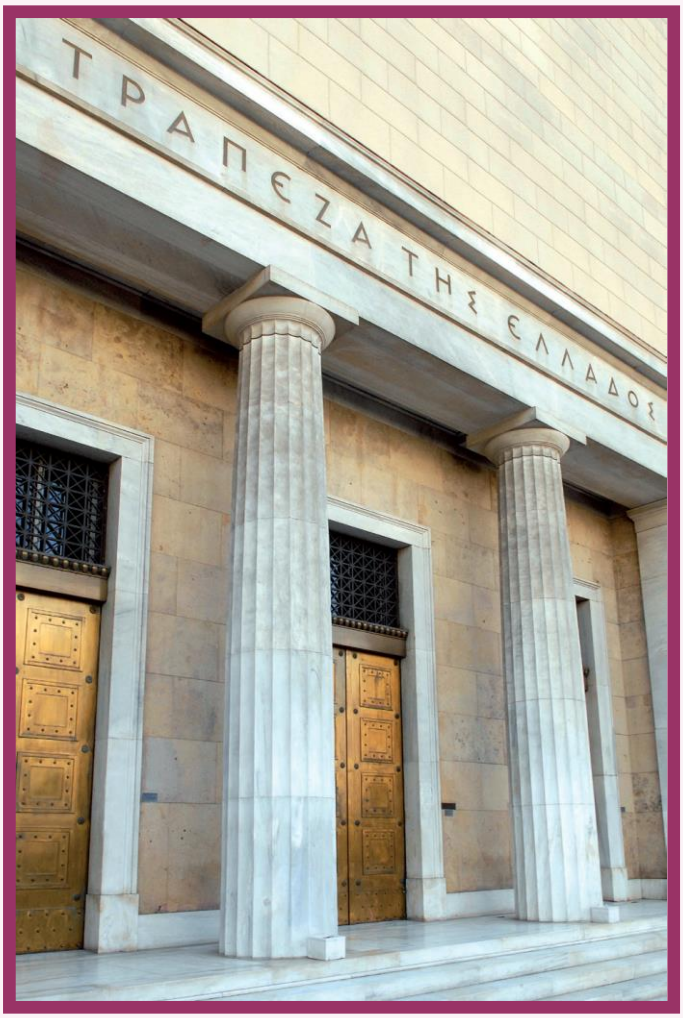
OVERVIEW OF THE GREEK FINANCIAL SYSTEM



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ISSN 2529-0681

FOREWORD

The analysis that follows in the next pages is the third release of the Overview of the Greek Financial System, which has been scheduled as a biannual publication of the Bank of Greece.

Among the Bank of Greece staff that contributed to this publication, special mention should be made of Daniela Marcelli, Elias Veloudos, Maria Vergeti, Eleftheria Georgoulea, Georgios Efstathiou, Konstantinos Zavantis, Alexandros Kaliontzoglou, Konstantinos Kanellopoulos, Georgios Kaoudis, Evaggelia Kardara, Margarita Kefaloniti, Eleni Loukidou, Alexandros Brachos, Vasiliki Nydrioti, Ioanna Pantou, Konstantinos Papistas, Sofia Savvidou, Ioanna Seliniotaki, Dimitrios Sideris, Nikolaos Stavrianou, Stavros Stavritis and Ioannis Chatzivasiloglou.

Moreover, the Bank's Administration, the Economic Analysis and Research Department, the Financial Operations Department and the Resolution Department provided valuable comments and corrections.

Finally, it is necessary to stress the excellent cooperation with the Communications Section of the Human Resources and Organisation Department and the Publications and Translation Section of the Economic Analysis and Research Department. Without their assistance this publication would not have been possible. The responsibility for any errors and omissions rests exclusively with the Financial Stability Department.

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I. OVERVIEW

The gradual recovery of the financial system continued in 2016 and the first months of 2017. Stabilised and improved economic conditions contributed to consolidating financial stability, which is in turn expected to contribute to a further strengthening of activity in the real economy. The completion of the second review of the third Economic Adjustment Programme confirms the progress achieved in the areas of fiscal adjustment and structural reforms and lifts uncertainty surrounding the country's immediate debt-servicing obligations. These developments may improve both economic sentiment and the growth outlook. However, financial stability is still up against significant challenges, the most important being the effective management of the high stock of non-performing exposures (NPEs) and the further reduction of bank's reliance on Emergency Liquidity Assistance (ELA).

The present Overview covers the entire financial system, but analyses the banking sector in more detail. Besides, given the dominant role of banks in financial intermediation in Greece, the stability of the domestic financial system depends crucially on the stability of the banking sector. The analysis is complemented with Special Features, which present issues of a more technical nature.

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The resilience of the banking sector was enhanced in 2016. After a row of loss-making years, Greek commercial banks reported marginal pre-tax profits on a consolidated basis. This return to profitability was made possible by improved operating results and, more significantly, the large reduction in provisions for credit risk. At the same time, capital adequacy ratios improved further, as banks' risk-weighted assets decreased in the context of the sale of non-core business in Greece and abroad.

Among risks, credit risk showed signs of stabilisation, but undoubtedly remains the largest challenge for the banking sector. In absolute terms, the stock of NPEs has slowly declined over the four quarters of 2016, after peaking in March 2016. However, the NPL ratio rose in the first quarter of 2017 because of the decrease in total outstanding loans, but also because of increased uncertainty deriving from the protracted negotiations on the second review of the third Economic Adjustment Programme. Housing loan portfolios were more affected.

The Bank of Greece and the government have undertaken a series of measures to deal with the factors that hindered the efforts of banks to effectively address the issue of NPEs. According to the operational targets set, measures that are expected to facilitate the efforts to reduce NPEs up to end-2019 include reforming the legal framework regarding insolvency; addressing the tax treatment of write-offs and the sale of loans; and the legal protection of staff involved in loan restructuring processes.

Further support could be provided by the introduction of the out-of-court workout solution, which presents considerable advantages as it allows for addressing arrears to both private and public creditors in a comprehensive manner so as to find the optimum solution; the voluntary entry of overindebted businesses into negotiations with their creditors; ensuring a coherent timetable and a clear decision-making process; the electronic management platform, etc.

At the same time, it is estimated that the development of an application for the electronic

auctioning of real property, combined with the amendment of the institutional framework governing credit servicing firms so as to facilitate the entry of more firms into the market, will have a positive contribution. It should be reminded that, up to now, four firms have been authorised.

In addition, Special Feature I underlines the importance of the smooth functioning of the justice system. Shortening the time needed to resolve insolvency, especially to liquidate the collateral held by credit institutions, may improve considerably the value of NPEs (December 2016: €106.3 billion), thereby facilitating their more active management within an efficient distressed debt market. The analysis shows that, especially for denounced loans (December 2016: €48 billion), a possible shortening of judicial proceedings by three years could lead to a €7 billion increase in their recoverable value.

Turning to liquidity risk, the liquidity of credit institutions as a whole improved considerably. Financing by the Eurosystem has been on the decline, both in absolute terms and as a percentage of total assets. This decrease is attributable to (a) the sale of European Financial Stability Fund bonds to the ECB, in the context of the existing asset purchase programme; (b) improved access to the interbank market; (c) a fall in assets because of the sale of subsidiaries and in the context of deleveraging; and (d) a stronger deposit base.

Market risk remained low, as the Greek bond and equity markets registered strong upward trends, benefiting portfolio valuations. Stress tests have shown that the realisation of adverse scenarios would have a very limited impact on credit institutions' capital adequacy.

Also in 2016, Greek banking groups continued to downscale their presence abroad, in fulfilment of commitments under their restructuring plans, which have been approved by the European Commission. The sale of subsidiaries abroad had a further positive effect on liquidity and capital adequacy of banking groups. Furthermore, international business[1] helped enhance the deposit base and profitability of banking groups.

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"Other" sectors represent only a small part of the financial system, therefore their impact on financial stability is commensurately smaller. However, given the linkages of these sectors with the banking sector, as well as their implications for economic developments, their activity also needs to be monitored.

The most significant developments in the insurance sector concerned the implementation of the new supervisory framework "Solvency II" and the attraction of foreign investments.

The domestic insurance market has proven to be consistent and adjustable to the supervisory requirements of the new framework and the solvency positions of insurance undertakings is satisfactory. For insurance undertakings, underwriting risk (life, health and non-life insurance) is the most important among risks, followed by market risk, which is related to their holdings of financial instruments. Other risks include operational risk and counterparty default risk, while the risk profile of insurance undertakings is positively affected by risk diversification.

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[1] On a comparable sample, i.e. not including the sale of subsidiaries and discontinued operations.

The stability of the domestic financial system was supported by the smooth operation of payment, clearing and settlement systems, collectively known as market infrastructures, which contributed to the effective processing of transactions. Additionally, the use of electronic means of payment has increased, partly because of capital controls, but also because of the gradual familiarisation of the public. This supported bank's fee income while contributing to a more efficient processing of transactions (e.g. banknote handling and circulation costs) and combating tax evasion.

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The medium-term outlook for financial stability is favourable. Positive economic growth is expected in Greece in 2017 when, according to Bank of Greece estimates, GDP will grow by 1.6%. Furthermore, the single monetary policy in the euro area remains accommodative, while a possible inclusion of Greek government bonds in the asset purchase programme would further improve financing conditions in Greece. Combined with the consolidation of depositors' and investors' confidence, the above factors are expected to facilitate the banking sector in its effort to effectively manage non-performing loans and diversify its sources of financing. Strengthening the intermediation role of banks constitutes a necessary condition for the change of the country's production model, with an emphasis on innovation and exports in order to achieve sustainable development.

There is no room for complacency. The domestic financial system remains vulnerable to macroeconomic and financial disturbances. At the same time, the global supervisory and institutional environment is becoming stricter, as authorities and governments wish to avoid mistakes of the past.

Quite indicative is the Minimum Requirement for Own Funds and Eligible Liabilities (MREL) in the context of the EU Directive on the recovery and resolution of credit institutions and investment firms. This requirement, which is examined in detail in Special Feature II, aims at ensuring that institutions have issued adequate bail-inable financial instruments in order to be capable of absorbing potential losses without endangering financial stability or needing a bailout with taxpayer money.

Another important development is the adoption, as from 1 January 2018, of International Financial Reporting Standard (IFRS) 9 regarding provisioning for impairment and the recognition of interest income on financial instruments, depending on their credit quality, which is analysed in Special Feature III. The main innovation of IFRS 9 is the adoption of an expected credit loss model, to replace the current incurred loss model. It is thus understood that the adoption and gradual implementation of IFRS 9 could lead to higher provisioning against credit risk.

Finally, it is worth noting that credit institutions have completed all necessary steps to strengthen their corporate governance, including the replacement of their members of the board of directors. In this context, Special Feature IV describes the institutional framework, the process and the fit and proper assessment regarding their members of the board of directors and the heads of crucial functions.

II. ECONOMIC AND FISCAL DEVELOPMENTS

1. ECONOMIC ACTIVITY: DEVELOPMENTS AND PROSPECTS

After a mild recession in 2015, GDP remained unchanged in 2016, despite a positive outlook in 2016Q2 and 2016Q3, when the completion of the first review had boosted economic sentiment and liquidity conditions in real economy through the payment of government arrears. However, the refuelling of uncertainty due to the protracted negotiations on the second review, combined with a squeezing of resources from the real economy, resulting in an overachievement of the primary balance target, led to an economic downturn in 2016Q4. Nevertheless, the rate of growth turned positive again in 2017Q1, on the back of strong private consumption, recovered gross fixed capital formation and exports growth.

In 2016, domestic demand strengthened because of increased private consumption, which was financed through household savings, as well as higher employment, a trend that fed into 2017Q1.

Investment remained unchanged in 2016, despite the fact that uncertainty led to a postponement of many public and private investment plans. However, removing uncertainty will boost investment, which is expected to rise considerably over the medium term.

Exports of goods rose in both 2016 and 2017Q1 as a result of competitiveness gains of the Greek economy. It is noted that exports of goods rose more than external demand in 2014-2016. By contrast, exports of services declined as a result of lower shipping and

Table II.1 GDP and its main components (2015 – Q1 2017)

Percentage changes (constant market prices of 2010)

	2015	2016	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017
Private Consumption	-0.3	1.4	-0.7	-0.7	6.1	1.1	1.7
Public Consumption	0.0	-2.1	-3.5	-1.5	-1.3	-2.0	1.0
Gross fixed capital formation	-0.2	0.0	-10.1	17.8	12.6	-13.8	11.2
Dwellings	-26.0	-12.6	-17.1	-23.3	-3.3	-3.0	-11.2
Other constructions	5.0	4.6	14.0	14.2	12.7	-17.2	-10.2
Equipment	-2.7	-1.0	-23.1	39.7	15.0	-19.2	58.0
Domestic demand	**-0.2**	**0.5**	**-2.3**	**0.9**	**5.2**	**-1.5**	**2.5**
Export of Goods and Services	3.1	-1.7	-10.4	-9.9	10.8	4.9	4.8
Export of Goods	8.6	3.0	1.9	4.0	8.3	-2.2	4.4
Export of Services	-2.7	-7.4	-22.0	-24.2	14.0	11.5	8.0
Imports of Goods and Services	0.3	0.6	-10.1	-2.1	13.8	3.3	10.9
Import of Goods	3.4	3.4	-3.7	5.7	10.5	2.0	11.6
Import of Services	-11.7	-11.5	-32.0	-30.4	33.7	8.6	10.5
Real GDP at market prices	**-0.3**	**0.0**	**-0.8**	**-0.4**	**2.1**	**-1.0**	**0.4**

Sources: Hellenic Statistical Authority and Bank of Greece.

tourism receipts.

The current account deficit came to 0.6% of GDP because of a widening of the deficits in the non-oil and the services balance. The current account balance is expected to move into positive territory in the medium term, mainly because of expected high revenues from tourism.

Turning to the labour market, the decrease of unemployment continued in 2016 and employment, notably dependent employment, rose in spite of stagnant growth. Over the first months of 2017, the rate of unemployment decelerated faster than in 2016, reflecting employment rises mainly in tourism, trade and manufacturing. Flexible employment still constitutes the majority of new hirings, though its share remains lower than the European average. Nevertheless, long-term unemployment has been falling very slowly and this is why targeted active employment policies should be further promoted, together with training programmes for the unemployed, within the context of continuing structural reforms.

HICP inflation stabilised in the course of 2016. However, in the first months of 2017, it became positive due to the increases in indirect taxes and higher international oil prices, which is expected to continue throughout the year.

Economic activity is expected to recover in 2017, 2018 and 2019. In greater detail, growth rates are expected to stand at 1.6%, 2.4% and 2.7% in 2017, 2018 and 2019, respectively (see Table II.2). The forecasts for 2017 are based on the assumption that fiscal developments will have a positive impact on economic activity, since the 2016 budget balance was partly based on a non-recurring collection of revenue and a containment of spending. They are also based on soft data pointing to an increase in external demand for goods and (mainly tourism) services. Furthermore, it is expected that the completion of the second review will have a positive impact on financing conditions and economic sentiment, with quite positive effects on the evolution of key domestic demand components.

The risks surrounding the projections of the Bank of Greece are balanced. A better than expected outcome is related to a faster than expected restoration of confidence and expectations and a swifter improvement of liquidi-

Table II.2 Macroeconomic estimates in Greece (changes over previous period)

	2015	2016	2017	2018	2019
GDP (at constant prices)	***-0.2***	***0.0***	***1.6***	***2.4***	***2.7***
Private Consumption	-0.2	1.4	1.1	1.4	1.3
Public Consumption	0.0	-2.1	1.4	-0.2	1.8
Gross fixed capital formation	-0.3	0.1	5.6	10.1	11.6
Export of Goods & Services	3.4	-2.0	5.5	4.7	4.3
Import of Goods & Services	0.3	-0.4	4.4	4.1	3.9
Inventrory Changes	-1.0	-0.1	-0.3	0.1	-0.1
HICP	-1.1	0.0	1.2	1.1	1.2
HICP excluding energy	0.2	0.5	0.7	1.1	1.2
Number of persons employed	2.1	1.8	1.5	2.0	2.3
Unemployment rate (% of labour force)	24.9	23.5	22.4	20.9	19.1
Balance of payments (% of GDP)	0.1	-0.6	0.4	0.3	0.5

Sources: Hellenic Statistical Authority and Bank of Greece.

ty. A worse than expected outcome is related to the impact of possible delays in the implementation of agreed measures. It is also related to international developments, including mounting protectionism and a possible intensification of the refugee crisis.

2. FISCAL DEVELOPMENTS

The completion of the first review in May 2016 had a positive effect on confidence and the economic recovery outlook. The agreement came with an approval of the second tranche of the programme amounting to €10.3 billion, €3.5 billion of which was channelled to the real economy for the payment of government arrears. However, initial expectations for a swift completion of the next reviews dissipated at end-2016, due to protracted negotiations. As was the case with the first review during the corresponding period of last year, protracted negotiations continued into the next year and, as a result, public finances in the first months of 2017 showed similarities with the corresponding 2016 period. As a result, financing froze again in the context of the new programme, public expenditure was contained, the payment of arrears to general government suppliers was postponed and government paper yields remained at high levels.

A significant development was that the primary surplus in 2016, as defined by the programme, came to 4.2% of GDP, i.e. eight times more than the 0.5% target. This overachievement was facilitated by the better performance of revenue from indirect and direct taxation, which can be attributed also to improved collectability of revenue from income tax and VAT. Additionally, higher VAT revenue can also be attributed to an increase in credit and debit card transactions since July 2015, after the imposition of the capital controls[2]. In any case, the largest part of the overshoot is due to certain extraordinary factors that are related inter alia with one-off revenues, as well as lower non-recurring public expenses. As a result, a part of the higher primary surplus is expected to positively affect next year's outcome. Despite its contribution to the containment of public debt, it had a negative effect on real economy.

In order for the second review to be completed, a set of new measures were adopted, including inter alia the pension and the tax systems for the years 2018-2021 with a cumulative impact of 2.3% of GDP, as well as a set of potential offsetting measures to be implemented in 2019 and 2020 subject to achievement of the programme targets, while the Medium-Term Fiscal Strategy Framework 2018-2021 was also passed. In greater detail, Law 4472/2017 includes:

- a supplementary set of parametric measures for the achievement of fiscal targets set by end-2018, with a cumulative impact of 0.3% of GDP;
- a reform of the pension system, with a view to yielding savings of 1.3% of GDP in 2019-2021;
- a reform of the personal income tax, with a net impact of 1% of GDP for 2020, possibly to be implemented already from 2019 if necessary, for the achievement of a primary surplus equal to 3.5% of GDP;
- the possibility of legislating social support measures for the 2019-2021 period, as long as there is no deviation from the medium-term fiscal targets;

[2] See Hondroyiannis, G. and D. Papaoikonomou (2017), "The effect of card payments on VAT revenue: New evidence from Greece", Economics Letters, 157, pp. 17-20.

- the Medium-term Fiscal Strategy Framework 2018-2021.

During its 15 June meeting, the Eurogroup recognised Greek reform efforts; the second review was completed; and the disbursement of €8.5 billion was approved. The first disbursement (€7.7 billion) was effected on 10 July; of this amount, €6.9 billion will be channelled towards servicing public debt and €0.8 billion for the payment of government arrears to private individuals. The €0.8 billion instalment for the clearance of government arrears is expected to be disbursed after the summer.

At the same time, the Eurogroup made clear reference to a possible 0 to 15-year interest and amortization payment deferral for EFSF loans, while also mentioning a possible introduction of an operational growth-adjustment mechanism. Also, it was recognised that primary surplus may be reduced to levels equal to or above but close to 2% of GDP in 2023-2060.

The completion of the second review is expected to have a positive impact on the economy, through the direct restoration of liquidity and the release of the instalment under the programme, and also indirectly through the support of market confidence in the economic outlook. Over the medium term, it is estimated that the fiscal targets will be overachieved without a need for further measures. The Medium-term Fiscal Strategy Framework 2018-2021 envisages primary surpluses – as defined in the programme – of 1.9% of GDP in 2017, 3.5% of GDP in 2018 and 4.0% of GDP in 2019, 2020 and 2021, against programme targets of 1.75% of GDP for 2017 and 3.5% of GDP for 2018 and beyond. The Eurogroup agreement envisages primary surpluses of 3.5% of GDP up to 2022 and equal to or above but close to 2% of GDP up to 2060.

However, the fiscal policy mix will have to change in order to become more supportive to growth. Resources should be reallocated to sectors with a larger bearing on growth, while the tax-centred character of fiscal policy should change through a reduction of tax rates and a containment of expenditure. Steps in the right direction include the already voted social support measures, the decrease in the lowest rate of personal income tax, the lowering of the special solidarity levy rates, the reduction of the corporate income tax rates (excluding credit institutions) and the cuts in the uniform tax on real property, all envisaged as offsetting measures subject to achievement of the programme targets.

Moreover, in order to combat tax evasion and increase public revenue, structural reforms in tax administration will have to be effectively implemented and tax audits will have to be enhanced. This will improve tax collectability and support the sentiment of tax fairness.

At the same time, public property will have to be used in a more rational way. Beyond the obvious benefits of higher public revenue, new private investment and the strengthening of entrepreneurship and competition can benefit GDP and employment in multiple ways.

The Medium-term Fiscal Strategy Framework 2018-2021 maintains fiscal targets at 3.5% of GDP over the medium term. However, this target is deemed very high to be sustainable for long, and the fiscal effort required could hinder economic growth over the medium term. Redetermining the fiscal target to a primary surplus of 2.0% of GDP is more realistic. Therefore, the relevant Eurogroup decision of 15.6.2017, allowing for a possible lowering of primary surpluses to a level equal

to or above but close to 2% of GDP over the period 2023-2060, is in the right direction. This reduction, combined with the promotion of the aforementioned structural reforms and a mild restructuring, is likely to create the necessary conditions for a gradual decrease in taxation and a further pickup in economic activity and investment, without jeopardising the sustainability of public debt.

III. THE BANKING SECTOR

1. EVOLUTION OF KEY AGGREGATES

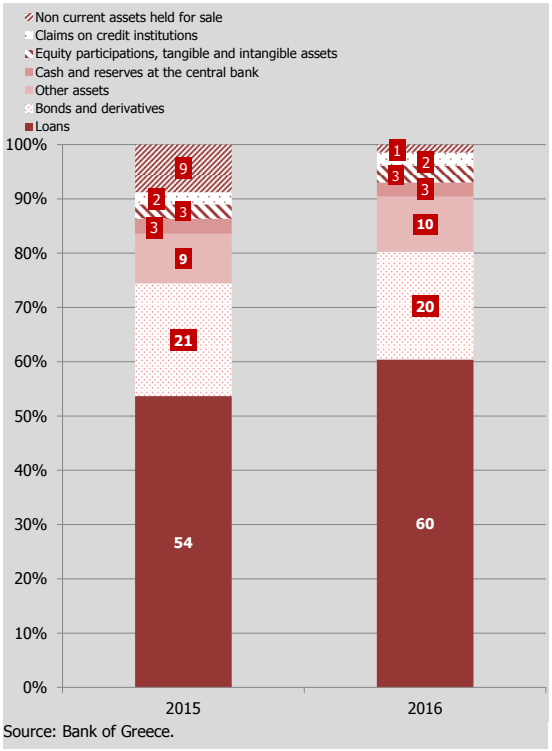
2016 saw considerable changes in the structure of both assets and liabilities of the Greek banking sector. Key to this development was systemic banks' shedding of non-core activities, restructuring of loan portfolios, and reduced borrowing from the ECB and ELA.

