage point). Similar

1 The REER index essentially reflects the evolution of the ratio of domestic to foreign prices (i.e. the evolution of relative prices) expressed in a common currency. Technically-wise, however, the REER index is derived from the adjustment (often referred to as "deflation" or "correction") of the Nominal Effective Exchange Rate (NEER) index with one of the various constructed indices of relative prices or relative production cost of domestic products compared to those produced abroad. Thus, the REER is the geometric weighted average of bilateral (vis-à-vis each trade partner) developments in the exchange rates and relative prices or costs.
2 See ECB, *Monthly Bulletin*, January 2010, Box 5.
3 Manufacturing trade is the most appropriate basis for calculating the effective exchange rate indices, mainly owing to the large share of manufacturing goods in a country's total external trade. Besides, the prices of EU Member States' agricultural products are largely set in the framework of the Common Agricultural Policy (CAP) and are moreover subject to sharp fluctuations on account of the seasonality of agricultural production and weather conditions. Although it would be desirable to also take into consideration transactions in services – which represent a significant percentage of Greece's total external transactions – there are problems as regards the availability, comparability and credibility of the relevant data.

developments were observed in euro area trade with non-euro area countries. Spain, Belgium, Cyprus and Russia also recorded a smaller, but significant increase in their shares in Greek trade. The share of six Central and Eastern European countries (CEE countries) included in the 28-country sample grew somewhat (by 0.4 percentage point), mainly on account of Russia, whereas Bulgaria's and Romania's shares shrank slightly in the same period (see Table A).

Advanced economies' shares in Greek trade also decreased in the period under review, mainly those of Germany, France, the United Kingdom, the United States and Japan. Despite these

Table A Trade weights used for the computation of Greece's effective exchange rates 2004-2006 (new) and 1999-2001 (old)

New ranking	Former ranking	Broader EER indices (28 trading partners)	Relative shares 2004-2006	Relative shares 1999-2001	New ranking	Former ranking	Indices vis-à-vis the euro area	Relative shares 2004-2006	Relative shares 1999-2001
1	1	Germany	16.7%	18.2%	1	1	Germany	27.8%	29.6%
2	2	Italy	15.1%	16.2%	2	2	Italy	24.3%	26.4%
3	3	France	7.0%	8.4%	3	3	France	11.8%	13.7%
4	4	United Kingdom	5.8%	7.1%	4	4	Netherlands	8.6%	8.4%
5	11	China	5.5%	3.1%	5	5	Spain	8.0%	6.6%
6	6	Netherlands	5.2%	5.2%	6	6	Belgium	7.4%	6.0%
7	8	South Korea	5.0%	4.0%	7	8	Austria	2.8%	2.2%
8	5	United States	4.9%	6.1%	8	10	Cyprus	2.5%	1.3%
9	9	Spain	4.9%	4.0%	9	7	Finland	2.0%	2.5%
10	10	Belgium	4.5%	3.7%	10	9	Ireland	1.8%	1.7%
11	7	Japan	3.8%	5.1%	11	15	Luxembourg	1.1%	0.1%
12	14	Turkey	3.2%	1.8%	12	11	Portugal	0.8%	0.8%
13	13	Switzerland	1.9%	2.1%	13	12	Slovakia	0.6%	0.3%
14	12	Sweden	1.7%	2.3%	14	13	Slovenia	0.4%	0.2%
15	15	Bulgaria	1.7%	1.8%	15	14	Malta	0.1%	0.2%
16	17	Russia	1.7%	1.4%			Total:	100.0%	
17	18	Austria	1.6%	1.4%					
18	22	Cyprus	1.3%	0.8%					
19	16	Finland	1.2%	1.5%					
20	19	Romania	1.2%	1.3%					
21	20	Ireland	1.1%	1.1%					
22	21	Denmark	0.9%	1.0%					
23	-	India	0.8%	-					
24	24	Czech Republic	0.8%	0.6%					
25	23	Poland	0.7%	0.7%					
26	28	Luxembourg	0.7%	0.1%					
27	25	Hungary	0.7%	0.5%					
28	26	Portugal	0.4%	0.5%					
		Total:	100.0%						

Source: Calculations based on ECB data, December 2009.

developments, Germany, Italy, France and the United Kingdom remained Greece's top four trading partners. China climbed to fifth place, from eleventh five years earlier.

According to more recent data (simple weighting of exports), these trends in the geographic distribution of trade seem to be continuing; e.g. China was already Greece's third most important trading partner in 2008 in total trade of industrial goods, with a share of 6.5%, and its fifth partner in total trade, with a 4.5% share.

2 COMPARING THE EVOLUTION OF NEW AND PREVIOUS EER INDICES

The Bank of Greece computes three broad EER indices vis-à-vis 28 partners (the NEER index and two REER indices) and two narrower REER indices vis-à-vis the euro area countries. After the recent revision of weights, the new NEER index has slightly appreciated (deteriorated) compared to the previous one, and three out of the four REER indices have appreciated slightly less (improved). This was mainly the result of a change in the period for which weights are taken (from 1999-2001 to 2004-2006) and not of India's inclusion in the computation. The annual evolution of EER indices from 1993 up to 2009 is presented in detail in Table B.

According to the new broad REER indices, Greece's cumulative price competitiveness loss between 2001 and 2009, albeit lower by 1.1 percentage points based on both CPIs and unit labour cost in total economy, is still substantial, estimated at 18.6% and 26.6% respectively.

3 PREVIOUS REVISIONS: 2006-2009

The Bank of Greece and other central banks of the Eurosystem had revised, as from 1 January 2006, national nominal and real EER indices, taking into account the ECB's methodological approach for the computation of the nominal and the real EER of the euro.[4] For Greece, the weights were calculated using the breakdown of trade with its major trading partners (not the partners of the euro area as a whole) – initially the 27 major partners of Greece. (In the past, the computation of NEER and REER indices by the Bank of Greece had been based on Greece's external trade with a group of 15 major trading partners and the weights had been based on total non-oil external trade, not just trade in industrial goods). The selection of trading partners for the new indices took into account the new situation that had gradually evolved in respect to Greece's external trade, both after the opening of economic borders with Central and Eastern Europe at the beginning of the 1990s and given the increasingly stronger presence of Asia's low-production-cost emerging markets in world trade. The sample of trading partners was also selected according to the availability and credibility of relevant data.

The composition of trading partner groups and the corresponding weights for the compilation of the narrower REER indices vis-à-vis the euro area partners were gradually modified by the Bank of Greece in order to factor in the adoption of the euro by Slovenia on 1 January 2007 (Slovenia was then included also in the broader EER indices for Greece), by Cyprus and Malta on 1 January 2008 and by Slovakia on 1 January 2009. Cyprus was already in the sample of the broader indices, but Malta and Slovakia were not included in that sample, because their weights in Greece's trade were too low. These changes, however, had no significant effect on either the weights or the evolution of the EER indices, as exports and imports for the period 1999-2001 continued to be taken into account.

4 See ECB, *Monthly Bulletin*, September 2004, Box 10: "The update of the euro effective exchange rate indices", and Bank of Greece, *Monetary Policy 2005-2006*, February 2006, Box IV.3: "Revision of the nominal and real effective exchange rate indices of Greece".

Table B Comparison between new and old effective exchange rate (EER) indices for Greece

Period	Index (1999=100)*									
	Nominal EER (broader index)		HICP- and CPI-based real EER				ULCT-based real EER			
			Broader index (28 partners)		Index vis-à-vis the euro area (15 partners)		Broader index (28 partners)		Index vis-à-vis the euro area (15 partners)	
	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD
1993	89.0	95.6	96.1	96.1	92.0	92.0				
1994	91.4	95.5	97.5	96.7	92.6	92.6				
1995	92.9	96.1	99.0	98.7	94.5	94.6	92.2	92.4	88.3	88.5
1996	95.2	97.8	102.0	102.0	97.5	97.5	97.2	97.6	93.2	92.9
1997	99.2	101.3	101.8	102.0	101.2	101.2	100.1	100.5	99.0	98.7
1998	97.8	98.6	99.9	99.9	98.1	98.1	98.3	98.3	96.9	96.9
1999	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2000	94.0	93.8	92.7	93.0	97.2	97.3	94.4	95.0	99.8	100.0
2001	95.8	94.8	93.7	94.0	97.1	97.3	94.8	95.4	99.8	100.2
2002	98.0	96.5	96.2	96.6	98.7	98.9	98.6	99.6	102.7	103.3
2003	102.8	100.8	101.4	101.7	100.0	100.2	102.4	103.4	102.7	103.4
2004	104.5	102.2	103.3	103.7	100.9	101.2	106.7	107.7	105.8	106.5
2005	103.5	101.5	103.1	104.0	102.2	102.5	107.2	108.8	108.2	109.0
2006	103.5	101.6	103.9	105.0	103.3	103.8	108.9	111.0	110.7	111.6
2007	104.9	103.1	105.5	107.0	104.2	104.7	111.4	114.0	113.0	113.9
2008	107.5	105.4	108.2	109.9	105.1	105.7	116.8	119.7	116.1	117.3
2009	108.8	106.4	109.9	111.3	106.1	106.5	119.5	121.3	117.3	117.1
Cumulative change 2001-2009 (%)	15.7	13.5	18.6	19.7	9.2	9.4	26.6	27.7	17.6	17,1

Source: Bank of Greece.
* Period averages.
Note: An increase (decrease) in the indices reflects an appreciation (depreciation) of the effective exchange rate (nominal or real). Weights are based on manufacturing goods imports and exports (SITC 5-8) during the three-year period 2004-2006, taking account of third market effects. The REER indices vis-à-vis the remaining euro area partners refer to the euro area composition including Slovakia.

4 HCIs COMPILED BY THE ECB FOR THE EURO AREA COUNTRIES AND EUROPEAN COMMISSION INDICES

With a view to compiling and publishing methodologically harmonised REER indices for each country of the euro area, in February 2007 the ECB started publishing on its website Harmonised Competitiveness Indicators (HCIs), which are HICP-based. *The group of trading partners is common for all countries*, but weights differ. Indices are compiled with the same methodology as the REER for the euro area as a whole. Since November 2008, the ECB compiles and publishes two additional HCIs using as deflators (i) unit labour cost in total economy (ULCT) and (ii) the GDP deflator. Using the availability of data as a criterion, country-specific HICP-based HCIs of the ECB are computed today against 56 trading partners (the other euro area countries and another 41 trading partners), while the other two HCIs are computed against a sample of 36 trading partners (the other euro area countries and another 21 trading partners). The ECB's country-specific HCIs complement the national REER indices compiled or published by some NCBs of the Eurosystem.

The HICP-based HCI and the ULCT-based HCI show cumulative competitiveness losses of 20.6% and 20.7%, respectively, for the Greek economy between 2001 and 2009. Besides, according to the European Commission competitiveness indicators,[5] cumulative losses are estimated at 17.7% (HICP) and 15.5% (ULCT).

5 CONCLUSIONS

On account of the dynamic evolution in the composition of trading partners over the past ten years, the new real EER indices compiled by the Bank of Greece after the update of weights better reflect developments in price and cost competitiveness. They *too* record Greece's heavy loss in competitiveness, which reached a cumulative 18.6% based on the CPIs and 26.6% based on the ULCT for the period 2001-2009. The evolution of the REER and external demand are, apart from structural competitiveness, the two most important drivers of an economy's export performance and through this channel have a strong impact on trade balance developments.[6]

5 European Commission, *Quarterly Report on price and cost competitiveness*, No 3, 2009. For 2009, nine-month data.
6 See Box IV.1 European Commission, *Quarterly Report on the euro area*, No. 1, April 2010.

The rise in the oil import bill and payments for imports of ships is expected to push up the trade deficit in 2009. The higher import bill will stem from rising international crude oil prices, while payments for imports of ships will grow as a result of scheduled deliveries of ships ordered in previous years. The trade deficit excluding oil and ships is expected overall to decrease further, yet at a considerably slower pace than in 2009.

Services balance

The surplus of the services balance shrank by €4.5 billion in 2009, due mainly to a drop in net transport and, to a lesser extent, in net travel receipts.

Gross transport (mainly shipping) receipts fell by 29.4%; as a result, net receipts declined by €3.4 billion. This is mainly attributable to the fact that the average annual level of freight rates for both dry cargo vessels and oil tankers plummeted by about 60% in 2009 compared with 2008 (see Chart VIII.1).

Gross travel receipts (i.e. travel spending by non-residents in Greece) fell by 10.6% and travel spending by residents abroad by 9.5%;

as a result, net travel receipts decreased by €981 million. The fall in gross tourist receipts is attributable to a 6.4% drop in arrivals, coupled with declines in both average spending and average length of stay.

Regarding the outlook for the current year, it is expected that freight rates for *dry cargo vessels* will rise, although the capacity of the world dry cargo fleet will grow by more than 10% in 2010 over 2009. This estimate is based, on the one hand, on a 5% rise in demand for dry cargo sea transport services —most notably for ore transport— and, on the other hand, the delay (due to congestion) already observed in ship loading/unloading at Australian and Chinese harbours, respectively, which has limited ship availability. The anticipated 10% increase in the capacity of the world oil tanker fleet, in conjunction with a small (1.9%[3]) rise in global oil consumption, is expected to squeeze *oil tanker* freight rates. However, if shipping companies accelerate the decommissioning of single-hull vessels, the increase in the fleet's capacity would be only 2-3%, thereby averting a decline in freight rates.

Turning to travel receipts, 2010 is expected to be a year of stabilisation for tourism. The World Tourism Organisation forecasts that world tourist traffic will rebound by 3-4%, while tourist inflows to Europe will recover at weaker rates (by 1-3%). Greece is expected to largely follow the trends in Europe, with international arrivals stabilising at 2009 levels, as several main countries of tourist origin have overcome the economic recession. However, this stabilisation or slight increase in arrivals, coupled with declining average length of stay and average spending, is not expected to bring about a major improvement in tourist receipts and, therefore, the services balance.

Income account balance

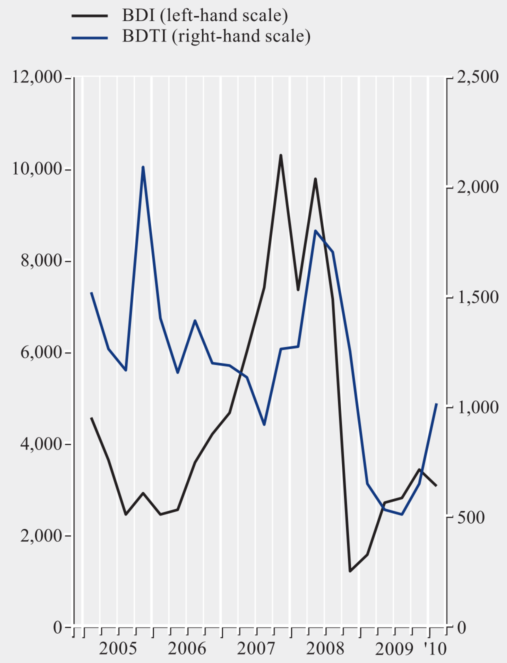
In the reviewed period, the income account deficit narrowed by €840 million, reflecting lower net interest, dividend and profit payments. However, net interest payments on Greek government bonds and Treasury bills increased, due to a 15.4% rise in non-residents' public debt holdings in the form of bonds and Treasury bills between end-December 2008 and end-December 2009.[4] The total gross external debt of the private and public sectors combined —which is fuelled by the current account deficits— came to 170.0% of annual GDP at end-December 2009, from 151.6% at end-2008 (see also Box VIII.4).[5]

Current transfers balance

The surplus of the current transfers balance shrank by €1.5 billion, mainly due to a decrease in EU transfers to general govern-

Chart VIII.1 Developments in sea freight indices

(quarterly data)



Source: Clarkson Research Services.

3 International Energy Agency, *Oil Market Report*, 12 March 2010.
4 From €176.3 billion at end-2008 to €203.4 billion at end-2009 (Bank of Greece data).
5 At end-2009, 53.2% of the gross external debt was incurred by general government and the remainder mainly by the business sector (financial and non-financial corporations).

ment and, to a lesser extent, a decline in the other sectors' receipts, while payments by general government and the other sectors to the EU remained broadly unchanged.[6]

2 CAPITAL TRANSFERS BALANCE

The surplus of the capital transfers balance narrowed to €2.0 billion, from €4.1 billion in 2008.[7] Thus, the combined current and capital transfers balance posted a surplus of €3.3 billion, compared with €6.8 billion in 2008. The lower capital transfers surplus is mainly attributable to the fact that —while some 98% of the envisaged Community financing under the Structural Funds[8] has been absorbed since the start of the implementation of CSF III— disbursements from the Structural Funds (now including the Cohesion Fund) under the National Strategic Reference Framework-NSRF (CSF IV) 2007-2013 have been limited,[9] because of project and programme implementation delays, partly as a result of the new, stricter institutional framework for management and control.[10] In 2009, total net EU transfers (current transfers plus capital transfers less payments to the Community Budget) came to €3.0 billion, compared with €6.0 billion in 2008 (1.2% and 2.5% of GDP, respectively).

As regards the prospects for EU transfers in 2010, it is expected that, along with the remaining disbursements under CSF III, payments for NSRF projects and programmes will accelerate, and available Community funds will be put to more effective use, because of the anticipated review of the NSRF operational programmes and simplification of administrative procedures for their management.[11] The target is for the NSRF to be the key driver of economic recovery, and for the NSRF absorption rate to exceed 15% by the end of 2010. In this context, resources from the Public Investment Programme will be allocated by priority to co-financed projects. Efforts are also made to achieve an increase in Community financing of certain projects and programmes for 2010.[12] Moreover, direct financial assistance and subsidies in the context of the CAP will remain substantial.[13] Accordingly, total net EU transfers (current transfers plus capital transfers less payments to the Community Budget) are estimated to reach €4.0 billion approximately in 2010.

With respect to the outlook for transfers after 2013, the European Commission will review all the expenditures of the Community Budget, including the CAP, in the context of the negotiations about the financial perspectives for the 2014-2020 period. The general trends will take shape in line with EU's strategy until 2020 (see also Chapter II), which will succeed the Lisbon strategy.[14] In particular for the prospects of the CAP after 2013, see Box VIII.3.

6 EU current transfers mainly include direct financial assistance and subsidies in the context of the Common Agricultural Policy (CAP), which are not distributed evenly over the year, as well as receipts from the European Social Fund, while current transfers to the EU chiefly include Greece's contributions (payments) to the Community Budget.

7 EU capital transfers mainly include receipts from the Structural Funds —other than the European Social Fund— and the Cohesion Fund under the Community Support Frameworks.

8 However, the absorption of Cohesion Fund resources has been less satisfactory.

9 Specifically, from the start of the implementation of the NSRF to end-October 2009, Greece mainly received advances of €1.5 billion (2007: €614 million, 2008: €401 million, 2009: €485 million), including the additional advances approved by the European Commission for dealing with the financial crisis. However, on the basis of the implementation course of NSRF projects until mid-March 2010, around 6% of the envisaged Community financing was absorbed (see the Announcement of the Ministry of Economy, Competitiveness and Shipping of 19 March 2010). Greece has so far shown the lowest absorption rate in the EU-27 in cohesion policy programmes (European Commission, "Cohesion policy: Strategic Report 2010 on the implementation of the programmes 2007-2013", COM (2010)110 final, 31 March 2010).

10 European Commission, "Analysis of the budgetary implementation of the Structural and Cohesion Funds in 2008", May 2009.

11 See Ministry of Economy and Finance, *Updated Stability and Growth Programme*, January 2010, p. 47. The relevant bill on the review and management of the NSRF was passed by Parliament on 24 March 2010 (Law 3840/2010, Government Gazette A53/1.3.2010).

12 Announcement of the Ministry of Economy, Competitiveness and Shipping of 17 February 2010, and statement by the Minister of Development of 5 April 2010.

13 It should be noted that the digital mapping of agricultural parcels, which is a condition for the payment of assistance to farmers, has already been completed (see the Ministry of Rural Development press release of 17 March 2010). For the entire period until 2013, direct financial assistance and subsidies in the context of the CAP will remain broadly unchanged.

14 See announcement of the European Commission, "Europe 2020. A strategy for smart, sustainable and inclusive growth", COM(2010) 2020 final, 3 March 2010.

Box VIII.3

THE PROSPECTS OF THE COMMON AGRICULTURAL POLICY AFTER 2013

The Common Agricultural Policy (CAP) is the oldest and most developed among EU common policies. Its general objectives and principles were laid down in the Treaty of Rome.[1] Under the Maastricht Treaty (1992), the Treaty of Amsterdam (1997) and the action plan "Agenda 2000" (1997), the CAP was linked to the economic and social cohesion policy and the promotion of sustainable development.

Fifty years after its introduction, the general objectives of the CAP were maintained under the Lisbon Treaty (2009). However, the means to achieve these objectives have evolved over time, adapting to new demands with regard to competitiveness, market orientation, environmental protection, rural development, biodiversity, and climate change.

The post-2013 CAP —like other EU policies— will be formulated in the context of the Europe 2020 Strategy, which will succeed the Lisbon Strategy for the next decade and has made a new priority of achieving "smart, sustainable and inclusive growth".[2] **In view of globalisation and climate change, it is necessary to strike a balance between market orientation and economic viability of agricultural activity in the EU**.[3]

1 THE EVOLUTION OF THE CAP OVER TIME

The CAP comprises a set of rules and mechanisms which regulate the production, trade and processing of agricultural products in the EU, and is financed by the Community Budget. Initially, CAP subsidies absorbed the largest part of the Community budgetary resources. However, this share shrank over time, from 70% in the mid-1980s to 34% in the 2007-2013 period. The reform of the CAP, which started in 1985, led to a restructuring of budgetary expenses in favour of structural spending. Nevertheless, the major problems of the CAP persisted, as its basic mechanism, i.e. "the price support system", remained virtually unchanged.

- **The 1992 review (McSharry reform):** The first actual reform of the CAP was linked to the negotiations of the World Trade Organisation (WTO) and was fully implemented in 1997. The system of price support for some agricultural products was replaced by a new direct income support scheme for Community farmers. The new system provided for a switch from production-based to area-based payments, in order to compensate farmers for the loss of income as a result of the cuts in institutional prices. At the same time, environmental protection measures were introduced. International developments in the following years dictated a further adjustment of the CAP.

- **The "mid-term review" of the CAP (2003):** In June 2003, the "mid-term review" of the CAP was approved.[4] The second stage of the reform, which covered Mediterranean products, was approved in April 2004.[5] The reform brought about a radical change in the system applicable at

1 The initial objectives of the common agricultural policy, as set out in Article 39 of the Treaty of Rome, are in brief the following: (a) to increase agricultural productivity; (b) to ensure a fair standard of living for the agricultural community; (c) to stabilise markets; (d) to assure the availability of supplies; and (e) to ensure that supplies reach consumers at reasonable prices.
2 See Commission Communication, "Europe 2020. A strategy for smart, sustainable and inclusive growth", COM(2010)2020 final, 3.3.2010.
3 Council of the EU, Presidency paper on the: "Future of the CAP: Market management measures post 2013" AGRI 34, 6063/10, 15.2.10.
4 See Bank of Greece, *Annual Report 2002*, Box III.5, and *Annual Report 2004*, Box IX.3.
5 See Official Journal L 270, 21.10.2003 and Regulations (EC) 864/2004 (tobacco, cotton and hops) and 865/2004 (olive oil), Official Journal L 161, 30.4.2004.

that time. A major focus of the "mid-term review" has been rural development policy as the second pillar of the CAP. The main components of the reform are: (a) the decoupling of direct payments from production and their replacement with a single (flat rate) income support payment per farm; and (b) the phasing-out of single direct payments. The mid-term review was gradually introduced in Greece as from 1.1.2006.

• **Fiscal period 2007-2013:** During this period, EU spending on agriculture (rural development, direct payments and subsidies) accounts for 43% of the total EU budget. For Greece and the other EU-15 Member States, financing through to 2013 will remain at the same level as in the 2000-2006 period (in nominal terms), which means, though, less financing in real terms.

• **CAP Health Check (2007):** The 2003 review contributed to improving the competitiveness of the agricultural sector. It mitigated but did not eliminate distortions in European and global agriculture. The costly single payment scheme ultimately failed to achieve its major objectives, including a more fair redistribution of rural incomes, rural development and environmental protection. With a view to further modernising the CAP, the so-called "health check" of the CAP[6] was launched in November 2007 along the following lines: (a) improvement and simplification of the single payment scheme; (b) market support measures (addressing excess supply); and (c) new environmental challenges (climate change, wider use of biofuels, water management, etc.). Unlike 1992 and 2003, the "health check" is not a reform of the CAP, but a follow-up on the CAP review. It involves adjusting the CAP up to 2013 and forms the basis of the CAP orientation after 2013, in the framework of the 2014-2020 financial perspectives.