Greek commercial banks' assets decreased by 14.6% in 2016 (i.e. by €51 billion) to €298 billion (see Table III.1). This decrease is attributable to:

a) A reduction of €26 billion in assets held for sale, which also decreased as a percentage of assets (December 2016: 1.5%, December 2015: 8.8%, see Chart III.1). This change is attributable to the sale of foreign subsidiaries - notably Finansbank by the National Bank of Greece - in the context of Greek systemic banks' restructuring plans, which were approved by the European Commission (DG Competition).

Chart III.1 Structure of assets of the Greek commercial banking groups

(percentage %)



Source: Bank of Greece.

Table III.1 Structure of assets and liabilities of the Greek commercial banking groups

(amounts in EUR millions)

Assets	2015	%	2016	%	Change
Cash and reserves at the central bank	9.705	2,8%	7.731	2,6%	-1.974
Claims on credit institutions	7.814	2,1%	7.177	2,4%	-637
Loans	187.169	53,7%	179.907	60,4%	-7.262
Bonds and derivatives	72.459	20,8%	59.109	19,8%	-13.350
Equity participations, tangible and intangible assets	9.267	2,7%	9.236	3,1%	-31
Non-current assets held for sale	30.541	8,8%	4.377	1,5%	-26.164
Other assets	31.814	9,1%	30.319	10,2%	-1.495
Total	**348.769**	**100%**	**297.856**	**100%**	**-50.913**

Liabilities	2015	%	2016	%	Change
Customer deposits	149.359	42,8%	153.782	51,7%	4.423
Liabilities to credit institutions	115.887	33,2%	87.363	29,3%	-28.524
Bank bonds	1.958	0,7%	1.521	0,5%	-437
Liabilities associated with non-current assets held for sale	25.951	7,4%	3.407	1,1%	-22.543
Other liabilities	18.525	5,3%	16.882	5,7%	-1.643
Own funds	37.089	10,6%	34.900	11,7%	-2.189
Total	**348.769**	**100,0%**	**297.856**	**100%**	**-50.913**

Source: Bank of Greece.

b) A €13 billion decrease in bond portfolios, mainly due to the sale of European Financial Stability Fund bonds in the context of the ECB asset purchase programme. Their share in total assets declined by only one percentage point (December 2016: 19.8%, December 2015: 20.8%).

c) A €7 billion decrease in their outstanding loans net of provisions due to write-offs, the gradual deleveraging and a reclassification in their loan portfolios towards assets held for sale. However, they increased as a percent of assets (December 2016: 60.4%, December 2015: 53.7%).

Turning to liabilities, the decrease by €51 billion is attributable to:

a) Lower liabilities towards credit institutions (down by €29 billion), with a concomitant reduction as a percentage of liabilities (December 2016: 29.3%, December 2015: 33.2%, see Chart III.2 and Table III.1). This was a result mainly of (i) a decrease in borrowing from the Eurosystem by €41 billion (monetary policy operations and ELA); and (ii) an increase of other liabilities to credit institutions (notably from repos) by €9 billion.

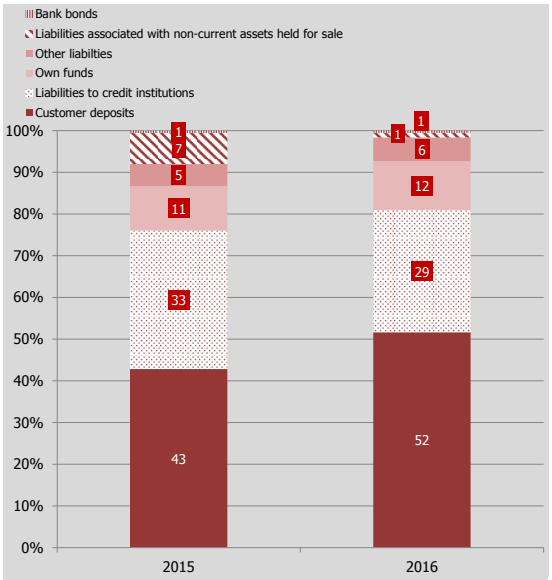
b) Lower liabilities related to non-current assets held for sale (down by €23 billion), which were also reduced as a percentage of liabilities (December 2016: 1.1%, December 2015: 7.4%, see Chart III.2 and Table III.1). The above change is attributable to the sale of foreign subsidiaries – notably Finansbank by the National Bank of Greece.

c) A €4 billion increase in deposits, which rose as a percentage of liabilities to 51.7% in December 2016, from €42.8% in December 2015.

d) A €2 billion decline in own funds. This is mainly attributable to losses resulting from discontinued operations in 2016, amounting to €2.9 billion.

Chart III.2 Structure of liabilities of the Greek commercial banking groups

(percentage %)



Source: Bank of Greece.

2. BANKING RISKS

2.1 CREDIT RISK

General review

In the course of 2016 and the first quarter of 2017 the impairment of banks' assets continued, mainly because of the sale of subsidiaries in the context of their restructuring plans and, to a lesser extent, of deleveraging. Combined with a stabilisation of the stock of NPEs in 2016 and the first quarter of 2017 and a decrease in accumulated provisions - in line with the decrease in NPEs, the above suggests that credit risk has already peaked and will gradually decline over the next months, as long as the assumptions about the evolution of key macroeconomic aggregates materialise. Needless to say that the high volume of NPEs constitutes the main source of instability in the banking system, which means that tackling the problem more effectively could result in a swifter decline in credit risk.

Improved economic prospects helped stabilise the - anyhow subdued - demand for financing by non-financial corporations during the first quarter of 2017, while there was a small pickup in demand from small-medium enterprises. However demand is expected to remain at the same levels in the course of the second quarter of 2017, given that enterprises have recalibrated their business risks. Demand from households is still low, as they have significantly squeezed their consumer spending since they believe that there will be a considerable time lag between the improvement of economic activity and the improvement of family budgets.

In spite of the improved economic outlook, structural factors hamper banks' lending capacity and therefore their possibility to increase operating profits. It should be noted that the small pre-tax profitability in 2016 was not enough for internal capital generation through retained profits. On the other hand, alternative sources of funding are gradually gaining ground, especially interbank repos. This trend may well lead to an improvement of banks' capacity to supply credit to the real economy, as long as this funding is used to grant new loans in the future and not to counterbalance the decrease in financing observed in certain sectors. Of course, if structural factors are dealt with decisively, banks' ability to play their intermediation role and their contribution to economic growth will both increase.

The economic outlook has led banks to reconsider their lending plans for the coming period. As regards lending to households, there aren't any signs of a somewhat higher supply in 2017. As regards non-financial corporations, there is an emphasis on small-medium enterprises, innovative actions and new entrepreneurship, with the use of European programmes[3] and the cooperation of the European Investment Bank (EIB)[4]. On the other hand, the supply of long-term loans appears lower in some cases, where credit standards are expected to tighten further. Thus, although there are no clear signs of an increase in the average supply of bank lending, there is a shift in the structure of new lending through the enhanced use of European and EIB programmes. This offers the guarantee of European institutions since banks can extend loans with considerable lower collateral requirements. It also reduces counterparty risk, as lending is channelled to a niche market, that of innovative businesses, the products of which cater for specific needs.

Despite the positive outlook, the accumulated stock of NPEs remains very high and the NPE ratio stood at 45.2% at end-March 2017.

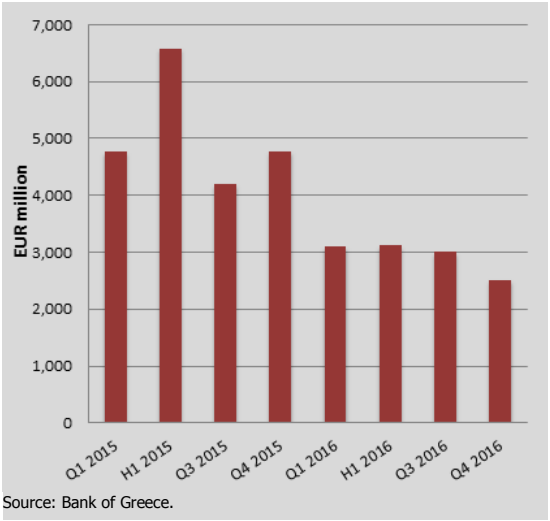
In order to tackle the challenges related to very high non-performing exposures, banks have already established units tasked with the recovery of non-performing exposures, which aim at maximising the possibility of recovery from distressed borrowers, irrespective of type of loan. These units contribute to the management of non-performing exposures, through various forms of restructuring in different sectors of the Greek economy, as well as by holding shares and other equity in various businesses which constitute non-core activities for banks (e.g. hotels). Through this organisational restructuring, banks aim at a

[3]On 27 April 2017, the European Investment Fund signed four agreements with Alpha Bank and Piraeus Bank, which concern the supply of €420 million to more than 2,000 small-medium enterprises (SMEs) in Greece. This was made possible with the support of the European Fund for Strategic Investments (EFSI). The EFSI is the central pillar of the Investment Plan for Europe, also known as "Juncker Plan".
The Juncker Plan is expected to mobilise more than €3 billion in investments in Greece.

[4]On 22 December 2016, the EIB launched its €1 billion "Loans for SMEs and MidCaps" credit line to Greek banks.

Chart III.3 Formation of non-performing exposures

(EUR millions)



Source: Bank of Greece.

more effective management of the existing levels of non-performing loans/exposures, by reducing their rate of formation in order to ultimately reduce the stock of non-performing exposures in absolute terms.

In the course of 2016 and the first quarter of 2017, the coverage ratio stabilised at a level marginally lower than 50% (2017: Q1: 49.1%, 2016: Q4: 49.7%, 2015: Q4: 50.1%). The coverage ratio is considered sufficient, given that provisioning took place during a period of recession and loss-making up to end-2015, while the fact that this ratio remained unchanged in 2016 is explained by the positive results of banks, which are considered adequately capitalised.

Deleveraging of Greek banks in 2016 and the first quarter of 2017 is mainly attributable to the restructuring of activities abroad and, to a lesser degree, to deleveraging of their loan portfolios. In particular, banks, also in keeping with their restructuring commitments towards the European Commission, moved to further sales of subsidiaries abroad. Where existing units were maintained, banks moved to the sale of portfolios.

As a result of these actions, new NPE formation has been gradually declining since 2015, while in 2016 and the first quarter of 2017 this trend became more permanent, as new arrears are comparatively lower than in previous periods (see Chart III.3).

New NPE formation could lower significantly if the rate of unemployment decreased, real property prices (especially commercial and, to a lesser degree, residential property) recovered and conditions were in place for real credit expansion (net of write-offs) due to an improvement of macroeconomic aggregates. Therefore, banks should review their business targets concerning the decrease in the stock of NPEs over the next three years and take into consideration possible changes in the economic environment, which is affected also by external factors and geopolitical considerations.

Financial condition of households and enterprises

Household loans accounted for 44.8% of total bank credit to the domestic private sector in March 2017, two thirds of which were housing loans. According to the Bank Lending Survey[5], conducted by the Bank of Greece on a quarterly basis, banks' credit standards for household loans, terms and conditions and net demand for housing and consumer loans remained almost unchanged in the first quarter of 2017 relative to the fourth quarter of 2016 and no change is expected in the second quarter of 2017.

Credit risk relating to households remained low, and is not expected to rise in the second quarter of 2017. Of course, per capita dispos-

[5] http://www.bankofgreece.gr/Pages/el/Statistics/monetary/BankLendingSurvey.aspx

able income of households depends on labour market conditions, given that an increase in dependent labour income (permanent income) was observed. On the other hand, income from holding assets declined, while income tax and social security contributions increased. Indeed, the rate of change in the Index of Apartment Prices, according to the Bank of Greece methodology, is negative year-on-year (2016: Q4: -0.6%, Q3: -1.5%, Q2: -2.5%, Q1: -4.2%, 2015: Q4: -5.1%), though the rate of decline has decelerated from the fourth quarter of 2015 up to the fourth quarter of 2016. An offsetting effect on disposable income came from an increase in salaried employment, which overall contributed to a rise in labour income. Thus, despite the decrease in per capita disposable income, consumer spending grew overall.

Business loans made up 55.2% of total bank lending to the domestic private sector in March 2017.

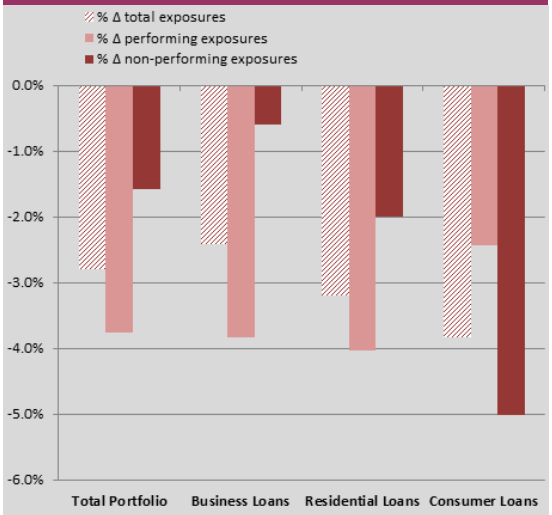
The Bank Lending Survey reveals that, in the first quarter of 2017, both credit standards to non-financial corporations and terms of lending remained almost unchanged in relation to the fourth quarter of 2016. Demand for loans remained unchanged, while only a small increase in loans to small and medium enterprises was observed. Demand is expected to remain at the same level also in the second quarter of 2017.

Corporate earnings were negative in the first two quarters of 2016 and, despite the fact that they became positive in the last two quarters of 2016, total profitability remains negative.

NPEs' structure and change

The NPE ratio rose marginally at the end of 2016 (44.8% compared to 44.2% at the end of 2015), mainly attributable to the decrease in performing exposures, which continued in the first quarter of 2017 (45.2%). In particular, while total bank credit declined by only 2.8% in 2016, total performing exposures declined to a greater extent, by 3.8% compared to the end of 2015. Total NPEs amounted to €106.3 billion at the end of 2016, out of total exposures of €237.5 billion, i.e. they declined by 1.6% compared to the end of 2015. A similar trend (see Chart III.4) is observed in individual portfolios with the exception of the consumer portfolio, which showed higher rates of NPE decline. In the first quarter of 2017, total NPEs amounted to €105 billion, decreasing by 1.2% compared to the end of 2016.

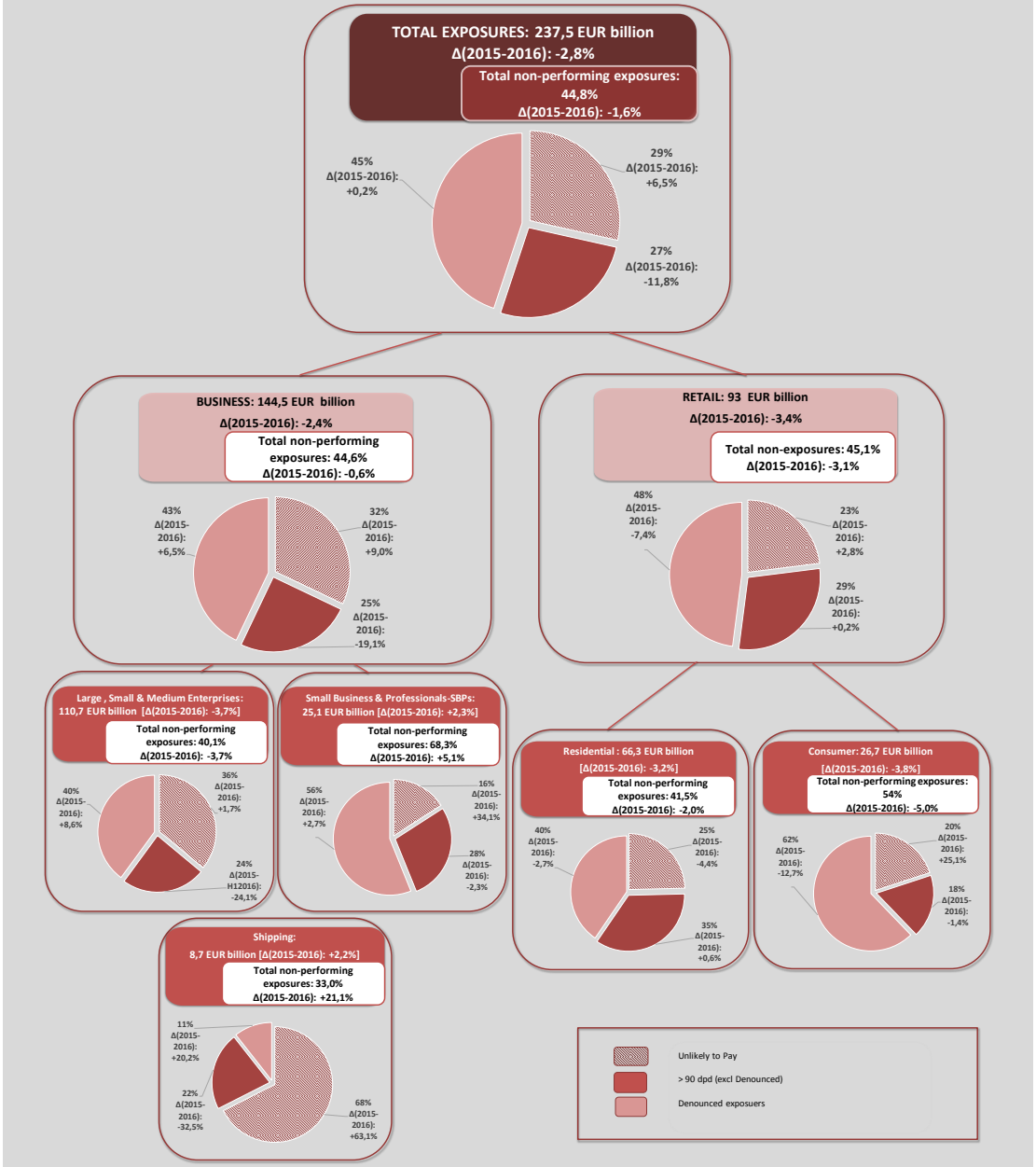
Chart III.4 Percentage change of total exposures, of performing exposures and of non-performing exposures of Greek banks by portfolio in year 2016



Source: Bank of Greece.

A more thorough analysis of the breakdown and change in NPEs by portfolio in 2016 is presented in Chart III.5.

Chart III.5 Structure and change of total exposures and of non-performing exposures of the Greek commercial banks by portfolio



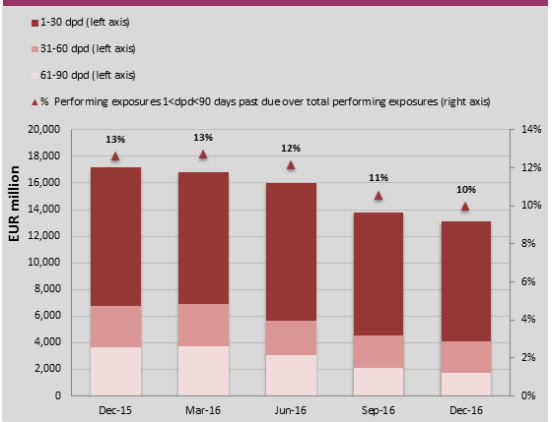
Source: Bank of Greece.

Indications about the future evolution of credit risk are given by the amount of exposures unlikely to pay[6], which are not in arrears or are less than 90 days past due, as well as total performing exposures in arrears by 1 to 90 days. The ratio of exposures unlikely to pay to total NPEs rose in 2016 to 28.5%, compared to 26.2% at the end of 2015, while the ratio of NPEs 1-90 days past due to total performing exposures (early arrears) stood at 10% in the first half of 2016, lower than at the end of 2015 (12.6%) (see Chart III.6). A quite positive development is that the ratio of NPEs more than 90 days past due (excluding denounced loans) to total NPEs declined to

[6] According to the current framework of the European Banking Authority (EBA) and the regulatory provisions of the Bank of Greece, exposures unlikely to pay are considered as NPEs according to qualitative criteria, although they are performing or are in early arrears (<90 days past due).

26.6% from 29.7% in 2015, and remained almost unchanged in the first quarter of 2017 (26.2%).

Chart III.6 Early arrears balances and early arrears balances over total performing exposures

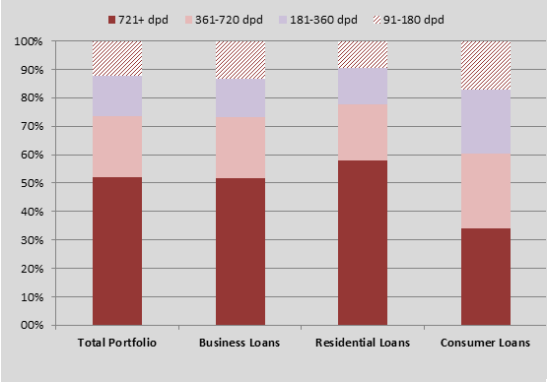


Source: Bank of Greece.

These indications provide an early warning about the evolution of banks' credit risk, warranting vigilance and a comprehensive plan with a proper toolkit for the management of early arrears. It should be noted that 73.7% of total NPEs that are more than 90 days past due (excluding denounced loans) are in arrears by more than one year. The corresponding figure for mortages is 77.9%, for business loans 73.4% and for consumer loans in arrears by more than six months 83%.

In the same context, it is particularly worrying that 52.3% of NPEs that are more than 90 days past due (excluding denounced loans) are in arrears by more than 720 days (see Chart III.7), while the corresponding rate at the end of 2015 was 28.7%. It should also be noted that this upward trend has stabilised in the second half of 2016. At the same time, it is noted that 45% of NPEs concerns denounced loans, a percentage which is marginally higher than in 2015. The rate would have been higher if banks had not written off €1.2 billion of denounced loans in the fourth quarter of 2016.

Chart III.7 Non-performing exposures more than 90 days past due (excluding denounced loans)



Source: Bank of Greece.