2 THE PROSPECTS OF THE CAP AFTER 2013

The post-2013 CAP will be formulated on the basis of the long-term development priorities and objectives of the EU in the framework of the "Europe 2020 Strategy". **In the 2014-2020 period, the priorities of the EU will be redefined, with an emphasis on financing innovation, programmes to combat climate change, and alternative energy sources. A viable and competitive agriculture will make a decisive contribution to the new strategy.[7] During the period in question, the CAP will have to continue to fulfil its main objectives, yet in a completely different environment: new conditions in international trade in the context of the Doha decisions,[8] new financing prospects and competitive conditions, larger fluctuations in the prices of agricultural products. At the same time, it should be taken into account that the EU enlargement has boosted the production and consumption of agricultural products and that the EU market is characterised by strong consumer purchasing power and high quality, safety and health standards.**

Discussions on the future of the CAP after 2013 have been ongoing for a long time. The relevant EU institutions have been analysing the different aspects of the CAP and putting forward various opinions, often diametrically opposed.[9] In 2008, the general framework of the future CAP was discussed, while in 2009 discussions focused on direct payments and rural develop-

6 Commission of the European Communities, *Preparing for the Health Check of the CAP reform*, COM(2007) 722 final, 20.11.2007.
7 See Conclusions of the European Council of 25-26 March 2010.
8 If an agreement is reached in the WTO negotiations (Doha Round) on trade liberalisation, export subsidies will be eliminated and import duties on non-EU agricultural products will be reduced.
9 The future of the CAP after 2013 has been discussed under the French, Czech, Swedish and the current Spanish presidencies. A final overview of the CAP will be presented in the informal meeting of the EU Agriculture Ministers (Merida, Spain, 30.5-1.6.2010). In autumn 2010, the European Commission will publish a relevant Communication, to be followed by the proposals on the relevant legal framework in mid-2011.

ment.[10] In 2010, the European Commission launched a public debate on the future of direct payments, in order to ensure that in 2011 concrete proposals would be available in line with the foreseen reform of the EU budget, since in accordance with the financial perspectives for the 2014-2020 period, the European Commission will review all the expenses in the EU budget, including those related to the CAP.

The review of the CAP increased the market orientation of the agricultural sector. Gradually, emphasis shifted from product subsidisation to direct support of farmers' income. However, despite the 2003 review, the CAP continues to distort the agricultural product market, although to a lesser extent than in the past. The future CAP should be more market-oriented. At the same time, though, the economic viability of agricultural activity in the EU and agricultural income should be ensured.[11]

As a result of globalisation and climate change, European farmers are faced with greater price volatility and more frequent crisis situations. The continuous rise in global demand for food,[12] production shortages as a result of changing food patterns in many developing economies, increased demand for certain agricultural products (e.g. biofuels) and climate change have brought about instability and uncertainty in the international agricultural product markets and price fluctuations, as in 2007 and 2008.[13] In the future, price and supply fluctuations will be more frequent and stronger. Such fluctuations have a negative impact on farmers' income, the industry, consumers and the economy in general.

Thus, one of the challenges facing the new CAP will be to address large fluctuations and unforeseen circumstances in the market for agricultural products. Under current arrangements, the CAP provides a safety net for the operation of the market, as well as crisis management tools (intervention, public stockpiling, export refunds). However, new tools are being considered, in addition to those currently available,[14] including the establishment of an income guarantee scheme, the strengthening of producer organisations and the establishment of a "crisis fund" in order to ensure a satisfactory level of agricultural product supply at regional, national and global level and —at the same time— secure agricultural income.[15] It has been suggested, though, that a market-oriented agriculture would provide the best possible safety net by improving the competitiveness of European agricultural products. In this vein, there is no need for additional measures, which could entail very high costs.

In the context of the financial perspectives for the 2014-2020 period, the European Commission will review all expenditure in the EU budget, including CAP-related spending. It is taken for granted that agricultural expenses will be drastically reduced as a percentage of both the EU

10 See speeches by Commissioner Grybauskaite in the conference "Reforming the Budget, Changing Europe", 12.11.2008, Brussels, Commissioner Huebner in the informal meeting of EU Ministers, "Cohesion Policy Response to the Financial Crisis", Marseille, 26.11.2008 and Commissioner Boel "CAP post-2013: What future for direct payments", Brno, Czech Republic, 2.6.2009, "A strong CAP to face the challenge of the future", Stockholm, 25.11.2009.

11 For the prospects of the CAP in general and "market and crisis management" in the future CAP in particular, see Council of the EU, Presidency paper on the "Future of the CAP Market Management post 2013" AGRI 34, 6063/10, 15.2.10 and Council of the EU, Agriculture and Fisheries, 22.2.2010.

12 Global demand for food in 2050 is forecast to increase by 70% (FAO estimates). On the other hand, though, the recent economic crisis has also affected the agricultural sector at global level, reducing demand for agricultural products. See Council of the EU (15.2.2010), p. 4.

13 See ECB, "Euro area food prices: recent developments and outlook", *Monthly Bulletin*, December 2007, and Communication from the European Commission on measures to improve the functioning of the food supply chain in the EU (IP/09/1593, 28.10.2009).

14 The management of the agricultural product market in the EU is currently governed by a single Regulation: CMO (Common Market Organisation Regulation) (Regulation (EC) No 1234/2007).

15 See e.g. the Declaration of the FAO World Summit on Food Security, November 2009.

budget and GDP. The level and composition of agricultural expenses after 2013 will be subject to discussions and tough negotiations between those Member States that seek cuts in CAP spending and those that are opposed to radical changes in the current regime. The level of direct income payments and of the funds earmarked for rural development will be reviewed.[16] Major issues include the eligibility criteria for direct income payments (e.g. compliance with certain environmental protection rules), allocation criteria and the payment modalities. It seems likely that after 2013 direct payments to farmers will be maintained, but their terms and conditions will change.[17]

Greece has enjoyed considerable inflows of Community funds in the form of direct payments and subsidies under the CAP. These funds are directly reflected in the current account. At the same time, these funds enhanced farmers' income,[18] but also boosted consumption and imports, without making a meaningful contribution to tackling the chronic problems of the agricultural sector.

In the current financial framework 2007-2013, direct payments and subsidies to the agricultural sector amount to €2.4 billion annually, in addition to the amounts available for rural development. Any attempt to accurately forecast the level and composition of EU funds under the future CAP would be risky for the time being. As already discussed, budgetary appropriations related to direct payments and subsidies will be reduced, while payment procedures will also change. Therefore, the agricultural sector should gradually wean from heavy income support and, at the same time, develop in time appropriate mechanisms for absorbing, efficiently managing and controlling EU funding.

In the future, Greek agriculture will have to face external competition and meet the increasing requirements of the international health, safety and environmental standards for agricultural products. The viability of the agricultural sector and the progressive transition to a complex, more competitive and more volatile market will be achieved only if a new rural development model is adopted.

16 The European Commission contracted research bodies to consider alternative scenarios on the level and composition of expenditure of the future CAP (see e.g. *Update of Analysis of Prospects in the Scenar 2020 Study: Preparing for Change*, December 2009).
17 Extreme proposals such as renationalisation of the CAP, complete abolition of direct income support and granting of support only to rural development programmes do not seem likely to prevail. See Council of the EU (5.2.2010), p. 12.
18 The primary sector accounts for about 4% of total gross value added (2009). The share of subsidies in Greek farmers' income rose from 27% in 1996 to 39% in 2007 (see Bank of Greece, *Annual Report 2008*).

3 FINANCIAL ACCOUNT

Total financial investment showed a net inflow of €25.2 billion in 2009, compared with €29.9 billion in 2008. Specifically, net inflows were recorded under direct investment (€1.1 billion) and portfolio investment (€27.9 billion), while "other" investment showed a net outflow (€3.6 billion).

The most important inflows of non-residents' funds for direct investment in Greece (see also Table VIII.3) concern the increase in the participations of Crédit Agricole SA (France) in the share capital of Emporiki Bank and of Deutsche Telekom AG in the share capital of the Hellenic Telecommunications Organisation (OTE). For the year as a whole, net inflows for direct investment in Greece by non-residents came to €2.4 billion (2008: €3.1 billion), while net direct investment outflows came to €1.3 billion (2008: €1.6 billion). The bulk of outflows concerned investment activity in the Balkan countries and Malta (see also

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

(million euro)

	2007	2008	2009*
EU-27	1,441	2,908	2,091
Euro area	1,679	3,043	2,199
Other OECD countries[1]	73	131	165
Balkan countries[2]	1	1	0
Middle East, Mediterranean and former USSR[3]	3	-5	2
Other countries	25	37	157
Total direct investment by non-residents	**1,543**	**3,071**	**2,415**

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

Table VIII.4). The relatively low level of foreign direct investment in Greece reflects the structural problems of the economy, especially product and labour market rigidities, weaknesses in infrastructures and red tape.

Under portfolio investment, inflows of €31.1 billion reflected the acquisition of Greek government bonds and Treasury bills (2008: €19.9 billion) by non-residents, while residents' fund outflows for purchasing foreign bonds and Treasury bills reached €2.2 billion, unchanged from 2008.

"Other" investment recorded a net outflow of €3.6 billion, which was mainly due to a €23.4 billion increase in domestic credit institutions' and institutional investors' holdings of foreign deposits and repos. This outflow was largely offset by a €15.6 billion rise in foreign credit institutions' and institutional investors' corresponding holdings in Greece, as well as by an inflow of €4.6 billion for non-residents' loans to the public and the private sector.

At end-2009, Greece's reserve assets stood at €3.9 billion.

Table VIII.4 Geographical breakdown of Greek direct investment abroad

(million euro)

	2007	2008	2009*
EU-27	1,179	685	1,141
Euro area	717	1,028	1,157
Other OECD countries[1]	2,200	620	38
Balkan countries[2]	211	164	102
Middle East, Mediterranean and former USSR[3]	118	64	22
Other countries	125	116	20
Total direct investment by residents	**3,833**	**1,650**	**1,323**

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

Table VIII.5 Greece's international investment position

(million euro)

	2007	2008[1]	2009*
1. Direct investment	-14,653	-637	-3,109
Abroad by residents	21,500	26,753	28,076
In Greece by non-residents	36,153	27,390	31,185
2. Portfolio investment	-149,589	-120,763	-140,044
Assets	86,848	88,216	92,215
Liabilities	236,437	208,979	232,259
3. Financial derivatives	503	970	1,771
4. Other investment	-53,220	-61,273	-59,781
Assets	78,717	106,695	129,056
Liabilities	131,937	167,968	188,837
5. Reserve assets	2,491	2,521	3,857
Net international investment position (iip)(1+2+3+4+5)	-214,469	-179,182	-197,306
GDP	226,437	239,141	237,494
Net iip as % of GDP	-94.7	-74.9	-83.1

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

4 INTERNATIONAL INVESTMENT POSITION

In 2009, Greece's negative international investment position deteriorated further to €197.3 billion at the end of the year (83.1% of GDP), from €179.2 billion at end-2008 (74.9% of GDP – see Table VIII.5).

This development mainly reflects the behaviour of portfolio investment and, to a smaller extent, that of direct investment. The increase in liabilities under portfolio investment is much larger than the rise in assets, thereby affecting considerably the magnitude of Greece's external borrowing.

More detailed data on the evolution of the international investment position and the gross external debt of the country in recent years are reported in Box VIII.4.

Box VIII.4

DATA ON GREECE'S GROSS EXTERNAL DEBT AND INTERNATIONAL INVESTMENT POSITION

As Greece is a subscriber to the IMF's Special Data Dissemination Standard (SDDS), the Bank of Greece releases, among other things, quarterly data on the country's Gross External Debt (GED).

GED records the amount of residents' financial liabilities vis-à-vis non-residents at the end of each quarter, without taking into account the respective assets. These liabilities are primarily broken down by liable economic sector (see Table A) and further by financial instrument, which requires a more detailed presentation. These figures are expressed at market prices.

The definitions and the compilation methodology of the GED components are provided by the IMF (IMF, *External Debt Guide for Compilers and Users*, 2003).

Based on these guidelines, GED liabilities do not include (i) foreign direct investment relating to equity capital and reinvested earnings and, (ii) portfolio investment in equity.

The international investment position reflects at the end of each quarter the amounts of residents' financial assets and liabilities vis-à-vis non-residents. These assets and liabilities are broken down primarily by financial instrument and further by economic sector. However, for purposes of comparability with the corresponding table of the GED, Table B of the present box presents the foreign asset position by breaking down assets and liabilities by economic sector.

It should be noted that, in contrast to the GED, all assets and liabilities arising from both foreign direct investment (in Greece and abroad) and portfolio investment are recorded in the foreign asset position. Lastly, assets also include the country's foreign reserve assets, as calculated in line with the ECB's definition which is applicable to all euro area countries.

The foreign asset position is basically determined by financial flows recorded in the balance of payments. Therefore, the net foreign asset (NFA) position reflects the difference between assets and liabilities and actually refers to the amount of Greece's net liabilities vis-à-vis non-residents.

Against this background, it is clear that GED captures the bulk of the country's total liabilities vis-à-vis non-residents, which, however, are largely offset by the corresponding assets of residents vis-à-vis non-residents. Thus, the foreign asset position provides a comprehensive and more accurate picture of the country's external position, as determined by its financial transactions with non-residents.

Table A Gross external position

(million euro)

	2004	2005	2006	2007	2008[1]	2009*
A. General government	124,684	145,230	154,660	177,106	191,985	214,703
B. Bank of Greece	6,546	7,217	8,183	10,797	35,348	49,036
C. Other Monetary Financial Institutions	37,512	52,499	68,624	97,424	111,194	112,861
D. Other sectors	16,392	17,412	18,637	19,501	21,252	24,980
E. Direct investment	819	541	2,803	3,712	2,808	2,200
Debt liabilities to affiliated enterprises	152	169	620	826	537	266
Debt liabilities to direct investors	667	372	2,183	2,886	2,271	1,934
Gross external debt (A+B+C+D+E)	185,953	222,899	252,906	308,539	362,587	403,780
% of GDP	100.1%	114.1%	120.2%	136.3%	151.6%	170.0%

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

Table B International investment position per economic sector

(million euro)

	2004	2005	2006	2007	2008[1]	2009*
1. Direct investment	**-10,785**	**-13,213**	**-14,328**	**-14,653**	**-637**	**-3,109**
Abroad by residents	10,125	11,530	17,022	21,500	26,753	28,076
In Greece by non-residents	20,910	24,743	31,350	36,153	27,390	31,185
2. General government	**-124,684**	**-145,230**	**-154,660**	**-177,106**	**-191,985**	**-214,703**
Assets	0	0	0	0	0	0
Liabilities	124,684	145,230	154,660	177,106	191,985	214,703
3. Bank of Greece	**4,487**	**4,807**	**3,985**	**4,981**	**-22,523**	**-31,994**
Assets	11,033	12,024	12,168	15,778	12,825	17,042
Liabilities	6,546	7,217	8,183	10,797	35,348	49,036
4. Other credit institutions	**-800**	**-13,646**	**-25,958**	**-35,326**	**17,042**	**42,626**
Assets	44,668	50,809	61,869	89,834	134,385	164,223
Liabilities	45,468	64,455	87,827	125,160	117,343	121,597
5. Other sectors	**5,666**	**16,150**	**10,628**	**5,144**	**16,400**	**6,017**
Assets	34,942	53,786	55,808	60,456	48,671	41,777
Liabilities	29,276	37,636	45,180	55,312	32,271	35,760
6. Reserve assets	**1,994**	**1,945**	**2,169**	**2,491**	**2,521**	**3,857**
Net international investment position (iip) (1+2+3+4+5+6)	**-124,122**	**-149,187**	**-178,164**	**-214,469**	**-179,182**	**-197,306**
% of GDP	**-66.8**	**-76.4**	**-84.7**	**-94.7**	**-74.9**	**-83.1**

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

In more detail, the country's NFA position for each period is basically determined by net financial flows, i.e. the financial account. Therefore, any change in the NFA position between two periods should be equal to the financial account balance. However, as assets and liabilities are valuated at market prices at the end of the reference period and in euro, the NFA position is also affected by exchange rate and asset (in particular debt security) price fluctuations. Of course, since the bulk of the country's assets and liabilities are denominated in euro, foreign exchange valuation effects are very weak. On the other hand, the effects from asset (notably debt security) price fluctuations can be important and improve or worsen a negative foreign asset position.

A recent study conducted by the European Commission[1] explored the impact of valuation effects on the foreign asset position of the euro area countries. This study concludes, among other things, that in countries with persistent large current account deficits and sizeable capital inflows, such as Greece during the 1995-2007 period, valuation effects increase net liabilities, leading to a worsening of the negative foreign asset position. Conversely, in 2008 these movements led to an improvement in Greece's negative foreign asset position.

1 European Commission, *Quarterly report on the euro area*, No. 1, 2010, special issue: "The impact of the global crisis on competitiveness and current account divergences in the euro area".

IX MONEY, CREDIT AND CAPITAL MARKETS IN GREECE

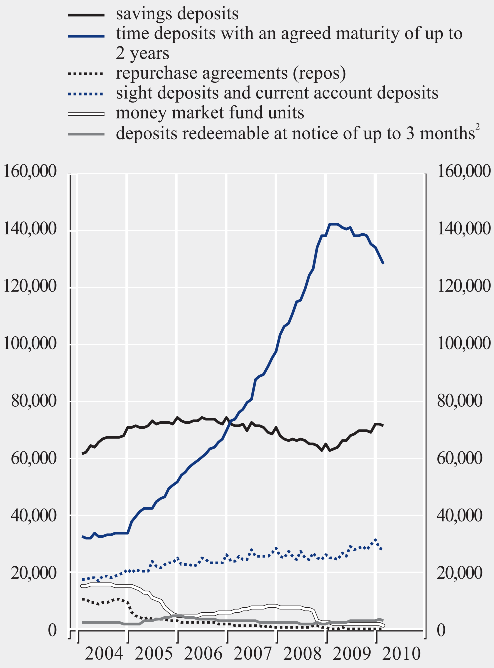
1 MONETARY AGGREGATES

In the last few months of 2009, the annual growth rate of the monetary aggregate M3[1] continued its downward trend observed since the fourth quarter of 2008, moderating to 4.8% by the fourth quarter of 2009 (fourth quarter of 2008: 14.4%, see Table IX.1) and turning negative (-1.0%) in February 2010[2] whereas throughout the reviewed period it was higher than the corresponding euro area figure, which had entered negative territory in late 2009. The decline in M3 growth in Greece was mainly associated with the economic downturn and a strong deceleration in overall credit expansion.[3] To a lesser extent, it was linked with the lower remuneration of deposits included in M3,[4] which made them less attractive and encouraged shifts out of M3 (mostly deposits with an agreed maturity of up to two years). The drop in the M3 growth rate around the end of 2009 also partly reflected, albeit to a much lesser extent, the outflow of funds abroad.

Developments in M3 components showed diverging trends in 2009, as the narrowing term deposit spreads, coupled with a high degree of uncertainty among savers, led to shifts (also within M3) towards more liquid assets. As a result, overnight deposits increased gradually, and their growth rate reached a double-digit level in the fourth quarter of 2009 (February 2010: 13.1%, fourth quarter of 2009: 11.4%).[5] Conversely, the growth rate of time deposits recorded a sharp decline and turned negative in November for the first time since March 2002 (February 2010: -9.0%, fourth quarter of 2009: 2.7%).[6] In January-February 2010, both these deposit categories, which together account for approximately 98% of M3, recorded outflows. During these two months, overnight deposits declined by €4,040 million and time deposits with an agreed maturity of up to two years decreased by €5,638 million.[7] Overall, *total M3 deposits* grew at a decelerating rate in 2009 (fourth quarter of 2009: 6.6%, fourth quarter of 2008: 15.3%). Among the other components of M3, both repurchase agreements and money market fund units/shares continued to contract (see Table IX.1 and Chart IX.1).

Chart IX.1 Deposits, repurchase agreements and money market fund units in Greece[1] (January 2004 - February 2010)

(end-of-period balances, million euro)



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

1 This aggregate constitutes the Greek contribution to the euro area M3 (excluding currency in circulation). It comprises overnight deposits, deposits with an agreed maturity of up to 2 years and deposits redeemable at notice of up to 3 months, repurchase agreements, money market fund units/shares and debt securities with a maturity of up to 2 years.
2 This was the first time in thirty years that negative M3 growth was observed in Greece, with the exception of a marginally negative rate in December 2002.
3 See Section 3 of this chapter.
4 See Section 2 of this chapter.
5 It should be noted that in 2009 overnight deposits recorded a net inflow of €12,305 million (2008: -€8,238 million), and their contribution to total M3 growth increased to 42.6% in December 2009 and 42.7% in February 2010 (December 2008: 38.6%).
6 In 2009, time deposits showed a net outflow of -€3,825 million (second half of 2009: -€6,652 million, January-December 2008: €40,280 million); their contribution to total M3 growth fell to 55.4% at the end of 2009 and then remained unchanged until February 2010 (December 2008: 58.5%).
7 Part of this decrease was due to seasonal factors.

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

(non-seasonally adjusted data)

	Outstanding balances on 28.02.10 (million euro)	Annual percentage changes[1]										
		2004	2005	2006	2007	2008	2009					2010
		Q4[2]	Q4[2]	Q4[2]	Q4[2]	Q4[2]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	Dec.[3]	Feb.[3]
1. Overnight deposits	99,125	16.8	9.3	0.7	-0.9	-7.0	-5.9	0.5	7.0	11.4	13.9	13.1
1.1 Sight deposits and current account deposits	27,984	19.1	20.2	1.8	10.3	-3.6	-3.9	3.2	12.5	15.7	19.8	13.0
1.2 Savings deposits	71,141	16.1	6.3	0.2	-4.6	-7.9	-6.3	-0.3	5.1	9.5	11.5	13.1
2. Time deposits with an agreed maturity of up to 2 years	128,365	5.3	45.2	37.5	42.2	39.1	31.5	21.5	11.5	2.7	-2.4	-9.0
3. Deposits redeemable at notice of up to 3 months[4]	3,138	2.8	105.2	-24.4	-20.3	-24.1	-15.3	7.6	39.4	64.2	69.9	53.6
4. Total deposits (1+2+3)	230,628	13.1	20.7	12.1	15.9	15.3	13.4	12.0	9.8	6.6	4.6	0.0
5. Repurchase agreements	149	-12.6	-72.8	-35.7	-54.3	-11.4	-55.3	-53.2	-55.1	-67.1	-50.0	-46.3
6. Money market fund shares/units	1,306	-1.9	-51.8	-2.5	40.5	-58.8	-75.3	-79.7	-75.2	-44.8	-32.1	-29.5
7. Debt securities issued with a maturity of up to 2 years[5]	-73	-0.3	-42.2	24.2	-	-	-	-	-	-	-	-
8. M3 excluding currency in circulation (4+5+6+7)	232,010	9.2	6.9	10.6	14.7	14.4	11.2	9.2	6.7	4.8	3.2	-1.0

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 the arithmetic means of two successive end-of-month figures) and is not the three-month average of end-of-month annual growth rates (see the Technical notes in the "Euro area statistics" section of the ECB *Monthly Bulletin*).
3 Based on end-of-month levels.
4 Including savings deposits in currencies other than the euro.
5 This aggregate is calculated on a consolidated basis with the other euro area countries and thus does not include domestic MFI' holdings of debt securities with a maturity of up to two years issued by euro area MFIs.

2 BANK DEPOSIT RATES

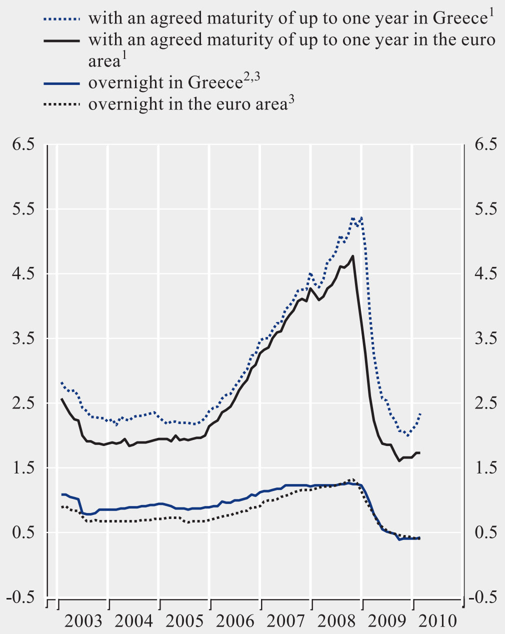
After sharp declines in the first eight months of 2009, in the remainder of the year, interest rates on new bank deposits in Greece showed a slight further decline, which was broadly based across deposit categories (see Chart IX.2). This downward trend, observed since the beginning of 2009, was in line with developments in euro area money market rates, as well as with the cuts in ECB key interest rates (by 150 basis points) during the first half of 2009, and reversed the increases of the previous two years.[8] The downward trend of deposit rates came to a halt at the end of 2009. The rate on new overnight deposits by households stood at 0.43% in December (December 2008: 1.24%), while the rate on new time deposits by households with an agreed maturity of up to one year declined to 2.10% (December 2008: 5.36%, see Table IX.2A).[9] The first two months of 2010 saw increases in the interest rates on almost all individual categories of new deposits, in the context of Greece's fiscal problems and their implications for Greek banks' access to and cost of funding from money and capital markets. Instead, banks are seeking liquidity from the domestic market, offering higher interest rates on deposits. Thus, in February 2010 the rate on new deposits by households with an agreed maturity of up to one year rose to 2.35%, while the rate on new overnight deposits by households increased marginally. A significant further rise in deposit rates would not seem likely to occur any time soon, given the positive impact on banks' liquidity from the ECB's recent decision to expand beyond 31.12.2010 the current arrangements in the Eurosystem collateral framework.[10]

Unlike the evolution of nominal interest rates, average real rates[11] on deposits increased overall in 2009,[12] although this masks a downward trend in the latter part of the year. On average, the real rate on overnight deposits rose to -0.59% in 2009, from -2.90% in 2008, whereas the rate on deposits with an agreed maturity of up to one year increased to 1.52% (January-December 2008: 0.71%). In February 2010, the real rate on overnight deposits stood at -2.33%, while that of deposits with an agreed maturity of up to one year stood at -0.42%.