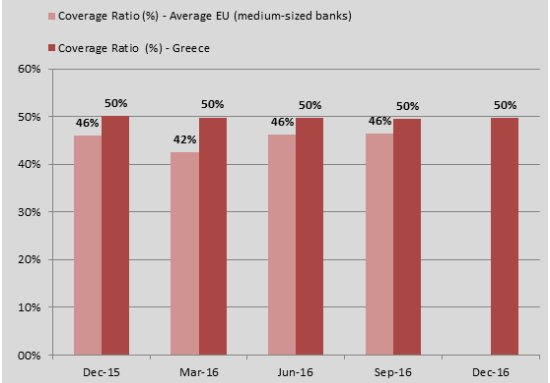
Indicators used for monitoring and assessing NPEs

Regarding indicators used for monitoring and assessing the management of NPEs, the following should be noted:

- The provisioning coverage ratio of NPEs remained generally stable in 2016 (49.7%), suggesting that no increase in credit risk is expected in the near future. At the same time, the Texas ratio (i.e. the ratio of NPEs to total provisions and regulatory capital) reached 125%. In particular, banks' impairment provisions amounted to €52.8 billion in December 2016, compared with €54.1 billion in 2015. This decline is mainly attributable to write-offs in the course of 2016. Furthermore, the coverage ratio is higher than the average for medium-sized European banking groups, which was 46.4% in the third quarter of 2016 (see Chart III.8).
- Total forborne exposures[7] amounted to €50.7 billion, rising by 17.7% during 2016 compared to the end of 2015. The ratio of forborne exposures to total exposures

[7] Bank of Greece Executive Committee Act 47/9.2.2015 provides an indicative list of forbearance and resolution and closure solutions for performing and non-performing exposures.

Chart III.9 Provisioning coverage ratio of non-performing exposures

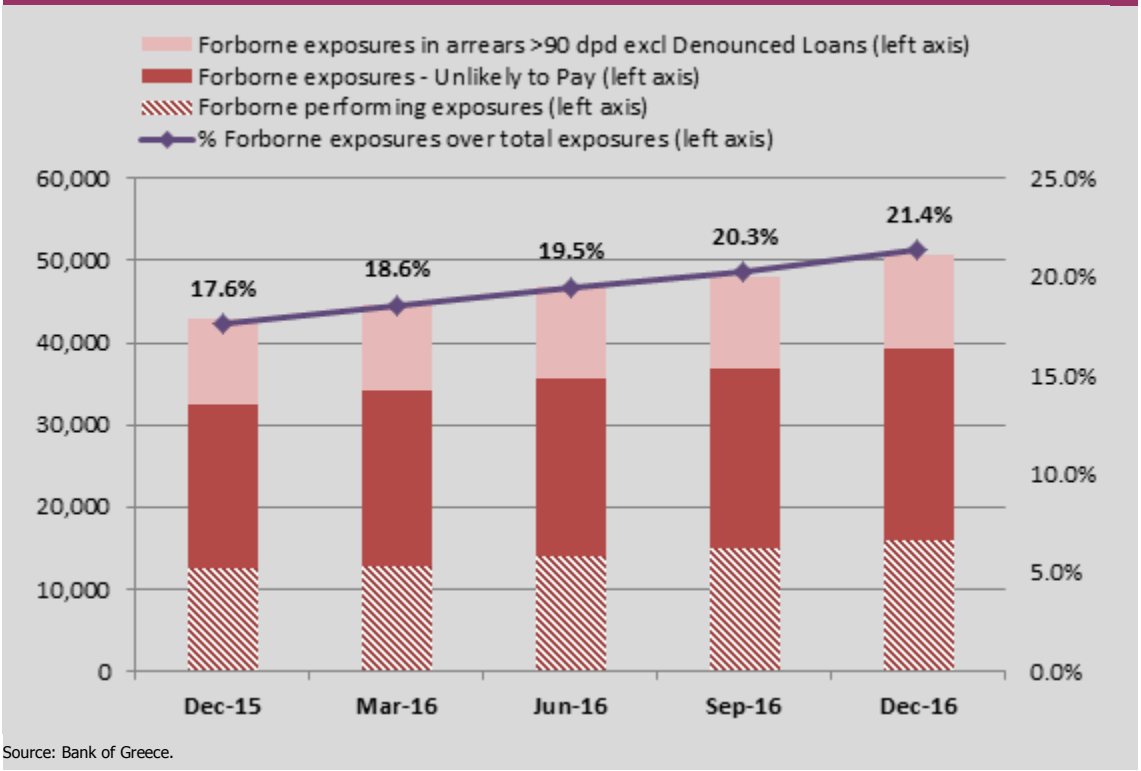


Source: Bank of Greece.

rose to 21.4% in 2016, from 17.6% at the end of 2015. In particular, forborne performing exposures rose by 27.4% compared to the end of 2015, while the figure for forborne NPEs was 13.7%. However, it should be noted that 77% of the exposures unlikely to pay have been forborne, compared with 70% in 2015 (see Chart III.9). Finally, the forbearance of NPEs that are more than 90 days past due remains at low levels (i.e. 40% of the total NPEs).

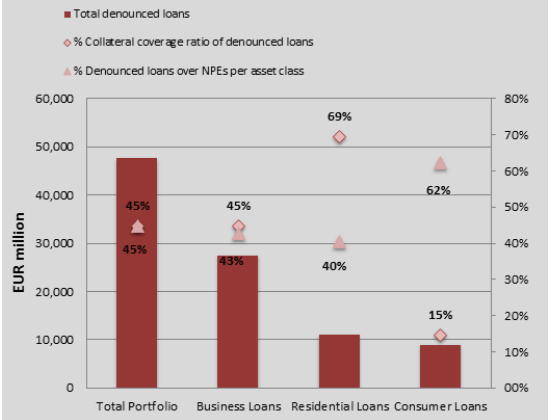
- Mortgages continue to present the highest ratio of forborne exposures (32.2%), compared with 21.4% for consumer loans and 16.3% for business loans, figures that are considerably improved compared to 2015.
- Loan write-offs during the year 2016 amounted to €3.8 billion, compared with €800 million in 2015, and are mainly related to denounced business loans (€2 billion), a trend that also continued in the first quarter of 2017 (total write-offs amounted to €1.4 billion).
- Banks have denounced 44.8% of NPEs, 90% of them remaining without a final settlement. At portfolio level, 62.2% of consumer loans have been denounced, and some collateral exists for only 14.6% of them (see Chart III.10).

Chart III.8 Forborne exposures by category and the ratio of forborne exposures over total exposures



Source: Bank of Greece.

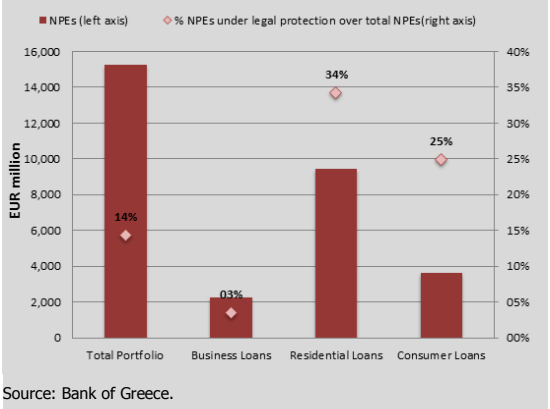
Chart III.10 Denounced loans, collateral coverage ratio of denounced loans and denounced loans over NPEs per asset class



Source: Bank of Greece.

- It should be noted that €15.2 billion, i.e. 14% of NPEs, concerns loans that are subject to legal protection, for which a final judicial decision is pending, and €8.5 billion of these loans have already been denounced. Exposures under this category may concern individuals (e.g. Law 3869/2010) or legal entities (e.g. Law 4307/2014, Bankruptcy Code). For the individual categories, about one third of mortgages in arrears are under legal protection, while the corresponding figure for consumer loans is 25% (see Chart III.11).

Chart III.11 NPEs and NPEs under legal protection over total NPEs



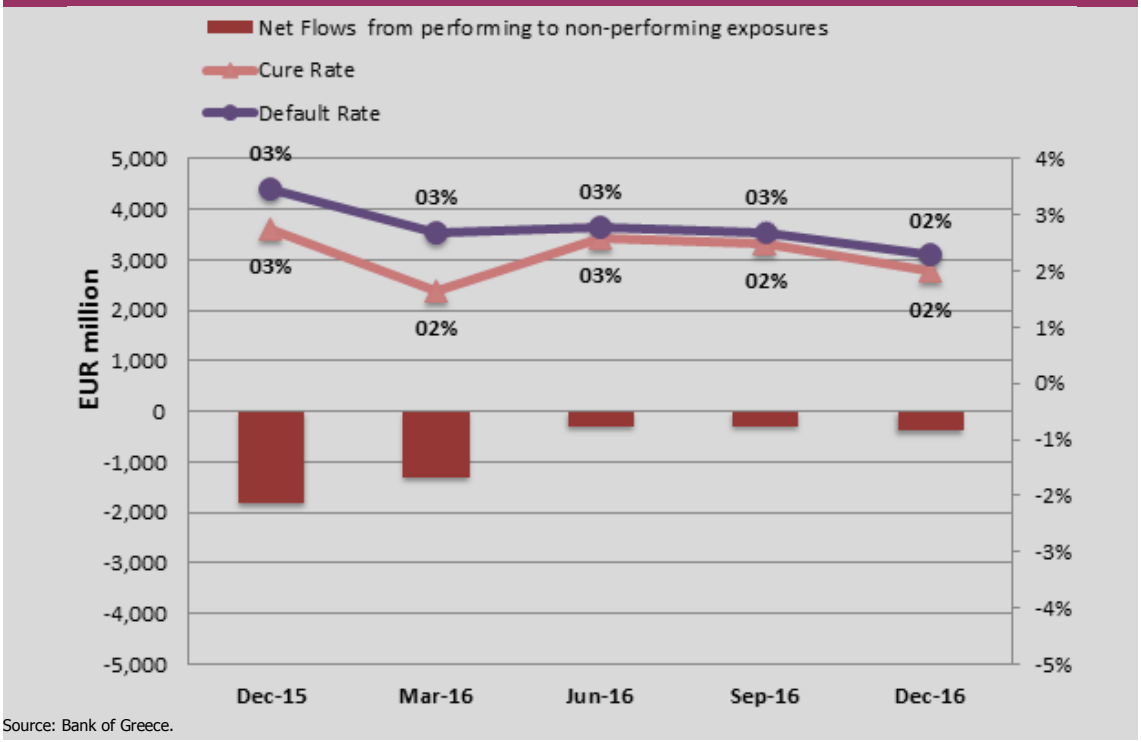
Source: Bank of Greece.

- The collateral coverage ratio for NPEs remains at low levels (49.5%). It is worth noting that 87% of total NPE collaterals are in the form of real estate and their total value is €46.1 billion, i.e. 6% lower than in 2015. The relative indices of the individual portfolios remained almost unchanged (74.1% for mortgages, 14.9% for consumer loans and 47% for business loans). As regards individual categories of the business portfolio, the collateral coverage ratio for NPEs was 44.8% for large corporates and SMEs and 52.2% for SBPs.

- Within banks' balance sheets, the stabilisation of flows from performing to non-performing and from non-performing to performing exposures constitutes a positive development. In particular, it should be noted that the cure rate[8] came to 2%, marginally lower than the default rate[9] (2.3% in the fourth quarter of 2015, see Chart III.12). In any case, credit institutions should intensify their efforts to offer viable solutions as in the first quarter of 2017 net flows were marginally higher than in the fourth quarter of 2016 (namely €576 million, compared with €385 million), as a result of the low NPE cure rate and the high re-default rate.

[8] The cure rate is the ratio of NPEs moved to performing status to total NPEs at the start of the period.
[9] The default rate is the ratio of performing exposures moved to NPE status to total performing exposures.

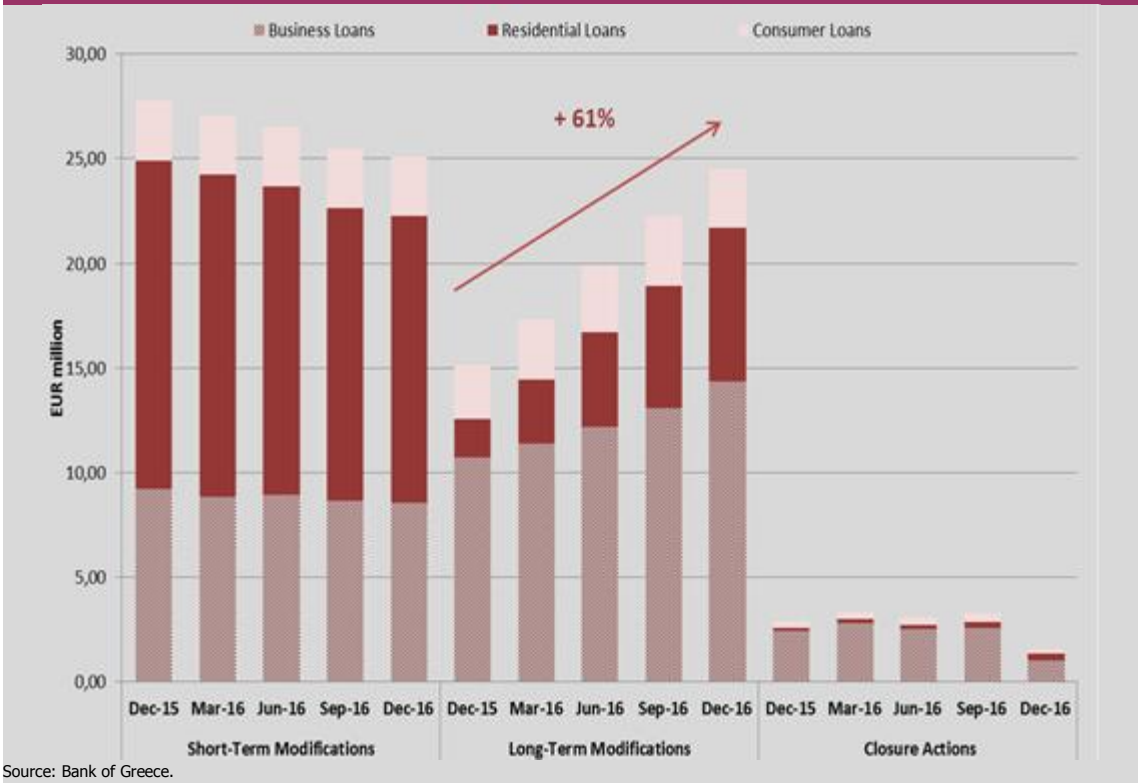
Chart III.12 Net flows from performing exposures to non-performing exposures and the cure rate and default rate



Source: Bank of Greece.

- Banks continue to focus on implementing long-term modifications and, as a result, such modifications have risen by 61% since 2016, most of which concerns mortgages, as the corresponding rate of increase has reached almost 300% (see Chart III.13).

Chart III.13 Forborne exposures by type of modification and portfolio



Source: Bank of Greece.

Credit risk by sector

Business loans amounted to €144.5 billion at the end of 2016, accounting for 60.6% of the total funding of Greek commercial banks' total financing. As showed in Chart III.5, the NPE ratio for business loans is mainly affected by the high share of large corporates and SMEs (40.1%) and SBPs (68.3%).

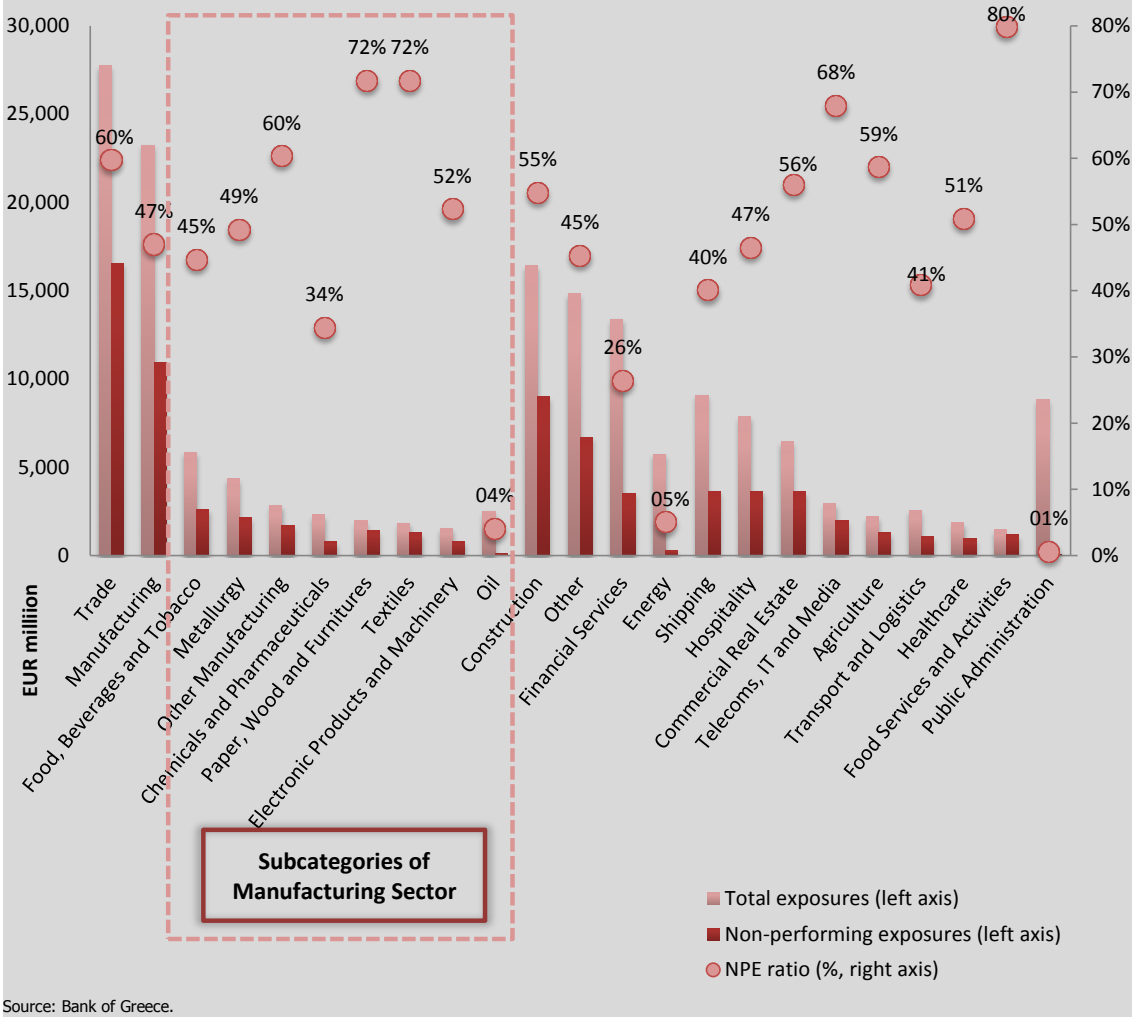
Regarding the structure of financing in the Greek economy, it should be noted that 20% of total business loans has been extended to retail businesses, with an NPE ratio higher than the average NPE ratio of business exposures (59.7%, compared to 44.6%).

As reflected in Chart III.14, very high NPE ratios are recorded in the food service sector (79.9%), agriculture (58.7%), telecommunications, IT and media (68%), manufacturing (47%) and construction (54.8%), while the lowest ratios are observed in energy (5%), public administration (0.6%) and financial services (26.4%).

Challenges and risks

Improving the quality of banks' loan books remains the most significant challenge for the Greek banking system, notwithstanding the already positive initiatives in the regulatory and the legislative frameworks, and a more efficient management of non-performing exposures by banks. Challenges still remain as both write-offs and demand from credit servicing firms remain low. Additionally, de-

Chart III.14 Sectoral analysis of business loans over 2016



Source: Bank of Greece.

mand for loans is expected to remain subdued, while the reversal of the deleveraging trend - which is already decelerating - will largely come from an expansion of specific business loan portfolios, given the difficulty of households to cope with their increased debt obligations, when their total income depends on developments in the labour market. In any case, the improvement of the economic environment has a more direct effect on business activity and the improvement of family budgets comes with a considerable time lag.

2.2 LIQUIDITY RISK

General overview

Banks' deposit base followed an upward course in the second and the third quarter of 2016 due to the repatriation of funds from deposits abroad and partly from disinvestment in foreign securities. This improvement was attributable to the completion of the first review, the payment of arrears to the private sector and the gradual easing of capital controls. The possibility, introduced by law in July 2016, of withdrawing cash up to 100% of new cash deposits also helped in this direction, as this has reduced reluctance to return hoarded banknotes into the banking system. The sum of deposits in the first quarter of 2017 declined by €2.1 billion (March 2017: €119.3 billion, December 2016: €121.4 billion), to remain at the same level over the next two months (May 2017: €119.4 billion)[10] This stabilising effect since April 2017 is attributable to the results of the Eurogroup meeting of 7 April 2017, where agreement was reached on key issues regarding required reforms, mainly concerning the pension and the tax system, as well as on the set of offsetting measures that could be activated subject to achievement of the programme targets.

The second review of the third Economic Adjustment Programme was completed in the Eurogroup meeting of 15 June 2017[11]. This creates conditions of financial stability and facilitates banks to keep on attracting hoarded banknotes through a more efficient servicing of customers' needs, by offering personalised services aiming at expanding their client base and widening their portfolios, always within the context of their effort to contain cost.

Banks considerably reduced their funding from the Eurosystem, which amounted to €59.7 billion in the first quarter of 2017 and decreased further over the next two months (May 2017: €56.9 billion, December 2016: €66.6 billion). Chart III.15 depicts the evolution of deposits and of Eurosystem liquidity provision, broken down into liquidity provided by monetary policy operations and emergency liquidity assistance (ELA) (May 2017: €40.7 billion, December 2016: €43.7 billion). It becomes clear that, despite the significant decrease in deposits after December 2016,

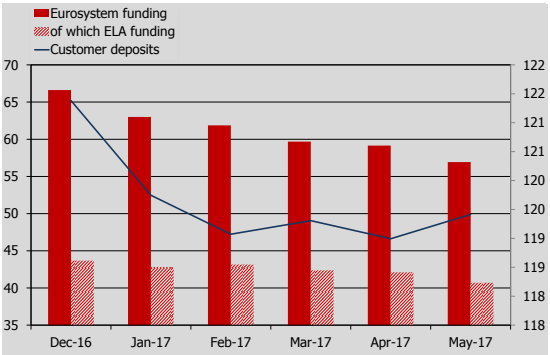
[10] Since December 2016, deposit data releases by the Bank of Greece do not include deposits of the Deposit and Loans Fund and the Hellenic Deposit and Investment Guarantee Fund.

[11] In greater detail, the Eurogroup discussed a possible further deferral of EFSF interest and amortisation by between 0 and 15 years, while it also mentioned a possible introduction of an operational growth-adjustment mechanism . Also, it was recognised that primary surplus may be reduced to levels equal to or above but close to 2% of GDP in 2023-2060.
It should be recalled that, in line with the Eurogroup announcement of May 2016, medium-term measures were deemed necessary, namely (a) waiver of the step-up interest rate margin related to the debt buy-back tranche of the 2nd Greek programme from 2018; (b) restoring the transfer of ANFA and SMP profits to Greece (as of budget year 2017) to the ESM segregated account as an ESM internal buffer to reduce future gross financing needs; (c) utilising unused resources within the ESM programme to reduce interest rate costs and to extend maturities; (d) if necessary, some targeted EFSF re-profiling (e.g. extension of the weighted average maturities, re-profiling of the EFSF amortization as well as capping and deferral of interest payments).
As a consequence, the European Stability Mechanism approved the disbursement of €8.5 billion. Out of the first tranche of €7.7 billion, €6.9 billion is expected to cover external liabilities and €0.8 to clear government arrears for the next quarter.

total funding from both the Eurosystem and ELA declined, though at a slower pace, which is attributed to an ongoing impairment of assets and increasing access to the interbank market.

Chart III.15 Deposits of non-financial corporations and households over Eurosystem funding

(EUR billions)



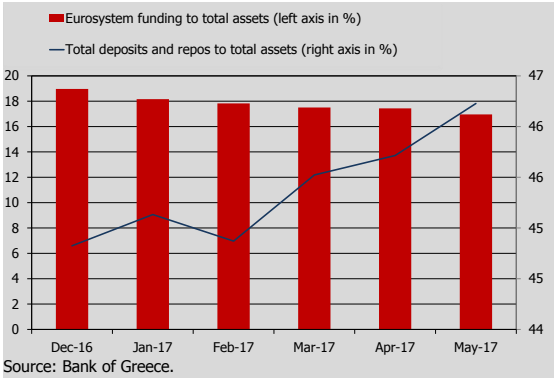
Source: Bank of Greece.

Indeed, the ratio of Eurosystem funding to total assets decreased substantially (May 2017: 17.0%, December 2016: 19.0%) and this change is attributed more to a large decline in Eurosystem funding and less to the impairment of assets, which decelerated at a lower rate (May 2017: €335.6 billion, December 2016: €351.3 billion). By contrast, the ratio of total deposits and repos to total assets rose (May 2017: 46.2%, December 2016: 44.8%). Nevertheless, during the period of considerable decrease in deposits from December 2016 to February 2017, the growth of this ratio was much smaller than the growth rate of Eurosystem funding to assets, while in the March-May 2017 period, when pressures to liquidity were more limited, the rate of decrease in the Eurosystem funding ratio was covered by the rate of increase in the deposit ratio.

Underlying this development are the extremely accommodative stance of monetary policy, which has helped drive down banks' funding costs, and increased access to the interbank market.

Chart III.16 Deposits of non-financial corporations and households over Eurosystem funding to total assets

(percentage %)



Source: Bank of Greece.

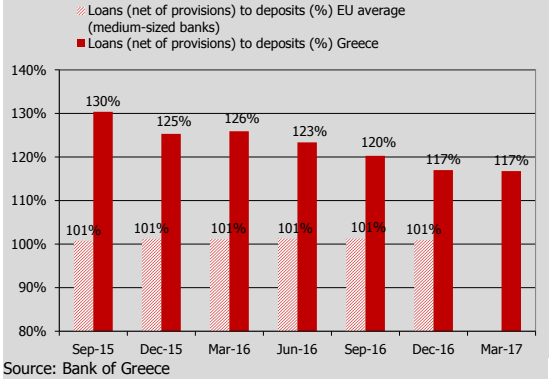
ELA funding is expected to gradually decline, due to the gradual strengthening of the deposit base and the widening of sources of funding (use of collateral not eligible under ECB rules in interbank repos and improved access in unsecured interbank lending).

The mild rate of deleveraging of Greek banks, which continued in the second half of 2016, combined with the increase in deposits, contributed to a significant decrease in the loan-to-deposit ratio. Chart III.17 depicts the evolution of the loan-to-deposit ratio, which continues to be quite higher than the average for medium-sized banks in the EU.

Deleveraging of the loan portfolios of banks is expected to continue over the next period, as long as write-offs and sales of loans continue, in order to reach the targets set regard-

Chart III.17 Loans (net of provisions) to commercial banks' deposits (consolidated basis)

(percentage %)



Source: Bank of Greece

ing the evolution of non-performing exposures in the 2017-2019 period. In this context, the amendment to the framework governing deferred tax assets could have a positive impact.

Law 4172/2013 already envisaged the possibility of banks' converting deferred tax assets (DTAs) into deferred tax credits (DTC)s[12]. An amendment tabled to Parliament on 16 March 2017 regulates the treatment of deferred tax assets that have already been recognised (and can be converted into deferred tax credits) by credit institutions and credit companies, in a way compatible with loan write-offs and restructuring. This legislation ensures that loan write-offs and restructuring will not lead to a loss of regulatory capital and allows for the achievement of targets set by credit institutions in terms of reducing their non-performing loans, without endangering fiscal targets.

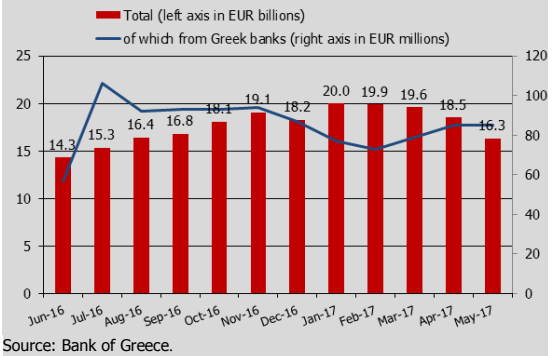
Despite the decrease in deposits in the first quarter of 2017 as a result of uncertainty regarding the achievement of an agreement between the institutions and the Greek authorities on key reforms, the completion of the second review is expected to contribute to a reversal of that negative trend during the second half of the year. An increase in deposits will reflect market confidence in an improved macroeconomic outlook, while the rate of return of hoarded banknotes will also play an important role, pointing to consolidation of confidence.

Interbank lending has expanded and now constitutes one of the alternative sources of financing for the Greek banking system. Interbank lending comes mainly from foreign banks and demonstrated a significant upward trend up to the first quarter of 2017 (March 2017: €19.6 billion, December 2016: €18.2 billion, September 2016: €16.8 billion), to decrease later (May 2017: €16.3 billion).

It should be noted that Greek banks have gradually restored interbank credit limits already since 2016. The largest part of this financing is backed by European Financial Stability Fund securities and the terms of transactions (i.e. interest rates) are continuously improving. Furthermore, the depth of the interbank market has increased, thereby gaining in flexibility and adaptability. The considerable decline in deposits in the fourth quarter of 2016 and the first quarter of 2017 led to an increase in demand for short-term liquidity and a decrease in long-term liquidity from the interbank market. It should be noted that the rise of demand for short-term liquidity is attributable to debt swaps, since a part of repos need to be short-term. Chart III.19 depicts the evolution of very short-term (7 days), short-term (7-30 days) and long-term (>30 days) interbank lending. It is evident that in the December 2016-February 2017 period, when the decrease in deposits was the largest, the structure of interbank lending changed accordingly, from long-term (>30 days) to more short-term (<30 days).

[12] Deferred tax assets (DTAs) that rely on future profitability may be entered into a bank's financial statements to the extent that, according to the bank and its statutory auditors, future taxable profit is likely to be available. Deferred tax credits (DTCs) which do not rely on future profitability and arise from temporary differences between the value of an asset or liability in the financial statements (accounting value) and its tax base need to satisfy the conditions set out in Article 39(2) of the Capital Requirements Regulation (CRR). In these cases, they receive a risk weight of 100% for the calculation of the solvency ratio and are therefore not deducted from regulatory capital. http://www.ecb.europa.eu/pub/pdf/other/150713letter_starbatty etal.en.pdf

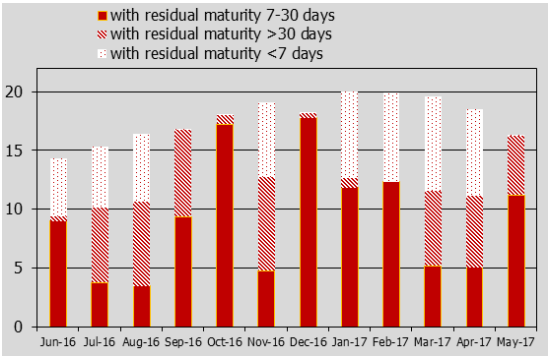
Chart III.18 Domestic credit institutions' financing through the interbank market



Source: Bank of Greece.

Chart III.19 Structure of domestic credit institutions' financing through the interbank market by residual maturity

(EUR billions)



Source: Bank of Greece.

However, banks aim at widening the list of non-ECB eligible collateral used in financing, as their holdings of EFSF bonds will only decline. To this end, interbank lending secured by non-ECB eligible collateral is expected to rise over the coming period. It is estimated that banks' need for interbank financing backed by high-quality eligible collateral will also depend on a potential increase in their deposit base and an expansion of sources of financing (e.g. unsecured interbank lending, bond issuance). However, supervisory rules on liquidity require banks to carry out some transactions in the interbank market by using high-quality sovereign bonds as collateral.

Access to capital markets remains difficult; in 2016 and the first half of 2017 no bank issued bonds. This could be reversed in 2018, as long as the macroeconomic projections included in the institutions' reviews are verified. In any case, in order for banks to move to unsecured bond issues, they will have to wait for the Hellenic Republic to issue sovereign bonds, expected in late 2017 or 2018.

Risks and prospects

Despite better liquidity conditions, external risks could work with internal risks concerning the macroeconomic environment and the domestic banking system to reverse this course.

Measures taken to improve the efficiency of banks and the management of non-performing loans can contribute to enhancing depositors' confidence and stabilising deposits. Also, Greek banks' access to international money and capital markets is expected to improve significantly, as the depleting stock of non-performing loans will strengthen investor confidence.

For 2017 it is expected that a wider deposit base and an improved loan/deposit ratio will be achieved on the back of improved macroeconomic conditions and the realisation of the Economic Adjustment Programme, while the redeposit of hoarded banknotes is linked to market confidence.

Finally, it should be noted that there is a two-way cause and effect relationship between economic growth and deposit base. On the one hand, in the short term, improved confidence and the ensuing rise in economic activity will accelerate the return of deposits and will lead to a further easing and ultimately an abolishment of capital controls. On the other hand, the establishment of sustainable development will only be achieved through the consolidation of confidence and the gradual return of deposits.

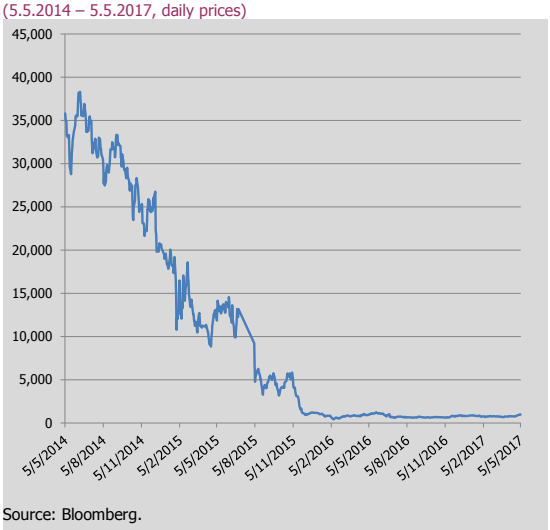
2.3 MARKET RISK

The Greek stock market showed signs of recovery in the first half of 2016 and, notably, the first five months of 2017, due to expectations for positive developments in the macroeconomic environment and a positive outcome of the second review of the Economic Adjustment Programme, although the protracted negotiation between the Greek government and the international creditors hindered the upward dynamics of the Greek stock exchange. The successful outcome of the negotiations and the emerging commencement of discussions on the debt have supported the rise in Greek equity returns since the third part of April.

In particular, the increase in bank share valuations (see Chart III.20) is attributable primarily to expectations and, secondarily, to the verification of expectations regarding the completion of the second review, the return of most banks to profitability in 2016, the improvement of their liquidity and the nascent recovery of the Greek economy, which is expected to have a positive impact on banks' loan portfolios.

Chart III.20 Banks' Equity Index

(5.5.2014 – 5.5.2017, daily prices)

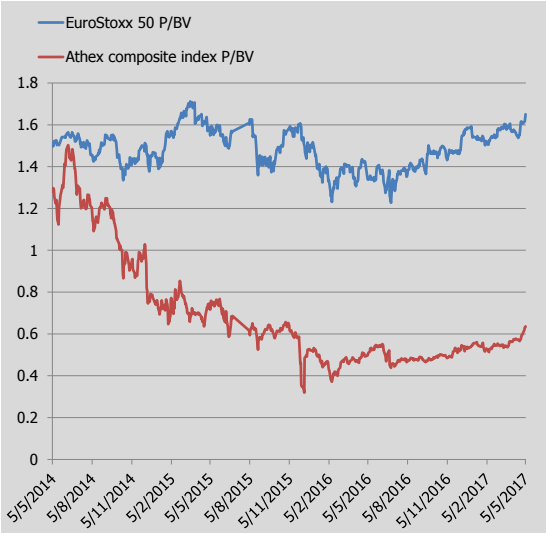


Source: Bloomberg.

Although the recovery in stock indices contributed to an almost doubling of valuations since the lows of December 2015, they still remain low compared to the European average (see Charts III.21 and III.22). Positive developments in the discussions on public debt, the elimination of uncertainty about public finances and economic growth could support a further increase in valuations over the medium term.

Chart III.21 Equity Indices

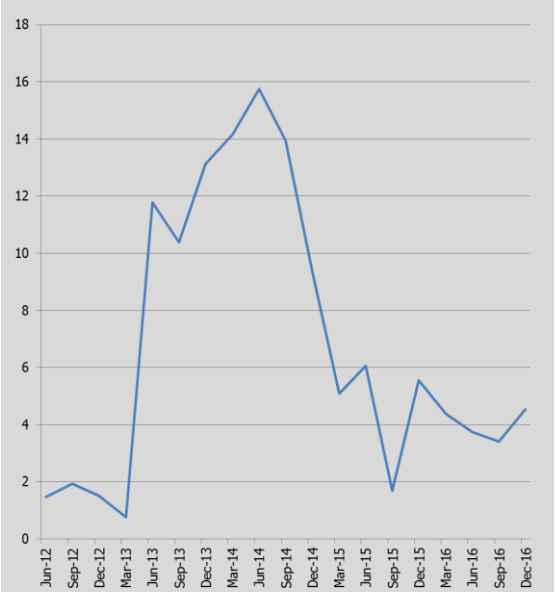
(5.5.2014 – 5.5.2017, daily prices)



Source: Bloomberg.

Chart III.22 Banks' capitalization to weighted assets

(30.6.2012 – 31.12.2016)



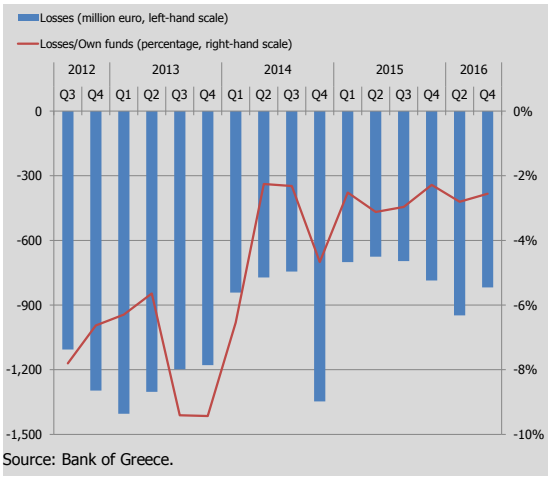
Sources: Bloomberg, Bank of Greece.

Furthermore, the adverse scenario on Greek banks' equity portfolios[13] reveals that the effects of market risk are limited because of the small size of the equity portfolio of the banking system, the value of which was €2.05 billion on 31.12.2016 and €2.1 billion on 31.3.2017.

The loss on this portfolio under an adverse scenario of a 40% drop in equity prices is estimated at €818 million or 2.6% of own funds, which is equivalent to a 36 basis point fall in the Capital Adequacy Ratio – CAR on 31.12.2016 (see Chart III.23).

Chart III.23 Equity price risk

(30.9.2012-31.12.2016)



Source: Bank of Greece.

Similarly low was the interest rate risk of the banking system's bond portfolio, which was valued at €13.8 billion on 31.12.2016 and €14.8 billion on 31.3.2017.

The loss on this portfolio under an adverse scenario of a 300 basis point hike in interest rates is estimated at €45 million or 0.14% of own funds, equivalent to a 2 basis point drop in the CAR as at 31.12.2016 (see Chart III.24).

Chart III.24 Interest rate risk

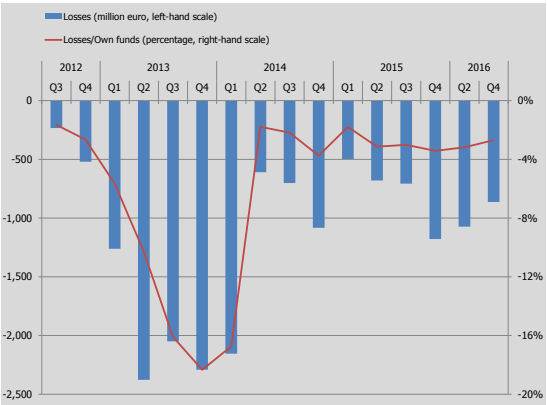
(30.9.2012-31.12.2016)

Source: Bank of Greece.

Overall, the aggregate loss from equity price risk and interest rate risk of the trading book under the above adverse scenarios is estimated at €863 million or 2.7% of own funds, which is equivalent to a 38 basis point decline in the CAR as at 31.12.2016 (see Chart III.25).

Chart III.25 Market risk

(30.9.2012-31.12.2016)



Source: Bank of Greece.

In conclusion, the Greek banking system faces low market risk and the abovementioned aggregate loss can be easily absorbed by banks' regulatory capital of €32 billion without any complications.

However, there is no room for complacency; market risk should be monitored carefully and managed effectively. Moreover, sound investment strategies should be adopted, espe-

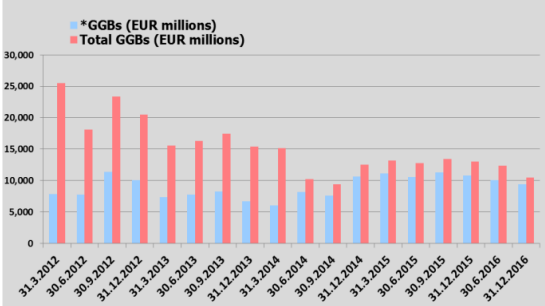
[13] This includes the trading portfolio, the fair value option portfolio and the available-for-sale portfolio.

cially in periods of market stress in capital markets.

2.4 THE BANKING SYSTEM'S EXPOSURE TO GREEK GOVERNMENT BONDS

The value of Greek Government Bonds (GGB) held by the Greek banking system was €10.5 billion on 31.12.2016, down by €2.5 billion (-20%) approximately in comparison with 31.12.2015. The GGB portfolio represents 3.5% of the Greek banking system's total assets. Out of the total bond portfolio, bonds of €9.4 billion are valued at current prices and are classified as available-for-sale, at fair value and held-for-trading (Chart III.26).

Chart III.26 The Greek banking system's holdings of GGBs

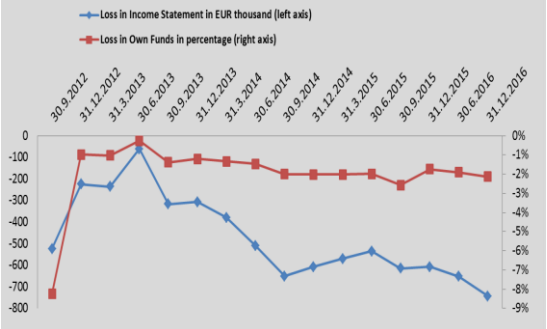


* GGBs: refer to GGBs that are valued as available for sale, at fair value & held for trading

Source: Bank of Greece.

It should be noted that, under a scenario of a 300 basis point hike in credit margins, the GGB portfolio, classified as available-for-sale, at fair value and held-for-trading, as at 31.12.2016 would post a loss of €743 thousand, with a 2.1% negative impact on Greek banks' own funds (31 December 2015: loss of €600 thousand, negative impact on own funds: 1.7%), while the corresponding negative impact on the Capital Adequacy Ratio would be 33 basis points (Chart III.27).

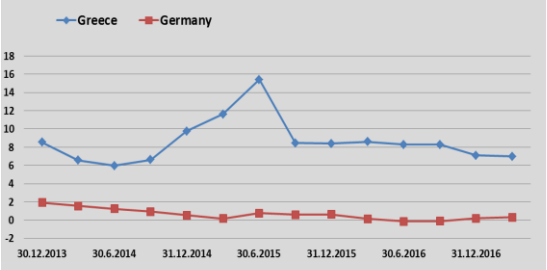
Chart III.27 Loss in the income statement and the own funds of Greek systemic banks from an increase in credit spreads by 300 b.p



Source: Bank of Greece.

Yields on 10-year Greek government bonds on 31.12.2016 were considerably lower (by 15%) than on 31.12.2015, though still remaining at high levels. In particular, 10-year Greek government bond yields at end-2016 were 7.10%, down from 8.39% on 31.12.2015, thereby reflecting both the prospect of a successful completion of the second review and the positive decisions on a reduction of Greek debt. The spread of 10-year GGBs over Bunds with the same maturity declined by 11% on 31.12.2016 against 31.12.2015, the Bund yield being 0.32% on 31.12.2016 (Chart III.28). It should be noted that at the end of the first quarter of 2017, GGB yields dropped further to 6.98%, thereby maintaining the moderate optimism of the previous six months.

Chart III.28 Yields of 10-year Greek and German bonds



Source: Bloomberg

2.5 INTERNATIONAL ACTIVITY

In 2015-2016, Greek banking groups continued to downscale their presence abroad, in the context of commitments included in their re-

Table III.2 Key figures of Greek banking groups' foreign activities

(amounts in EUR millions)

Countries	Assets	Loans (before provisions)	Deposits	Business units (in numbers)	Staff (in numbers)
Southeast Europe	**29,779**	**23,617**	**20,262**	**1,242**	**17,381**
Albania	1,486	843	1,136	100	1,156
Bulgaria	5,025	3,399	3,923	247	3,150
Cyprus	8,592	7,865	6,428	43	1,221
Ukraine	120	80	60	18	439
FYROM	1,426	1,060	1,110	66	1,052
Romania	9,726	8,231	5,396	487	6,347
Serbia	3,404	2,139	2,209	281	4,016
Financial Centers	**7,606**	**3,447**	**2,441**	**6**	**228**
Germany	174	14	144	1	12
Luxembourg	2,682	371	1,222	1	93
Great Britain	4,750	3,062	1,075	4	123
Other countries	**786**	**555**	**340**	**18**	**247**

Source: Bank of Greece.

structuring plans, as approved by the European Commission. In greater detail, Alpha Bank withdrew from Bulgaria and the Former Yugoslav Republic of Macedonia (FYROM), National Bank of Greece from the Turkish, Bulgarian and South African markets, Eurobank from Ukraine and Piraeus Bank from Egypt and Cyprus. As a result, Greek banks' assets abroad were €38.3 billion in December 2016, i.e. 52% less than in December 2014. International activities now represent 12.9% of the baking system's total assets on a consolidated basis (from 22.5% in December 2014).

Breaking it down by region, South-East Europe (SE Europe)[14] accounts for 78% of total international activity assets, the majority of which in Romania, Cyprus and Bulgaria (see Chart III.29). Financial centres, i.e. the United Kingdom, Luxembourg and Germany, represent 20%, the lion share going to the United Kingdom. The share of SE Europe in Greek banks' external position in deposits and loans is even larger (88% and 86% respectively, see Table III.2). The region also boasts the highest numbers of business units and staff.