Deposit rates in the euro area as a whole declined in 2009, although less than those in Greece.[13] In more detail, for the largest category of deposits, i.e. deposits by households

Chart IX.2 Bank interest rates on new deposits by households in Greece and the euro area (January 2003 - February 2010)

(percentages per annum)



Sources: Bank of Greece and ECB.
1 Monthly average rate.
2 Represented by the interest rate on savings deposits, which make up the bulk of overnight deposits.
3 End-of-month rate.

8 It should be recalled that at end-2008 deposit rates (especially on time deposits) had reached high levels, reflecting the uncertainty that prevailed after the collapse of major financial corporations worldwide, as well as Greek banks' efforts to strengthen their deposit bases by offering attractive terms and conditions for deposits.
9 Interest rates on both deposit categories reached ten-year lows in November 2009.
10 See Chapter III.
11 The average real interest rate for a given period is calculated as the average nominal rate less the average inflation rate over the same period.
12 This development was due to the fact that the decline in nominal interest rates, on average, outpaced the decline in inflation.
13 It should be noted that in 2009 the decrease (of 141 basis points) in the average interest rate on new deposits (February 2010: 1.12%) for the euro area as a whole was by about one third smaller than that (195 basis points) in the corresponding Greek rate (February 2010: 1.44%).

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

(percentages per annum)

	December 2008	January 2010	Change Dec. 2008/ Jan. 2010 (percentage points)	February 2010	Change Dec. 2008/ Feb. 2010 (percentage points)
Overnight[1]					
Weighted average interest rate in the euro area	1.16	0.43	-0.73	0.42	-0.74
Maximum interest rate	2.21	1.19	-1.02	1.19	-1.02
Minimum interest rate	0.17	0.06	-0.11	0.06	-0.11
Interest rate in Greece	1.24	0.43	-0.81	0.44	-0.80
Interest rate differential between Greece and the euro area	0.08	0.00	-0.08	0.02	-0.06
With an agreed maturity of up to one year[2]					
Weighted average interest rate in the euro area	3.75	1.74	-2.01	1.75	-2.00
Maximum interest rate	6.03	4.15	-1.88	4.00	-2.03
Minimum interest rate	2.59	0.48	-2.11	0.44	-2.15
Interest rate in Greece	5.36	2.18	-3.18	2.35	-3.01
Interest rate differential between Greece and the euro area	1.61	0.43	-1.17	0.60	-1.01

Sources: ECB and euro area NCBs.
1 End-of-month rate.
2 Monthly average rate.

with an agreed maturity of up to one year, the positive interest rate spread of Greek interest rates over euro area rates narrowed significantly (December 2009: 43 basis points, December 2008: 161 basis points, see Tables IX.2A and IX.2B). In the first two months of 2010, as euro area deposit rates continued to fall unlike the corresponding Greek rates, this spread widened again, to stand at 60 basis points in February.

3 FINANCING OF THE ECONOMY

The annual growth rate of credit to the economy by domestic monetary financial institutions (MFIs),[14] after remaining broadly stable between January and March 2009, decelerated substantially to 6.7% by December (fourth quarter of 2009: 6.6%, fourth quarter of 2008: 16.6%, see Chart IX.3 and Table IX.3). The slowdown observed in 2009 was driven by an ongoing weakening in the annual rate of credit expansion to the private sector (non-financial corporations and households), to 4.2% in December (fourth quarter of 2009: 4.5%, fourth quarter of 2008: 18.3%); the annual rate of credit expansion to general government, on the other hand, accelerated overall (fourth quarter of 2009: 18.9%, fourth quarter of 2008: 8.1%); after having increased markedly in the first five months of 2009, it followed a down-

14 The outstanding amount of bank credit to general government, non-financial corporations and households is calculated as the sum of outstanding loans to general government, non-financial corporations and households, banks' holdings of government debt securities and corporate bonds, and the balance of securitised loans and corporate bonds. The growth rates of credit are calculated as the difference between the outstanding amounts of credit at the beginning and at the end of the reference period, adding banks' total write-offs/write-downs during the reference period and adjusting for changes in Greek government bond prices (incorporated in the outstanding amount of credit to general government) and for foreign exchange valuation differences in respect of foreign currency-denominated loans, thus obtaining the net flow of credit. It should be noted that, in calculating the net flow and the rates of change in credit in 2009, account was also taken of loans and corporate bonds totalling €4.5 billion which were transferred by domestic credit institutions to affiliated banks abroad and to one credit company in Greece. In February 2010, one bank repurchased a part of those bonds (€0.3 billion); although this transaction did not lead to an increase in the outstanding amount of credit, it was not taken into account either in February's net flow or in the annual rate of change, as it did not affect the flow of credit to domestic non-financial corporations and households.

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

	Overnight[2]		With an agreed maturity of up to 1 year[3]	
	December 2008	February 2010	December 2008	February 2010
Austria	2.03	0.63	3.55	1.09
Belgium	0.79	0.33	2.88	0.65
Cyprus	1.58	1.19	6.03	4.00
Finland	0.87	0.38	3.26	1.35
France	0.18	0.08	3.27	1.45
Germany	1.85	0.71	3.21	1.21
Greece	**1.24**	**0.44**	**5.36**	**2.35**
Ireland	1.04	0.63	3.17[4]	1.57[5]
Italy	1.23	0.24	3.01	0.95
Luxembourg	2.21	0.77	2.59	0.44
Malta	0.57	0.28	3.05	1.56
Netherlands	0.72	0.42	4.30	2.15
Portugal	0.17	0.06	3.68	1.32
Slovakia	0.57	0.38	2.93	1.68
Slovenia	0.43	0.22	4.45	1.75
Spain	0.69	0.31	4.17	1.99

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 in 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.
5 The interest rate applies to all time deposits irrespective of maturity. The latest available data refer to January 2010.

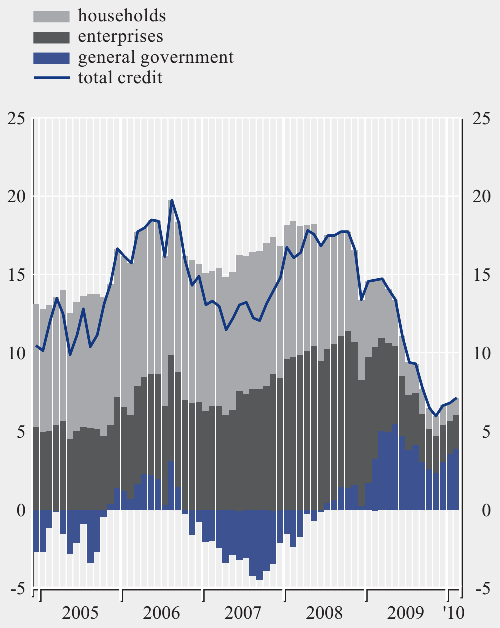
ward path thereafter and came to 21.1% in December. The strong growth of MFI credit to general government throughout 2009 was due to credit institutions' increased investment in Greek government securities. On the supply side of these securities, 2009 was a year of intense issuance activity in Greece, a trend common to all euro area countries in the context of fiscal developments. On the demand side, both in Greece and in the euro area as a whole, the rise in banks' holdings of such securities was also associated with a decline in loan demand by the private sector in 2009.

The weaker growth of credit to the private sector in 2009 was due to lower demand for and supply of bank credit. On the demand side, the postponement of business investment plans and the fall in turnover and output in the course of 2009, as well as the households' deteriorating expectations, uncertainty about their income prospects and caution concerning the real estate market outlook, made both non-financial corporations and households more reluctant to take on further debt. On the supply side, the observed rise in banks' non-performing loans, the projected worsening of economic activity and the ensuing heightened credit risk led to a tightening of banks' credit standards and lending conditions. Against this background, corporate and household credit growth decelerated in December 2009 to 5.1% and 3.1%, respectively (fourth quarter of 2009: non-financial corporations: 5.5%, households: 3.3%; fourth quarter of 2008: non-financial corporations: 21.6%, households: 14.8%), reflecting a significant drop in monthly net credit flows[15] to non-financial corporations and households in 2009 compared with 2008 (see Chart IX.4).

The increase in the outstanding amount of credit to non-financial corporations between the beginning and the end of the year was accompanied by a contraction of 0.7% in nominal GDP in 2009, according to NSSG estimates. Against this backdrop, credit to non-financial corporations as a percentage of GDP increased slightly to 56.3% in December 2009 (December 2008: 55.4%). If, for comparability purposes, only bank loans are taken into account, this ratio comes to 40.1%, which is 12.1 percentage points below that of the corresponding euro area figure (52.2%), compared with 43.3% for Greece and 52.1% for the euro area in December 2008. Similarly, the ratio of the outstanding balance of credit to households to GDP increased and stood at 50.4% in December 2009 (December 2008: 49.0%, see Chart IX.5). If securitised loans are not taken

Chart IX.3 Sectoral contributions to total domestic MFI credit (December 2004 - February 2010)

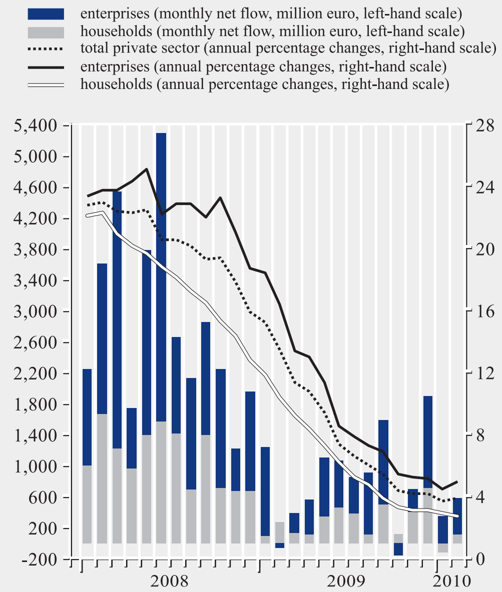
(annual percentage changes; contributions in percentage points)



Source: Bank of Greece.
Note: Total MFI credit comprises MFI credit (stock) to enterprises, households and general government, as well as MFI holdings of general government debt securities and corporate bonds and the outstanding amounts of securitised loans and securitised corporate bonds. The rates of change are adjusted for exchange rate variations and loan write-offs carried out by banks during the reference period.

Chart IX.4 Credit[1] to enterprises and households by domestic MFIs (January 2008 - February 2010)

(monthly net flow[2])



Source: Bank of Greece.
1 Comprising the outstanding amounts of MFI loans to enterprises and households, securitised loans and securitised corporate bonds. The annual rates of change are adjusted for loan write-offs and foreign exchange valuation differences on loans denominated in foreign currency.
2 The monthly net flow of credit is defined as the difference in the outstanding stock of credit between the beginning and the end of a given month, adjusted for exchange rate variations in respect of loans denominated in foreign currency and loan write-offs during that month.

into account, this ratio comes to 41.2%, against 55.1% for the euro area as a whole (December 2008: Greece: 40.5%, euro area: 52.7%).

As regards non-financial corporations, the annual rate of credit expansion to most sectors declined considerably in the course of 2009 (from double-digit levels in December 2008 to low one-digit levels by the end of 2009, see Table IX.4), while certain sectors recorded strongly negative net credit flows in some months. Among the most important sectors (on the basis of their shares in total credit), in

15 The net flow of credit is calculated as the rate of change in the outstanding amount of credit for a given period (one or more months), plus loan write-offs/write-downs and foreign exchange valuation differences arising from the appreciation of the euro, less foreign exchange differences stemming from the depreciation of the euro during the same period.

Table IX.3 Credit[1] to the economy by domestic MFIs

(annual percentage changes, non-seasonally adjusted data)

	2005	2006	2007	2008		2009					2010	
	Q4[2]	Q4[2]	Q4[2]	Q4[2]	December[3]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	December[3]	January[3]	February[3]
1. Total MFI credit	13.8	15.6	13.5	16.6	13.4	14.4	13.5	9.4	6.6	6.7	6.8	7.2
2. Credit to general government	-0.6	-1.8	-16.1	8.1	1.4	16.7	33.3	26.7	18.9	21.1	23.9	25.0
3. Credit to enterprises and households	19.8	21.7	21.7	18.3	15.9	14.1	9.9	6.4	4.5	4.2	3.8	3.9
3.1 Enterprises	12.3	17.3	20.1	21.6	18.7	17.0	11.8	7.6	5.5	5.1	4.5	4.9
3.2 Households	30.3	26.9	23.6	14.8	12.8	11.1	7.8	5.0	3.3	3.1	2.9	2.7
of which:												
3.2.1 Housing loans	31.1	28.4	23.3	13.4	11.5	10.1	7.3	5.1	3.9	3.7	3.6	3.6
3.2.2 Consumer loans	30.3	23.7	22.6	18.4	16.0	13.5	9.1	5.3	2.4	2.0	1.6	1.1

Source: Bank of Greece.
1 Including MFI loans, holdings of corporate bonds and government debt securities, as well as the outstanding amounts of securitised loans and securitised corporate bonds. The rates of change are adjusted for loan write-offs and foreign exchange valuation differences in respect of loans denominated in foreign (non-euro) currencies. The rate of change in credit to enterprises is also adjusted for loans and corporate bonds transferred in 2009 by MFIs to subsidiaries abroad and to a domestic finance company.
2 The quarterly average is derived from monthly averages (which are calculated as the 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.

December 2009, low or negative annual corporate credit growth rates were observed in the sectors of trade (4.2%), construction (2.7%), shipping (4.0%) and industry (-3.5%). This weakness is associated with the lagged effect of declines in the output or turnover of those sectors. This is an indication of the impact from the economic downturn on loan demand and on credit. In fact, it has been found that, for the euro area as a whole the growth of MFI credit to non-financial corporations lags the economic cycle by three quarters.[16] Similar estimates for Greece suggest a lag of three or four quarters.[17] This is partly confirmed by the results of the Bank Lending Survey[18] (January 2010). On the supply side, in the fourth quarter of 2009 relative to the previous quarter, banks tightened their credit standards and conditions for lending to non-financial corporations, increasing, among other things, the interest rate spread. Meanwhile, demand for loans has remained unchanged, as the stronger demand for refinancing outstanding loans continues, for the time being, to counter the impact from the economic downturn.

The moderation in corporate credit growth in 2009 was presumably more marked for small and medium-sized enterprises (SMEs) than for larger ones.[19] To ease SMEs' financing difficulties, in 2010 the government reformed the operation of the Greek Credit Guarantee Fund for Small and Very Small Enterprises (TEMPME) and pressed ahead with the SME financing programme included in the National Strategic Reference Framework.[20,21] Furthermore, the new law on the rescheduling of business loans (Law 3816/2010) includes measures focusing on viable SMEs. Eligible for favourable debt restructuring (including a two-year deferment of principal payments) are firms with non-performing loans but also —subject to economic criteria— trade and agricultural businesses with performing loans. In addition, the law introduces reforms to the operation of the credit bureau Tiresias S.A., reducing the data storage period by one year.[22] The law, however, might have a negative effect on the supply of bank loans to non-financial corporations: apart

16 See Box 1: "Loans to the non-financial private sector over the business cycle in the euro area", ECB, *Monthly Bulletin*, October 2009, p. 18. In the case of household credit, the analysis finds that the growth of real loans to households for the euro area as a whole leads the growth of real GDP by one quarter. The lag empirically observed in the case of corporate credit can be explained by the fact that, on the loan demand side, firms first use their internal funds, in order to meet e.g. their needs for working capital during a recovery as cash flows improve during the recovery, and only later turn to external funding (from banks). On the supply side, during a recovery upturn banks may prefer to increase their lending first to households rather than non-financial corporations, as household loans (notably those for house purchase) are better collateralised and perhaps also because banks can more easily assess the financial condition of households than that of firms and prefer to lend to the latter once economic recovery has been reflected in their balance sheets.

17 This estimate is based on a sample of historical data for the period from the first quarter of 1990 to the fourth quarter of 2009. The estimation method is described in two issues of the ECB Monthly Bulletin: (i) Box 1: "Loans to the non-financial private sector over the business cycle in the euro area", ECB, *Monthly Bulletin*, October 2009, p. 18; and (ii) Box 6: "The cyclical pattern of loans to households and non-financial corporations in the euro area", ECB, *Monthly Bulletin*, June 2007, p. 59. An application of this method on the Greek sample shows that the maximum correlation between annual growth rates of credit and GDP occurs when credit growth lags GDP by three or four quarters.

18 The Bank Lending Survey is conducted by the Bank of Greece on a quarterly basis, as part of a Eurosystem-wide survey.

19 Typically, the larger a firm is, the more likely it is to obtain new loans, as banks can assess the financial situation of larger firms more easily and at a lower cost (see also the speech by Lorenzo Bini Smaghi "The euro area macroeconomic situation: where do we stand, where are we going?", 18 January 2010). A recent survey on the euro area countries carried out on behalf of the European Commission and the ECB confirmed banks' limited willingness to approve loan applications by SMEs in Greece during the first half of 2009 (see "Access to finance", Flash Eurobarometer 271, September 2009, on the European Commission's website). In more detail, 38% of respondents (Greek SMEs) reported that they had applied for a new loan in the first half of 2009, which is the highest percentage in the European Union, compared with a EU-27 average of 22%, but the proportion of successful applications was only 27%, the lowest in the European Union (EU-27 average: 55%). For the second half of 2009, only aggregate data for the euro area are available from the same survey, which point to a deterioration in SMEs' access to bank finance compared with the first half of 2009 and expectations of further difficulties in the first half of 2010 (see "Survey on the access to finance of small and medium-sized enterprises in the euro area: second half of 2009", pp. 13-15, on the ECB's website).

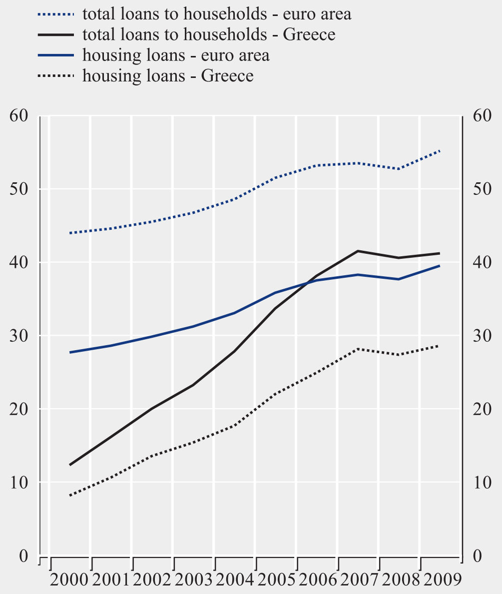
20 The deadline for the submission of applications for the "support programme for small and very small enterprises in the sectors of retail trade, services, tourism and manufacturing" under the National Strategic Reference Framework (2007-2013) closed recently. The payment of government subsidies is expected later on within 2010, following the assessment and the examination of corporations.

21 According to the Update of the Stability and Growth Programme of January 2010, the TEMPME budget for 2010 will be increased and the eligibility criteria will change, to ensure that support is targeted to "corporations which have been heavily affected by credit constraints". In the period from 30 December 2008 to 24 March 2010, marking the first two phases of TEMPME operation, 56,281 enterprises received loans totalling €5.2 billion.

22 More specifically, under Article 4 of the said law, the storage period of credit registry data shall be reduced by one year to: (i) two years for unpaid cheques (where the drawee bank has certified the lack of funds in a timely fashion), overdue bills of exchange and promissory notes, as well as loan contract terminations; (ii) three years for orders for payment; and (iii) four years for attachments and orders for payment under the Legislative Decree of 17.7/13.8.1923. Furthermore, cheques paid within thirty days from bouncing will not be registered and all registered ones will be deleted from the database.

Chart IX.5 Bank credit to households in Greece and the euro area (2000-2009)

(percentages of GDP)



Sources: Bank of Greece and ECB for outstanding amounts, Eurostat and NSSG for GDP.
1 Excluding the outstanding amounts of securitised loans.

from the adverse implications for banks' liquidity, the potential moral hazard (i.e. disincentives to service debts) and the deletion of credit records would increase the credit risk entailed by the corporations in question, as well as banks' uncertainty and difficulties in assessing their creditworthiness. Such uncertainty could contribute to a rise in the estimated level of credit risk of lending to business firms in general, implying additional risk premia on lending rates and increased capital requirements for banks. This would eventually restrict banks' ability to further extend loans. Moreover, given the legal uncertainty risk involved, the loans subject to these provisions could become difficult to securitise, which would have adverse repercussions on banks' liquidity.

As regards the annual rate of **credit expansion to households** (see Chart IX.4), both housing and consumer loans were responsible for the decline observed during 2009 (December 2009: 3.1%, fourth quarter of 2008: 14.8%). In December 2009, the annual growth rate of consumer loans was very low (2.0%), while for housing loans the corresponding rate stood at 3.7% (fourth quarter of 2008: consumer loans: 18.4%, housing loans: 13.4%). The continued decline is attributable to the above-mentioned demand and supply factors. Regarding loan demand by households, their lower employment and income expectations (pending the implementation of a stricter incomes policy and higher income and property taxation) played an increasingly important role from October 2009 onwards.[23] The results of the latest Bank Lending Survey (January 2010) indicate that banks slightly tightened their credit standards for consumer loans in the fourth quarter of 2009 (compared with the third quarter), whilst keeping them unchanged for housing loans.[24] Furthermore, unlike credit to non-financial corporations which, as already mentioned, lags GDP growth in Greece too, credit to households has been found to lead GDP[25] by around three quarters (one quarter in the euro area as a whole).

With respect to non-financial corporations, the deterioration of business expectations following a further decline in output in 2009, subdued activity in certain sectors such as private and public construction and real estate, and the negative climate that prevailed after the downgrades of Greek sovereign debt were the main factors behind the continued cautiousness of non-financial corporations, reflected in the suspension of their investment plans. Meanwhile, the announced government measures to boost liquidity and investments of SMEs are expected to be implemented in the course of the current year.[26] Finally, banks are likely to

23 The IOBE consumer confidence indicator recorded continuous declines between November 2009 and March 2010.
24 According to the survey, in the fourth quarter of 2009 demand for consumer loans fell, partly on account of reduced household spending for consumer durables.
25 See footnote 17.
26 Improving the absorption rate of funds for co-financed programmes (under the NSRF) – this rate currently stands at 3.6% (according to the Update of the Stability and Growth Programme) and promoting Public-Private Partnerships will require changes, the results of which are not expected to be visible before 2011. Moreover, it is worth noting that business expectations regarding public construction activity and employment, as suggested by the relevant IOBE indicator, deteriorated further to a five-year low in February 2010.

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

(non-seasonally adjusted data)

	Outstanding balances on 28.02.10 (million euro)	Annual percentage changes										
		2006	2007	2008		2009					2010	
		Q4[2]	Q4[2]	Q4[2]	December[3]	Q1[2]	Q2[2]	Q3[2]	Q4[2]	December[3]	January[3]	February[3]
A. Enterprises[4]	**135,285**	**17.3**	**20.1**	**21.6**	**18.7**	**17.0**	**11.8**	**7.6**	**5.5**	**5.1**	**4.5**	**4.9**
1. Trade	33,183	9.9	17.9	22.2	19.5	19.0	14.7	9.0	5.0	4.2	3.2	1.6
2. Industry[5]	23,926	9.5	11.0	17.3	15.8	13.5	6.9	0.6	-2.8	-3.5	-2.9	-3.0
3. Construction	11,544	28.9	28.5	37.3	35.2	27.9	15.2	7.0	2.2	2.7	3.5	3.4
4. Shipping	10,618	17.8	25.3	22.7	17.2	19.0	14.0	8.2	3.8	4.0	1.9	2.3
5. Tourism	7,512	11.0	21.0	24.3	19.7	16.9	11.0	7.3	6.4	7.8	8.2	7.7
6. Other financial institutions (non-MFI)	6,506	35.1	14.7	-2.1	-8.7	-8.3	-7.2	-1.2	7.4	5.8	5.7	18.9
7. Transport and communications (excluding shipping)	5,850	51.9	39.6	35.6	26.8	18.1	10.2	18.7	19.5	25.5	25.8	29.2
8. Agriculture	4,063	11.0	10.7	20.4	20.3	15.6	8.8	5.4	3.7	3.7	6.2	4.4
9. Electricity - gas - water supply	4,211	3.0	40.2	36.4	29.8	25.2	30.8	14.0	14.8	14.7	14.5	27.9
10. Other sectors	27,872	28.8	27.4	23.6	23.4	22.1	16.7	14.0	12.5	10.4	8.0	7.0
B. Households	**119,652**	**26.9**	**23.6**	**14.8**	**12.8**	**11.1**	**7.8**	**5.0**	**3.3**	**3.1**	**2.9**	**2.7**
1. Housing loans	80,878	28.4	23.3	13.4	11.5	10.1	7.3	5.1	3.9	3.7	3.6	3.6
2. Consumer loans	35,791	23.7	22.6	18.4	16.0	13.5	9.1	5.3	2.4	2.0	1.6	1.1
– Credit cards	9,500	5.7	6.3	12.4	10.0	7.8	4.6	1.6	-0.4	-0.6	-1.3	-1.7
– Other consumer loans[6]	26,291	35.4	30.9	20.9	18.4	15.8	10.9	6.7	3.5	3.1	2.7	2.2
3. Other loans	2,984	30.6	42.2	7.5	9.5	6.8	4.0	-1.0	-2.3	-1.1	-1.0	0.5
TOTAL	**254,937**	**21.7**	**21.7**	**18.3**	**15.9**	**14.1**	**9.9**	**6.4**	**4.5**	**4.2**	**3.7**	**3.9**

Source: Bank of Greece.