In 2016 international activity made a positive contribution of €193 million to pre-tax profits (against losses in 2015), part of which is attributed to one-off factors. Activities in Albania, Germany, United Kingdom and Ukraine were loss-making.

The quality of the loan book improved marginally. Loans in arrears[15] declined by 7% against 2015 to €7.1 billion or 26% of the loan book in December 2016[16]. As a percentage of total loans, the ratio of loans in arrears was 28% for business loans, 15% for consumer loans % and 25% for housing loans. The largest year-on-year percentage decline was in consumer loans in arrears (42%). Accumulated loan-loss provisions (€4.8 billion)

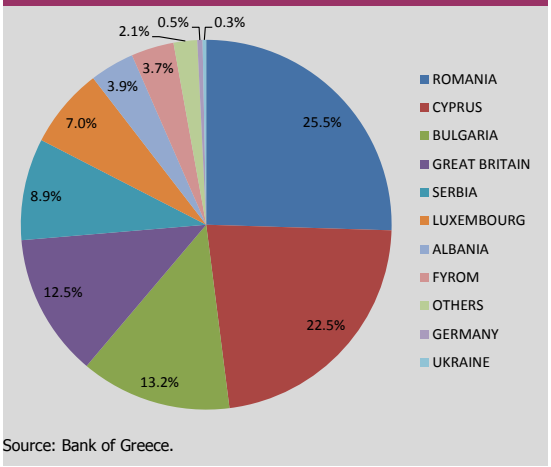
[14] The activity of Greek banks in SE Europe is conducted through subsidiaries and branches in Albania, Bulgaria, Cyprus, Ukraine, FYROM, Romania and Serbia.

[15] Loans more than 90 days past due.

[16] Rates of change are calculated on a comparable sample of subsidiaries and branches (like for like).

remained almost unchanged and the coverage rate stood at 68%.

Chart III.29 Assets of the Greek banking groups



Source: Bank of Greece.

As regards liquidity, the loan to deposit ratio improved (December 2016: 1.20, December 2015: 1.30). Deposits rose by 4% on an annual basis and lending declined at an almost equal rate. A positive development was the decrease in net parent funding by 66%.

The outlook for profitability, liquidity and portfolio quality of Greek banks' international activity is positive, taking into consideration the improved economic sentiment in SE Europe and the gradual focusing of Greek banks on niche markets.

3. RESILIENCE

Greek banks improved their resilience indicators in 2016 by taking full advantage of stabilising trends in the economic and financial environment. They reported marginal pre-tax profitability, moved to fulfil their commitments pursuant to their restructuring plans and bolstered their capital base. In the first quarter of 2017 pre-tax profitability was further boosted, while capital adequacy remained almost unchanged.

3.1 PROFITABILITY

After a row of loss-making years, Greek commercial banks reported marginal pre-tax profits on a consolidated basis in 2016. Underlying the return to profitability were an improvement in operating results and, mainly, a large decrease in loan-loss provisions (see Table III.3). Pre-tax profits of Greek commercial banks rose further in the first quarter of 2017.

Table III.3 Financial results of banking groups (2015 - 2016)

(amounts in EUR millions)

	2015	2016	Change (%)
Operating income	**8,398**	**9,098**	**8.3**
Net interest income	7,189	7,243	0.7
- Interest income	*11,227*	*9,992*	*-11.0*
- Interest expenses	*-4,038*	*-2,750*	*-31.9*
Net non-interest income	1,209	1,855	53.5
- Net fee income	*886*	*1,111*	*25.4*
- Income from financial operations	*28*	*289*	*>100*
- Other income	*295*	*456*	*54.6*
Operating costs	**-5,146**	**-4,894**	**-4.9**
Staff costs	-2,736	-2,546	-7.0
Administrative costs	-1,991	-1,940	-2.6
Depreciation	-419	-409	-2.4
Net income (operating income less costs)	**3,252**	**4,204**	**29.3**
Provisions for credit risk (impairment charges)	-13,434	-3,761	-72.0
Other impairment	-1,014	-311	-69.3
Non-recurring profits/losses	-97	-93	-4.6
Pre-tax profits/losses	**-11,293**	**39**	**-**
Taxes	4,187	219	-94.8
Profit/Loss after Tax from discontinued Operations[1]	-1,864	-2,913	56.2
After-tax profits/losses	**-8,971**	**-2,654**	**-70.4**

Source: Financial statements for the four SIs and supervisory data for the LSIs.

[1] During 2016 non-recurring losses of €3.120 mln. were recorded due to the sale of Finansbank by NBG. The respective loss was already taken into account in the "other income/losses" of previous financial statements and thus did not have an impact on common equity and supervisory own funds.

Specifically, net interest income grew marginally by 0.7% in comparison with 2015 due to a considerable decrease in interest expenses, which offset a fall in interest income. The decrease in interest expenses is attributable to the reduced cost of Eurosystem funding and a further decrease in interest rates on deposits. Interest income was mainly affected by the shrinking of the loan book. As a result, the net interest rate margin improved by 37 basis points in 2016 against 2015 (see Table III.4), though remaining significantly higher than the net interest rate margin of medium-sized banking groups in the EU.

Table III.4 Profitability indicators of banking groups in Greece and in the European Union

(percentage %)

	Greece[1,2]		EU 28[3]
	2015	2016	2016
Net income margin	2.1	2.4	1.4
Operating costs / total assets	1.5	1.6	1.4
Cost to income ration	61.3	53.8	64.2
Provisions for credit risk / total assets	3.9	1.3	
Provisions for credit risk / operating income	160.0	41.3	
Return on assets – ROA (after tax)	-2.0	0.1	0.1
Return on equity (after tax)	-19.2	0.7	1.7

Source: Financial statements for the four SIs and supervisory data for the LSIs, ECB Statistical Data Warehouse (SDW) .

[1] Indicators are computed using total assets at the end of each period.

[2] ROA and ROE are based on profits after tax and prior to discontinued operations. After tax and discontinued operations, the respective indicators would be: a) ROA 2015: -2,6%, 2016: -0,9%, b) ROE 2015: -24,2%, 2016: -7,6%.

[3] Data refer to medium-sized, in terms of assets, banking groups in EU 28. ROA and ROE are based on profits after tax and discontinued operations.

Net non-interest income rose by 53.5% on an annual basis. Income from financial operations were boosted by profits from the sale of European Financial Stability Fund (EFSF)[17] bonds and the sale of Greek banks' stake in Visa Europe. At the same time, net fee income grew owing to the increased use of POS devices and the decrease in the outstanding balance of Pillar II bonds under Law 3723/2008.

The reduction in staff headcount and branches led to slightly lower operating costs. In combination with the faster strengthening of operating revenues, this led to a considerable improvement of operating profits in 2016 and of the efficiency ratio (i.e. operating costs to operating income), which now stands lower than the average for medium-sized banking groups in the EU.

In 2016 banks continued their conservative provisioning policy, setting aside additional provisions of €3.7 billion, or 210 basis points of their outstanding loans net of provisions.

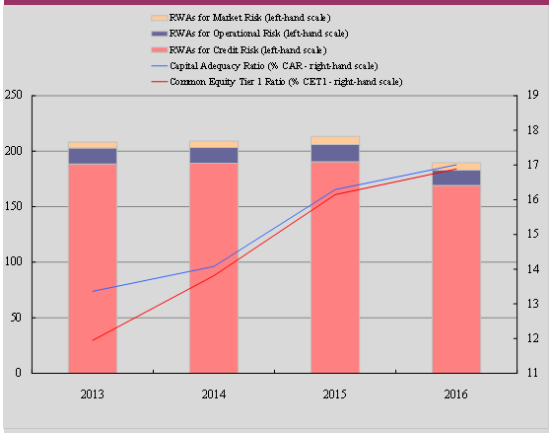
As a result of all the above mentioned developments, banking groups' ROA and ROE improved considerably (see Table III.4).

However, losses resulting from discontinued operations were considerable, most notably from the sale of Finansbank by the National Bank of Greece (NBG), as a result of which the banking sector posted losses after tax and discontinued operations.

Long-term profitability prospects are inextricably linked with the stabilisation of the Greek economy and the restoration of confidence in the banking sector. There still remain significant challenges ahead, however, the most important of which is the specification of measures to restore public debt sustainability and the inclusion of Greek government bonds in the ECB's quantitative easing programme. A successful outcome would contribute towards driving down banking groups' funding costs and assist them in the effective management of their NPLs.

[17] In April 2016 the European Financial Stability Fund (EFSF) permitted Greek banks, which had been recapitalised with EFSF bonds, to sell part of such bonds in the context of the Public Sector Asset Purchase Programme.

Chart III.30 Breakdown of RWAs by type of risk and evolution of capital adequacy of banking groups



Source: Bank of Greece.

3.2 CAPITAL ADEQUACY

The capital adequacy of Greek banking groups further improved in 2016. Specifically, the Common Equity Tier 1 (CET1) ratio on a consolidated basis rose to 16.9% in 2016, from 16.2% in December 2015 and the Capital Adequacy Ratio reached 17% from 16.3% respectively (see Chart III.30).

These improved capital adequacy ratios are attributable to a considerable decrease in risk-weighted assets by 11.2% against December 2015. The decline of risk-weighted assets for credit risk, which make up 89.2% of total risk-weighted assets, was key to this improvement. This is primarily attributable to the sale of NBG's subsidiary in Turkey and, to a lesser extent, to Greek banks' balance sheet deleveraging.

In the first quarter of 2017, the capital adequacy ratios of Greek banking groups declined marginally against end-2016, a development that is partly attributed to the supervisory treatment of deferred tax assets (DTAs).

Over the medium term, effectively managing NPLs and implementing their restructuring plans will be key to maintaining Greek banking groups' capital at a satisfactory level.

IV. OTHER FINANCIAL SECTORS

1. INSURANCE UNDERTAKINGS

1.1 INTRODUCTION

The year 2016 saw the entry into force of Solvency II, a new comprehensive and highly transparent regulatory framework that has introduced important changes to both the functioning of the insurance market and its supervision by competent authorities in the EU. The domestic insurance market has shown a high degree of consistence with, and adaptability to, the supervisory requirements of the new framework.

As a result of developments in early 2017, the Greek insurance market now numbers 43 insurance undertakings supervised by the Bank of Greece, three of which exclusively active in life insurance, 23 exclusively in non-life insurance and 17 in both life and non-life insurance. At the same time, the domestic market hosts 20 branches of insurance undertakings based in other EU Member States, as well as 16 European insurance undertakings doing business under the freedom to provide services.

Regarding market size, it should be noted that, at end-2016, the total assets of insurance undertakings based in Greece, according to annual data submitted by undertakings, were €15.9 billion, of which €11.9 billion concern investments (€6.8 billion in government bonds) and €2.3 billion concern unit-linked products. On the other hand, liabilities were €12.9 billion, with total technical provisions amounting to €11.7 billion (€3.2 billion concern non-life insurance, €6.1 billion life insurance and €2.4 billion unit-linked products).

In 2016, total premiums of insurance undertakings supervised by the Bank of Greece amounted to €3.53 billion, slightly lower than in 2015 (€3.57 billion). Of total premiums in 2016, €1.64 billion concerned life insurance and €1.89 billion non-life insurance.

1.2 INSURANCE UNDERTAKINGS' RISKS

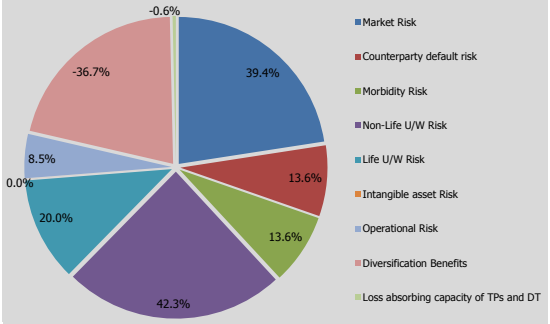
The main objective of insurance undertakings is to serve their policyholders as producers of insurance products and covers. In providing such services, they raise funds taking on underwriting and financial risks.

The analysis below focuses on the quantifiable risks assumed by insurance undertakings, as measured by the standardised formula used for the calculation of the Solvency Capital Requirement.

It should be noted that the results of the EU-wide stress test conducted and coordinated by EIOPA in 2016 confirmed the sector's vulnerability, at EU level, to a low interest rate environment, which could squeeze insurance undertakings' profitability and threaten their viability, in particular in cases they promote products that include long-term financial guarantees. This risk is not reflected in capital requirements, as it erodes undertakings' capital base only gradually and over the long term.

On an aggregate basis, the analysis of risks for the Greek insurance market is presented in Chart IV.1.

Chart IV.1 Analysis of Risks of Insurance Undertakings

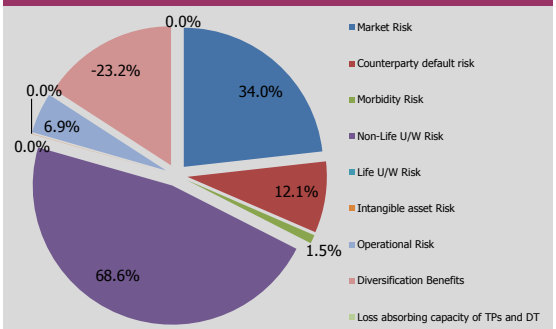


Source: Bank of Greece.

Non-life insurance undertakings

The major risk facing non-life insurance undertakings (numbering 23) is underwriting risk, which accounts for 68.6% of their risk profile. The second biggest risk – albeit considerably smaller – is market risk, accounting for 34.0% of their risk profile. Next is counterparty default risk (12.1%) and last is operational risk (fairly low, 7%). Finally, risk diversification mitigates risk by about 23.2% (Chart IV.2).

Chart IV.2 Analysis of Risks of Non-Life Insurance Undertakings

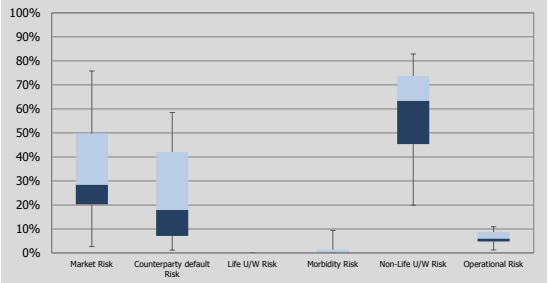


Source: Bank of Greece.

The above conclusions concern the total of non-life insurance undertakings, with considerable variations across undertakings (Chart IV.3).

Chart IV.3 shows the large variations in the risk profile across insurance undertakings, in particular with respect to market risk and counterparty default risk, with shares in the risk profile ranging from 2.7% to 79% and from 1.2% to 58.5%, respectively.

Chart IV.3 Distribution of Risks for Non-Life Insurance Undertakings

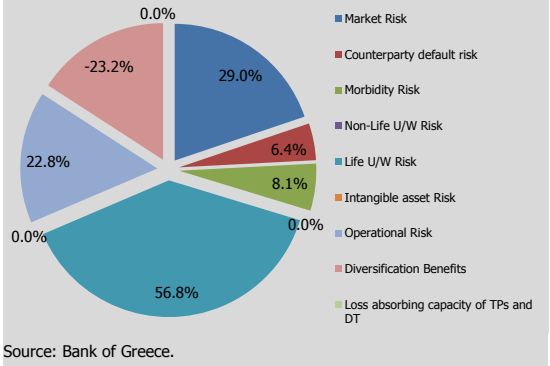


Source: Bank of Greece.

Life insurance undertakings

For the three undertakings engaging exclusively in life insurance, the biggest risk is underwriting risk (56.8%), followed by market risk (29.0%, Chart IV.4). A characteristic feature of life insurance is that operational risk is high (22.8%), with counterparty default risk at just 6.4%. Risk diversification mitigates risk by about 23.2%, the same as in non-life insurance undertakings.

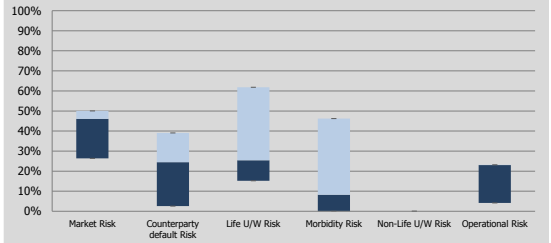
Chart IV.4 Analysis of Risks of Life Insurance Undertakings



Source: Bank of Greece.

The above conclusions concern the total of life insurance undertakings, with the risk profile across undertakings shown in Chart IV.5.

Chart IV.5 Distribution of Risks for Life Insurance Undertakings

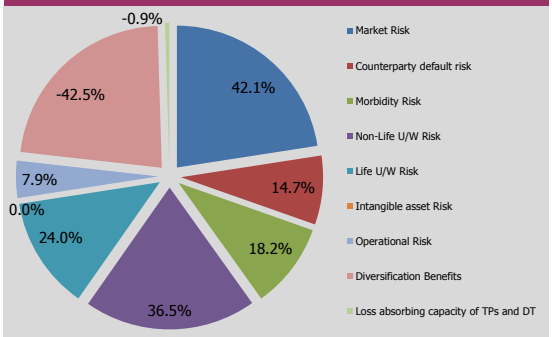


Source: Bank of Greece.

Composite insurance undertakings

The shares of risks in the risk profile of the 17 composite insurance undertakings, which engage in both life and non-life insurance business, differ considerably from the other types of insurance undertakings. In this case, the biggest risk is market risk, accounting for about 42.1%, while non-life, life and health underwriting risks account for 36.5%, 24.0% and 18.2%, respectively (Chart IV.6). Moreover, counterparty default risk is high (about 15%). Risk diversification appreciably mitigates risk (by some 42.5%), as these undertakings are more capable of assuming uncorrelated and/or, in some cases, negatively correlated risks.

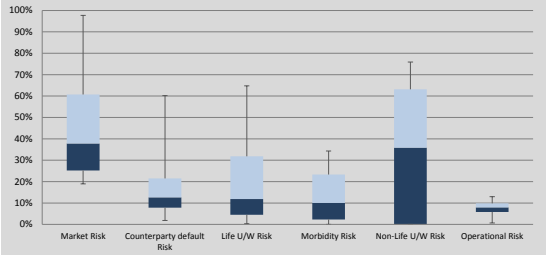
Chart IV.6 Analysis of Risks of Insurance Undertakings writing both Life and Non-Life Business



Source: Bank of Greece.

Chart IV.7 presents the risk profile of composite insurance undertakings.

Chart IV.7 Distribution of Risks for Insurance Undertakings writing both Life and Non-Life Business



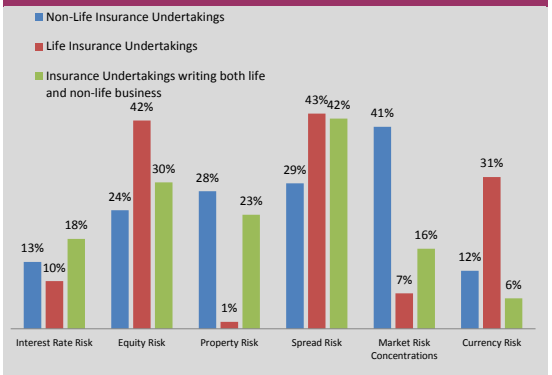
Source: Bank of Greece.

Chart IV.7 reveals the considerable variations across undertakings, mainly stemming from the fact that composite insurance undertakings are divided into those that mostly assume life underwriting risks as they cannot engage in non-life insurance business other than where it involves health risk, and those that principally assume non-life underwriting risks. Likewise, the great variation in life underwriting risk is explained by the small number of insurance undertakings that assume considerable life underwriting risk. Indicatively, 50% of composite insurance undertakings assume immaterial life underwriting risk (less than 10% of total risk).

Insurance undertakings' market risk

Regarding market risk, which accounts for about 39.4% of insurance undertakings' total risk, it appears that there are large variations across insurance undertakings (Chart IV.8).

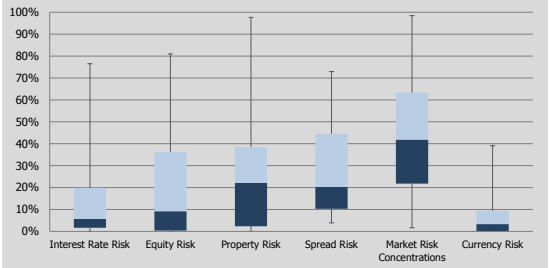
Chart IV.8 Analysis of Market Risk of Insurance Undertakings



Source: Bank of Greece.

Non-life insurance undertakings have a large exposure to concentration risk (41% of total risk) and spread risk (29%) and real estate risks (28%). Equity risk is moderate, accounting for 24% of total risk. The distribution of market risk across non-life insurance undertakings is given in Chart IV.9.

Chart IV.9 Distribution of Market Risk for Non-Life Insurance Undertakings

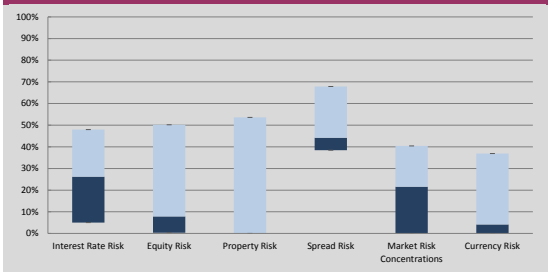


Source: Bank of Greece.

Contrary to non-life insurance undertakings, the biggest risks facing life insurance undertakings are equity and spread risks, 42% and 43% respectively of total risk. Characteristically, currency risk for such undertakings is quite elevated (31%), while real estate risk is almost nil.

The distribution of market risk across life insurance undertakings is given in Chart IV.10.

Chart IV.10 Distribution of Market Risk for Life Insurance Undertakings



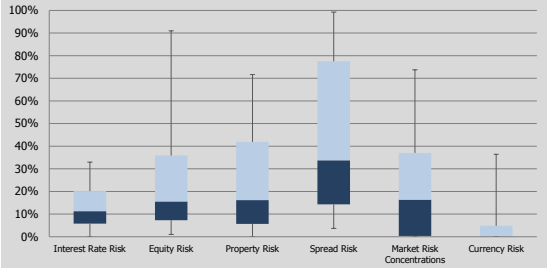
Source: Bank of Greece.

There is large variation in the exposure of composite insurance undertakings to market risk. In each market risk category, there are insurance undertakings with zero exposure and others with quite large exposure. Indicatively, in some cases spread risk can be up to 99% of total market risk.

For such undertakings, the largest market risk is spread risk (42%), followed by equity risk (30%).

The distribution of market risk across composite insurance undertakings is given in Chart IV.11.

Chart IV.11 Distribution of Market Risks for Insurance Undertakings writing both Life and Non-Life Business



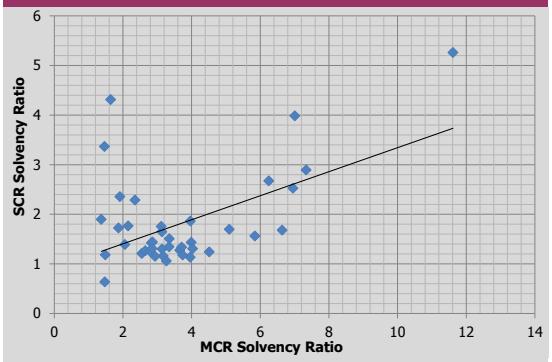
Source: Bank of Greece.

1.3 INSURANCE UNDERTAKINGS' SOLVENCY

Despite the unfavourable economic environment, Greek insurance undertakings appear to be well-capitalised, with 92% of eligible own funds on the top tier (Tier 1). As at 31 December 2016, at market level, the Solvency Capital Requirement (SCR) came to €1.73 billion, with total eligible own funds at €2.72 billion. Moreover, the Minimum Capital Requirement (MCR) was €634 million, with total eligible own funds at €2.55 billion, being exclusively Tier 1 funds.

Chart IV.12 shows the MCR/SCR cover ratio by insurance undertaking.

Chart IV.12 Solvency Ratios MCR/SCR



Source: Bank of Greece.

2. OTHER COMPANIES

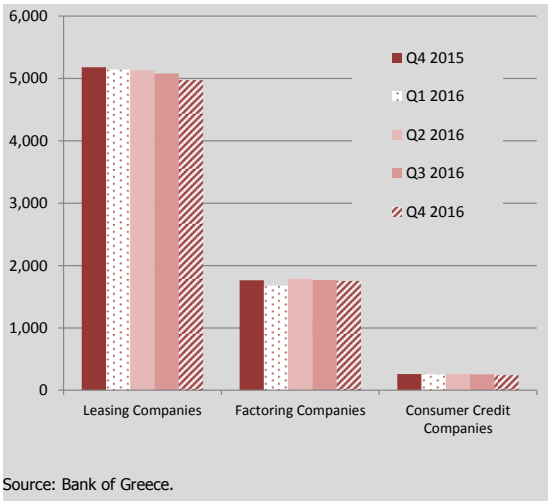
2.1 LEASING – FACTORING – CONSUMER CREDIT COMPANIES

During 2016, other financial companies' assets declined slightly in comparison with 2015, according to Bank of Greece data, continuing their fall observed since the onset of the crisis, albeit at a slower pace.

Specifically, the assets of leasing companies amounted to €5.0 billion at end-2016, down by 3.9% year-on-year (see Chart IV.13). This small decrease in 2016 reflects an effort to stabilise the sector, following the considerable contraction (of some 40%) in their assets between 2010 and 2015.

Chart IV.13 Evolution of Assets of Other Financial Institutions

(EUR millions)



Source: Bank of Greece.

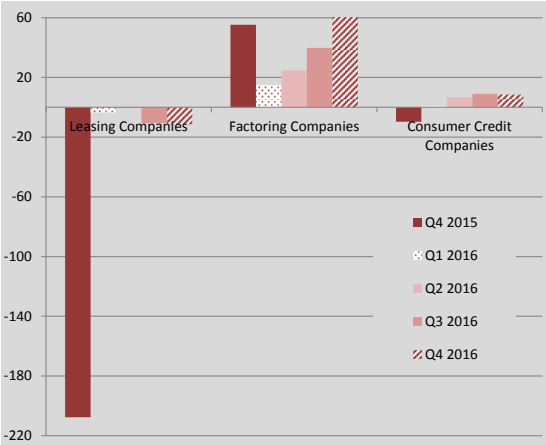
At the same time, the assets of factoring companies stood at €1.7 billion at end-2016, down by 0.8% year-on-year. Finally, the assets of consumer credit companies amounted to €0.2 billion at end-2016, down by 5.4% year-on-year. It should be noted that between 2010 and 2015, the assets of factoring and consumer credit companies shrank by 20% and 70%, respectively, while in 2016 their rate of decrease slowed considerably.

Regarding operating results, in 2016 the performance of all three sectors was improved in comparison with 2015 (see Chart IV.14).

In more detail, the losses of leasing companies fell to just €11.4 million in 2016, from €207.7 million in 2015.

Chart IV.14 Evolution of Income Statements of Other Financial Institutions

(EUR millions)



Source: Bank of Greece.

Factoring companies posted profits of €54.8 million, slightly higher than in 2015 (€52.8 million). Finally, consumer credit companies also recorded profits of €8.5 million, against losses of €9.7 million in 2015.

Regarding the interconnection of these companies with credit institutions in 2016, it should be noted that 22.6% of the liabilities of leasing companies represents liabilities due to credit institutions, compared with 8.3% for factoring companies. By contrast, consumer credit companies' claims on credit institutions account for 22.6% of their assets, compared with 2.2% and 0.7% for factoring and leasing companies, respectively.

Finally (on- and off-balance sheet) non-performing exposures on an aggregate basis (for leasing, factoring and consumer credit companies) amounted to €3.28 billion, slightly down by 0.28% in comparison with end-2015 (€3.29 billion). The NPE ratio fell

slightly to 42.34% in 2016, from 43.33% in 2015.

2.2 CREDIT SERVICING FIRMS – INSTITUTIONAL FRAMEWORK

Under the current legislative framework (Law 4354/2015, as amended by Law 4389/2016), four credit servicing firms have been authorised by the Bank of Greece. These firms, in cooperation with credit institutions, undertake the management of non-performing residential, business and consumer loans with a view to finding solutions that would lead to the stabilisation and recovery of firms and households, at the same time contributing to the consolidation of banks' portfolios and the recovery of the Greek economy.

The recent amendment to the relevant institutional framework (Law 4472 of 19 May 2017) simplified the credit servicing firm authorisation procedure and is expected to lay the ground for attracting more candidates, given the large volume of non-performing exposures.

V. FINANCIAL MARKETS INFRASTRUCTURES

1. PAYMENT SYSTEMS

In 2016 the financial system continued to be under pressure as a result of the Greek government's liquidity constraints and capital controls. In this unfavourable economic environment, the operational credibility and resilience of payment systems contributed decisively to safeguarding financial stability by ensuring the smooth functioning of interbank and retail payments.

1.1 TARGET2-GR

TARGET2-GR (T2-GR), the Greek component of the Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2), was fully operational and efficient throughout 2016, with its availability remaining at 100%. Regarding transactions processed through T2-GR, payments continued to decline in terms of both volume and value. Specifically, 716 thousand interbank and customer payment orders were processed through the system, 61 thousand less than in 2015 (down by 7.8%). The corresponding value of payment orders came to €3 trillion, down by €2.2 trillion (or 42%). The downward path of payments is attributable to the overall liquidity shortage of central and regional government agencies, firms and households. At the institutional level, the volume and value of T2-GR transactions continued to be affected by the requirement for approval, either by the payment service providers themselves or by the Committee for Approval of Banking Transactions, of payments to be effected through the system in Greece or abroad.

1.2 DIAS INTERBANK SYSTEMS S.A.

The operation of the multilateral net settlement system for retail payments DIAS was highly efficient during 2016, with its availability being 100%. DIAS processed 28 million payment orders more than in 2015 (up by 14%) and 52 million more than in 2014 (up by 29%), reflecting the increased use of electronic transactions. The largest increase was recorded in credit transfers and direct debits. By contrast, ATM interbank transactions, predominantly cash withdrawals, fell by 21% (see Table V.1). This mainly reflects restrictions on the manner and the level of cash withdrawals on a fortnightly basis as well as the cap on the use of cash in the transactions of private individuals and businesses. It is also explained by the public's increased familiarisation with, and use of, electronic payment instruments, which are accompanied by tax incentives. The total value of payments processed through the system came to €233 billion, up by 13% in comparison with 2015.

Table V.1 Transactions of DIAS payment system

(in millions of transactions)

Type of Transactions	2016	2015	2014
Credit transfers and other capital movements	195.82	166.18	144.98
Direct debits	13.53	11.7	9.94
Cheques	4.35	4.18	4.42
ATM interbanking transactions	15.36	19.47	19.02
POS payments	1.36	0.5	0.13
Total	**230.42**	**202,03**	**178.49**

Source: DIAS S.A.

1.3 ATHENS CLEARING OFFICE (ACO)

The volume and value of cheques in physical form cleared through the ACO continued to fall in 2016 (see Table V.2). The system processed 22 thousand cheques less than in 2015 (down by 4.9%), with the daily average number of cheques presented for clearing down by 5%. The corresponding value of cheques pre-

Table V.2 ACO cheques processing

(in millions of transactions)

	2016	2015	2014	Evolution 2015-2016	Evolution 2014-2016
Number of cheques submitted for clearing	423,657	445,697	601,450	-4.9%	-29.6%
Value of cheques submitted for clearing (mil. Euro)	32,226	39,488	62,779	-18.4%	-48.7%
Daily average number of cheques submitted for clearing	1,642	1,728	2,359	-5.0%	-30.4%
Daily average value of cheques submitted for clearing (mil. Euro)	124.91	153.05	246.19	-18.4%	-49.3%

Source: Athens Clearing Office.

sented for clearing dropped by €7.2 billion (or 18.4%), with the daily average value of cheques presented for clearing down by 18.4%.

This development is directly associated with the level of business turnover, the continued substitution of cheques with funds transfers in individual and business payments, the increased use of electronic payment instruments due to tax incentives, and the available disposable income for consumption of goods and services.

2. PAYMENT CARDS

The continued changes in consumers' and businesses' transaction practices, most importantly the expanding use of electronic payment instruments, are reflected in the indicators of payment card transactions.

2.1 NUMBER OF PAYMENT CARDS

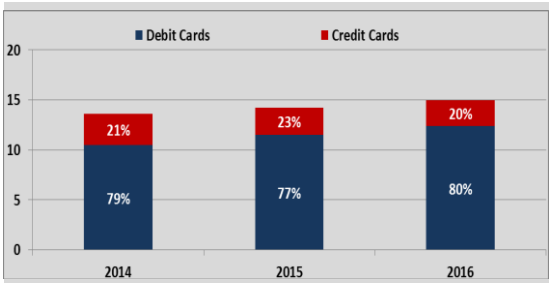
At end-2016, the total number of active payment cards in circulation was 15 million, up by 5% year-on-year (see Chart V.1). Following a substantial increase of 11.26% in the number of payment cards recorded between the first and the second half of 2015, which was necessary in the new transaction conditions, their rate of issuance has gradually normalised. Specifically, the number of payment cards increased by 3% between the second half of 2015 and the first half of 2016, while in the second half of 2016 it rose by 1.8% against the same year's first half.

Turning to card categories,[18] the number of credit cards fell by 4% on an annual basis, to 2.6 million at end-2016. This development is directly associated with the unfavourable economic conjuncture and cardholders' inability to meet their monthly card bills; as a result, either the cardholders stopped using and returned their cards to their issuers, or the issuers terminated the relevant contracts and deactivated cardholders' cards. By contrast, debit cards grew by 8% on an annual basis to 12.4 million at end-2016. This increase is explained by the continued substitution of passbooks for cards, as well as a trend to obtain prepaid cards for effecting payments, mainly through the internet.

[18] For the purposes of this Overview, debit cards include prepaid cards and cards that can be used for cash withdrawals but not purchases. Credit cards include virtual cards and delayed debit cards.

Chart V.1 Number of cards per card type

(in millions)



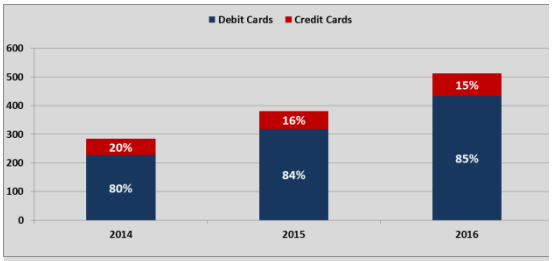
Source: Bank of Greece.

2.2 CARD TRANSACTIONS

In 2016, the total number of card transactions rose to 513 million, from 381 million in 2015, up by 35% (see Chart V.2).

Chart V.2 Card transactions - Number

(in millions of transactions)



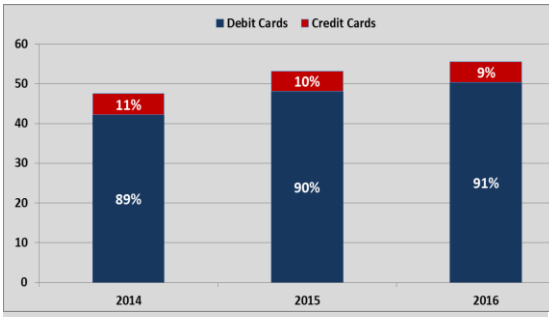
Source: Bank of Greece.

Regarding the shares of the two payment card categories in the total volume of transactions during the period 2014-2016, there has been an increase in the use of debit cards, which are the main substitute for cash. At the same time, the share of credit cards has been shrinking commensurately, on the one hand as a result of the reduction in their number and, on the other, as a result of credit cards' very low or zero available balances for effecting transactions.

The value of payment card transactions rose to €55 billion, from €53 billion in 2015, up by 4% (see Chart V.3).

Chart V.3 Card transactions - Value

(in EUR billions)

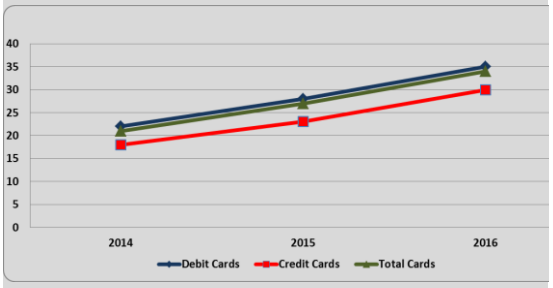


Source: Bank of Greece.

The shares of the two payment card categories in the total value of transactions are following the same trend as in the volume of transactions.

Focusing on transactions per card (see Charts V.4 and V.5), the average number of transactions rose by 26% in 2016 to 34 transactions per card, from 27 in 2015. Turning to card categories, the average number of transactions per debit card rose to 35, from 28, and the average number of transactions per credit card to 30, from 23 in 2015.

Chart V.4 Average number of transactions per card type.

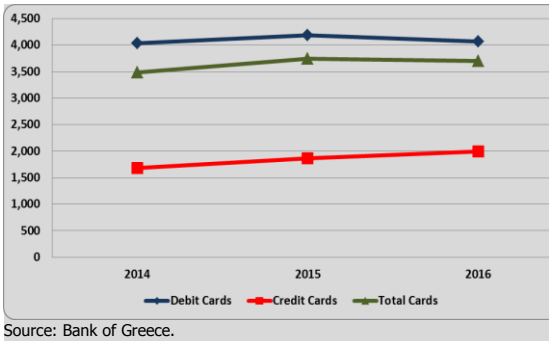


Source: Bank of Greece.

Conversely, the average value of transactions per card dropped by 1% to €3,704 in 2016, from €3,742 in 2015. Furthermore, the average value of transactions per debit card fell by 3% to €4,066, from €4,188, while the average value of transactions per credit card rose by 7% to €1,995, from €1,862 in 2015.

Chart V.5 Average value of transactions per card type

(in EUR)



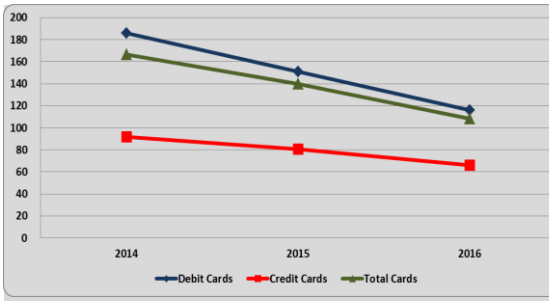
Source: Bank of Greece.

The increase in the average value of transactions per credit card is mainly explained by the ability of paying individual and corporate taxes through credit cards at monthly tax-free instalments in 2016.

Finally, the average value per transaction fell by 22% to €108, from €140 in 2015 (Chart V.6). Taking into account the significant rise in the total volume of transactions in comparison with the increase in the total value of transactions, it can be inferred that cards are now widely used also for low-value transactions.

Chart V.6 Average value per card transaction

(in EUR)



Source: Bank of Greece.

2.3 CARD FRAUD

Given the changes in consumers' and businesses' transacting practices, monitoring card fraud contributes to safeguarding transactions, maintaining confidence in payment instruments, promoting new transacting practices and upholding the stability of the financial system.

The ratio of the intensity of card fraud concerning the volume/value of fraudulent transactions as a percentage of the total volume/value of card transactions remained at 0.01% (see Table V.3) and accounts for €1 of fraud per €10,000 of card transactions.

Table V.3 Fraud to transaction ratio - Value

(EUR)

Period	Value of transaction	Value of fraudulent transaction	Fraud to transaction ratio
2016	55,494,988,117	5,265,609	0.01%
2015	53,204,997,330	4,819,289	0.01%
2014	47,461,311,333	4,522,623	0.01%

Source: Bank of Greece.

In terms of fraud volume, the corresponding ratio stands at 0.01% (see Table V.4), as in previous years, and accounts for one fraudulent incident per 8,000 card transactions.

Table V.4 Fraud to transaction ratio - Number

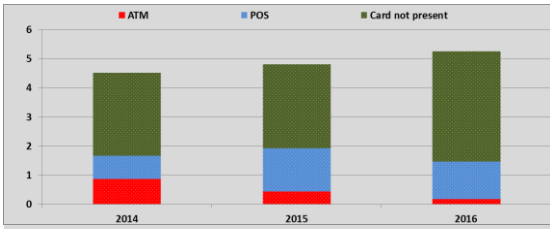
Period	Number of transactions	Number of fraudulent transactions	Fraud to Transaction ratio
2016	513,130,314	62,230	0.01%
2015	381,184,188	39,955	0.01%
2014	284,793,348	40,358	0.01%

Source: Bank of Greece.

The breakdown of fraud per card transaction type (see Charts V.7 and V.8) shows that fraud in CNP (card-not-present) transactions, via the internet, mail or telephone, is the most prevalent one.

Chart V.7 Value of fraudulent transactions per transaction type

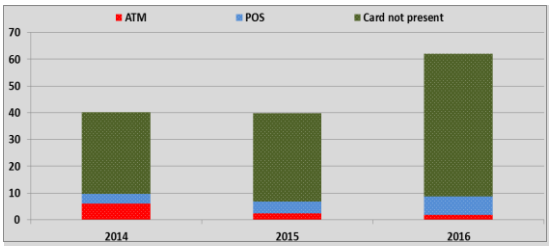
(in EUR millions)



Source: Bank of Greece.

Chart V.8 Number of fraudulent transactions per transaction type

(in millions transactions)



Source: Bank of Greece.

An in-depth analysis of CNP fraud suggests that the vast majority of incidents involve Greek payment cards which were used for online purchases abroad. In the Greek market, payment service providers make extensive use of the international protocol for secure transactions "3D Secure", thereby maintaining fraud in domestic internet transactions at a low level.

The number of fraudulent ATM transactions, in which the physical presence of the card is required, remained very low, having declined by 59% in 2016. The relevant value of fraud also fell by 26%.

With respect to fraudulent POS transactions, in which the physical presence of the card is also required, fraud volume grew by 58%, but the value of fraud fell by 14%. Although in 2016 the volume and value of POS transactions rose as a percentage of total transactions, fraud remained very low in 2016 (see Tables V.5 and V.6).

Table V.5 Number of POS transactions in the total number of transactions

Period	Number Of transactions	Number of POS transactions	% number of POS transactions in the total number of transactions	% change in number of transactions
2016	513,130,314	265,040,414	51.65%	-
2015	381,184,188	118,093,006	30.98%	66.72%
2014	284,793,348	70,818,788	24.87%	24.59%

Source: Bank of Greece.

Table V.6 Value of POS transactions in the total value of transactions

(EUR)

Period	Value of transactions	Value of POS transactions	% value of POS transactions in the total value of transactions	% change in value of transactions
2016	55,494,988,117	12,838,704,668	23.13%	-
2015	53,204,997,330	6,882,901,493	12.94%	78.83%
2014	47,461,311,333	4,748,672,851	10.01%	29.30%

Source: Bank of Greece.

To sum up, the very low level of fraud is associated with the enhancement of security in all transactions through the adoption of strong security mechanisms and procedures by payment service providers, in order to effectively identify and deter fraud.

3. SECURITIES SETTLEMENT SYSTEMS

3.1 DEVELOPMENTS IN THE INSTITUTIONAL AND REGULATORY FRAMEWORK

Securities Settlement Systems in Greece are harmonised with the European regulatory framework and therefore any change therein affects their operation. Institutional and regulatory developments in this respect since the publication of the Overview of the Financial System in July 2016 have been as follows.

Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July

2014 on improving securities settlement in the European Union and on central securities depositories took effect in September 2014. The European System of Central Banks (ESCB) and the competent authorities in Europe cooperated with the European Securities and Markets Authority (ESMA) and the European Banking Authority (EBA), as provided for in the Central Securities Depositories Regulation **(**CSDR), to draft regulatory technical standards specifying certain provisions of the CSDR. In November 2016, the European Commission approved these standards, which were published in the Official Journal in March 2017, effective from 30 March 2017. The regulatory technical standards published include *inter alia* provisions on the authorisation of CSDs, prudential supervision requirements, as well as organisational requirements**.**[19] Within six months from the entry into force of these standards, CSDs will have to apply to the competent supervisory authority for authorisation under the CSDR. It should be noted that CSDs managed by central banks are exempt from this procedure.

Finally, ESMA drafted, in close cooperation with members of the ESCB, and published in March 2017 the first two sets of guidelines to ensure consistent implementation of CSDR provisions on participants' default and CSD access to transactions feeds of central counterparties and trading venues.

The main object of the CSDR and the regulatory technical standards is to enhance security, efficiency and smoothness of settlement of financial instruments in the EU by laying down common rules for market participants, in particular regarding compliance with the settlement procedure, and harmonised requirements for all European depositories. In addition, it promotes cooperation among authorities, both at domestic and cross-border level, by designating competent and relevant authorities that participate in the authorisation and supervision of CSDs.

3.2 THE BOOK-ENTRY SECURITIES SYSTEM OF THE BANK OF GREECE

The securities settlement system of the Bank of Greece (System for Monitoring Transactions in Book-Entry Securities) operates in accordance with the settlement rules and common requirements laid down in the CSDR and, as mentioned in the preceding paragraph, is exempt from the authorisation procedure.

During 2016 the System operated smoothly, at a time when seven European depositories joined the TARGET2-Securities settlement platform (the securities settlement system of the Bank of Greece had joined T2S during the first phase of migration on 22 June 2015). Table V.7 shows the average daily value of transactions on the System during the January 2010 – December 2016 period.

[19] Regulatory technical standards on compliance with the settlement procedure will be published within the next few months.