1 Including MFI loans, holdings of corporate bonds, as well as the outstanding amounts of securitised bank loans and securitised corporate bonds. The rates of change are adjusted for loan write-offs and foreign exchange valuation differences in respect of loans denominated in foreign (non-euro) currencies. The rate of change in credit to enterprises is also adjusted for loans and corporate bonds transferred in 2009 by domestic MFIs to subsidiaries abroad and to a domestic finance company.

2 The quarterly average is derived from monthly averages (which are calculated as the 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 Sectors are listed in descending order of their share in total credit, with the exception of "other sectors". Growth rates are adjusted for loan write-offs.

5 Comprising manufacturing and mining/quarrying.

6 Comprising personal loans and loans against supporting documents.

tighten their credit standards and financing conditions in 2010 in view of an expected further increase in non-performing loans,[27] which tend to lag the economic cycle.[28]

After decelerating to 3.7% in January 2010, the annual growth rate of credit to the private sector picked up slightly in February to 3.9% (non-financial corporations: 4.9%, households: 2.7%). The net monthly flows of credit remained positive, both to non-financial corporations (€463 million, against €348 million in January) and households (€117 million, against a negative flow of €127 million in January). However, it should be noted that the net flow of credit to non-financial corporations in February 2010 reflected an extraordinary upward effect from inter-company transactions within one financial group. Excluding these transactions, the net flow of credit to the private sector for that month would be negative,[29] and the annual growth rate would fall to an estimated 3.6%. **The rate of credit expansion is expected to decelerate further, amid fluctuations, in the course of 2010 and to remain at very low levels until the end of the year, mainly due to the economic downturn.** This projection is surrounded by high uncertainty, as the rate of credit expansion will depend on the following factors:

a) The decline in GDP this year.[30] The rate of change in GDP affects demand for loans by non-financial corporations and households, as well as —via its impact on the growth of deposits— loan supply.

b) Greek banks' liquidity is expected to decline in the course of 2010,[31] the main constraining factors being the evolution of deposits in the context of the recession and increased taxation, and difficulties in access to funding from global money markets[32] after the downgrades of Greek sovereign debt. On the positive side, Greek banks' liquidity should benefit from: (1) the extension of the government plan for banking system liquidity support[33] until June 2010 and its further utilisation by commercial banks; and (2) the ECB's recent decision to keep the minimum credit quality threshold at BBB- in the Eurosystem collateral framework beyond the end of 2010.[34]

c) The increase in the Greek government's borrowing costs adds to Greek banks' funding costs and —eventually— to interest rates on lending to the private sector. Higher bank lending rates would dampen demand for loans.

d) Finally, banks are expected to continue to focus on safeguarding the quality of their loan portfolios and pursue cautious lending policies.

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

In the last few months of 2009, developments in Greek bank lending rates were mixed, as the sharp decline recorded between January and August moderated significantly thereafter and for some loan categories it even came to a halt (see Table IX.5A and Chart IX.6). Bank lending rates in the euro area exhibited a similar pattern, but declined more strongly than the corresponding Greek rates in 2009, causing Greece's positive differentials vis-à-vis the euro area to widen further in most loan categories (see Table IX.5B and Chart IX.7).

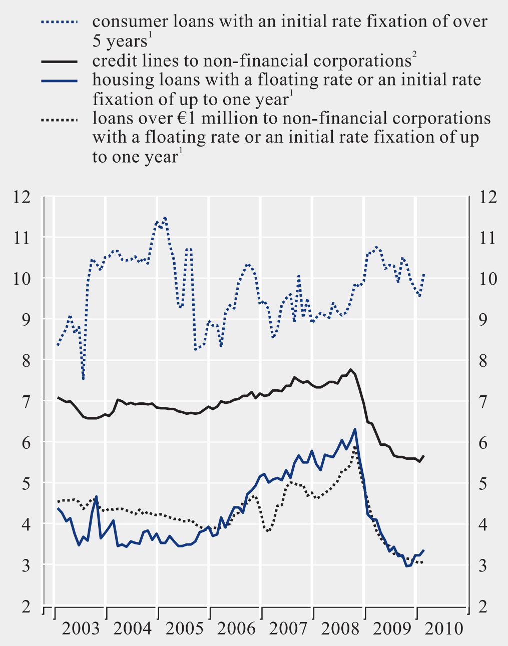
It should be recalled that the level of bank interest rates in Greece, as in any other euro

27 Responding to a new question in the Bank Lending Survey of January 2009 concerning the evolution of credit standards in the next twelve months, banks reported that they were likely to tighten their credit standards for corporate loans by the end of 2010, also in the face of higher funding costs.
28 See the speech by Lorenzo Bini Smaghi "The euro area macroeconomic situation: where do we stand, where are we going?", 18 January 2010, on the ECB's website.
29 Without this extraordinary increase (of €700 million), the net flow of total credit would have decreased to -€120 million to the private sector (from €580 million) and -€237 million to corporations (against €462.5 million).
30 See Chapter IV.
31 See Section 8 of this chapter.
32 It should be noted that in the latest Bank Lending Survey (January 2010), Greek banks reported that they faced difficulties in obtaining market funding (particularly as regards loan securitisations) in the fourth quarter of 2009.
33 Law 3723/2008.
34 See Chapter III.

area country, depends on the key ECB rates and on the prevailing conditions of competition in national banking systems. In the current circumstances, a further major factor behind loan pricing by Greek banks is the widening of the yield spread between Greek government bonds and the corresponding German ones. This factor has impaired Greek credit institutions' access to funding from the foreign interbank market; on the other hand, Greek banks benefit from the ECB's recent decision to extend beyond 31 December 2010 the credit quality threshold of a BBB rating for eligible collateral in the liquidity-providing operations. Another factor driving bank lending rates was an increase in the non-performing loans of Greek credit institutions in 2009,[35] which is expected to continue in 2010 and typically implies a rise in the risk premia incorporated in lending rates. In more detail, starting with new loans to households, the average interest rate on housing loans in Greece stood at 3.41% in December 2009, down by 180 basis points relative to one year earlier.[36] In December 2009, the interest rate on credit cards stood at 15.17% (December 2008: 15.72%), i.e. 623 basis points above the average interest rate on consumer loans with defined amount and maturity (8.94%), while the interest rate on open-end consumer credit (12.06%) stood about halfway between those two interest rates. In the first two-months of 2010, interest rates on both housing loans and new consumer loans with a fixed maturity increased slightly to 3.42% and 9.36%, respectively. With regard to loans to non-financial corporations, the interest rate on credit lines stood at 5.60% (December 2008: 6.94%), while the interest rate on new loans with defined amount and maturity with a floating rate or an initial rate fixation of up to one year came to 4.70% for loans up to €1 million and at 3.24% for loans over €1 million. In these two, and the most important, categories of corporate loans, the fall in interest rates exceeded 145 basis points in 2009 (see Table IX.5A). In February 2010, interest rates on new corporate loans increased slightly overall (see Table IX.5A).

Chart IX.6 Bank interest rates on new loans in Greece (January 2003 - February 2010)

(percentages per annum)



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

As already mentioned, given that lending rates in the euro area as a whole decreased more markedly than Greek interest rates in 2009, the positive spread between Greek interest rates and the corresponding European rates widened further. This continued into the first two months of the current year. The largest increase in the interest rate spread between Greece and the euro area (see Table IX.5A) was recorded in the category of consumer loans with a floating rate or an initial rate fixation of up to one year. Still, loans to households without agreed maturity is the category with the largest interest rate spread (February 2010: 512 basis points), reflecting the higher weight of credit card loans in Greece, which involves higher credit risk and administration costs.

35 For developments in non-performing loans, see Section 8 of this chapter.
36 In the January-December 2008 period, this interest rate rose by 82 basis points.

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

(percentages per annum)

	December 2008	January 2010	Change Dec. 2008/ Jan. 2010 (percentage points)	February 2010	Change Dec. 2008/ Feb. 2010 (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	5.38	3.25	-2.13	3.26	-2.12
Maximum interest rate	7.26	5.77	-1.49	5.93	-1.33
Minimum interest rate	4.54	2.22	-2.31	2.04	-2.50
Interest rate in Greece	6.18	4.52	-1.66	4.72	-1.46
Interest rate differential between Greece and the euro area	0.80	1.27	0.47	1.46	0.66
A.2. Loans of more than €1 million to non-financial corporations					
Weighted average interest rate in the euro area	4.29	2.01	-2.28	1.93	-2.36
Maximum interest rate	5.93	4.98	-0.95	5.10	-0.83
Minimum interest rate	3.97	1.55	-2.42	1.44	-2.53
Interest rate in Greece	5.07	3.23	-1.84	3.23	-1.70
Interest rate differential between Greece and the euro area	0.78	1.22	0.44	1.20	0.66
A.3. Housing loans					
Weighted average interest rate in the euro area	5.09	2.71	-2.38	2.67	-2.42
Maximum interest rate	6.59	5.09	-1.50	5.01	-1.58
Minimum interest rate	3.81	1.90	-1.91	1.87	-1.94
Interest rate in Greece	4.92	3.05	-1.87	3.08	-1.84
Interest rate differential between Greece and the euro area	-0.17	0.34	0.51	0.41	0.58
A.4. Consumer loans					
Weighted average interest rate in the euro area	8.16	6.83	-1.33	6.72	-1.44
Maximum interest rate	13.02	11.05	-1.97	10.63	-2.39
Minimum interest rate	4.76	3.04	-1.72	3.03	-1.73
Interest rate in Greece	8.76	8.69	-0.07	8.65	-0.11
Interest rate differential between Greece and the euro area	0.60	1.86	1.26	1.93	1.33
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	5.06	3.94	-1.12	3.83	-1.23
Maximum interest rate	7.30	6.67	-0.63	6.39	-0.91
Minimum interest rate	3.96	0.00	-3.96	2.64	-1.32
Interest rate in Greece	5.53	4.60	-0.93	4.67	-0.86
Interest rate differential between Greece and the euro area	0.47	0.66	0.19	0.84	0.37
B.1. Consumer loans					
Weighted average interest rate in the euro area	7.03	6.42	-0.61	6.25	-0.78
Maximum interest rate	12.62	14.53	1.91	14.34	1.72
Minimum interest rate	5.47	4.50	-0.97	3.66	-1.81
Interest rate in Greece	9.49	8.53	-0.96	9.00	-0.49
Interest rate differential between Greece and the euro area	2.46	2.11	-0.35	2.75	0.29

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

The difference between the average weighted interest rate on new bank loans and the corresponding rate on new deposits (interest rate spread) increased by 32 basis points in Greece in the course of 2009, while it declined by 34 basis points in the euro area (see Table IX.6 and Chart IX.8). Thus, in December the interest rate spread stood at 3.77% in Greece and at 2.29% in the euro area, causing the differential between the two spreads to almost double to 148 basis points from 82 basis points at the end of 2008. In February 2010 the interest rate spread in Greece fell slightly to 3.69%, and its differential over the euro area spread narrowed to 143 basis points. It should be noted that in December 2008 the interest rate spread differential between the Greek and the euro area reached a six-year low. The main factors behind the observed divergences in interest rate spreads across the euro area have been discussed in detail in previous reports. These factors include the different composition of deposits and loans. Correcting for these differences, the interest rate spread in Greece would stand at 3.37% in February (i.e. 37 basis points lower) and its differential over the corresponding spread in the euro area would fall to 111 basis points.

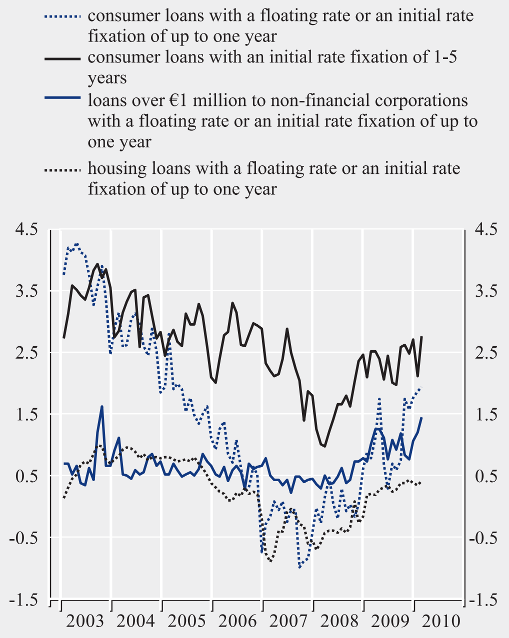
5 THE GOVERNMENT BOND MARKET

In 2009, the secondary market for Greek government bonds was characterised by a high volatility of yields, a significant increase in yields since the beginning of the last quarter of the year and a small rise in transactions. In the primary market, the most notable development was a considerable increase in the amount issued.

In more detail, between end-December 2008 and end-December 2009, the yields of short- and medium-term Greek government bonds (with maturities of up to five years) followed a declining path, whereas the yields of long-term bonds (seven years or more) moved upwards. Developments in the yields of short- and medium-term bonds reflected the broad

Chart IX.7 Bank interest rates on new loans: differential between Greece and the euro area (January 2003 - February 2010)

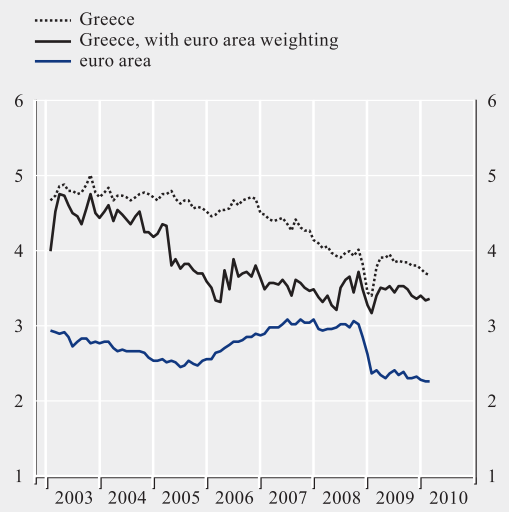
(percentage points)



Sources: Bank of Greece and ECB.

Chart IX.8 Average interest rate spread between new loans and new deposits in Greece and the euro area (January 2003 - February 2010)

(percentage points)



Sources: Bank of Greece and ECB.

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

(percentages per annum)

	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				To households					
	Loans up to €1 million		Loans over €1 million		Housing loans		Consumer loans		Consumer loans	
	Dec. 2008	Feb. 2010	Dec. 2008	Feb. 2010	Dec. 2008	Feb. 2010	Dec. 2008	Feb. 2010	Dec. 2008	Feb. 2010
Austria	4.89	2.38	4.49	1.77	5.61	2.81	6.44	4.72	6.07	3.77
Belgium	4.77	2.45	3.97	1.54	4.87	2.95	6.60	6.22	8.03	6.21
Cyprus	-[3]	5.93	-[3]	4.39	-[3]	4.52	-[3]	6.97	-[3]	-[3]
Finland	4.61	2.04	3.97	1.75	4.07	1.87	4.91	3.03	5.93	4.56
France	5.08	2.50	4.30	1.48	5.52	3.42	8.43	6.82	7.23	6.08
Germany	5.25	3.43	4.35	2.43	5.38	3.16	4.76	4.32	5.47	5.31
Greece	**6.18**	**4.72**	**5.07**	**3.37**	**4.92**	**3.08**	**8.76**	**8.65**	**9.49**	**9.00**
Ireland	5.95	3.81	4.99	2.89	4.33	2.75	5.66	5.63	-[3]	-[3]
Italy	5.31	2.92	4.17	1.44	4.91	2.24	11.72	9.80	8.70	7.41
Luxembourg	4.54	2.37	3.97	-	4.22	1.99	-[3]	-[3]	6.20	3.66
Malta	5.82	5.54	4.68	4.55	-[3]	3.47	-[3]	5.15	-[3]	-[3]
Netherlands	4.82	3.41	4.01	1.72	5.32	3.81	9.33	9.19	-[3]	-[3]
Portugal	7.26	5.14	5.77	3.15	4.96	2.16	8.10	5.79	12.62	11.04
Slovakia	-[3]	3.64	-[3]	2.49	-[3]	5.01	-[3]	8.14	-[3]	14.34
Slovenia	6.39	6.80	5.93	5.10	6.28	3.27	6.89	4.91	7.96	7.36
Spain	5.51	3.64	4.30	1.88	5.63	2.49	10.94	10.63	9.51	8.00

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 in regulatory and fiscal arrangements.
2 Monthly average rates.
3 These countries do not publish data on the respective interest rates.

Table IX.6 Interest rate spread in Greece and the euro area

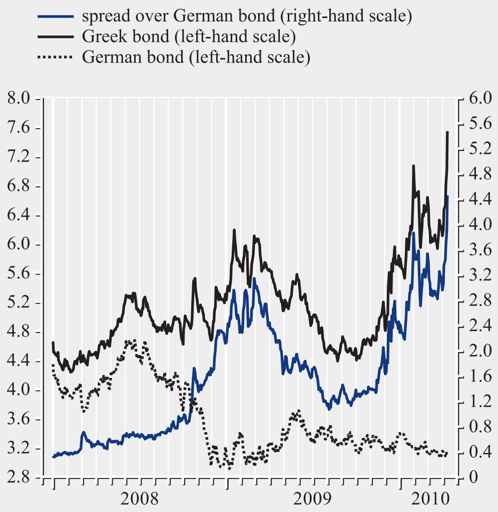
(percentage points)

	Average interest rate on new loans in Greece[1] (percentages per annum)	Average interest rate on new deposits in Greece[1] (percentages per annum)	Interest rate spread in Greece	Interest rate spread in Greece with euro area weighting	Interest rate spread in the euro area
December 1998	16.21	8.12	8.09	...	...
December 1999	14.02	6.98	7.04	...	...
December 2000	9.68	4.00	5.68	...	...
December 2001	7.26	1.96	5.30	...	...
December 2002	6.29	1.67	4.62	...	...
December 2003	5.92	1.20	4.72	4.45	2.77
December 2004	5.94	1.22	4.72	4.18	2.53
December 2005	5.79	1.27	4.52	3.59	2.56
December 2006	6.38	1.87	4.51	3.63	2.89
December 2007	6.67	2.53	4.14	3.48	3.09
December 2008	6.72	3.27	3.45	3.27	2.63
December 2009	5.09	1.32	3.77	3.39	2.29
February 2010	5.06	1.44	3.69	3.37	2.26

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 weights, the calculation of the average interest rate is based on the average of the weights over the past twelve months.

Chart IX.9 Yield on the Greek 10-year government bond and yield spread against the corresponding German bond (January 2008 - 8 April 2010)

(daily data, percentages per annum, spread in percentage points)



Source: Bank of Greece.

normalisation observed in money markets worldwide, as these categories of bonds are more closely related to the liquidity conditions prevailing in the respective markets. The downward trend of yields for long maturities, observed in the March-September 2009 period, reversed sharply in the last quarter of 2009, a development that continued through April 2010 (see Chart IX.9).[37] This turnaround reflected investors' concern regarding Greece's fiscal developments, as well as structural weaknesses and macroeconomic imbalances.[38] These adverse developments in long-term government bond yields were also exacerbated by the publication of negative reports

37 For developments during 2009, see Bank of Greece, *Monetary Policy 2009-2010*, March 2010.

38 The yields of comparable bonds in the euro area remained relatively stable; even in the case of the so-called peripheral bonds (e.g. Portuguese or Italian), the rise in yields was less pronounced than for Greek bonds. Developments in bond markets are also reflected in the spreads of credit default swaps (CDSs): at the end of 2009, the relevant spread for Greece was the highest across the euro area countries.

on the Greek economy by certain rating agencies and the subsequent downgrades of Greece's credit rating.[39]

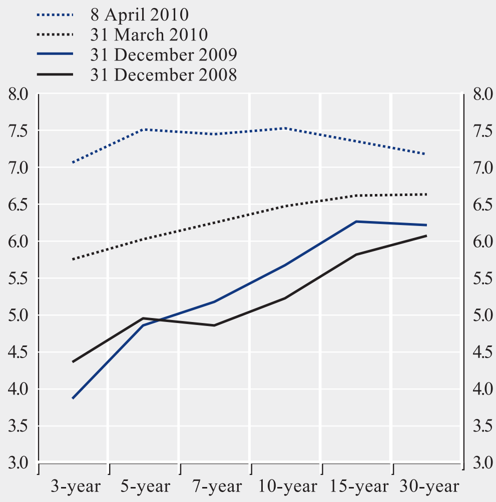
Against this background, by end-December 2009 the Greek government bond yield curve had shifted upwards compared with end-December 2008, and its slope steepened (see Chart IX.10). In late March 2010, the curve shifted further upwards and flattened considerably, a development which continued into the first ten days of April.

The yield spread between the ten-year Greek bond and its German counterpart, after declining between April and September 2009, increased significantly in the last three months of 2009, mainly on account of a rise in the yield of the ten-year Greek government bond. This trend persisted into the first half of April 2010, although some signs of reversal were visible in March (see Chart IX.11). In particular, the yield of the ten-year Greek government bond was 6.48% at end-March 2010 and 7.54% on 8 April 2010, compared with 5.69% in December 2009, 4.59% in August 2009 and 5.23% in December 2008.

It is worth noting that the upward trend of yields did not reverse following the statement of the heads of state or government of the euro area on 25 March or after the ECB's announcement on that same day regarding the collateral framework for its liquidity-providing operations. Rising yields were also partly associated with investors' concerns about the effectiveness of the measures adopted to address the country's fiscal imbalances. This was reflected in increased volatility in the Greek sovereign bond market, which in turn has discouraged potential investors, as evidenced by the reduced numbers of participants in the issuance of seven-year Greek government bonds and the reopening of 20-year bonds at the end of March 2010. In general, fiscal imbalances, the evolution of a country's credit rating and the liquidity conditions in the secondary market are cited in international literature as the key determinants of government bond spreads.[40]

Chart IX.10 Greek government paper yield curves

(yields in percentages per annum)



Source: Bank of Greece.

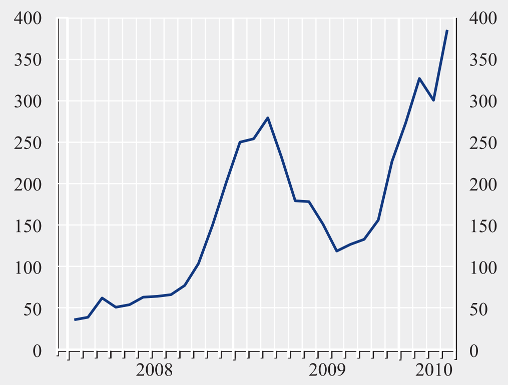
The average daily value of transactions in the Electronic Secondary Securities Market (HDAT) stood at €1,294 million in 2009, about 10% higher than in 2008 (see Chart IX.12), but still significantly below the levels recorded in the pre-crisis period (1999-2006: €2,954 million). Ten-year bonds accounted for roughly 70% of total HDAT transactions, compared with nearly 60% in 2009. In the first three months of 2010, the average daily value of transactions was higher year-on-year. Finally, the average bid/ask spread rose to 61 basis points in December 2009, from 56 basis points

39 Fitch Ratings was the first to downgrade Greece's credit rating on 22 October, followed by Standard & Poor's and Moody's on 16 and 22 December, respectively. In addition, a further downgrade was announced by Fitch on 9 April 2010.

40 According to a recent EU study (see European Economy, "Determinants of intra-euro area government bond spreads during the financial crisis", *Economic Papers*, 388, November 2009), government bond spreads within the euro area are linked with the general risk level in the global economy and the fiscal position of Member States. Similar points are made in an IMF paper (IMF, Working Paper 09/222 "Euro area sovereign risk during the crisis", October 2009). Moreover, the findings of Manganelli and Wolswijk ("What drives spreads in the euro area government bond market?", *Economic Policy*, 24 (58), April 2009, pp. 191-240) establish a strong relationship between Member States' bond yield spreads, on the one hand, and ECB interest rates and sovereign debt ratings, on the other hand. For a more detailed discussion of developments in Greek government bonds and the determinants of their yields, see Bank of Greece, *Monetary Policy 2009 - Interim Report*, October 2009, and OECD, "What drives sovereign risk premiums? An analysis of recent evidence from the euro area", OECD Economics Department Working Paper No. 718, 2009.

Chart IX.11 Yield spread between Greek and German 10-year bonds (January 2008 - April 2010[1])

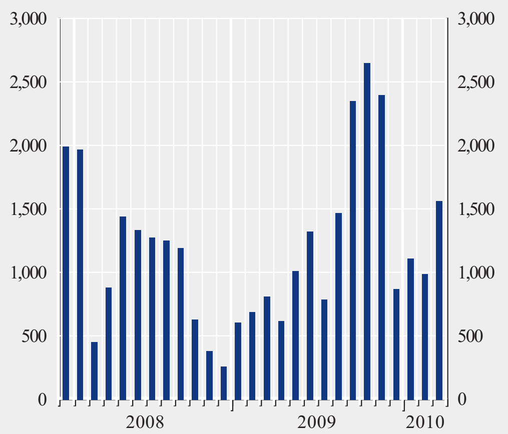
(average monthly spread in basis points)



Source: Bank of Greece.
1 The average yield for April 2010 is calculated based on data available up to 8 April 2010.

Chart IX.12 Average daily trading volume in the Electronic Secondary Securities Market (HDAT) (January 2008 - March 2010)

(million euro)



Source: Bank of Greece.

in December 2008, and further to 72 basis points by March 2010. It should be noted that the widening of this spread reflects increased risk aversion on the part of investors.

The primary market for government securities in 2009 was marked by a significant increase in the total amount issued, which reached €78 billion, compared with €43 billion in 2008 (see Table IX.7). This development occurred in the context of a growing fiscal deficit and increased amortisation payments on public debt.[41] In the first three months of 2010, the Greek government issued Treasury bills and bonds with maturities of five, seven and ten years, totalling about €24 billion.[42]

In 2009, the interest rates of bond issues were higher than in the pre-crisis period, but lower than in 2008. Overall, the average cost of government borrowing fell slightly to 4.1% in 2009 (2008: 4.6%), although the interest rates on the issues of the last quarter trended upwards, a development that continued into the January-March 2010 period.

Regarding the characteristics of new government bond issues in 2009, the average maturity, at 5.6 years, was significantly shorter than in 2008 (about 11 years), while the issuance activity was concentrated in the first few months of 2009, compared with a more even distribution in the course of 2008. Finally, investors' interest was high, mainly due to increased yields, and bond auctions across all maturities were oversubscribed 5.2 times (2008: 3.1).

6 THE STOCK MARKET

In 2009 the Athens Exchange (Athex) was marked by a rise in share prices, in line with global trends, and substantial fund-raising, almost entirely by banks.

Between end-December 2008 and end-December 2009, the Athex composite share price index posted gains of 22.3% (see Chart IX.13).[43] Partly as a result of the rise in share prices, total stock market capitalisation as a

41 Principal repayments amounted to approximately €35 billion.
42 This amount includes a variable-rate five-year bond issued through private placement, as well as the reopening (by auction) of Greek government bonds maturing on 22 October 2022.
43 It should be noted, however, that the average value of the Athex composite share price index in 2009 recorded a decline of 35.6% compared with 2008.

Table IX.7 Greek government paper issues

	2008			2009		
Type	**Million euro**	**Percentage of total**		**Million euro**	**Percentage of total**	
Treasury bills	*1,874*	*4.3*		*16,877*	*21.5*	
Bonds[1]	*41,515*	*95.7*	*100.0*	*61,483*	*78.5*	*100.0*
3-year	9,890		23.8	14,612		23.8
4-year	-		-	5,808		9.4
5-year	5,822		14.0	17,889		29.1
8-year*	5,600		13.5	-		-
10-year	8,439		20.3	16,235		26.4
15-year	3,457		8.3	6,939		11.3
23-year	3,966		9.6	-		-
30-year	3,741		9.0	-		-
50-year*	600		1.4	-		-
Total	**43,389**	**100.00**	**-**	**78,360**	**100.00**	**-**

Source: Ministry of Finance.
1 Reopened issues have been classified on the basis of their initial (rather than residual) maturity.
* Issued through private placement.

percentage of GDP increased, but still fell considerably short of the 2003-2008 average (see Table IX.8). The evolution of Athex share prices in the course of 2009 was essentially driven by a remarkable rise observed between the first ten days of March and end-October 2009, while, by contrast, the first and last quarters of 2009 saw sharp downward trends in share prices, which continued into the first two months of 2010. In March 2010, share prices picked up, recovering part of the losses since the beginning of 2010, while strong downward pressures were observed in the first ten days of April.

In more detail, in the January-October 2009 period, the evolution of Athex share prices mirrored similar developments in global markets. The downward trends registered early in the year were due to international risk aversion, observed since 2008 as a result of ongoing uncertainty regarding the impact of the crisis on the global economy. The subsequent rise in prices is attributable to improved investor confidence, in the context of emerging evidence of a milder than expected economic downturn on both sides of the Atlantic, as well as some improvements in corporate earnings.[44] In the last quarter of 2009, however, developments in the Athex were uncoupled from those in other mature markets, as market participants became increasingly concerned about the deterioration of Greece's public finances. This was also reflected in net equity investment outflows of approximately €370 million by foreign (mainly institutional) investors during that period.[45] As a result of these developments in the last quarter of the year, in 2009 the Athex composite index fell behind the Dow Jones Euro Stoxx index (23.4%) and most national stock market indices in the euro area,[46] as well as the US index (S&P 500: 23.5%). This shortfall con-

44 The net (after-tax) profits of Athex-listed companies fell by approximately 37% in 2009 (at group level, including the financial sector), i.e. less than in 2008.
45 Nevertheless, despite these outflows, inflows of non-residents' funds in 2009 amounted overall to about €1 billion; thus, their participation in the total Athex market capitalisation increased and stood at 48.5% at end-December 2009 (December 2008: 47,8%).
46 The rise in the Athex composite index was the tenth largest among the respective indices in the euro area.

Table IX.8 Stock market aggregates

Year	Share price indices[1] (1980=100)		Average daily trading volume (million euro)	Market capitalisation[1] (million euro)			Market capitalisation (percentage of GDP)			Funds raised through the Athens Exchange[3] (million euro)		
	Compo-site	Banks		Shares	Loans[2]	Total	Shares	Loans	Total	Listed compa-nies	New compa-nies	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	50	85	135	397	79	476
2005	3,663.9	7,904.2	209.3	123,033	178,925	301,958	63	92	155	2,906	61	2,967
2006	4,394.1	6,194.5	343.3	157,928	191,549	349,477	75	91	166	3,396	86	3,482
2007	5,178.8	7,296.4	480.0	195,502	194,659	390,161	86	86	172	9,988	146	10,134
2008	1,786.5	1,899.4	316.4	68,176	201,859	270,035	29	84	113	623	9	632
2009	2,196.2	2,661.7	204.7	83,447	196,444	279,891	35	83	118	4,253	2	4,255

Sources: Athens Exchange, 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, 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.

tinued throughout the first three months of 2010 and became even more marked in the first ten days of April 2010.

Regarding Athex stock valuation, the price to (after-tax) earnings per share ratio (P/E ratio), albeit significantly higher at end-2009 (12.2) than at end-2008 (7.4), remains low by historical standards and is considerably below the corresponding ratio (16.2) for the euro area Dow Jones Euro Stoxx broad index.

The average daily value of transactions in the Athens Exchange in 2009 (€205 million) fell by 35.3% relative to 2008 (see Chart IX.13 and Table IX.8), i.e. by about the same percentage as the average Athex composite share price index, which continued to decline over the first months of 2010. In line with the historical pattern, trading activity was concentrated in the large capitalisation segment, which accounted for 95.9% of total volume of transactions (see Table IX.9). The total amount of funds raised through the stock market increased remarkably (2009: €4,255 million, 2008: €631 million – see Table IX.8), solely as a result of fund-raising by Greek banks.

Despite a decline in Greek banks' profitability[47] and investor shifts out of bank equity amid concerns about the potential impact on the banking sector from a delayed adjustment of Greece's fiscal imbalances, the banking sub-index edged up in 2009 and closed the year 40.1% higher than one year earlier.[48] Still, this performance was lower than that of the euro area banking sub-index (48.9%). Bank share prices came under pressure in the first three months of 2010; as a result, despite rebounding at end-March 2010, the banking sub-index declined by about 15.2% in the first quarter of 2010. In the first ten days of April 2010, bank share prices faced severe strain.

7 THE MUTUAL FUNDS MARKET

The mutual funds market also posted negative developments in 2009. Between end-2008 and

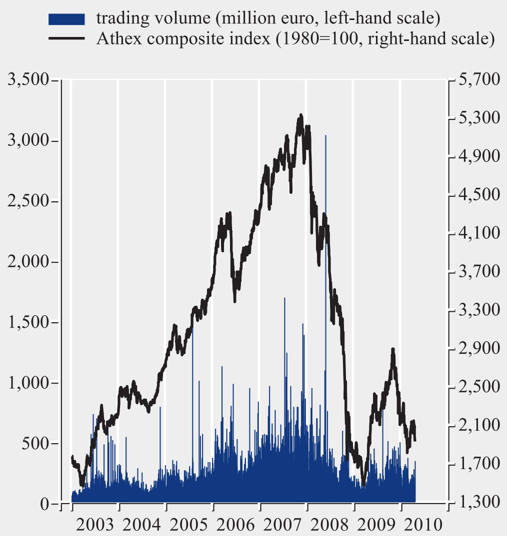
47 As indicated by data for the January-September 2009 period, the net profits of Athex-listed banking groups declined by 42.3% year-on-year. For further details on developments in the banking sector, see Section 8 of this chapter.
48 The average daily value of transactions in banking shares, accounting for almost half of the total value of Athex transactions, fell by about 27% in 2009 compared with 2008, i.e. significantly less than the average level of bank share prices (44.6%).

end-2009, total mutual fund assets declined by 3.8% and stood at €8.1 billion, while the number of mutual funds dropped to 236 (see Table IX.10). In the first two months of 2010, mutual fund assets recorded a further decline of 9.1%.

Across the different types of mutual funds, in 2009 as in 2008, money market funds recorded the strongest drop in assets (-29.3%). This development reflected a net outflow of €492.6 million, which was partly due to the low interest rates that prevailed throughout the year. Bond fund assets showed a smaller decline (-5.8%), largely driven by net outflows totalling €264.7 million. Conversely, the assets of all other mutual fund types showed positive growth, with equity funds recording the highest increase (22.8%), followed by funds of funds (12.1%) and mixed-type funds (7.8%); in all three cases, assets benefited from rising share prices both in Greece and worldwide. The increase in share prices also contributed to net inflows into mixed-type funds (€131.7 million) and equity funds (€60.7 million), while funds of funds experienced net outflows of €31.3 million, as the net inflow in equity funds of funds were more than offset by the outflows recorded in bond and mixed-type funds of funds.

Chart IX.13 Athens Exchange: composite share price index and trading volume (January 2003 - 8 April 2010)

(daily data)



Source: Athens Exchange.

Looking at the structure of the mutual funds market by investment policy, at end-December 2009 bond funds remained the most important category, accounting for 30.7% in total assets, compared with 30.1% for equity funds, 22%

Table IX.9 Breakdown of stock market trading volume

(million euro)

	2007		2008		2009	
	Trading volume	Percentage breakdown	Trading volume	Percentage breakdown	Trading volume	Percentage breakdown
Shares	**121,266.6**	**100.0**	**78,145.8**	**100.0**	**50,847.8**	**100.0**
Large capitalisation	111,143.9	91.6	75,587.8	96.7	48,797.8	95.9
Medium and small capitalisation	9,081.3	7.5	1,814.9	2.3	1,548.8	3.0
Low dispersion, low marketability and special financial features	839.4	0.7	588.1	0.8	332.1	0.7
Under surveillance	171.9	0.1	93.8	0.1	97.9	0.2
Sale of existing shares	30.1	0.0	0.0	0.0	0.0	0.0
Exchange-traded mutual funds	-	-	61.2	0.1	71.2	0.1
Loans[1]	**13.4**	**0.0**	**28.6**	**0.0**	**19.0**	**0.0**
Total	**121,280.0**	**100.0**	**78,174.4**	**100.0**	**50,866.8**	**100.0**

Source: Athens Exchange.
1 Comprising Treasury bills and bonds issued by the Greek government, bonds issued by banks, loans of the Greek State, businesses and international organisations, as well as national loans in foreign currency, consolidation loans, expropriation loans and lottery bonds.

Table IX.10 Total number and value of mutual funds' assets[1]

Year	Number	Value of mutual funds' assets	
		In million euro	% of GDP
1990	7	419.7	1.1
1991	18	493.0	1.0
1992	39	645.6	1.2
1993	67	2,544.4	4.1
1994	94	3,944.2	5.6
1995	115	7,201.8	9.1
1996	148	11,366.1	13.0
1997	162	21,496.7	22.2
1998	181	26,626.6	25.3
1999	212	35,204.7	31.4
2000	269	30,978.7	22.7
2001	272	26,826.1	18.3
2002	263	25,429.2	16.2
2003	265	30,384.0	17.6
2004	262	31,628.5	17.0
2005	258	27,089.9	13.9
2006	269	22,971	10.9
2007	260	20,701	9.1
2008	269	8,385	3.5
2009	236	8,070	3.4

Source: Bank of Greece
1 End-of-period levels.

for money market funds, 10.3% for mixed-type funds and 6.9% for funds of funds.

The investment behaviour of mutual funds during 2009 was marked by an increase in domestic assets and a corresponding decline in foreign assets. In terms of individual instruments, holdings of equities and Greek government bonds rose, while holdings of corporate bonds, government bonds of other countries, synthetic swaps and cash decreased.

Finally, unlike developments in the Greek market, activity in the euro area mutual funds market recovered in 2009, with total assets increasing by 16.7% relative to 2008, to €5.3 trillion at end-December 2009, and broadly-based net inflows across all types except for money market funds.

8 OVERVIEW OF DEVELOPMENTS IN THE BANKING SECTOR IN 2009

The main developments in the banking sector in 2009 were an improvement in Greek commercial banks' capital adequacy, despite a considerable fall in their profitability; a further deterioration in loan portfolio quality; and, finally, a considerable tightening of bank funding sources, which resulted in increasing reliance on the Eurosystem.

In more detail, in 2009 the pre-tax profits of Greek commercial banks dropped substantially compared with 2008, both at bank (-93.7%) and group level (-59.6%), to €66 million and €1.3 billion respectively (see Table IX.11). The global financial crisis had a lagged impact on the Greek economy, bringing to the fore pre-

Table IX.11 Financial results of Greek commercial banks and banking groups

(million euro)

	Banks			Banking groups		
	2008	2009	Change (%)	2008	2009	Change (%)
Operating income	**9,828**	**10,691**	**8.8**	**15,286**	**15,758**	**3.2**
Net interest income	8,169	7,998	-2.1	11,393	11,589	1.7
– Interest income	24,289	19,239	-20.8	28,907	24,182	-16.3
– Interest expenses	16,120	11,242	-30.3	17,514	12,593	-28.1
Net non-interest income	1,659	2,693	62.3	3,893	4,189	7.6
– Net fee income	1,456	1,318	-9.5	2,600	2,168	-16.6
– Income from financial operations	-284	989	-	478	1,423	197.4
– Other income	487	386	-20.7	814	597	-26.7
Operating costs	**5,895**	**6,140**	**4.2**	**8,569**	**8,661**	**1.1**
Staff costs	3,433	3,597	4.8	4,769	4,890	2.5
Administrative costs	1,996	2,037	2.0	2,954	2,875	-2.7
Depreciation	358	390	8.8	641	704	9.8
Other costs	108	117	8.0	205	193	-5.9
Net income (operating income less costs)	**3,932**	**4,551**	**15.7**	**6,717**	**7,117**	**5.9**
Provisions for credit risk (impairment charges)	2,886	4,485	55.4	3,383	5,777	70.8
Pre-tax profits	**1,047**	**66**	**-93.7**	**3,340**	**1,349**	**-59.6**
Taxes	384	420	9.2	787	673	-14.5
After tax profits	**662**	**-354**	**-**	**2,554**	**677**	**-73.5**

Sources: Bank of Greece and financial statements of Greek commercial banks and banking groups.

existing structural weaknesses and macroeconomic imbalances and leading the economy to recession. Against this background, credit expansion to the private sector (households and non-financial corporations) slowed down considerably during 2009, directly affecting banks' interest and commission income (see Table IX.11).[49] Moreover, the deterioration in the financial condition of households and non-financial corporations led to an increase in impairment charges. Earnings from financial operations helped banks avoid a larger drop in profitability or even making losses. However, this source of income is highly volatile.

These developments inevitably impacted on key profitability ratios, such as the net interest rate margin, return on assets (ROA) and return on equity (ROE).[50] Indicatively, the net interest rate margin (at bank level) fell below 2%, whereas ROE and ROA (at banking group level) declined substantially (see Table IX.12), reflecting the weak economic environment in the host countries of Greek banks' foreign branches and subsidiaries. On the positive side, a small improvement was observed in the efficiency ratio (operating costs to operating income).

In 2009, banks' regulatory own funds improved significantly in both quantity and quality terms. At end-2009, the capital adequacy ratio (CAR) and the Tier I ratio stood at 13.2% and 12.0% respectively for banks and

49 It should be noted that this income category accounts for approximately four fifths of banks' and banking groups' total income.

50 The net interest rate margin is calculated as the ratio of net interest income to assets, while ROE and return on risk-weighted assets are calculated as the ratios of pre-tax profits to equity and to risk-weighted assets, respectively.

at 11.8% and 10.7% respectively for banking groups (see Table IX.12). Underlying this improvement were recapitalisation through the issuance of preference shares under Law 3723/2008 and, in certain banks, capital increases in cash and/or retained earnings. As a result, the capital buffers[51] maintained by banking groups to absorb any unexpected losses increased further to €10.3 billion. Moreover, the leverage ratio[52] of Greek banking groups declined significantly (to 13.9 from 17.4 in December 2008), remaining well below that of large banking groups in the euro area (December 2009: 28.5).

Regarding banking risks, the deterioration in the macroeconomic environment weighed heavily on the quality of Greek banks' loan portfolios in 2009. The ratio of non-performing loans to total loans (NPL ratio)[53] rose to 7.7% at the end of 2009, up by 2.7 percentage points compared with 5.0% in December 2008.[54] The considerable increase in the NPL ratios was broadly based across all categories of loans, most notably consumer loans (see Table IX.12). Another unfavourable development was the decrease in the coverage ratio (December 2009: 41.5%, December 2008: 48.9%). At the same time, the ratio of net NPLs (i.e. NPLs less accumulated provisions for credit risk) to total regulatory capital rose (see Table IX.12). These developments imply that banks must increase considerably their provisions for credit risk, in particular taking into account the impact on their loan portfolio quality from the projected negative GDP growth in Greece for 2010.

During the last months of 2009, and the first quarter of 2010 in particular, Greek banks' liquidity risk increased significantly, reflecting a tightening of funding sources and small-scale outflows of customer deposits. This was a result of chronic serious macroeconomic imbalances in the Greek economy, which came to the fore during the crisis and triggered downgrades of the country's credit ratings and subsequent downgrades of Greek banks, thereby restricting banks' access to market funding. Faced with liquidity constraints, during 2009 and in the first months of 2010, Greeks banks relied on the Eurosystem for funding; this reliance gives rise to concerns in view of the envisaged phasing-out of the ECB's enhanced credit support measures. These concerns were mitigated by the recent announcement of the ECB Governing Council's decision to keep the minimum credit threshold for marketable and non-marketable assets in the Eurosystem collateral framework at investment-grade level beyond the end of 2010. Another cause of concern regarding banks' liquidity conditions is the weakening in the growth of deposits in 2009 and, more recently, deposit outflows, due to heightened uncertainty about fiscal developments, the increased tax obligations of depositors and the attractive yields of Greek government bonds. However, it should be stressed that Greek banks' deposit base remains their main funding source. At end-December 2009, both the loan-to-deposit ratio (banks: 106.6%, banking groups: 113.7%) and the supervisory liquidity ratios remained at very satisfactory levels (see Table IX.12).

Liquidity conditions benefited greatly from the utilisation of the facilities envisaged in Law 3723/2008. By the end of 2009, banks had achieved recapitalisation of €3.8 billion, had drawn liquidity of €4.6 billion using Greek government securities as collateral and had obtained loans of €1 billion using State guarantees.[55] The extension of the measures provided for under Law 3723/2008 until the end of June 2010 will further help in this direction. By the beginning of April 2010, a number of banks had applied for liquidity of €2.4 billion

51 The capital buffer is defined as regulatory own funds less the amount required to meet the minimum capital adequacy ratio (8%).
52 The leverage ratio is calculated as the ratio of total assets to equity.
53 However, loan write-offs/write-downs in 2009 (€1.6 billion) stood more or less at the 2008 levels.
54 If the data of foreign banks' subsidiaries in Greece are not taken into account, the NPL ratio stands at 6.9% in 2009, against 4.4% in 2008.
55 Taking advantage of this measure, banks initially issued loans of €3 billion carrying a guarantee of the Greek State. However, in the last quarter of 2009, loans of €2 billion matured without being refinanced.

Table IX.12 Key vulnerability and shock-absorption capacity indicators of Greek commercial banks and banking groups

(percentages)

	Banks		Banking groups	
	December 2008	December 2009	December 2008	December 2009
Asset quality[1]				
Non-performing loans (NPLs) - total	5.0	7.7		
– Housing loans	5.3	7.4		
– Consumer loans	8.2	13.4		
– Business loans	4.3	6.7		
Accumulated provisions over NPLs	48.9	41.5		
Ratio of net NPLs to regulatory own funds	26.1	38.2		
Liquidity				
Loan-to-deposit ratio	108.4	106.6	114.0	113.7
Liquid asset ratio	19.0	24.2		
Asset/liability maturity mismatch ratio	-7.1	-4.2		
Capital adequacy				
Capital adequacy ratio (CAR)	10.7	13.2	9.4	11.8
Tier 1 ratio	8.7	12.0	7.9	10.7
	2008	**2009**	**2008**	**2009**
Profitability				
Net interest margin	2.2	1.9	2.9	2.6
Cost-to-income ratio	60.0	57.4	56.1	54.9
Return on assets - ROA (after tax)	0.2	-0.1	0.7	0.2
Return on equity - ROE (after tax)	3.2	-1.5	9.9	2.4

Sources: Bank of Greece and financial statements of commercial banks and banking groups.
1 NPL data on international activities are not comparable and therefore the NPL ratio on a consolidated basis is not reported.

through the government securities scheme and €8.9 billion through the State guarantee scheme.

The downgrading of the country's credit ratings also affected market risk, as a result of the downward valuation of Greek government bonds and increased stock price volatility in the Athens Exchange. Greek banking groups recorded considerable impairment charges on their equity portfolios (€260 million) and corporate bond portfolios (€140 million),[56] which took their toll on their pre-tax profits for 2009. In addition, the widening of yield spreads of Greek government bonds vis-à-vis comparable German bonds had a negative effect on banks' equity, on account of the valuation of Greek government bonds included in the available-for-sale portfolio. Conversely, market risk was mitigated by: (i) interest rate risk hedging strategies applied on a segment of trading portfolios; and (ii) the fact that only a small segment of the bond portfolio has been classified in the trading portfolio and the available-for-sale portfolio, which affect banks' profitability and equity, respectively.

In conclusion, in 2010 Greek banks should take seriously into account the unprecedented economic conditions prevailing in Greece and the

56 A significant part of impairment charges for the corporate bond portfolio related to positions in international financial institutions' issues.

upcoming changes in the international regulatory framework.[57] Against this background, they should maintain substantial capital buffers, above the regulatory minimums; form adequate provisions for credit risk; and manage prudently and flexibly their alternative funding sources.

However, these are not enough for banks to tackle the current difficult situation. Restoring the confidence of the markets and of the international community in Greece's fiscal prospects will be key and a catalyst for safeguarding banking sector and financial stability. Characteristically, unlike what happened in many other countries, where the crisis first broke out in the banking system and spread from there to the real economy, in Greece the negative feedback between the economy and banks worked in the opposite direction. As a result, if the banking system is to maintain in the future the remarkable resilience it showed even in the white heat of the crisis, the external factors hampering it —i.e. fiscal and macroeconomic imbalances— should be eliminated. Even so, the new conditions that will emerge will be very different from those for banks in the past.

Over the medium to long term, mergers in the banking sector are probably inevitable. Furthermore, sound finances, effective and transparent risk management and operating standards that can support robust business schemes are key conditions for strengthening banks' resilience to shocks and ensuring adequate access to liquidity, thus laying the foundations for sustainable growth and financial stability.

57 The forthcoming new regulatory framework (known as Basel III) will have, among other things, the following objectives: (i) to establish a leverage ratio as a supplementary measure for determining capital requirements; (ii) to improve the quality and transparency of Tier I capital, which will mainly consist of common shares and retained earnings; (iii) to promote counter-cyclical buffers, in the form of additional capital or provisions for credit risk, in good times that can be drawn upon in periods of stress; and (iv) to introduce minimum short-term and long-term liquidity requirements. This means that credit institutions must not only maintain a minimum level of liquid assets, but also diversify their funding sources and keep a balanced mix of funding.

X THE EUROPEAN POLICY FOR CLIMATE CHANGE, GREECE'S ENVIRONMENTAL PERFORMANCE, AND RECENT POLICY MEASURES

1 THE CURRENT EU POLICY FOR CLIMATE CHANGE

Following the rather disappointing outcome of the UN climate change conference in Copenhagen on 7-18 December 2009,[1] the European Council, at its meeting on 25-26 March 2010, concluded on the need to bring a new dynamic to the international negotiation on climate change. According to the Council, the negotiation should ultimately lead to a global and comprehensive legal agreement, the only effective way to reach the agreed objective of keeping the increase in global temperatures, relative to pre-industrial levels, below 2ºC. The EU and its Member States will implement their commitment to provide €7.2 billion over the 2010-2012 period (€2.4 billion annually) to developing countries as fast-start financing for actions aimed at mitigating climate change;[2] the EU and other developed countries have also committed to jointly mobilise 100 billion US dollars per year by 2020.