Table V.7 Daily average cash value of transactions settled in the BOGS

(EUR millions)

	2010	2011	2012	2013	2014	2015	2016
January	25,454.80	7,096.20	4,575.02	3,043.14	7,154.57	7,875.16	1,655.73
February	27,670.95	7,373.38	12,264.46	5,309.67	7,230.32	9,732.19	1,984.11
March	24,184.35	8,179.58	13,420.38	6,430.53	7,416.68	6,573.52	2,727.62
April	22,471.01	7,087.55	7,186.56	5,867.68	8,633.30	6,258.86	2,899.13
May	15,016.21	7,009.56	6,674.08	7,410.18	7,132.08	5,386.06	3,853.81
June	9,230.19	7,421.40	5,577.31	7,810.40	7,258.80	7,278.41	6,096.57
July	7,632.89	7,955.05	3,165.96	6,796.00	5,970.67	762.52	3,853.60
August	5,811.10	5,646.81	2,147.91	5,320.37	4,372.33	947.13	4,204.61
September	10,218.92	6,504.64	2,624.21	7,087.89	5,129.95	773.63	3,911.92
October	7,803.95	5,812.87	3,271.61	8,706.07	6,397.47	1,397.40	3,284.88
November	7,163.29	5,176.58	2,734.26	8,274.94	4,814.90	1,499.89	4,639.48
December	7,301.15	6,793.57	6,056.76	9,141.36	5,262.31	2,590.70	4,235.34

Source: Bank of Greece.

3.3 THE DEMATERIALISED SECURITIES SYSTEM OF HELLENIC CENTRAL SECURITIES DEPOSITORY S.A.

The Dematerialised Securities System of the company "Hellenic Central Securities Depository S.A." provides settlement services at end-investor level for transactions in securities and/or other financial instruments, and is the electronic system through which all book-entry securities traded on the Athens Exchange are entered and monitored. The Dematerialised Securities System is supervised by the Hellenic Capital Market Commission, to which it must apply for authorisation and submit the required documentation within the next few months, as required by the CSDR.

Regarding transactions on the Dematerialised Securities System, Table V.8 shows the average daily volume and value of transactions during the 2010-2016 period by instrument category.

Table V.8 Daily average number and daily average cash value of transactions[1] settled in the Dematerialized Securities System (D.S.S.) of ATHEX

	Equities	Pref. Rights	Corporate Bonds	ETFs	Warrants[2]	Government Debt	Alternative Market (Stocks)	Total
Daily average number of settled transactions								
2010	31,696	364	6	13	-	0	-	32,079
2011	25,917	247	12	9	-	0	-	26,185
2012	24,965	42	6	7	-	0	-	25,020
2013	28,379	793	1	8	1,462	0	-	30,643
2014	27,728	30	0	7	1,689	0	-	29,454
2015	25,890	1	0	5	1,096	0	1	26,993
2016	18,810	0	2	3	54	0	1	18,870
Daily average cash value of settled transactions (EUR)								
2010	138,035,423	1,111,699	62,077	214,625	-	0	-	139,423,825
2011	81,793,353	523,334	61,613	93,754	-	0	-	82,472,054
2012	51,812,545	12,736	31,173	51,574	-	0	-	51,908,028
2013	79,718,331	1,276,784	2,121	42,275	5,584,864	0	-	86,624,375
2014	120,284,343	109,222	1,123	61,898	6,601,126	0	-	127,057,712
2015	84,547,482	36	87	35,643	1,127,119	90	2,345	85,710,367
2016	60,408,550	13	26,845	9,464	10,115	0	7,684	60,462,670

Source: ATHEXGROUP, Monthly Statistics Bulletin AxiaNumbers.

[1] The transactions settled in the Dematerialized Securities System (D.S.S.) of ATHEX are calculated by single count (BUYS only).

[2] Warrants are transferable securities listed on the Athens Exchange incorporating the right to purchase shares of each bank recapitalised (Cabinet Act No. 38/9.11.2012).

4. CENTRAL COUNTERPARTY

4.1 DEVELOPMENTS IN THE INSTITUTIONAL AND REGULATORY FRAMEWORK

Since 2012 the operation of central counterparties in the European Union has been governed by Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (EMIR), which sets strict rules on risk management by central counterparties and establishes a framework for their collective supervision. The implementation of EMIR has resulted in an increase in transactions in derivatives reported to trade repositories, thereby enhancing market transparency and reducing systemic risk. Furthermore, the requirements applying to central counterparties and trade repositories have rendered them safer and more resilient. The anticipated amendment to EMIR by the European Commission is expected to further improve the reporting process, the quality and transparency of data, as well as access to clearing.

In November 2016, the European Commission proposed new rules for the recovery and resolution of central counterparties. This proposal was submitted after the implementation of EMIR in order to complete the institutional framework, setting harmonised rules to be followed in extremely severe conditions, where prudential requirements under EMIR may not be adequate to prevent the default of a central counterparty. The proposed rules aim at ensuring that both central counterparties and competent

authorities possess the tools necessary for achieving the continuity of critical functions, while maintaining financial stability and minimising potential costs for taxpayers in case of failure.

The proposed rules include prevention measures, namely drawing up recovery and resolution plans, early intervention by supervisors and resolution. Resolution tools include the sale of business, the establishment of a bridge central counterparty, the partial or total termination of contracts, a loss allocation tool and a bail-in tool.

4.2 ATHENS EXCHANGE CLEARING HOUSE S.A. (ATHENSCLEAR)

Transaction activity of AthensClear was smooth throughout 2016. Table V.9 illustrates the average daily volume of transactions in the derivatives market since 2014 (when it was authorised in accordance with EMIR) by category of derivative.

Table V.9 Derivatives market figures overview - Daily Average Traded Volume by commodity type

	Index Futures	Index Options	Stock Futures	Stock Options	Total
2014	14,405	917	28,125	122	43,569
2015	9,574	425	55,651	60	65,709
2016	3,596	269	58,218	48	62,131

Source: ATHEXGROUP, Monthly Statistics Bulletin AxiaNumbers.

SPECIAL FEATURE I
NON-PERFORMING EXPOSURES (NPES) AND THE GREEK JUSTICE SYSTEM: THE VALUE OF COLLATERAL AND THE TIME NEEDED TO RESOLVE INSOLVENCY

Introduction

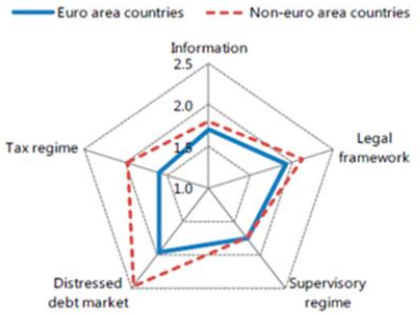
Managing non-performing exposures (NPEs) is the single most important challenge facing the Greek banking system, on the one hand due to the high amount of NPEs (€106.3 billion at end-2016[20]) and, on the other, due to the impact of the problem on the system's operation and, by implication, on real economy. Since it is vital that funds are released by credit institutions and channelled to the real economy to finance heathy businesses, examining the factors that would help in this direction is a priority.

Institutional obstacles to the resolution of NPEs

According to a study by the International Monetary Fund (IMF)[21], resolving credit institutions' NPEs hinges on five factors: (a) the existing supervisory framework; (b) the existence of a distress debt market; (c) informational asymmetry between purchasers and sellers; (d) the existing tax framework; and (e) the country's legal system. Therefore, the resolution of NPEs depends on the interaction of these factors and the weight of each of them.

Chart 1 illustrates the interaction of these factors, as well as their weighting, showing that the legal system and the existence of a distress debt market are the two most important ones.

Chart 1 Factors for resolution of NPEs



Source: IMF survey of country authorities and banks.

In examining the existing legal system, one should consider the contribution of in-court settlement to the resolution of NPEs, as well as the possibility of out-of-court settlement. A law on out-of-court settlement has been passed recently (Law 4469/2017), hence it is interesting to examine the in-court settlement procedure and the time needed to resolve/liquidate NPEs through court proceedings. Its importance is all the more evident as the amount of exposures under legal protection, whose judicial resolution is pending, was €15.3 billion at end-2016, i.e. 14.6% of total NPEs, which remained unchanged in the first quarter of 2017. The operation of the justice system also directly affects the liquidation of collateral by credit institutions where enforcement right has been granted.

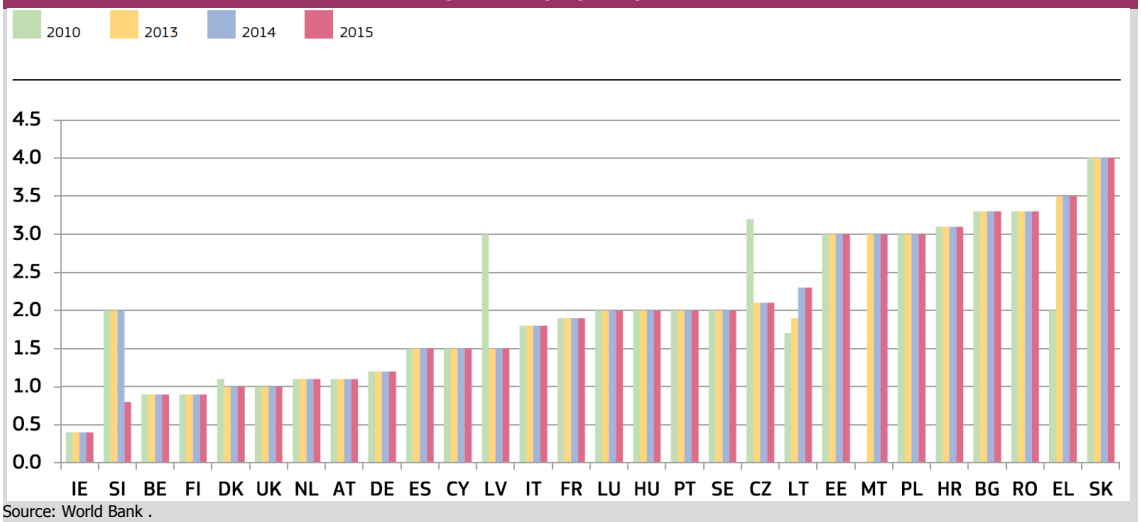
A European Commission survey[22] on the time needed to resolve insolvency is most revealing, as Greece ranks second last before Slovakia, with 3.5 years on average.

[20] Including both on- and off-balance-sheet exposures.

[21] A Strategy for Resolving Europe's Problem Loans http://www.imf.org/external/pubs/ft/sdn/2015/sdn1519.pdf

[22] http://ee.europa.eu/justice/effective-justice/files/justice_scoreboard_2016_en.pdf

Chart 2 Time needed to resolve insolvency of NPE (in years)[1,2].



Source: World Bank .

[1] The resolution of a NPE does not necessarily mean collateral liquidation.

[2] Time for creditors to recover their credit. The period of time is from the company' default until the payment of some or all of the money owed to the bank. Potential delaying tactics by the parties, such as the filing of dilatory appeals or requests for extension, are taken into consideration. The data are derived from questionnaire responses by local insolvency practitioners and verified through a study of laws and regulations as well as public information on insolvency systems. Data collected in June of each year.

This Special Feature examines the impact – from the point of view of credit institutions – of the time needed to liquidate collateral through the justice system on the sale price of NPEs, in conjunction with the internal rate of return (IRR) sought by potential investors.

There is also special focus on, and discussion of, denounced loans (45% of total NPEs at end-2016).

Data and assumptions of the sensitivity analysis

The analysis uses data on eligible for liquidation collateral from credit institutions' balance sheets as at 31 December 2016, covering the entire banking system.[23]

A key assumption is that the value of collateral is impaired as the time needed for its liquidation and investors' IRR increases. Therefore, there is an inverse relationship, which is examined in the light of the different values of the two parameters.

In addition, for prudential reasons, the value of eligible for liquidation collateral is not adjusted during the liquidation period, therefore any upward revaluation, given the time needed for liquidation and the already significant fall in its value, is not incorporated in its value. Moreover, the value of collateral is always capped and may not exceed the value of the exposure it backs.

The discount rate for the cash flows of eligible for liquidation collateral is determined by the IRR sought by potential investors. Therefore, this rate incorporates, in addition to any costs (e.g. loan servicing costs), also the time value effect on eligible for liquidation value, as well as a number of other factors such as country risk, the size of the Greek real estate market,[24] the lack of an active and fully operational distressed debt market[25] and the obsta-

[23] Including less significant institutions.

[24] Given the existing structure of collateral, 87% of which is real estate collateral, any attempted mass sale by credit institutions would cause bottleneck effects, as take-up would be limited. This would seriously impact on the already subdued real estate prices.

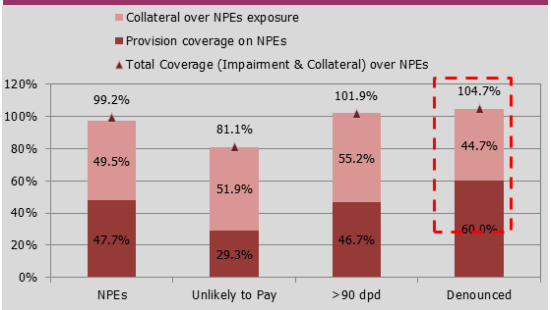
[25] It should be noted that, in the context of the government's adoption of a national strategy for removing the obstacles to

cles to NPE resolution raised by the justice system.

Evolution and structure of the collateral of NPEs

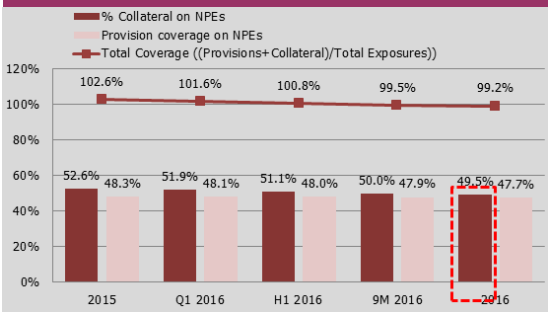
Chart 3 shows the evolution of the NPE coverage ratio across time and Chart 4 shows the total coverage ratio (i.e. including provisions) by category of exposure, in particular for the reference date.

Chart 3 NPE coverage ratio



Source: Bank of Greece.

Chart 4 Evolution of the NPE coverage ratio

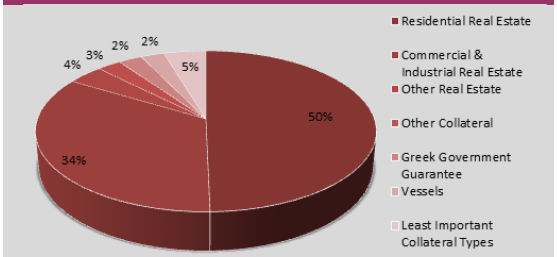


Source: Bank of Greece.

It is obvious that for both exposures 90 days past due (dpd) and denounced exposures, the total coverage ratio exceeds 100%, reflecting the high amount of provisions established by credit institutions.

Chart 5 presents the structure of NPE collateral regardless of exposure category. It is evident that 88% of total collateral is real estate collateral, 50% of which concerning residential real estate and 34% commercial and industrial real estate. This high concentration in the real estate market confirms on the one hand the interlocking of this market with the amount of NPEs and, on the other, the importance of collateral management by credit institutions.

Chart 5 Structure of NPE collateral

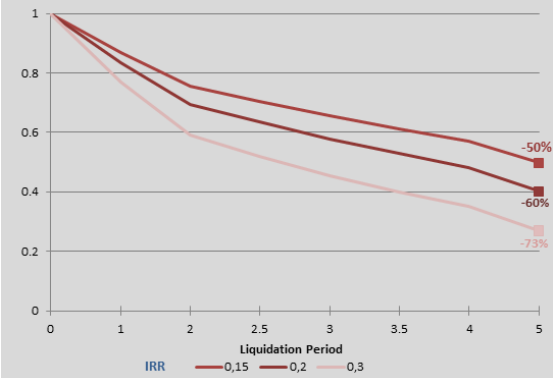


Source: Bank of Greece.

Sensitivity analysis

The inverse relationship between the time needed to liquidate collateral and investors' IRR is illustrated in Chart 6 under three scenarios: a conservative, a baseline and an adverse one. The IRR adopted is 15% under the conservative, 20% under the baseline and 30% under the adverse scenario.

Chart 6 Collateral impairment based on IRR



Source: Bank of Greece.

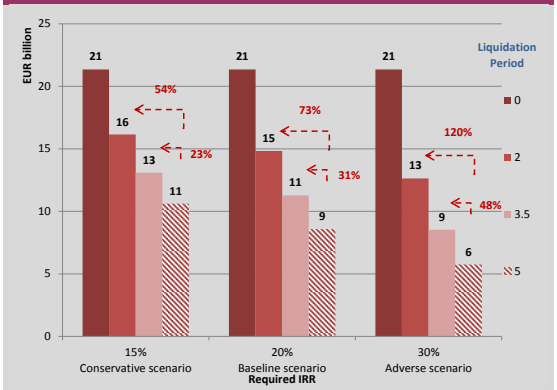
Starting with the book value of collateral and a liquidation period of five years, a realistic assumption under the current circumstances of the justice system, the value of collateral is impaired by 50% to 73%, depending on the

the creation of a distressed debt market in August 2015, important steps have already been made. However, market efficiency is not reflected in a sufficient transaction volume, mainly due to the high bid-ask spread.

scenario. The value of an NPE to be transferred by a credit institution is negatively affected commensurately.[26]

If the time needed for liquidation were shortened from five to two years, approaching the EU average, the results would be as shown in Chart 7.

Chart 7 Value of collateral depending on the scenario



Source: Bank of Greece.

In more detail, collateral valuation would improve by 54% under the conservative, 73% under the baseline and 120% under the adverse scenario. In other words, a smooth operation of the justice system, that would allow faster liquidation of collateral, could even result in doubling collateral values.

This undoubtedly also shows the important effect on the final sale price of NPEs. Given that the narrowing of the bid-ask spread is a necessary condition for an efficient distressed debt market, efforts in this direction should be stepped up.

The case of denounced exposures

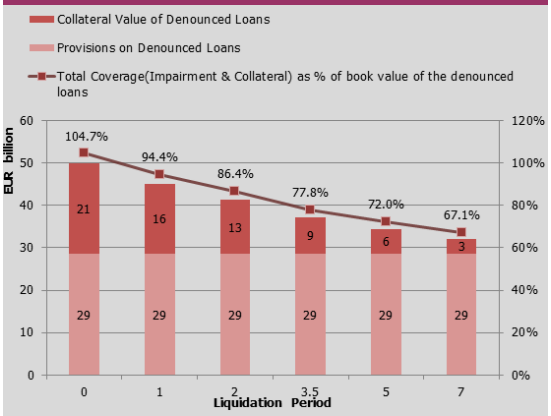
At banking system level, denounced exposures amounted to €48 billion or 45% of total NPEs at end-December 2016. Therefore, their importance in NPE management is crucial.

As shown in Chart 3, their total coverage ratio (104.7%) is higher than for the other exposure categories. Specifically, credit institutions have established provisions of €29 billion (60.7% of the ratio) for denounced loans, with available collateral at €21 billion (40% of the ratio).

As credit institutions have denounced these exposures, the eligible for liquidation collateral value is absolutely connected with the time needed for resolution and closure. This all the more highlights the importance of expediting court proceedings.

Chart 8 shows the impact of the time needed to liquidate collateral, assuming that the IRR sought by the investor due to the nature of the claim (non-cooperating borrower) is in line with the adverse scenario, i.e. 30%.

Chart 8 Impairment of coverage ratio of denounced loans in the adverse scenario



Source: Bank of Greece.

It is evident that if credit institutions were to pursue the sale of these exposures, the impairment and therefore the potential loss from the lengthy court proceedings would be between €6 billion and €13 billion, i.e. 12% and 27% of book value, according to the time needed for liquidation, i.e. two to five years. This impact would be directly reflected in the level of the final bid price.

[26] Although this is outside the scope of this special feature, it is easily understood that the interaction between the value of collateral and the final bid price is also determined by other factors, therefore it is not linear. However, the fall in the collateral value as a determinant of price is of relevance.

Conclusion

The time needed to liquidate eligible collateral directly affects the resolution of NPEs and potentially could be a *'game changer'* for the market. Given that the time currently needed ranges from 3.5 to 5 years, and sometimes longer, against an EU average of 2 years, both the magnitude of the problem and the scope for improvement are manifest.

Collateral impairment due to time-consuming court proceedings on the one hand acts as a strong disincentive to potential investors in NPEs and, on the other, directly impacts on bid prices. According to the findings of this sensitivity analysis, if the time needed to liquidate collateral is five years, collateral impairment reaches 50% under the conservative scenario (where investors' IRR is only 15%), and 60% and 73% under the baseline and the adverse scenario, where the IRR is 20% and 30%, respectively.

Resolving NPEs goes hand in hand with removing obstacles to an efficient distressed debt market. As prior actions have almost been completed through the legislative and regulatory changes already enacted, the price gap is the most important remaining factor and the major obstacle to the operation of this market.

The smooth operation of the justice system could act as a catalyst in this direction. First, it would contribute to a narrowing of the bid-ask spread through the improvement in collateral valuation. Moreover, the shortening of the time needed to close pending litigation would enhance transparency in the distressed debt market, creating a more favourable environment. This would be directly reflected in a lower IRR sought by investors. In other words, there would be multiple benefits, as the final result would be amplified and the price gap would be further reduced.

In conclusion, targeted actions to enhance the operation of the justice system with a view to expediting the closure of pending litigation should be a priority of reforms and be at the heart of the next actions.

SPECIAL FEATURE II
MINIMUM REQUIREMENT FOR OWN FUNDS AND ELIGIBLE LIABILITIES (MREL)

Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms (Bank Recovery and Resolution Directive – BRRD) came into full effect on 1 January 2016. The BRRD, which was transposed to Greek legislation by Law 4335/2015, aims inter alia at putting an end to state-funded bank bailouts, thus minimising taxpayers' exposure to losses. Therefore, the adoption of the Directive, combined with the existing prudential supervision framework, reduces the systemic impact from institutions' skewed incentives, i.e. excessive risk-taking with an expectation that they will be bailed out as too-big-to-fail. By introducing bail-in instruments, the Directive ensures that losses will be shouldered by banks' shareholders and creditors, including senior unsecured bondholders.

The stages of the recovery and resolution framework consist of:

1) the stage of preparation and prevention, which includes measures aimed at preparing the institution for recovery and resolution measures if necessary;

2) the early intervention stage, which includes measures aimed at early intervention so that the institution does not fall into a state of insolvency; and

3) the resolution stage, which includes measures aimed at resolving the institution that has become insolvent. The resolution measures to which BRRD refers are the sale of business tool, the bridge institution tool, the asset separation tool and the bail-in tool.

In this context, in order to effectively implement the restructuring of liabilities and to ensure that institutions have issued adequate financial instruments, which may be written off and/or written down to absorb losses and/or be converted into share capital under certain conditions and circumstances (bail-inable instruments) without jeopardising financial stability, institutions should at all times meet a Minimum Requirement of Own Funds and Eligible Liabilities (MREL). This requirement is calculated as the amount of own funds and eligible liabilities, expressed as a percentage of the total of the institution's liabilities and own funds. MREL refers to liabilities of the institutions that can potentially be used to absorb losses and to recapitalise them if required in case of resolution, to minimise the impact on financial stability, ensure the continuity of the critical functions of the institutions undergoing resolution and avoid the exposure of public funds to the risk of loss.