2 TRENDS IN GREENHOUSE GAS EMISSIONS IN COUNTRIES OF THE EU

In the context of the EU strategy on climate change and energy, known as the "20/20/20" strategy, whereby the EU has set itself the triple target of reducing greenhouse gas emissions by 20%, increasing the share of Renewable Energy Sources (RES) in overall energy consumption to 20%, and improving energy efficiency by 20% by 2020 (compared to 1990 levels), it is of relevance to monitor greenhouse gas emission trends. Country-specific data for the year 2006 were already presented by the Bank of Greece in last year's Annual Report.[3] In 2007, total greenhouse gas emissions in the EU-27, excluding "land use, land use change and forestry" and emissions from international aviation and maritime transport, amounted to 5,045 million tonnes of carbon dioxide (CO_2) equivalent, i.e. 9% less than in 1990. In the EU-15, 2007 greenhouse gas emissions totalled 4,052 million tonnes (4% below 1990 levels), accounting for 80% of total emissions (up from 76% in 1990). Among the older Member States, Germany and the United Kingdom were jointly responsible for nearly 1/3 of the total EU-27 emissions in 2007, with shares of 19% and 13% respectively (their corresponding shares in total EU-15 emissions being 24% and 16%), followed by Italy and France, with shares of 11% each (their corresponding shares in total EU-15 emissions being 14% and 13%). However, Germany and the United Kingdom saw their gas emission shares drop relative to 1990, while Italy's rose slightly. The smallest gas emission contributors were Luxembourg (0.3%), Sweden and Denmark (1.3%), which all had similar shares in total EE-15 emissions (see Table X.1).

As shown in the same table, countries which, due to size, make the largest contributions to overall greenhouse gas (GHG) emissions achieve better scores in terms of GHG emissions per capita or per unit of gross domestic product (GDP). This can be attributed to a number of factors, such as economic restructuring, the increased energy efficiency of power production and other plants, the energy savings of households and enterprises, energy market deregulation, and switches in fuels (e.g. from oil and coal to natural gas) for electricity production. In particular, as shown by the per capita GHG emission figures, most of the EU-15 Member States reduced their emissions between 1990 and 2007, with Sweden, the best scorer, reducing its emissions to 7 tonnes of CO_2 equivalent/person. Luxembourg, the worst scorer in the EU-15, with 27 tonnes of CO_2 equivalent/person, was nonetheless the Member State that made the greatest improvement. In terms of GHG emissions per unit of GDP, the EU-15 succeeded in reducing its emissions between 1990 and 2007, with Sweden, on one end, reducing its emissions to 0.02 kg of CO_2 equivalent/unit of GDP and Greece, on the other, emitting a high of 0.73

1 See Bank of Greece, *Monetary Policy 2009-2010*, March 2010, Special feature 2.F.
2 Developed countries will raise a total of 30 billion US dollars over the same period, as pledged under the Copenhagen Accord.
3 Bank of Greece, *Annual Report 2008*, April 2009, Chapter X, pp. 159-160.

Table X.1 Greenhouse gas emissions[1] in EU-15 and EU-27 Member States

	Greenhouse gas emissions (in million tonnes of CO_2 equivalents)			Shares in EU-15 total (%)			Greenhouse gas emissions per capita (in tonnes of CO_2 equivalents)			Greenhouse gas emissions per unit of GDP (in kg of CO_2 equivalents)		
	1990	2000	2007	1990	2000	2007	1990	2000	2007	1990	2000	2007
Austria	79.0	81.1	88.0	1.9	2.0	2.2	10.3	10.1	10.6	0.49	0.39	0.37
Belgium	143.2	145.1	131.3	3.4	3.5	3.2	14.4	14.2	12.4	0.71	0.58	0.45
Denmark	69.1	67.8	66.6	1.6	1.7	1.6	13.4	12.7	12.2	0.07	0.05	0.05
Finland	70.9	69.5	78.3	1.7	1.7	1.9	14.2	13.4	14.8	0.65	0.53	0.48
France	562.6	556.8	531.1	13.3	13.6	13.1	9.9	9.5	8.6	0.47	0.39	0.32
Germany	1,215.2	1.008.2	956.1	28.7	24.5	23.6	15.4	12.3	11.6	0.69	0.49	0.43
Greece	*105.6*	*127.1*	*131.9*	*2.5*	*3.1*	*3.3*	*10.4*	*11.7*	*11.8*	*0.98*	*0.93*	*0.73*
Ireland	55.4	69.0	69.2	1.3	1.7	1.7	15.8	18.3	16.0	1.05	0.66	0.45
Italy	516.3	549.5	552.8	12.2	13.4	13.6	9.1	9.7	9.3	0.51	0.46	0.43
Luxembourg	13.1	10.0	12.9	0.3	0.2	0.3	34.6	23.0	27.1	0.97	0.45	0.44
Netherlands	212.0	214.4	207.5	5.0	5.2	5.1	14.2	13.5	12.7	0.69	0.51	0.43
Portugal	59.3	81.7	81.8	1.4	2.0	2.0	5.9	8.0	7.7	0.65	0.67	0.62
Spain	288.1	385.8	442.3	6.8	9.4	10.9	7.4	9.6	9.9	0.60	0.61	0.55
Sweden	71.9	68.2	65.4	1.7	1.7	1.6	8.4	7.7	7.2	0.04	0.03	0.02
United Kingdom	771.1	673.5	636.7	18.2	16.4	15.7	13.5	11.5	10.5	1.01	0.69	0.55
EU-15	**4,232.9**	**4,107.6**	**4,052.0**	**100.0**	**100.0**	**100.0**	**11.6**	**10.9**	**10.4**	**0.59**	**0.47**	**0.40**
EU-27	**5,564.0**	**5,053.6**	**5,045.4**				**11.8**	**10.5**	**10.2**	**0.74**	**0.55**	**0.47**

Source: European Commission, Directorate–General for Energy and Transport, *EU energy and transport in figures–statistical pocketbook 2010.*
1 Excluding international aviation and maritime transport, as well as the "land use, land use change and forestry" sector.

kg of CO_2 equivalent/unit of GDP. As shown by the figures given, Greece —though one of the faster improving countries in terms of per unit of GDP emissions— has considerable room for further improvement, as it still has the worst score of all the EU-15. **This underlines the even greater need for Greece to improve its energy efficiency and diversify its energy mix, step up economic restructuring and move towards a green economy.**

Regarding the percentage breakdown of the six greenhouse gases in EU-27 in 2007, carbon dioxide (CO_2) accounts, by far, for the largest share (83%), followed by methane (CH_4) and nitrous oxide (N_2O) with much smaller shares of 8% and 7%, respectively. Looking at the emission trends for each greenhouse gas, CO_2 emissions (at 4,187 million tonnes in 2007) were 5% down from 1990, while methane (CH_4) and nitrous oxide (N_2O) emissions, at 416 and 374 million tonnes of CO_2-equivalents, respectively, were 31% and 27% below the 1990 levels.

As far as the sources of GHG emissions are concerned (see Table X.2), energy was the single largest contributor with 3,999 million tonnes of CO_2 equivalent and a share of 79% in the EU-27 total for 2007. Breaking down this source category into sub-categories, public electricity and heat production accounted for 35%, followed by transport (25%, mainly road) and households (11%). With specific regard to the pollution caused by electricity production, it is worth noting the considerable disparities across the EU-15, with the shares of electricity production in total GHG emissions varying from as low as 9%-11% (France, Luxembourg) to as high as 35%-42% (Finland, Denmark and Greece), meaning that electricity production is considerably more polluting in some European countries than in others. The second largest source category of greenhouse gas emissions after energy was agriculture, with a share of 9% (462 million tonnes of CO_2 equivalent), followed by industrial processes and waste, with shares of 8% and 3% (430 and 141 million tonnes of CO_2 equivalent, respectively).

Evaluating the evolution of greenhouse gas emissions against the targets set under the Kyoto Protocol,[4] it is worth noting that **most of the EU-15 Member States are still short of the country-specific targets set under the Protocol** and will therefore require further measures, in addition to the programmes already in place, to meet their targets by 2012 (see Table X.3). In particular, Spain and Austria are the countries farthest off-track, while **Sweden and the United Kingdom appear to be the only ones to not only have met, but to have also exceeded their Kyoto commitments.**

Greece seems to be on track towards meeting its Kyoto Protocol target of limiting the increase in its greenhouse gas emissions to 25% relative to base year 1990 by 2008-2012. Greece's GHG emissions were 24.4% higher in 2006, relative to the base year, and further improved to 23.2% in 2007.

3 GREECE'S ENVIRONMENTAL PERFORMANCE: A RECENT OECD REPORT

On 15 March 2010, the OECD released its second report on Greece's environmental performance,[5] covering the period 2000-2009. The report notes the positive actions already taken in the sectors under review, identifies policy weaknesses and proposes measures to address the environmental challenges. It points out that the natural environment remains almost untouched in wide areas of the country and that considerable progress has been made in the implementation of EU environmental legislation. Other positive developments include increased investment in environmental infrastructure, the expansion of public transport systems and the reduction in travel times, the adoption of measures to address climate change and meet the Kyoto Protocol targets, the generally good state of the country's freshwater bodies, and the conservation of biodiversity. However,

4 See also Bank of Greece, *Annual Report 2008*, April 2009, Chapter X, pp. 157-176.
5 OECD, *Environmental Performance Reviews* – Greece, 15.3.2010. The first report covered the year 2000.

Table X.2 Greenhouse gas emissions by source: EU-27, EU-15 and Greece

(in million tonnes of CO_2 equivalents)

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU-27														
Energy	4,277	4,032	4,142	4,037	4,024	3,964	3,970	4,053	4,023	4,109	4,106	4,066	4,068	3,999
Industrial processes	478	456	452	460	432	393	405	393	390	401	412	420	417	430
Solvents and other product use	16	14	14	14	14	14	14	13	13	13	13	12	13	12
Agriculture	579	504	506	507	505	501	493	485	479	474	473	466	463	462
Waste	213	207	203	196	184	178	172	164	160	154	149	146	144	141
Total [1]	*5,564*	*5,213*	*5,318*	*5,214*	*5,159*	*5,049*	*5,053*	*5,109*	*5,066*	*5,150*	*5,153*	*5,111*	*5,104*	*5,045*
EU-15														
Energy	3,257	3,178	3,263	3,195	3,238	3,213	3,228	3,299	3,284	3,343	3,345	3,313	3,301	3,233
Industrial processes	372	371	369	378	357	325	330	321	320	325	331	332	325	332
Solvents and other product use	14	12	12	12	12	12	12	11	11	11	10	10	10	10
Agriculture	419	402	406	407	407	406	403	394	389	385	383	377	373	371
Waste	171	165	161	153	148	141	136	129	123	117	112	109	107	105
Total [1]	*4,233*	*4,128*	*4,210*	*4,146*	*4,163*	*4,098*	*4,108*	*4,154*	*4,127*	*4,180*	*4,180*	*4,141*	*4,116*	*4,052*
Greece														
Energy	78	82	84	89	93	93	98	101	100	104	105	105	104	108
Industrial processes	9	11	12	12	13	13	13	12	12	11	11	11	9	9
Solvents 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	0,2
Agriculture	13	13	13	13	13	12	12	12	12	12	12	12	11	11
Waste	4	4	4	4	4	4	4	4	3	3	3	3	3	3
Total [1]	*106*	*110*	*113*	*118*	*123*	*123*	*127*	*128*	*128*	*131*	*131*	*132*	*128*	*132*

Sources: European Environment Agency, *Annual European Community greenhouse gas inventory 1990-2006 and inventory report 2009*, EEA Technical Report No 4/2009, 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 1990-2007*, April 2009.
1 Excluding emissions from land use, land use change and forestry.

Table X.3 Greenhouse gas emissions[1] and the Kyoto Protocol targets

	1990	Kyoto Protocol (base year)[2]	2007	Change 2007 over 2006	Change 2007 over 1990	Change 2007 over base year	Kyoto targets 2008-2012
	(in million tonnes of CO_2 equivalents)			(percentage changes)			
Austria	79.2	79.0	88.0	-3.9	11.3	11.3	-13.0
Belgium	143.2	145.7	131.3	-3.9	-8.3	-9.9	-7.5
Denmark	69.1	69.3	66.6	-6.2	-3.5	-3.9	-21.0
Finland	70.9	71.0	78.3	-2.0	10.6	10.3	0.0
France	562.6	563.9	531.1	-2.0	-5.6	-5.8	0.0
Germany	1,215.2	1,232.4	956.1	-2.4	-21.3	-22.4	-21.0
Greece	*105.6*	*107.0*	*131.9*	*2.9*	*24.9*	*23.2*	*25.0*
Ireland	55.4	55.6	69.2	-0.7	25.0	24.5	13.0
Italy	516.3	516.9	552.8	-1.8	7.1	6.9	-6.5
Luxembourg	13.1	13.2	12.9	-2.9	-1.6	-1.9	-28.0
Netherlands	212.0	213.0	207.5	-0.5	-2.1	-2.6	-6.0
Portugal	59.3	60.1	81.8	-3.4	38.1	36.1	27.0
Spain	288.1	289.8	442.3	2.1	53.5	52.6	15.0
Sweden	71.9	72.2	65.4	-2.2	-9.1	-9.3	4.0
United Kingdom	771.1	776.3	636.7	-1.7	-17.4	-18.0	-12.5
EU-15	**4,232.9**	**4,265.5**	**4,052.0**	**-1.6**	**-4.3**	**-5.0**	**-8.0**

Source: European Environment Agency, *Annual European Community greenhouse gas inventory 1990-2007 and inventory report 2009*, EEA Technical Report No 4/2009.
1 Total emissions excluding the "land use, land use change and forestry" sector.
2 For the gases CO_2, CH_4 and N_2O, all the Member States chose 1990 as their base year. For the gases HFC, PFC and SF_6, 12 Member States chose 1995 as their base year, while Austria, France and Italy chose 1990.

it is stressed that, even though the establishment of the Environmental Inspectorate filled a long-standing gap in the country's compliance assurance system, "lack of enforcement remains the Achilles' heel of environmental and land-use policy implementation". Another weakness identified in the report is the small amount of environmental expenditure, which represents less than 1% of GDP, combined with the low level of revenues from environment-related taxes which decreased to less than 2% of GDP, among the lowest shares in OECD countries. Green taxes remain limited to energy and vehicle taxation. The excessive use of irrigation water is also underlined in the report.

A number of useful recommendations are set out in the report and involve: strengthening the environmental content of the Development Assistance Programme; promoting energy efficiency and cleaner energy sources; bringing about a green fiscal reform with an expanded use of economic instruments, i.e. green taxes (e.g. energy taxation, progressive vehicle taxation, road tolls); progressively eliminating environmentally harmful subsidies (e.g. agriculture water tariffs and tax exemptions on heating oil); improving the integration of biodiversity concerns into agricultural, tourism and other sectoral policies; completing the national cadastre and the national forest registry; upgrading wastewater treatment; implementing a national irrigation policy, increasing the rate of reforestation; completing spatial and urban planning; and effectively enforcing existing legislation.

With regard to energy policy, the report points out that Greece should review the structure and levels of energy prices so as to foster more rational energy use and, in the longer run, to eliminate tax exemptions and subsidies. At the same time, though, Greece should consider introducing targeted compensation schemes to address social issues.

4 RECENT POLICY MEASURES

In order to promote green growth and biodiversity and increase its energy efficiency, Greece will be drawing €5.5 billion in funds from the National Strategic Reference Framework (NSRF) and other co-financed schemes.[6] In particular, more than ten operational programmes for the 2007-2013 period will serve to promote actions in the areas of environment and energy.

The programmes that include environment and energy-related actions are the operational programmes "Environment and Sustainable Development", "Competitiveness and Entrepreneurship II", "Digital Convergence", the five NSRF regional operational programmes, the programme "Rural Development of Greece" (not included in the NSRF, but co-financed by the European Agricultural Fund) and the three operational programmes of "Objective III" (corresponding to programmes previously under the INTERREG initiative), also not included in the NSRF.

Actions designed to foster green growth, combat climate change, promote biodiversity and urban regeneration include: promoting the use of renewable energy sources (RES);[7] creating green roofs on public buildings to save energy and improve the air quality; contaminated land and water remediation; the construction of bioclimatic infrastructures in large cities; RES desalination plants, green infrastructure projects in existing industrial zones and the creation of new green industrial zones; ensuring energy supply sufficiency through major investments in network infrastructures and natural gas storage facilities;[8] and energy saving in housing.[9] The main provisions of a draft law on the promotion of RES were announced on 7 April 2010, while another draft law with measures to improve end-use energy efficiency and regarding energy-related services was made public in March.

Regarding energy savings in housing, the implementation of the programme "Saving at home"[10] was recently announced. Scheduled to begin at the end of June 2010, the programme will have a budget of €200 million, with financing from the European Regional Development Fund.[11]

6 Ministry of Environment, Energy and Climate Change, Press release 24.3.2010.

7 The construction of the first wind farm in the Prefecture of Preveza, with a total capacity of 14 MW, is being launched by the Region of Epirus, while 100 photovoltaic parks of a capacity above 100 KW are to be installed in several districts in the region.

8 An agreement for the construction of the Interconnector Greece-Bulgaria (IGB) pipeline was signed on 9 March 2010. The 170 km-pipeline that will link Komotini in North-Eastern Greece with Stara Zagora in Bulgaria has been budgeted at €150 million, of which €45 million will be contributed by the EU. Another major project is the Interconnector Turkey-Greece-Italy (ITGI) pipeline that will receive €100 million in EU funding. In addition, Qatar has agreed to invest €3 billion in the Maritime Industrial Zone of Astakos; the project will include the construction of a liquefied natural gas (LNG) terminal and power generation unit that, with special technology, will also collect and route combustion gases for the production of biomass. This project is expected to generate 1,500 permanent jobs and to benefit Greece in terms of economic growth and energy efficiency.

9 See also Bank of Greece, *Monetary Policy 2009-2010*, March 2010.

10 Ministry of Environment, Energy and Climate Change, Press release 17.3.2010.

11 Subsidies for energy-saving improvements will include: i) subsidised loans; ii) grants for up to 30% of the eligible budget; and iii) 100% subsidy for the energy inspection costs. Eligible dwellings will include: detached houses, entire multi-storey buildings and, subject to certain conditions regarding their heating system, individual apartments. These types of dwellings can qualify for the subsidies, provided that: their building permit was issued before 1.1.1980, their location is in an area where the zone price is no more than €1,500/m^2 and they serve as main residences.

ANNEX

ANNUAL ACCOUNTS FOR THE YEAR 2009

AUDITOR'S REPORT
REPORT OF THE GENERAL COUNCIL

CONTENTS

BALANCE SHEET AS AT 31 DECEMBER 2009

EIGHTY SECOND YEAR

(in euro)

ASSETS	31.12.2009	31.12.2008
1. Gold and gold receivables	**3,633,315,395**	**2,924,754,323**
2. Claims on non-euro area residents denominated in foreign currency	**1,108,075,094**	**301,602,543**
2.1 Receivables from the International Monetary Fund (IMF)	947,530,824	138,800,294
2.2 Balances with banks and security investments, external loans and other external assets	160,544,270	162,802,249
3. Claims on euro area residents denominated in foreign currency	**281,553,987**	**2,473,540,378**
3.1 General government	270,390,666	265,422,923
3.2 Other claims	11,163,321	2,208,117,455
4. Claims on non-euro area residents denominated in euro	**177,285**	**830,949,273**
4.1 Balances with banks, security investments and loans	177,285	830,949,273
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	**49,655,100,000**	**38,354,900,000**
5.1 Main refinancing operations	2,355,000,000	22,765,300,000
5.2 Longer-term refinancing operations	47,300,100,000	15,584,000,000
5.3 Marginal lending facility	0	5,600,000
6. Other claims on euro area credit institutions denominated in euro	**72,760,162**	**76,778,839**
7. Securities of euro area residents denominated in euro	**20,668,018,576**	**14,529,148,987**
7.1 Securities held for monetary policy purposes	674,147,384	0
7.2 Other securities of euro area residents denominated in euro	19,993,871,192	14,529,148,987
8. General government long term debt denominated in euro	**7,294,205,864**	**7,777,980,635**
9. Intra-Eurosystem claims	**1,597,874,267**	**1,483,347,572**
9.1 Participating interest in the ECB	435,391,713	390,454,407
9.2 Claims equivalent to the transfer of foreign reserves to the ECB	1,131,910,591	1,046,595,328
9.3 Claims related to the allocation of euro banknotes within the Eurosystem (net)	0	0
9.4 Net claims related to transactions with the ESCB (TARGET2)	0	0
9.5 Other claims within the Eurosystem (net)	30,571,963	46,297,837
10. Items in course of settlement	**2,369,833**	**623,195**
11. Other assets	**2,280,203,801**	**2,166,856,607**
11.1 Coins	58,087,539	44,783,716
11.2 Tangible and intangible fixed assets	763,695,749	804,157,896
11.3 Other financial assets	29,260,593	29,013,836
11.4 Accruals and prepaid expenses	830,239,223	727,246,535
11.5 Sundry	598,920,697	561,654,624
TOTAL ASSETS	**86,593,654,264**	**70,920,482,352**

OFF-BALANCE-SHEET ITEMS	31.12.2009	31.12.2008
1, 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	20,167,881,047	19,345,001,939
2, Greek government securities and other securities relating to the management and custody of funds of public entities, social security funds and private agents	9,624,298,900	7,726,244,396
3, Assets eligible as collateral for Eurosystem monetary policy operations and intra-day credit	77,190,735,706	51,763,228,376
4. Other off-balance-sheet items	282,506,757	3,232,802,709
TOTAL OFF-BALANCE-SHEET ITEMS	**107,265,422,410**	**82,067,277,420**

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 16 national central banks of the Eurosystem is 2.81539%.

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.

(in euro)

LIABILITIES	31.12.2009	31.12.2008
1. Banknotes in circulation	**20,886,044,900**	**18,291,344,500**
2. Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	**8,008,073,640**	**7,793,859,079**
2.1 Current accounts (covering the minimum reserve system)	4,616,073,640	4,930,859,079
2.2 Deposit facility	3,392,000,000	2,863,000,000
3. Other liabilities to euro area credit institutions denominated in euro	**0**	**0**
4. Liabilities to other euro area residents denominated in euro	**1,381,108,771**	**1,597,505,489**
4.1 General government	1,333,377,502	1,520,711,578
4.2 Other liabilities	47,731,269	76,793,911
5. Liabilities to non-euro area residents denominated in euro	**719,806,349**	**803,627,501**
6. Liabilities to euro area residents denominated in foreign currency	**73,079,424**	**103,335,707**
7. Liabilities to non-euro area residents denominated in foreign currency	**84,505,484**	**78,796,254**
7.1 Deposits and other liabilities	84,505,484	78,796,254
7.2 Liabilities arising from the credit facility under ERM II	0	0
8, Counterpart of special drawing rights allocated by the IMF	**851,675,401**	**114,395,563**
9. Intra-Eurosystem liabilities	**49,122,200,115**	**37,833,037,850**
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)	86,137,460	2,484,729,740
9.3 Net liabilities related to transactions with the ESCB (TARGET2)	49,036,062,655	35,348,308,110
9.4 Other liabilities within the Eurosystem (net)	0	0
10. Items in course of settlement	**26,358,624**	**25,895,521**
11. Other liabilities	**764,807,737**	**728,834,622**
11.1 Off-balance-sheet instruments revaluation differences	191,109	0
11.2 Accruals and income collected in advance	68,547,768	114,274,663
11.3 Sundry	696,068,860	614,559,959
12. Provisions	**1,953,462,075**	**1,506,799,733**
13. Revaluation accounts	**1,917,223,958**	**1,249,112,781**
14. Capital and reserves	**805,307,786**	**793,937,752**
14.1 Capital	111,243,362	111,243,362
14.2 Ordinary reserve	111,243,362	111,243,362
14.3 Extraordinary reserve	72,500,000	55,000,000
14.4 Special reserve from the revaluation of land and buildings	509,257,925	516,175,995
14.5 Other special reserves	1,063,137	275,033
TOTAL LIABILITIES	**86,593,654,264**	**70,920,482,352**

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 2009 (€766.347 per fine oz., compared with €621.542 as at 31 December 2008).
6 Claims/liabilities denominated in foreign currency have been converted into euro using the euro foreign exchange reference rates of the ECB as at 31 December 2009.
7 Marketable debt securities are valued at the mid-market prices of 31 December 2009, with the exception of debt securities held to maturity which are valued at amortised cost.
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 buildings is calculated at a rate of 2.5%, over their expected life (40 years).
10 From 2009 onwards, banknote production costs are treated as expenses of the financial year in which banknotes are produced.
11 In 2009 €45 million were released from the provision against counterparty risks related to the monetary policy operations of the Eurosystem, which was initially created in 2008 and amounted to €149,5 million. The amount of €45 million was disclosed as income from the release of provisions.
12 From the net profit of financial year 2009, an amount of €17.5 million was transferred to the extraordinary reserve.
13 Certain items of the balance sheet and the profit and loss account for the year 2008 have been reclassified to ensure comparability with the respective items of the year 2009.