MREL is determined by the resolution authorities separately for each entity on an individual and a consolidated basis, i.e. at the level of each legal entity, to ensure that potential losses can be absorbed and that capital can be restored at any level within the group.

The resolution authority ensures that the institution is capable of absorbing a sufficient amount of losses and, if necessary, to recapitalise adequately by estimating the Loss Absorption Amount (LAA) and the Recapitalisation Amount in consultation with the supervisory authority. For the purposes of defining prudential requirements, the institution's busi-

ness model, funding model and risk profile are taken into account in the estimation.

Since the regulatory capital requirements under Basel III are intended to cover unexpected losses, LAA is composed of the sum of the own funds requirements,[27] the additional pillar II requirements set by the supervisory authority and the combined buffer requirement[28] or any higher amount necessary to comply with the requirements referred to in Article 500 of Regulation (EU) No 575/2013 and any applicable requirement regarding the leverage ratio, in line with EU Regulation 2016/1450.

The Recapitalisation Amount (RCA), if required, is intended to cover, after resolution, the capital requirements of the insolvent credit institution, taking into account possible disinvestments and other resolution measures. The RCA consists of the funds required to maintain market confidence and the smooth operation of the credit institution after the resolution process. These funds must be available in advance, in addition to the funds for the absorption of losses. The resolution authority estimates the amount of capital needed by the credit institution after resolution, which may be zero if the chosen resolution tool is the sale of business tool.

Critical parameters that affect the real economy and financial stability and are a reference point for each credit institution's strategic plan focus mainly on deposits and loans. These activities should continue in case of resolution, which is ensured by capital adequacy. Also, the credit institution should maintain sufficient capital buffers, in line with similar credit institutions. If the resolution method requires recapitalisation, the resolution authority must ensure that all of the above capital requirements are met when deciding on the amount of recapitalisation.

Specifically, if there is a need for recapitalisation, the funds that will be required depend on the balance sheet position after the resolution process and the preferred resolution strategy:

1) Bail-in: the balance sheet is completely restructured, so compliance with the overall minimum capital requirement is needed.

2) Part of the assets are wound up or the asset separation tool is used, hence the minimum capital requirements after resolution are recalculated downwards.

It is important for the credit institution to be considered viable by the market, that market participants have confidence in its uninterrupted operation and conduct business with it. Targeted resolution actions, capital adequacy after resolution and the requirements for approval of the business plan after resolution are important factors for a successful ongoing operation of the credit institution.

The definition of MREL will continue to be worked out in the course of 2017. The competent European authorities will decide on the definition of MREL on the basis of the existing legislation and the outcome of the negotiations on the European Union legislative package.

In particular:

According to the framework, MREL targets should be bank-specific: The European Resolution Authorities commit themselves to define MRELs for credit institutions on a solo

[27] It concerns a common equity tier 1 ratio equal to 4.5% of the total risk exposure amount, a tier 1 capital ratio equal to 6% of the total risk exposure amount and a total capital ratio of 8% of the total risk exposure amount.

[28] The combined buffer requirement consists of the total common equity tier 1 capital, to which are added the countercyclical buffer (CCyB), the capital conservation buffer (CCB) and the largest of the O-SII buffer and the systemic risk buffer (SRB).

basis, setting conditions for data quality and MREL implementation. Future targets for MREL are expected to be based on the specific features of each bank.

The quality of the appropriate tools for MREL is expected to be further assessed: The eligible liabilities set for the calculation of MREL have yet to be finalised. The competent European resolution authorities are expected to define the role of unsecured subordinated creditors.

Requirements compared to the quality of financial instruments are expected to be strengthened.

Mandatory requirements are expected to be introduced, using transitional periods: the submission of binding targets for MREL on a consolidated basis will be accompanied by transitional implementation periods.

The MREL limits are expected to be set at a high level. European Resolution Authorities should define the required time for credit institutions' compliance with MREL, so that credit institutions are not overburdened with the issuance of eligible MREL liabilities, and the cost of financing and the assumed increase in lending margins will not affect them negatively. The ultimate goal is to establish the credibility of the resolution regime.

As stated in the introduction, a key objective of the initiatives for the adjustments to the financial system introduced by the BRRD is to put an end to the problem of "too-big-to-fail" institutions and to resolve credit institutions without using taxpayer money or compromising financial stability. Accordingly, with the adoption of MREL, special resolution plans are required for banks and an important step has already been taken to restore confidence in the financial sector by introducing a requirement to hold high capital and control compliance with the new rules.

SPECIAL FEATURE III
THE NEW ACCOUNTING STANDARD ON FINANCIAL INSTRUMENTS (IFRS 9) AND ITS IMPACT ON IMPAIRMENT REQUIREMENTS

In July 2014, the International Accounting Standards Board (IASB) issued *IFRS 9 Financial Instruments*, replacing IAS 39. IFRS 9 includes requirements for recognition and measurement, impairment, derecognition and general hedge accounting for financial instruments and is mandatorily effective for annual periods beginning on or after 1 January 2018.

With IFRS 9, the IASB has sought to address a key concern that arose as a result of the financial crisis, namely that the existing model of impairment recognition on financial instruments (as envisaged by IAS 39) delays the recognition of credit losses until there is evidence of a trigger event ('incurred loss' model). This was initially designed to limit an entity's ability to create hidden reserves, which could serve to smooth out earnings in times of poor performance. Nevertheless, the incurred loss model seems to have been used to postpone recognising losses on financial instruments. In particular, even though IAS 39 did not require waiting for actual default before recognizing impairment, in practice this was often the case.

The new accounting standard on financial instruments (IFRS 9) eliminates the IAS 39 notion of impairment trigger for the recognition of credit losses, so that it is no longer necessary for a trigger event to have occurred before credit losses are recognized. Instead, an entity always recognizes expected credit losses and updates the loss allowance for changes in these expected credit losses at each reporting period to reflect changes in the credit risk since initial recognition ('expected loss' model). Consequently, the holder of the financial asset needs to take into account more timely and forward-looking information in order to provide the users of the financial statements with useful information about the expected credit losses on financial instruments that are in the scope of these impairment requirements.

Overview of the expected loss model

IFRS 9 outlines a 'three-stage' impairment model, based on changes in credit quality since initial recognition:

Stage 1: Upon purchase or origination of a financial instrument, 12-month expected credit losses are recognized and interest revenue is calculated based on the gross carrying amount of the asset (i.e. without any adjustments for expected credit losses).

12-month expected credit losses are defined as a portion of the lifetime credit losses (refer to Stage 2 below) that represent the expected credit losses from default events that are possible 12 months after the reporting date. In other words, it is the effect of the entire credit loss on an asset weighted by the probability that this loss will occur in the next 12 months.

Because the calculation is based on the probability of default, the standard emphasizes that the 12-month expected loss should not be confused with the lifetime expected credit losses on financial instruments that are predicted to default within the next 12 months. Also, the 12-month expected losses are not the cash shortfalls that are predicted over only the next 12 months.

Table 1 Summary of recognition of impairment and interest revenue under IFRS 9

Stages	1 Performing (Initial recognition)	2 Underperforming (Assets with significant increase in credit risk since initial recognition)	3 Non-performing (Credit-impaired assets)
Recognition of impairment	12-month expected credit losses	Lifetime expected credit losses	
Recognition of interest	Effective interest on gross carrying amount		Effective interest on net carrying amount (gross less impairment)

Source: Bank of Greece.

Stage 2: If the credit risk increases significantly (refer to "Determining significant increases in credit risk" section below) and the resulting credit quality is not considered to be of low credit risk anymore, full lifetime expected credit losses are recognized. Nevertheless, interest revenue is still calculated on the gross carrying amount of the asset.

Lifetime expected credit losses are the present value of expected credit losses that arise if a borrower defaults on its obligation throughout the expected life of the financial instrument (not just over the next 12 months). In other words, they are the weighted average credit losses with the probability of default as the weight. As expected credit losses take into account both the amount and the timing of payments, a credit loss arises even if the entity expects to be paid in full but later than the contractually due date (in order to account for time value of money).

Stage 3: This stage is relevant when the credit risk of a financial instrument increases to the point that it is considered credit-impaired. Lifetime expected credit losses are still recognized on these financial assets (same as in Stage 2), but interest revenue is now calculated based on the amortized cost (i.e. the gross carrying amount adjusted for the loss allowance). Financial assets in this stage will generally be individually assessed. A summary of these stages is given in Table 1.

Determining significant increases in credit risk

One of the major challenges in implementing the IFRS 9 expected credit loss model is to track and determine whether there have been significant increases in the credit risk of an entity's credit exposures since initial recognition. A significant increase in credit risk is defined as a significant increase in the likelihood of default occurring since initial recognition. This significant increase is generally accounted for in IFRS 9 before the financial asset becomes credit-impaired or an actual default occurs.

IFRS 9 does not mandate the use of an explicit approach, as an entity may use different approaches for different financial instruments when assessing whether credit risk has increased significantly. A significant increase in credit risk (moving from Stage 1 to Stage 2) can include a downgrade from investment grade to non-investment grade (i.e. BB+ and below[29]) of an externally rated financial instrument; changes in general economic / mar-

[29] Per the grading scale of Standard and Poor's: http://www.spratings.com/documents/20184/760102/SPRS_Understanding-Ratings_GRE.pdf/298e606f-ce5b-4ece-9076-66810cd9b6aa

ket conditions; changes in the operating results or financial position of the borrower; expected or potential breaches of covenants, expected delay in payments, etc.

Regardless of the way in which an entity assesses a significant increase in credit risk, there is a rebuttable presumption that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due. This '30 days past due' rule permits the use of delinquency or past due status, combined with other more forward-looking information, to identify a significant increase in credit risk. Consequently, when reasonable and supportable information that is more forward-looking than past due information is available without undue cost or effort, it must be used to assess changes in credit risk and an entity cannot rely solely on past due information. However, if more forward-looking information (either on an individual or collective basis) is not available without undue cost or effort, an entity may use past due information to assess changes in credit risks.

Illustrative example

Below we provide an illustration of both models in order to highlight their differences:

Expected Loss Model

Stage 1: As at 31.12.20Y1 a bank originates an unsecured corporate loan of Currency Unit (thereafter CU) 1,000 provided to company A. There is no evidence of significant increase in the company's credit risk and the bank estimates the probability of a loan default over the next 12 months at 1%. The effective interest rate is 5%. As long as there is no indication of significant increase in credit risk, expected credit losses are recognized for the 12 months only and interest income is recognized on the gross carrying amount. As such, a provision of CU10 is recognized (CU1,000 * 1%) and interest income is calculated at CU50 (CU1,000 * 5%).

Stage 2: As at 31.12.20Y2, new information becomes available on company A, as it is expected to have cash flow problems due to an expected deterioration of company sales due to poor market conditions. In that case, lifetime expected credit losses are going to be recognized for this loan. As such, the probability that the loan will default over the remaining life of the loan is estimated at 35%. Given the above, the bank recognizes a provision of CU350 (1,000 * 35%) while interest income remains as is (CU50 i.e. CU1,000 * 5%).

Stage 3: The market conditions continue to deteriorate throughout 20Y3, ultimately leading the company to significant financial difficulties. Due to the above difficulties, the company cannot repay the loan and a restructuring of the loan is agreed on 31.12.20Y3 with the bank so that the loan is extended by four years. Due to the above, the bank reassesses the probability of default to 60%. As such, a provision of CU600 is recognized (1,000 * 60%), while interest income is now calculated on the net carrying amount of the loan i.e. CU20 (400 * 5%) after 31.12.20Y3, the point in time that the loan moves to Stage 3.

Incurred loss model

As discussed earlier, IAS 39, the previous accounting standard on financial instruments (effective until 31.12.2017), mandates that provisions for credit losses are recognized only after an impairment trigger has occurred, that is only after the existence of objective evidence of impairment. The inability of the company to repay the loan and the ensuing restructuring correspond to such a trigger. As

Table 2 Summary of recognition of impairment and interest revenue

Per expected loss model				
Period	**Stage**	**Gross amount**	**Loss allowance**	**Interest Income**
31/12/20Y1	Stage 1	CU 1,000	CU 10	CU 50 (CU 1,000 * 5%)
31/12/20Y2	Stage 2	CU 1,000	CU 350	CU 50 (CU 1,000 * 5%)
31/12/20Y3	Stage 3	CU 1,000	CU 600	CU 50 (CU 1,000 * 5%) as the loan was in Stage 2 throughout the year
31/12/20Y4	Stage 3	CU 1,000	CU 600	CU 20 (CU 400 * 5%)
Per incurred loss model				
Period	**Stage**	**Gross amount**	**Loss allowance**	**Interest Income**
31/12/20Y1	N/A	CU 1,000	-	CU 50 (CU 1,000 * 5%)
31/12/20Y2	N/A	CU 1,000	-	CU 50 (CU 1,000 * 5%)
31/12/20Y3	N/A	CU 1,000	CU 600	CU 50 (CU 1,000 * 5%) as the impairment trigger was verified on 31.12.20Y3
31/12/20Y4	N/A	CU 1,000	CU 600	CU 20 (CU 40 * 5%)

Source: Bank of Greece .

such, on 31.12.20Y3 the bank will create a provision of CU600 (1,000 * 60%), while interest income will be CU40 (400 * 10%) from that point in time that the impairment trigger occurred.

As illustrated above (see Table 2), under the expected loss model the bank would start building up its provisions even from the origination of the loan as the model is forward-looking, while in the case of the incurred loss model the provision is accounted for only at the time of an impairment trigger eventually materializing, resulting in the postponement of losses.

Quantitative impact of IFRS 9 impairment requirements

The European Banking Authority (EBA) has conducted an impact assessment of IFRS 9 implementation on a sample of approximately 50 institutions across the European Economic Area (EEA)[30]. The impact study was conducted on April 2016 with a reference date as of December 2015.

Based on the quantitative estimates of the impact of IFRS 9 provided by the respondent financial institutions, at the time the exercise was conducted, the report estimates an increase of provisions for on-balance-sheet and off-balance-sheet exposures compared to the current levels of provisions under IAS 39, on average, up to 18% and up to 30% for 86% (75th percentile) of respondents. The estimated increase of provisions is mainly the result of Stage 2 provisions for loans and advances to households, followed by Stage 2 provisions for loans and advances to non-financial corporations. Regarding the estimated increase of provisions for debt securities, the estimated increase is more than 400% for the 75th percentile of respondents.

The report also provides an estimated impact on capital requirements from the impairment requirements of IFRS 9. CET1 ratio is estimated to decrease by up to 75 bps for 85% of respondents, while total capital ratio is estimated to decrease by up to 50 bps for 75% of respondents.

It should be noted that, at the time the survey was conducted (April 2016), banks were at an early stage of preparation for the implementa-

[30] See https://www.eba.europa.eu/documents/10180/1360107/EBA+Report+on+impact+assessment+of+IFRS9

tion of IFRS 9 and the information provided reflects this. Upon providing this information, banks made several assumptions and simplifications that do not necessarily represent their finalized IFRS 9 methodology. In addition, the portfolios of banks may have changed up to IFRS 9 first implementation and the state of the economy may also be different at that time. For all these reasons, the observations in this report are indicative of the main trend in the EU banking sector at the time the exercise was performed, and the impact of IFRS 9 may differ materially when IFRS 9 is first implemented.

SPECIAL FEATURE IV
ASSESSMENT OF THE SUITABILITY OF MEMBERS OF THE BOARD OF DIRECTORS

The board of directors plays an important role in ensuring sound and prudent management of a credit institution. Hence, the board of directors should be composed of members that are suitable to perform their duties so that the decisions made ensure the safety and robustness of the credit institution and strengthen public confidence in the financial system.

LEGALFRAMEWORK

The assessment of the suitability of members of the board of directors of significant credit institutions falls within the ambit of the European Central Bank (ECB[31]) both at the time of their original appointment and whenever any new facts arise that may affect the suitability of a manager.[32] For less significant credit institutions, such prudential assessment is carried out by the national competent supervisory authorities – in Greece, by the Bank of Greece.

Prudential assessment of suitability is governed by the principle of proportionality, as it is conducted having regard to the size of the credit institution, the complexity of its business, as well as the member's post in the board of directors.

In assessing the suitability of members of the board of directors of significant credit institutions, the ECB applies the relevant EU law and national legislation.

The same legal framework is applied by the Bank of Greece in the assessment of the suitability of members of the board of directors of less significant credit institutions.

The suitability criteria are *experience, good repute, independence, ability to commit sufficient time to perform their functions, and suitability of the board of directors as a whole*[33].

Prudential supervision on the basis of these criteria is conducted in accordance with the provisions of Law 4261/2014, Executive Committee Act 22/12.7.2013[34] and the EBA Guidelines on the assessment of the suitability of members of the board of directors and key function holders[35] (EBA/GL/2012/06).

Another instrument taken into account is Bank of Greece Governor's Act 2577/2006, which, inter alia, provides that a credit institution must ensure the participation of at least one or, in certain cases[36], two non-executive and independent members. Law 3016/2002 applies in particular to Athens Exchange-listed credit institutions, laying down the con-

[31] According to Article 4(1)(e) of Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (OJ L 287, 29.10.2013, p. 63).

[32] Articles 93 and 94 of Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities (SSM Framework Regulation) (ECB/2014/17) (OJ L 141, 14.5.2014, p. 1).

[33] Article 83 of Law 4261/2014 "Access to the activity of credit institutions and prudential supervision of credit institutions and investment firms (transposition of Directive 2013/36/EU), repeal of Law 3601/2007, and other provisions" (Government Gazette A107).

[34] Executive Committee Act 22/12.7.2013 "Procedures for (a) the authorisation of credit institutions in Greece and (b) the acquisition of a holding in an existing credit institution – Prudential assessment" (Government Gazette B1767).

[35] Internal audit, risk management and compliance.

[36] When any of the following conditions is met: it is listed on the Athens Exchange; it has subsidiaries or branches abroad; or its assets exceed €10 billion.

ditions to be met by independent non-executive members of their board of directors.

In particular with respect to significant credit institutions, the supervisory procedures and practices (policy stances) developed by the ECB in cooperation with the national competent authorities for the application of the assessment criteria are taken into account, without prejudice to national legislation.

RESPONSIBILITY OF CREDIT INSTITUTIONS

Credit institutions are primarily responsible for the selection of members of their board of directors, which must meet the suitability criteria under the legal framework both at the time of their appointment and throughout their term of office.

ASSESSMENT CRITERIA

The suitability of members of the board of directors is assessed on the basis of five criteria: (i) experience; (ii) reputation; (iii) conflicts of interest and independence; (iv) ability to commit sufficient time to perform their functions; and (v) collective suitability of the board of directors. These criteria are discussed in more detail in the following paragraphs.

1. Experience

Members of the board of directors should have adequate knowledge, skills and experience to perform their duties.

The assessment of a member's experience should consider both the theoretical experience attained through education and training and the practical experience gained in previous occupations.

All members of the board of directors should, as a minimum, have basic theoretical knowledge of banking enabling them to understand the credit institution's business and key risks. With regard to assessment of a member's theoretical experience, particular consideration should be given to the level and profile of the education and whether it relates to banking and financial services or other relevant areas (mainly banking and finance, economics, law, administration, financial regulation, ICT, financial analysis and quantitative methods).

The practical and professional experience gained from previous positions should be assessed with particular regard to length of service; size of the business/credit institution; scope of competencies; and number of subordinates.

Assessment in two steps

To enhance efficiency and reduce the length of assessment, a two-step approach is followed.

Step 1: The experience of the member is assessed on the basis of specific quantitative thresholds considered to signal adequate experience in the light of the member's duties (executive or non-executive). If these thresholds are not met, supplementary assessment is conducted (Step 2) and the credit institution must sufficiently justify the selection of the member. Such justification will be taken into account by the competent supervisory authority in assessing the suitability of the member of the board of directors. .

2. Reputation

A member of the board of directors should be considered to be of good repute if there is no evidence to suggest otherwise. If there is reason to have reasonable doubt about his or her ability to ensure the sound and prudent management of the credit institution, the credit institution and/or the member of the board of directors should inform the competent super-

visory authority[37], which will assess the merits of the circumstances and any impact they may have on the reputation of the member.

It should be noted that the principle of proportionality does not apply to reputation assessment as all members of the board of directors must always be of good repute, so as to ensure sound and prudent management of the credit institution.

3. Conflicts of interest and independence

Members of the board of directors should be able to make prudent, objective and independent decisions (i.e. act independently without undue influence from other persons). Independence may be affected by conflicts of interest.

A conflict of interest exists where the interests of a member are pursued against the interests of the supervised entity.

A credit institution ought to have a concrete policy for identifying, disclosing, mitigating, managing and preventing conflicts of interest.

The credit institution and the member of the board of directors should notify to the competent authority any conflict of interest they become aware of. On the basis of its internal policy, the credit institution takes measures to mitigate the risk from such conflict of interest and the competent supervisory authority assesses the adequacy of such measures so as to decide on the suitability of the member of the board of directors.

4. Ability to commit sufficient time to perform their duties

Quantitative and qualitative requirements

A member of the board of directors should commit sufficient time to perform his/her duties at the credit institution. To assess this, both quantitative and qualitative factors are taken into account.

Quantitative factors include the number of directorships which may be held by a member at the same time (according to the legal framework, one executive directorship with two non-executive directorships or four non-executive directorships).

There are two exceptions to this rule:

1. Directorships in organisations which do not pursue predominantly commercial objectives do not count.[38] However, the holding of such directorships may affect a member's ability to commit sufficient time to his duties, hence he/she must disclose such directorships.
2. Several directorships held within the same group count as a single directorship ("preferential calculation").

The legal framework also allows the competent authorities to permit the member of the board of directors to hold one additional non-executive directorship. In addition to quantitative factors, qualitative factors are also taken into account to assess whether a member is able to commit sufficient time to perform his/her duties. Qualitative factors include, inter alia: the size of the entities in which a member holds posts, the nature and complexity of their business, the country where they are based, as well as other professional or

[37] With respect to both pending and completed legal proceedings. Such information should be provided both at the time of original appointment of the member and at the start of any such proceeding during the member's term.

[38] E.g. non-profit sport or cultural associations, charities, churches, chambers of commerce, trade unions, professional associations, etc.

personal obligations, such as e.g. a legal proceeding in which the member is involved.

5. Collective suitability of the board of directors

The board of directors needs collectively to have sufficient knowledge, skills and expertise to enable them to understand the business of the credit institution and the key risks that it faces or may face.

In making its assessment, the supervisory authority takes into account the member's contribution to the board of directors' collective knowledge and experience.

INTERVIEW

In the context of assessment, the competent authority (ECB/Bank of Greece) can invite a member of the board of directors to an interview.

An interview is a tool for collecting additional information on the member, supplementary to the data already submitted by the credit institution or the member himself/herself. During the interview the supervisory authority can clarify, inter alia, issues regarding the reputation, experience and knowledge of the member, which are taken into account in the assessment of his/her suitability.

ISSN: 2529 – 0681