PROFIT AND LOSS ACCOUNT FOR THE YEAR 2009

(in euro)

	2009	2008
1. Net interest income	**766,668,842**	**706,174,175**
1.1 Interest income	1,432,540,058	1,656,126,765
1.2 Interest expense	-665,871,216	-949,952,590
2. Net result of financial operations, write-downs and risk provisions	**58,209,232**	**36,999,655**
2.1 Realised gains arising from financial operations	58,209,232	36,999,655
2.2 Write-downs on financial assets and positions	-5,170,554	-11,923,222
2.3 Transfer from provisions for foreign exchange rate and price risks	5,170,554	11,923,222
3. Net income from fees and commissions	**174,816,632**	**144,003,938**
3.1 Fees and commissions income	176,416,753	145,510,199
3.2 Fees and commissions expense	-1,600,121	-1,506,261
4. Income from equity shares and participating interests	**66,983,496**	**38,150,051**
5. Net result of pooling of monetary income	**53,376,709**	**-134,653,569**
6. Other income	**19,410,623**	**15,511,550**
Total net income	**1,139,465,534**	**806,185,800**
7. Staff costs and pensions	**-333,133,279**	**-339,005,755**
8. Administrative and other expenses	**-46,135,461**	**-45,474,314**
9. Depreciation of tangible and intangible fixed assets	**-59,807,274**	**-27,811,854**
10. Provisions	**-472,228,907**	**-168,809,636**
Total expenses	**-911,304,921**	**-581,101,559**
PROFIT FOR THE YEAR	**228,160,613**	**225,084,241**

Note: *For financial year 2009, item 5 "Net result of pooling of monetary income" includes an amount of €44,966,265 regarding the partial release of the provision against counterparty risks related to the monetary policy operations of the Eurosystem, amounting to €149,522,606 and first established in 2008.*

DISTRIBUTION OF NET PROFIT

(Article 71 of the Statute)

(in euro)

	2009	2008
Dividend €0.67 per share on 19,864,886 shares	13,309,473	13,309,473
Ordinary reserve	-	22,248,672
Extraordinary reserve	17,500,000	-
Additional dividend €1.73 per share on 19,864,886 shares*	34,366,253	34,366,253
Tax payment on dividends (Law 3296/2004, Article 6)	15,891,909	15,891,909
To the Government	147,092,978	139,267,934
	228,160,613	**225,084,241**

* *The total dividend for financial year 2009 amounts to €2.40 per share. Dividends are subject to withholding tax of 10%, in accordance with Article 18 of Law 3697/2008.*

Athens, 23 March 2010

THE GOVERNOR

GEORGE A. PROVOPOULOS

THE DIRECTOR OF THE ACCOUNTS DEPARTMENT

CHRISTOS K. PAPAKONSTANTINOU

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, 2009, the Income Statement and the statement of profit distribution for the year 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 Statute, and note 12 in the General Council Report as concerns the method used to provide for general risks and the Accounting Standards prescribed by Greek legislation, as well as for such internal controls as management determines are necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility: Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with 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 item "Provisions" includes provision for pensions, other liabilities to employee funds amounting to €1,275 million (December 31, 2008: €1,081 million) for which we did not obtain audit evidence and, consequently, we are unable to satisfy ourselves as to the reasonableness of such provision.

Opinion: In our opinion, except for the effects of the matter described in the paragraph above, the financial statements present fairly, in all material respects, the financial position of the BANK OF GREECE S.A. as of December 31, 2009, 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 Statute and note 12 in the General Council Report as concerns the method used to provide for general risks 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, 23 March 2010

The Certified Auditors - Accountants

Christos Glavanis	Christodoulos Seferis	Ernst & Young (Hellas) S.A.
(Registration no 10 371)	(Registration no 23 431)	Certified Auditors Accountants
		(Registration no 107)

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ERNST & YOUNG

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, as amended by Guidelines ECB/2007/20 of 17 December 2007, ECB/2008/21 of 11 December 2008, ECB/2009/18 of 17 July 2009 and ECB/2009/28 of 14 December 2009.

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 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. 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 value date in accordance with the cash 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/value 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 and the foreign currency position is affected commensurately.

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 on 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, other than held to maturity, 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 2009, the average market prices of 31 December 2009 were used.

• Marketable debt securities held to maturity and various holdings are valued at amortised cost and are subject to impairment tests.

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 valuated 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.

• Impairment losses are taken to the Profit and Loss Account and are not netted in subsequent years, unless impairment is reduced and this change can be related to an observable event that occurred after the impairment was first registered.

Off-balance sheet instruments
Foreign exchange forward transactions, the forward legs of currency swaps and other currency transactions that involve exchanging a currency for another on a future date are included in the net foreign currency positions for the purpose of calculating average purchase cost and foreign exchange gains and losses.

Banknotes in circulation
The ECB and the 16 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 2009 reflect changes in the balances of NCBs joining the Eurosystem, which affect those of the participating NCBs.

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).

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 of the Eurosystem under "Net interest income".

The Governing Council of the ECB has decided that the income from the ECB's share (8%) of 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 than its income earned on euro banknotes in circulation and also subject to any decision of the Governing Council in respect of expenses incurred by the ECB in connection with the issue and handling of euro banknotes. The ECB Governing Council may also decide to transfer in whole or in part the ECB's seigniorage income in order to form a provision against credit risk and foreign exchange rate, interest rate and gold price risks.

For the year 2009, the Governing Council of the ECB decided to allocate the whole of its seigniorage income, of €787.2 million, to the participating NCBs according to their subscription key to the ECB capital. This allocation was effected on 4 January 2010 and the Bank of Greece's share (€22.2 million) is disclosed under item 4 "Income from equity shares and participating interests" of the Profit and Loss Account.

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.

NOTES ON THE BALANCE SHEET

ASSETS

1. Gold and gold receivables

Holdings and receivables in standard gold	31.12.2009	31.12.2008	Change
Volume in fine troy ounces (thousands)	4,741	4,706	35.0
Volume in tonnes	147.5	146.4	1.1
Value (€ million)	3,633.3	2,924.8	708.5

The amounts reported above comprise the Bank's gold holdings (3,615 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 (140 thousand ounces). The largest part of gold holdings is kept in banks abroad.

The increase by 35 thousand ounces in the volume of gold holdings and receivables reflects purchases of gold from private individuals, while the significant €708.5 million increase in the value of gold in euro is mainly due to the appreciation of the euro in 2009.

The total amount arising from the increase in the price of gold (value as at 31 December 2009 compared with the average acquisition cost – unrealised profit) came to €1,894.9 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. €766.347 on 31 December 2009, compared with €621.542 on 31 December 2008. This price was derived from the USD price of gold quoted on the London market on 31 December 2009 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:

– 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 €709.4 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*	€
SDR holdings	694.2	755.7	15.5	17.1	678.7	738.6
Greece's SDR quota	170.8	185.9	104.7	115.7	66.1	70.2
Special non-interest-bearing deposit in SDRs	5.4	5.9	5.4	6.0	0.0	-0.1
Total	**870.4**	**947.5**	**125.6**	**138.8**	**744.8**	**808.7**

The considerable increase in SDR holdings was due to allocations of SDR 678.7 million by the IMF to Greece in 2009 in the context of a general allocation of SDRs of USD250 billion to all the IMF member countries, which was approved by the IMF Board of Governors on 7 August 2009 and implemented on 28 August 2009.

This allocation was aimed at providing liquidity to the world economy by boosting the foreign reserve assets of the IMF member countries according to their quotas.

Moreover, the SDR component of Greece's quota in the IMF increased, while the euro component of its quota decreased commensurately, due to payments by the Bank of Greece to third countries according to the relevant instructions of the IMF in the context of its international transactions. The changes in the quota components are aimed at keeping Greece's overall quota in the IMF unchanged (SDR 823 million).

The above receivables from the IMF were valued at the SDR/euro exchange rate as at 31 December 2009, based on the ECB's reference exchange rates, i.e. 1 SDR = €1.0886, compared with €1.1048 as at 31 December 2008.

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. time deposits, current account balances with foreign correspondents, debt securities and non-euro banknotes in the Bank's vaults.

Asset category	31.12.2009 *(in € millions)*	31.12.2008	Change
Time deposits with foreign banks	80.0	63.9	16.1
Current account balances with foreign correspondents	13.2	48.0	-34.8
Marketable debt securities (bonds, Treasury bills, commercial paper)	45.8	10.8	35.0
Cash holdings of foreign currency	21.5	40.1	-18.6
Total	**160.5**	**162.8**	**-2.3**

The largest part of these assets as at 31 December 2009 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 GBP75 million, concluded on 6 September 1985 with foreign banks on behalf of the Greek State. The corresponding liability of the Bank on foreign banks is disclosed under liability item 7.1 "Deposits and other liabilities in foreign currency vis-à-vis non-euro area residents";

– 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 €270.4 million on 31 December 2009, up from €265.4 million on 31 December 2008. The €5 million increase mainly stems from end-year adjustments due to fluctuations in exchange rates and the price of gold.

3.2 Other claims

The balance as at 31 December 2009 concerns exclusively foreign currency-denominated time deposits with euro area correspondents.

Categories of claims	**31.12.2009**	**31.12.2008** *(in € millions)*	**Change**
Time deposits	11.2	8.7	2.5
Reverse transactions with domestic credit institutions	0.0	2,170.7	-2,170.27
Marketable debt securities (bonds, commercial paper)	0.0	28.7	-28.7
Total	**11.2**	**2,208.1**	**-2,196.9**

The considerable €2,196.9 million decrease is attributable to the discontinuation of the provision of US dollar liquidity to domestic credit institutions due to reduced demand, as a result of an improvement in the functioning of the financial market.

The Bank of Greece provided US dollar liquidity from September 2008 to May 2009 through fixed-term auctions conducted in the context of the Term Auction Facility, following an agreement between the ECB and the Federal Reserve regarding the provision of short-term liquidity in US dollars.

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).

4. Claims on non-euro area residents denominated in euro

4.1 Balances with banks, security investments and loans

Categories of claims	31.12.2009	31.12.2008	Change
	(in € millions)		
Current account balances with foreign correspondents	0.2	0.3	-0.1
Marketable debt securities	0.0	830.6	-830.6
Total	**0.2**	**830.9**	**-830.7**

The overall position of the Bank as at 31 December 2008 in bonds issued by non-euro area residents, of €830.6 million, was replaced mainly with euro area government bonds (asset item 7.2).

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, six or twelve months). In 2009, due to the financial crisis, in order to boost the liquidity of euro area credit institutions over the long term, operations of a considerable amount with a maturity of twelve months were conducted. Liquidity-providing operations are conducted 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 transactions executed through monthly standard tenders with a maturity of three months. In 2009, additional liquidity was provided by the Eurosystem through reverse transactions with a maturity of six and twelve months.

Operations	31.12.2009	31.12.2008	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 2009 came to €43,871 million, compared with €12,402 million during 2008.

This substantial change is due to Eurosystem interventions in the money market, mainly through longer-term refinancing operations with a maturity of 12 months, aimed at restoring financial stability.

The Eurosystem's total claim from the provision of liquidity to euro area credit institutions in the context of the single monetary policy came to €750 billion on 31 December 2009.

It should be noted that the NCBs that conduct monetary policy operations on behalf of the Eurosystem participate in income and provisions in accordance with the ECB's capital key.

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 €72.8 million on 31 December 2009, down from €76.8 million on 31 December 2008.

7. Securities of euro area residents denominated in euro

7.1 Securities held for monetary policy purposes

This item includes securities acquired by the Bank in the context of the Eurosystem's programme of purchase of covered bonds announced by the ECB's Governing Council on 4 June 2009. These securities are valued at amortised cost and are subject to impairment tests.

As at 31 December 2009, the value of these securities purchased by the Bank stood at €674.1 million, while the total value of securities purchased by the Eurosystem was €28.8 billion (total amount of the programme: €60 billion).

In order to disclose separately the above securities held in the context of the Eurosystem's monetary policy, item 7 "Securities of euro area residents denominated in euro" was divided into two sub-items: 7.1 "Securities held for monetary policy purposes" and 7.2 "Other securities of euro area residents denominated in euro", which includes securities held in the Bank's investment book.

7.2 Other securities of euro area residents denominated in euro

This item includes euro-denominated bonds, Treasury bills and commercial paper issued by euro area governments, including the Greek State. They make up the Bank's investment book.

Type of securities	31.12.2009	31.12.2008	Change
	(in € millions)		
Marketable debt securities issued by euro area governments other than held to maturity			
Bonds	5,612.4	1,382.6	4,229.8
Treasury bills	6,146.5	4,850.1	1,296.4
Commercial paper	248.2	921.5	-673.3
Zero-coupon bonds	0	49.6	-49.6
Greek government commercial paper	49.5	0	49.5
Total	**12,056.6**	**7,203.8**	**4,852.8**
Held to maturity marketable debt securities			
Greek government bonds	3,529.1	2,809.0	720.1
Greek Treasury bills	49.6	0	49.6
Bonds issued by other euro area governments	4,358.5	4,516.3	-157.8
Total	**7,937.2**	**7,325.3**	**611.9**
Grand total	**19,993.8**	**14,529.1**	**5,464.7**

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 "Other financial assets" to the appropriate asset item depending on the currency of denomination (euro or foreign currency) and the location of the issuer (euro area resident or non-euro area resident).

These debt securities continue to be valued at amortised cost and are subject to impairment tests.

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 31.12.2009	€ 7,294.2	million
Outstanding balance as at 31.12.2008	€ 7,778.0	million
Decrease	€ 483.8	million

The decrease stems from the gradual repayment of interest-bearing loans.

9. Intra-Eurosystem claims

9.1 Participation in the capital, reserve assets and provisions of the ECB

The table below shows the items related to the ECB capital, reserve assets and provisions 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 2009, 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 €435.4 million.

The share of the Bank of Greece in the ECB's capital is €113.2 million and has been paid up in full. It corresponds to 1.9649% (capital key) of the ECB's total subscribed capital (27 NCBs of the ESCB), which amounts to €5,760.7 million, and to 2.81539% (capital key weighting) of the ECB capital paid up by the 16 NCBs of the Eurosystem, which after the adjustments of 2009 amounts to €4,020.4 million.

The remaining amount (€322.2 million) relates to the Bank's contribution to the reserves and provisions of the ECB. This contribution has paid up in full to the ECB.

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 2009, the NCBs' keys for subscription to the ECB capital were adjusted because, on the one hand, five years had passed from the last adjustment (1 January 2004) and, on the other hand, Slovakia adopted the euro as its national currency and its central bank joined the Eurosystem. As a result, the Bank of Greece's key for subscription to the ECB's capital changed from 1.8168% to 1.9649%, the weighting of the Bank of Greece in the ECB's capital key was adjusted from 2.60674% to 2.81539% and the banknote allocation key changed from 2.398% to 2.590%.

As a result of the increase in the Bank's key for subscription to the ECB capital, its share in the capital of the ECB rose by €8.5 million to €113.2 million and its share in the reserves and equivalent provisions of the ECB increased by €36.5 million to €322.2 million. These amounts were paid on 2 January 2009 and 9 March 2009.

9.2 Claims equivalent to the transfer of foreign reserves to the ECB

As at 31.12.2009	***(%)***	***(in € millions)***
Total foreign reserve assets transferred to the ECB by the 15 NCBs of the Eurosystem		40,204.5
Bank of Greece's subscribed capital key	2.81539	
Claims of the Bank of Greece on 31.12.2009 arising from the transfer of foreign reserve assets to the ECB		**1,131.9**

These claims stem from the transfer of foreign reserve assets to the ECB, in accordance with the provisions of the Treaty on European Union (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).

In 2009, due to the increase in the Bank of Greece's share in the ECB's capital, its share in the foreign reserve assets of the ECB grew commensurately. The relevant amount (€85.3 million) was paid to the ECB on 2 January 2009.

9.3 Other claims within the Eurosystem (net)

This item, amounting to €46.3 million, comprises:

– €7.1 million, corresponding to the balance between the monetary income of €312.7 million accrued to the Bank during 2009 and the monetary income of €319.8 million allocated to the Bank according to its share in the paid-up capital of the ECB;

– €1.3 million, stemming from the recalculation of the monetary income for 2008;

– €22.2 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 2009 and were collected in January 2010.

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 31.12.2009	€ 2.4 million
Outstanding balance as at 31.12.2008	€ 0.6 million
Decrease	€ 1.8 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	€ 58.1 millions
Outstanding balance as at 31.12.2007	€ 44.8 millions
Decrease	€ 13.3 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 2009 is reported less accumulated depreciation.

Depreciation is calculated on a straight-line basis over the expected lifetime of the asset. As from 2009, the cost of banknote production is fully charged to the expenses of the year during which banknotes are produced.

Undepreciated value of fixed assets

Asset category:	31.12.2009	31.12.2008	Change	Depreciation rate (%)
	(in € millions)			
Land	496.2	503.2	-7.0	0
Buildings and fixtures	205.5	209.0	-3.5	2.5
Buildings under construction	23.6	10.3	13.3	0
Other equipment	37.6	34.1	3.5	8-24
Capitalised expenses (software costs, etc.)	0.8	1.3	-0.5	20-24
Banknote production costs	0	46.3	-46.3	
Total	**763.7**	**804.2**	**-40.5**	

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 €29.3 million on 31 December 2009.

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 up to by 31 December 2009. The latter are to be collected in the current financial year and relate mainly to interest income on loans granted in the context of the Eurosystem's monetary policy, 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 €244 million, which had not been exchanged for euro banknotes by 31 December 2009 and are treated as accruals.

Outstanding balance as at 31.12.2009	€ 830.2 million
Outstanding balance as at 31.12.2008	€ 727.2 million
Increase	€ 103.0 million

11.5 Sundry

This item primarily consists of balances on the Bank's suspense debit accounts, its remaining holding of non-standard gold, as well as the outstanding balances of loans to the Bank's personnel.

Outstanding balance as at 31.12.2009	€ 598.9 million
Outstanding balance as at 31.12.2008	€ 561.7 million
Increase	€ 37.2 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 31.12.2009	€ 20,886.0 million
Outstanding balance as at 31.12.2008	€ 18,291.3 million
Increase	€ 2,594.7 million

This item consists of the Bank's share of total euro banknotes in circulation, calculated on the basis of the banknote allocation key (2.590%). The change resulted from, mainly, the increase in the banknote allocation key (from 2.398% to 2.590%) and, to a lesser extent, the rise in total euro banknotes in circulation both inside and outside the euro area, to €806.4 billion as at 31 December 2009, compared with €762.8 billion as at 31 December 2008 (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 €19.8 billion during 2009, from €16.5 billion in 2008.

	31.12.2008	31.12.2007	Change
	(in € millions)		
Value of euro banknotes put into circulation by the Bank	20,972.2	20,776.0	196.2
Less:			
– Liability resulting from the ECB's share in the total euro banknote issue (8% of the total value of euro banknotes in circulation)	-1,816.3[5]	-1,590.7	-225.6
Plus:			
– Claim resulting from the allocation of euro banknotes within the Eurosystem	-1,730.1[5]	-894.0	2,624.1
Value of euro banknotes in circulation based on the banknote allocation key of the Bank of Greece	**20,886.0**	**18,291.3**	**2,594.7**

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 31.12.2009		€ 4,616.1 million
Outstanding balance as at 31.12.2008		€ 4,930.9 million
	Increase	€ 314.8 million

The average balance on these accounts in 2009 amounted to €5.3 billion, compared with €4.9 billion in 2008.

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 31.12.2009		€ 3,392.0 million
Outstanding balance as at 31.12.2008		€ 2,863.0 million
	Increase	€ 529.0 million

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 31.12.2009		€ 1,333.4 million
Outstanding balance as at 31.12.2008		€ 1,520.7 million
	Decrease	€ 187.3 million

The average balance of these deposits increased considerably in 2009 to €9.6 billion, compared with €3.6 billion in 2008, due to a rise in Greek State deposits.

4.2 Other liabilities

This sub-item records the balances of non-interest bearing deposits held by various entities.

Outstanding balance as at 31.12.2009		€ 47.7 million
Outstanding balance as at 31.12.2008		€ 76.8 million
	Decrease	€ 29.1 million

5. Liabilities to non-euro area residents denominated in euro

This item includes deposits by various entities.

Outstanding balance as at 31.12.2009		€ 719.8 million
Outstanding balance as at 31.12.2008		€ 803.6 million
	Decrease	€ 83.8 million

The bulk of these liabilities (€709.4 million) consist 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 on the one hand payments by the Bank to third countries, following IMF instructions and, on the other hand, (downward) valuation adjustment as a result of the appreciation of the euro vis-à-vis the SDR in 2009 (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 31.12.2009	€ 73.1 million
Outstanding balance as at 31.12.2008	€ 103.3 million
Decrease	€ 30.2 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 31.12.2009	€ 84.5 million
Outstanding balance as at 31.12.2008	€ 78.8 million
Increase	€ 5.7 million

The increase is due to a valuation adjustment on 31 December 2009 as a result of the depreciation 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 782.2 million) to Greece. This amount was allocated by the IMF to Greece gradually. An amount of SDR 103.5 was allocated between 1970 and 1981 and the remaining SDR 678.7 in 2009. The 2009 allocations were effected in the context of a general allocation of SDRs of USD 250 billion to all IMF member countries, which was approved by the IMF Board of Governors on 7 August 2009 and implemented on 28 August 2009.

This allocation was aimed at providing liquidity to the world economy by boosting the foreign reserve assets of the IMF member countries according to their quotas.

Outstanding balance as at 31.12.2009	€ 851.7 million
Outstanding balance as at 31.12.2008	€114.4 million
Increase	€737.3 million

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 31.12.2009	€ 86.1 million
Outstanding balance as at 31.12.2008	€ 2,484.7 million
Decrease	€ 2,398.6 million

The balance as at 31 December 2009 is broken down as follows:

– €1,816.3 million (liability) 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 €225.6 million higher than on 31.12.2008 (€1,590.7million) due to, on the one hand, the increase in the weighting of the Bank of Greece in the ECB subscribed capital key (from 2.60674% to 2.81539%) and, on the other hand, the general increase in euro banknotes in circulation.

– €1,730.1 million (claim) represent an adjustment (increase) in the amount of euro banknotes that the Bank has actually put in circulation, after deducting 8% in favour of the ECB. 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 2009 came to €494 million (claim), compared with €1,484 million (liability) in 2008.

9.3 Net liabilities related to transactions with the ESCB (TARGET2)

TNet liabilities related to transactions with the ESCB (TARGET2)

These are net liabilities to the Eurosystem 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

31.12.02	31.12.03	31.12.04	31.12.05	31.12.06	31.12.07	31.12.08	31.12.09
			(in € millions)				
17,411.2	15,353.1	6,545.9	7,216.8	8,183.5	10,796.6	35,348.3	49,036.1

The €13.7 billion increase observed year-on-year as at 31 December 2009 was largely due to the increased liquidity that the Bank provided to credit institutions during 2009 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	2009
(in € millions)							
13,872.0	16,331.9	13,363.3	12,019.0	11,762.0	9,298.0	14,650.0	37,647.0

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 that was observed during 2008 and intensified in 2009, 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 €26.4 million as at 31 December 2009 (31 December 2008: €25.9 million).

11. Other liabilities

11.1 Revaluation differences on off-balance sheet instruments (memorandum item)

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).

Balance as at 31.12.2008	€ 191,0

This item represents the outcome of the end-year revaluation of outstanding currency instruments recorded in off-balance sheet (memorandum) accounts. They mainly concern foreign exchange forward transactions and currency swaps.

11.2 Accruals and income collected in advance

This sub-item represents interest expenses accrued up to 31 December 2009 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).

Balance as at 31.12.2009	€ 68.5 million
Balance as at 31.12.2008	€ 114.3 million
Decrease	€ 45.8 million

11.3 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 (ultimate deadline for exchanging drachma for euro banknotes: 1 March 2012).

Sundry liabilities	**31.12.2009**	**31.12.2008** *(in € millions)*	**Change**
Dividends to be distributed	47.7	47.7	-
Tax on dividends	15.9	15.9	-
Profit to be transferred to the Greek State	147.1	139.3	7.8
Value of drachma banknotes in circulation	244.0	247.5	-3.5
Liability to the Greek State (Greece's SDR-denominated participation in the IMF)	185.9	115.7	70.2
Other liabilities	55.5	48.5	7
Total	**696.1**	**614.6**	**81.5**

12. Provisions

Category of provisions	**31.12.2009**	**31.12.2008** *(in € millions)*	**Change**
Provision for general risks under Article 71 of the Statute	467.8	148.0	319.8
Special provision against risks from the Eurosystem's monetary policy operations	104.6	149.5	-44.9
Provision for future obligations of the Bank to its personnel insurance funds	1,275.3	1,081.5	193.8
Other provisions for doubtful claims	105.8	127.8	-22.0
Total	**1,953.5**	**1,506.8**	**446.7**

The Bank further increased considerably its provisions in 2009 to €1,953.5 million.

These provisions are intended to cover:

- possible foreign exchange and interest rate risks;

- credit risks;

- any other risks and liabilities potentially arising from the Bank's business;

- risks at Eurosystem level potentially arising from the Eurosystem's key task, which is to formulate and conduct monetary policy in the euro area; and

- the Bank's liabilities to the social security funds of its personnel.

In particular with respect to the provision for general risks under Article 71 of the Statute and the special provision against counterparty risks from the Eurosystem's monetary policy operations, the following should be noted:

- Provision for general risks under Article 71 of the Statute

This provision is aimed at covering:

– the risk of asset depreciation (foreign exchange rate, interest rate and gold price risks) (€200 million);

– various liabilities and doubtful claims (€43.8 million);

– possible general risks (€224 million).

Regarding provisions for possible general risks, the following should be noted:

In keeping with its standard practice, which is in line with the practice of the ECB and the other central banks of the euro area, and in the light of overall conditions in money markets, the Bank of Greece formed provisions for general risks also in 2009.

These provisions are aimed at covering:

- risks at Eurosystem level potentially arising from the Eurosystem's key task, which is to formulate and conduct monetary policy in the euro area;

- future credit risks;

- any other future risks and liabilities potentially arising from the Bank's business;

- any further obligations related to the social security funds of its personnel.

The Bank reviews these provisions on an annual basis and adjusts them taking into account:

– the amount of assets involving risks;

– risk exposure;

– risk assessment studies;

– money market developments and general economic conditions in the euro area and Greece;

– its current reserve assets.

- Special provision against counterparty risks from Eurosystem monetary policy operations

This was established in 2008 following a decision by the Governing Council of the ECB in order to cover counterparty risks from Eurosystem monetary policy operations.

The initial amount of this provision was €149.5 million for the Bank, against €5,736 million at Eurosystem level.

In 2009, after an upward revaluation of collateral and a downward reassessment of risk exposures, the provision was reduced commensurately to €104.6 million for the Bank and €4,011 million at Eurosystem level. The amounts released were transferred to income.

It should be noted that the NCBs, including the Bank of Greece, which conduct monetary policy operations on behalf of the Eurosystem, participate in monetary income and in provisions in proportion to their shares in the ECB capital.

The current collateral framework of the Eurosystem is sound.

However, the Eurosystem's increased activity in money markets, mainly in the 2008-2009 period, with a view to maintaining financial stability, resulted in higher risk exposure, as well as to generation of satisfactory income.

Against this background, in order to cover possible risks, the necessary provisions are formed on the basis of the principle of prudence.

The extent to which these provisions will be used depends on future developments in money markets.

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-2009 produced unrealised gains of €1,917.2 million (largely stemming from gold), which were transferred to the corresponding revaluation accounts (see breakdown in the table below).

Unrealised valuation gains	31.12.2009	31.12.2008	Change
	(in € millions)		
– on foreign currency instruments	1.2	2.4	-1.2
– on securities	21.1	36.9	-15.8
– on gold	1,894.9	1,209.8	685.1
Total	**1,917.2**	**1,249.1**	**668.1**

Unrealised losses of €5.2 million, as a result of the valuation of foreign exchange and securities made on 31 December 2009, were taken to the Profit and Loss Account.

14. Capital and reserves

Balance as at 31.12.2009	€ 850.3 million
Balance as at 31.12.2008	€ 793.3 million
Decrease	€ 11.4 million

The €11.4 million increase in the Bank's own funds stemmed from:

- A €17.5 million rise in the extraordinary reserve out of the profits for 2009.

- A €0.8 million increase in other special reserves (in 2009, the value of various artworks was accounted for).

- A €6.9 million decrease in the special reserve formed out of revaluation gains on land and buildings at fair (market) value. This decrease is attributable to the transfer to results of part of the gains, stemming from the sale of real estate of the Xanthi and Argostoli branches, which were converted into outlets in the context of the Bank's organisational restructuring undertaken in recent years.

The capital and the ordinary reserve, which are equal and amount to €111.2 million each, remained unchanged.

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 1281/30.10.1996 and Cabinet Acts No. 8/4.2.2000, 32/23.5.2002, 17/4.7.2005 and 8/10.6.2008, **has reached €111,243,362, divided into 19,864,886 shares of a par value of €5.60 each**.

14.2 Ordinary reserve

The Bank's ordinary reserve amounts to €111,243,362 and is equal to the share capital.

14.3 Extraordinary reserve

The extraordinary reserve was increased by €17.5 million out of the profits for the year 2009 and reached €72.5 million.

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).

In 2005 and 2008, part of these gains were capitalised through the allotment of bonus shares to shareholders, while a small part, stemming from land and buildings of the Bank that were sold, was transferred to profit in 2008 and 2009.

14.5 Special reserve from assets transferred gratis to the Bank

They amount to €1.1 million and represent artworks and fixed assets (mostly buildings) transferred gratis to the Bank.

OFF-BALANCE SHEET (MEMORANDUM) ITEMS

	31.12.2009	31.12.2008	Change
	(in € millions)		
– Greek government securities management of the “Common fund of public entities and social security organisations” under Law 2469/97)	20,167.9	19,345.0	822.9
– Greek government securities and other debt securities (management and safe custody on behalf of public entities, social security organisations and private-sector agents)	9,624.3	7,726.3	1,898.0
– Assets eligible as collateral for participation in the Eurosystem’s monetary policy operations and in the provision of intraday liquidity[1]	77,190.7	51,763.2	25,427.55
– Other off-balance sheet accounts[2]	282.5	3,232.8	-2,950.3
Total	**107,265.4**	**82,067.3**	**25,198.1**

1 The considerable increase in the value of assets provided to the Bank by domestic credit institutions as collateral for liquidity provided in the context of the monetary policy of the Eurosystem reflects the Eurosystem’s substantial interventions in money markets with a view to maintaining financial stability.

2 The other memorandum accounts reflect:
- forward and 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 and forward claims on domestic credit institutions, which arose in connection with the provision of Swiss franc liquidity to Eurosystem counterparties. Through swap operations, 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 2009 amounted to €228.2 million, compared with €225.1 million in 2008, having risen by 1.4%.

The relatively low increase in net profit, despite a considerable 41.3% rise in net income and a 1.7% decline in staff costs, resulted mainly from increased provisioning against future risks and other liabilities of the Bank.

ANALYSIS OF THE PROFIT AND LOSS ACCOUNT FOR 2009

INCOME

• ***The Bank's total net income in 2009*** increased considerably (by 41.3%) to €1,139.5 million, from €806.2 million in 2008. This increase was broadly based across the Bank's income categories.

Developments in individual income categories:

• ***Net interest income*** amounted to €766.7 million, having increased by 8.6% from €706.2 million in 2008, as a result of the high returns on the assets included in the Bank's portfolios.

• ***Net result of financial operations:*** this item rose by €21.2 million to €58.2 million, from €37 million in 2008, due to increased gains from transactions in debt securities.

• ***Net income from fees and commissions*** grew by 21.4% to €174.8 million, from €144 million in 2008. 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 €28.8 million to €67 million, from €38.2 million in 2008. An important inflow under this item was the payment by the European Central Bank of €63.4 million, compared with €34.4 million in 2008, corresponding to the Bank's allotted share on the ECB's seigniorage income and net profit.

• ***Net result of the pooling and reallocation of monetary income within the Eurosystem:*** this item rose considerably to €53.4 million, compared to a negative net result of €134.7 million in 2008. This development was due to the fact that, while the result for 2008 had been burdened by the establishment of a provision of €149.5 million against counterparty risks related to monetary policy operations of the Eurosystem, the financial year 2009 benefited from a €45 million decrease in the provision, following an upward revaluation of collateral and a downward reassessment of risk exposures. The relevant provision was reduced commensurately.

• ***Finally, other income,*** amounted to €19.4 million, compared to €15.5 million in 2008. This is mainly income from activities of the Bank of Greece Printing Works (IETA) commissioned by the Greek State, as well as income from the sale of premises formerly housing branches of the Bank that were converted into outlets in the context of the organisational restructuring undertaken by the Bank in recent years.

EXPENSES

Total expenses increased by 56.8% to €911.3 million in 2009, from €581.1 million in 2008.

This development was mainly due to increased provisions against future risks and liabilities of the Bank and, to a lesser extent, a rise in depreciation.

Specifically:

- ***Provisions*** set aside in 2009 reached €472.2 million, from €168.8 million in 2008. It should be noted that in the financial year 2008, in addition to the amount of €168.8 million, a special provision against counterparty risks related to monetary policy operations of the Eurosystem, amounting to €149.5 million, was established.

- ***Depreciation*** increased to €59.8 million, from €27.8 million in 2008. This item consists mainly of depreciation of banknote production costs incurred in previous years.

- By contrast, ***other operating expenses excluding provisions and depreciation*** (staff costs, pensions, administrative and other expenses) dropped by 1.4% to €379.3 million, from €384.5 million in 2008.

DETAILED INCOME AND EXPENSE STATEMENT

NET OPERATING INCOME ***(in euro)***

	2009	2008
1. NET INTEREST INCOME	**766,668,842**	**706,174,175**
1.1 Interest income	**1,432,540,058**	**1,656,126,765**
a. Interest on lending to credit institutions related to monetary policy operations	610,227,511	508,098,689
b. Interest on securities held for monetary policy purposes	4,654,440	0
c. Interest on securities and deposits with non-resident credit institutions	412,355,371	632,885,968
d. Interest on Greek government debt securities	144,932,342	132,250,421
e. Remuneration of long-term euro-denominated claims arising from the transfer of foreign reserve assets to the ECB	12,474,205	36,504,242
f. Interest on long-term claims against the Greek State	237,250,087	341,697,820
g. Interest on deposits and SDR holdings with the IMF	1,118,118	1,114,672
g. Interest on net claims related to the allocation of euro banknotes in circulation within the Eurosystem	5,242,040	0
i. Interest on loans to the personnel of the Bank of Greece	3,795,650	3,455,013
j. Other interest income	490,294	119,940
1.2 Interest expense	**-665,871,216**	**-949,952,590**
a. Interest and expenses on intra-ESCB balances (TARGET2)	-477,111,940	-545,219,686
b. Interest on net liabilities related to the allocation of euro banknotes within the Eurosystem	0	-59,924,649
c. Interest on banks' current accounts in the context of monetary policy operations (including minimum reserves)	-74,935,187	-203,895,586
d. Interest on deposits by the Greek State	-112,290,847	-134,362,811
e. Interest on foreign exchange deposits by public entities	-277,380	-3,455,963
f. Interest on the allocations of SDRs	-1,094,025	-2,866,817
g. Other interest expense	**-161,837**	**-227,078**
2. NET RESULT OF FINANCIAL OPERATIONS, WRITE-DOWNS AND RISK PROVISIONS	**58,209,232**	**36,999,655**
3. NET INCOME FROM FEES AND COMMISSIONS	**174,816,632**	**144,003,938**
4. INCOME FROM EQUITY SHARES AND PARTICIPATING INTERESTS	**66,983,496**	**38,150,051**
5. NET RESULT OF POOLING OF MONETARY INCOME	**53,376,709**	**-134,653,569**
6. OTHER INCOME	**19,410,623**	**15,511,550**
TOTAL NET INCOME	**1,139,465,534**	**806,185,800**

NOTES ON NET OPERATING INCOME ACCOUNTS

The Bank's net operating income was significantly higher in 2009, rising by 41.3% to €1,139.5 million, from €806.2 million in 2008.

In greater detail:

1. Net interest income

Net interest income (interest income less interest expense) increased by 8.6% to €766.7 million, from €706.2 million in the previous financial year.

This positive development resulted from: (i) the continuing satisfactory yields on the Bank's portfolios, a significant part of which consisted in long-term assets that were not affected directly and considerably by interest rate reductions; and (ii) a decline in interest expenses due to the significant cuts in the ECB key interest rate applicable to the Bank's liabilities (TARGET2, reserve holdings of credit institutions, deposits by the Greek State). It should be noted that the ECB's average key interest rate stood at 1.279% in 2009, compared with 4.036% in 2008.

The individual categories of interest are as follows:

1.1 Interest income

Interest income fell by 13.5% to €1.4 billion, from €1.7 billion in 2008.

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 2009, this income increased to €610.2 million, from €508.1 million in 2008. This mainly reflects enhanced lending to credit institutions due to their increased liquidity requirements as a result of the financial crisis. The effect of increased lending on interest income was largely offset by the equally important reduction in the ECB's key interest rate applicable to lending operations.

Lending in 2009 averaged €43.9 billion, compared with €12.4 billion in 2008.

By contrast, the interest rate on Eurosystem main refinancing operations averaged 1.279% in 2009, compared with 4.036% in 2008.

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 held for monetary policy purposes

This amounted to €4.7 million and refers to interest on securities purchased by the Bank in the context of the Eurosystem's covered bond purchase programme for a total amount of €60 billion. The value of this type of securities held by the Bank as at 31.12.2009 amounted to €674.1 million.

c) 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	**2009**	**2008** *(in € millions)*	**Change**
– on securities	412.0	620.9	-208.9
– on time deposits and current accounts	0.4	12.0	-11.6
Total	**412.4**	**632.9**	**-220.5**

The rate of decrease in this interest was less than the overall decrease in interest rates following the considerable reduction in the ECB key interest rate, which fell from 4.036% (average rate) in 2008 to 1.279% (average rate) in 2009.

This development was a result of the sound structure of the Bank's portfolios, which kept yields at high levels.

d) Interest on Greek government debt securities

Interest on the Bank's holdings of Greek government securities increased by €12.6 million in comparison with the previous financial year (2009: €144.9 million, 2008: €132.3 million).

e) 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 fell by €24 million in 2009 to €12.5 million (2008: €36.5 million), exclusively on account of the decrease in the MRO rate.

f) 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 fell to €237.3 million in 2009, from €341.7 million in 2008 (-€104.4 million), mostly owing to the decrease in the Libor and Libid rates applicable to 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) and, to a lesser degree, to a reduction in principal as a result of gradual debt repayment.

g) Interest on deposits and SDR holdings with the IMF

This item stood at approximately the same level as in the previous financial year (€1.1 million) and comprises interest on Greece's participation in the IMF (quota) and on the Bank's SDR holdings with the IMF, which derive from the IMF's SDR allocation that took place in 2009 in the context of the general SDR allocation to all IMF member countries.

h) Interest on net claims related to the allocation of euro banknotes in circulation within the Eurosystem

This amounted to €5.2 million, against interest expenses of €59.9 in 2008. This development resulted from the fact that the value of banknotes actually put into circulation by the Bank in 2009 was less than its share under the banknote allocation key. Interest calculated on the basis of the ECB's key interest rate and amounting to €5.2 million was paid on the resulting difference, which represents a claim of the Bank against the Eurosystem.

This interest income is calculated on the basis of:

– 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 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 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).

i) 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 amounted to €3.8 million, compared with €3.5 million in 2008.

j) Other interest income

Other interest income totalled €490,000, compared with €120,000 in 2008.

1.2 Interest expense

Interest expense decreased by 29.9% to €665.9 million, from €950.0 million in 2008.

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 in 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 and 2009, in view of the financial crisis, the volume of liquidity provided to credit institutions through main and longer-term refinancing operations was increased substantially. The bulk 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.

Reduced interest expenses in 2009 were due exclusively to the lower ECB key interest rate, while the average annual balance of the account was €37.6 billion, compared with €14.7 billion in the previous financial year.

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 in circulation within the Eurosystem

In annual average terms, the balances in accounts through which banknotes in circulation are allocated within the Eurosystem represented a claim of the Bank; thus, interest amounting to €5.2 million was collected (item (h) under the heading "Interest income"), compared with interest expenses of €59.9 in the previous financial year.

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 and, to a lesser extent, interest paid on time deposits and overnight deposits by domestic credit institutions with the Bank of Greece, in the context of monetary policy conduct in the euro area countries.

This item registered a substantial decrease of €129 million in 2009 compared with the previous year (2009: €74.9 million, 2008: €203.9 million), which is attributable exclusively to the lower ECB key interest rate, as deposits rose (in 2009 deposits averaged €6.7 billion, compared with €5,1 billion in 2008).

d) Interest on deposits by the Greek State

Interest on deposits by the Greek State fell by 16.4% to €112.3 million in 2009, from €134.4 million in 2008, as a result of the lower applicable interest rate. By contrast, the volume of deposits rose significantly.

The average daily level of total deposits of the Greek State with the Bank was €9.6 billion in 2009, compared with €3.6 billion in 2008, remunerated at an average interest rate of 1.27%, compared with 4.02% in 2008.

The bulk of this item refers to interest paid on time deposits held by the Greek State with the Bank following the revision of the relevant agreement between the Bank and the Greek State, whereby it was agreed that, 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.

It should be noted that the interest paid on the Greek State's time deposits is offset by a corresponding decline in the interest paid on the balance of the TARGET2 account. This is so because the funds placed by the Greek State in time deposits with the Bank derive from funds held with commercial banks; in order to compensate for the withdrawal of these funds, the latter transfer equal amounts from their holdings abroad via TARGET2.

e) Interest on foreign exchange deposits by public entities

This item decreased substantially to €277,000, from €3.5 million in 2008, due to both considerably lower USD interest rates and lower deposits. Following significant reductions, the key interest rate on US dollar-denominated deposits was set at 0.25% on 16.12.2008 and remained at that level throughout 2009.

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 (2009: €1.1 million, 2008: €2.9 million) due to a drop in SDR interest rates. Conversely, liabilities rose considerably following the new allocations of SDR amounting to €678.7 million by the IMF to Greece in September and October 2009 in the context of liquidity provision to the global economic system with a view to boosting the reserve assets of its member countries.

g) Other interest expense

This item fell to €162,000, from €227,000 in the previous financial year.

2. Net result of financial operations, write-downs and risk provisions

The net result from financial operations in 2009 increased by €21.2 million to €58.2 million, from €37 million in 2008.

A detailed breakdown is provided below.

2.1 Realised gains from financial operations	**2009**	**2008** *(in € millions)*	**Change**
– foreign exchange operations	8.4	12.3	-3.9
– transactions in securities	44.5	26.0	18.5
– foreign exchange valuation differences due to changes in the €/SDR parity	0.3	-6.6	6.9
– purchases and sales of gold coins	5.0	5.3	-0.3
Total	**58.2**	**37.0**	**21.2**
2.2 Write-downs of financial assets and positions (unrealised losses)			
– from the valuation of foreign exchange	-0.4	-11.7	11.3
– from the valuation of securities	-4.8	- 0.2	-4.6
Total	**-5.2**	**-11.9**	**6.7**
2.3 Transfer from provisions for exchange rate and price risks	**5.2**	**11.9**	**-6.7**
Grand total	**58.2**	**37.0**	**21.2**

As shown in the table, the €21.2 million increase in the net result from financial operations was mainly due to gains from transactions in securities (which increased by €18.5 million) and, to a lesser extent, to foreign exchange valuation gains as a result of the appreciation of the euro against the SDR (the balances on euro-denominated accounts held by the IMF with the Bank are readjusted when the €/SDR parity changes).

By contrast, gains from foreign exchange operations fell, while gains from sales of gold coins (British sovereigns) amounted to €5 million, compared with €5.3 million in 2008.

Finally, the 2009 results include unrealised valuation losses of €5.2 million (2008: €11.9 million) from the year-end valuation of foreign exchange and securities (mainly securities). 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 21.4% to €174.8 million in 2009, from €144 million in the previous year, mainly as a result of higher commissions from the management of Greek government securities.

A breakdown is provided below.

Net income from fees and commissions	2009	2008	Change
	(in € millions)		
3.1 Income from fees and commissions			
– management of Greek government securities	56.4	33.6	22.8
– payments and receipts on behalf of the Greek State	80.4	73.7	6.7
– management of the "Common Fund" (surpluses of public entities and social security organisations) under Law 2469/1997	30.9	30.5	0.4
– other	8.7	7.7	1.0
Total	**176.4**	**145.5**	**30.9**
3.2 Expenditure for fees and commissions	**-1.6**	**-1.5**	**-0.1**
Total net income from fees and commissions	**174.8**	**144.0**	**30.8**

4. Income from equity shares and participating interests

Income from equity shares and participating interests increased considerably to €67 million in 2009, from €38.2 million in 2008.

Income from equity shares and participating interests	2009	2008	Change
	(in € millions)		
income from the ECB			
– from the distribution of part of the ECB's seignorage income	22.2	31.4	-9.2
– from the distribution of the ECB's net profits	41.3	3.1	38.2
other income from equity shares and participating interests	3.5	3.7	-0.2
Total	**67.0**	**38.2**	**28.8**

Income from the ECB

• The Bank received an amount of €22.2 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), compared with €31.4 in the previous financial year. As a result of the reduction in the ECB's key interest rate, the ECB's total seignorage income declined to €787 million in 2009, compared with €2.2 billion in 2008 (see "Banknotes in circulation" under "Accounting Policies").

• In addition, the Bank received from the ECB an amount of €41.3 million corresponding to its share in the distribution of the remaining balance (€1.5 billion) of the ECB's profit for 2009. It should be noted that the ECB distributed to the Eurosystem NCBs its total profits for 2009, amounting to €2.3 billion.

Other income from equity shares and participating interests

This income, amounting to €3.5 million, corresponds to deferred payments of dividends for the financial year 2008 and returns of capital in respect of the Bank's participating interests in the Bank of International Settlements (BIS), DIAS Interbank Systems SA and Hellenic Exchanges SA.

5. Net result of pooling of monetary income

	2009	2008	Change
	(in € millions)		
– Income from the reallocation of the Eurosystem monetary income	8.4	14.9	6.7
– Provision against risks from Eurosystem monetary policy operations	0	-149.5	149.5
– Transfer to income from the provision against counterparty risks from Eurosystem monetary policy operations	45	0	45
Total	**53.4**	**-134.6**	**188**

The net result from the pooling and reallocation of Eurosystem monetary income increased considerably to €53.4 million, compared with a negative result of -€134.6 million in the previous financial year.

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;

- securities held for monetary policy purposes (covered bonds); their yield is calculated daily on the basis of the latest available marginal rate of the Eurosystem main refinancing operations;

- intra-Eurosystem claims equivalent to the transfer of foreign reserve assets 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 (gap) 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.

From the Bank's share of €8.4 million in the income for the financial year 2009, an amount of €7.1 million derived from the reallocation of monetary income for 2009 and an amount of €1.3 million stemmed from the recalculation of monetary income for 2008.

The above method for allocating monetary income was established by Decision 2001/16 of the Governing Council of the ECB and amending Decisions ECB/2006/7, ECB/2007/15 and ECB/2009/27.

Provision against counterparty risks from Eurosystem monetary policy operations

The €149.5 million euro provision against risks arising from the Eurosystem's monetary policy operations was established following a decision by the Governing Council of the ECB on 18.12.2008, 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, in line with the principle of prudence, the NCBs should establish their respective shares of an appropriate provision totalling €5.7 billion in their annual accounts for 2008 as a buffer against counterparty 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 was 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.

Transfer from the provision against risks from monetary policy operations

An amount of €45 million from the provision against risks from monetary policy operations was transferred to the Bank's income for the financial year 2009. Under the Decision taken by the Governing Council of the ECB on 18.12.2008, the total amount (€5.7 billion) of the provision established against risks from Eurosystem monetary policy operations in 2008 will be readjusted following the annual valuation of securities taken as collateral against the liquidity provided to defaulting banks.

The favourable outcome of the revaluation of collateral in 2009, attributable to improved conditions in financial markets, combined with the reduced balance of collateral due to the sale of a part of the portfolio and the collection of coupons, resulted in a reduction in the relevant risk and, therefore, a decrease in the relevant provision from €5.7 billion to €4 billion and a transfer of €1.7 billion to income from unused provisions (the share of the Bank is €45 million).

6. Other income

Other income increased by €3.9 million to €19.4 million, compared with €15.5 million in the previous financial year.

Other income includes revenue of €11.4 million from the activities of the Banknote Printing Works (IETA) of the Bank of Greece, derived from the production of products on behalf of the Greek State (coins, lottery tickets, passports, forms), profits of €7.2 million from the sale of real estate, i.e. the buildings housing the Xanthi and Argostoli branches, which were converted into outlets in the context of the organisational restructuring undertaken by the Bank in the past few years, as well as 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	333,133,279	339,005,755
ADMINISTRATIVE AND OTHER EXPENSES	46,135,461	45,474,314
DEPRECIATION OF TANGIBLE AND INTANGIBLE FIXED ASSETS	59,807,274	27,811,854
PROVISIONS	472,228,907	168,809,636
TOTAL EXPENSES	911,304,921	581,101,559

NOTES ON THE EXPENDITURE ACCOUNTS

Expenditure in 2009 grew by 56.8% to €911.3 million, from €581.1 million in 2008.

This development was mainly due to increased provisions against future risks and liabilities and, to a lesser extent, to increased depreciation..

In greater detail:

• ***Outlays for staff costs and pensions*** decreased by 1.7% to €333.1 million, from €339 million in 2008..

• ***Administrative and other expenses*** increased slightly, by 1.5%, to €46.1 million, from €45.5 million in 2008. These expenses mainly 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, other overhead costs, etc.

• ***Depreciation*** increased considerably to €59.8 million, from €27.8 in the previous financial year, due to the total depreciation of previous years' banknote production costs.

• ***The provisions*** established in 2009 amounted to €472.2 million, compared with €168.8 million in the previous financial year. They are intended to cover future risks and liabilities of the Bank.

NET PROFIT

Net profit amounted to €228.2 million in 2009, compared with €225.1 million in 2008, thereby registering an increase of 1.4%.

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	13,309,473
Ordinary reserve	-	22,248,672
Extraordinary reserve	17,500,000	-
Additional dividend, €1,73 per share on 19,864,886 shares*	34,366,253	34,366,253
Tax on dividends (Article 6 of Law 3296/2004)	15,891,909	15,891,909
To the government	147,092,978	139,267,934
	228,160,613	**225,084,241**

* Total dividend in 2009 is €2.40 per share. Dividends are subject to tax withholding of 10%, in accordance with Article 18 of Law 3697/2008.

Athens, 23 March 2010

For the General Council
THE CHAIRMAN

GEORGE A. PROVOPOULOS
GOVERNOR OF THE BANK OF GREECE

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