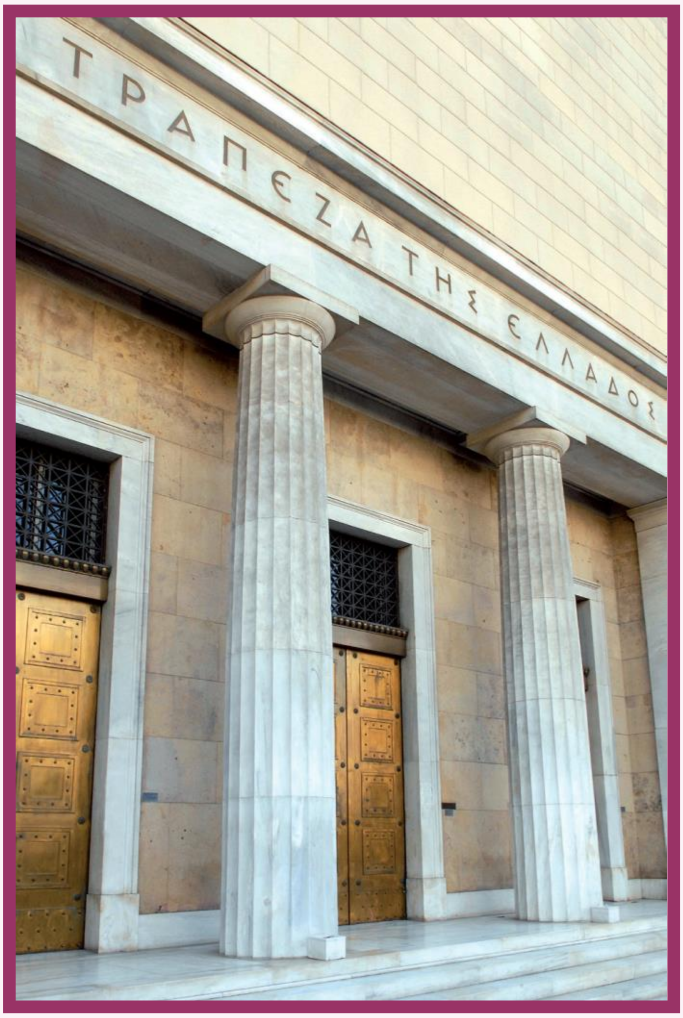
OVERVIEW OF THE GREEK FINANCIAL SYSTEM



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PROLOGUE

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

Among the Bank of Greece staff that contributed to this publication, special mention should be made of Elias Veloudos, Eleftheria Georgoulea, Konstantinos Zavandis, Alexandros Kaliontzoglou, Antigoni Kallergi, Konstantinos Kanellopoulos, Evaggelia Kardara, Eleni Loukidou, Alexandros Brachos, Vasiliki Nydrioti, Sofia Savvidou, Vasilios Siakoulis, Dimitrios Sideris, Nikolaos Stavrianou, Stavros Stavritis and Ioannis Tsikripis.

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CONTENTS

I. SUMMARY

During 2016, the financial system's principal risks seem to have stabilised, while the medium-term prospects will mainly depend on creating an environment favouring economic growth. However, there are still significant challenges, both in the domestic front, due to potential delays in the completion of the second review of the Third Economic Adjustment Programme for Greece, and structural factors (e.g. high stock of non-performing exposures (NPEs), low level of outstanding bank deposits), and abroad due to political uncertainty in developed countries and emerging economies' risks. These challenges could halt the economic upturn and reignite uncertainty, also affecting the financial system.

The reference period of this review is the first half of 2016, but some key figures on economic and fiscal developments, banking risks and in particular credit risk, liquidity risk and the resilience of the banking system as well as capital controls are updated with end September data. Illustration in certain charts is extended until 30.09.2016, while for some market risk charts data cover the period until November 2016.

International and domestic macroeconomic developments and market data

The successful completion of the first review of the Third Economic Adjustment Programme for Greece and the adoption of important institutional reforms, including the establishment of a framework for the effective management of non-performing exposures (NPE), assist the gradual recovery of financing conditions in the real economy. Moreover, the timely completion of the second review will pave the way to the beginning of the discussion about public debt sustainability. Measures to ensure that servicing needs will remain at a sustainable level are expected to further boost market confidence regarding the growth prospects of the Greek economy and help attract foreign investment, fueling economic growth.

Gross Domestic Product (GDP) during the nine-month period January - September 2016 grew, due to the recovery in consumption and an increase in gross investment, while net imports exerted a negative drag. According to estimates of the Bank of Greece, economic activity increased slightly in 2016, due to the recovery observed in the second half of the year. For 2017, 2018 and 2019 growth rates of 2.5%, 3% and 3% are forecast respectively.

Credit risk remains the most important source of instability for the domestic financial system. The high stock of NPEs both hampers credit supply to the real economy and weighs on banks' profitability outlook. However, in 2016 the stock of NPEs seems to have stabilised, as the flows of new NPEs have declined, leading to reduced provisioning by credit institutions.

To address credit risk, both the Bank of Greece and credit institutions have focused on the management of NPEs. Specifically, the Bank of Greece strengthened the supervisory and regulatory framework with an aim to enhance transparency and information provided by credit institutions to improve the efficiency of NPE management, and to separate cooperating from non-cooperating borrowers, under the revised Code of Conduct. In addition, the Bank of Greece together with the Single Supervisory Mechanism (SSM), in cooperation with banks, have set quarterly Operational

Targets as milestones on a road map to reduce the stock of NPEs by 2019. As agreed, the total stock of NPEs will have to be reduced by around 40% or €38 billion in absolute terms, by the end of 2019.

Moreover, a flexible framework for out-of-court debt settlement is being developed, with a view to speedy and transparent settlement of debts to both the private and the public sector; progress is also being made towards creating a secondary market for non-performing loans (NPLs). The Bank of Greece assesses the applications of potential credit servicing and acquiring firms and will only authorise applicants that meet the suitability criteria it has set. Already one company has received the relevant license. Furthermore, active NPL management tools (e.g. securitisation) are also being considered and, where necessary, changes will be introduced to the supervisory or regulatory framework.

The Greek banking system's liquidity improved during the reviewed period, as reflected in the continued reduction in emergency liquidity assistance (ELA) provided to Greek banks. After the reinstatement of the "waiver", Greek government bonds become eligible as collateral for the monetary policy operations of the Eurosystem. Liquidity improvements were also enabled by the gradual strengthening of drawing of liquidity through interbank funding in repos, with the use of additional collateral. Further developments in liquidity hinge on the timely and successful completion of the second review and the reaching of a solution for public debt sustainability.

The introduction of capital controls contributed to the improvement of the banking system's liquidity by curbing the massive deposit outflows and capital flight abroad. During the last fifteen months, developments in the banking sector, most importantly the recapitalisation of Greek banks in December 2015 and the reinstatement of the "waiver" in the monetary policy operations of the Eurosystem, coupled with the stabilisation of the economy, allowed a gradual relaxation of the initial restrictions. However, the maintenance of capital controls negatively affects macroeconomic aggregates, while their elimination crucially hinges on economic developments and the restoration of depositors' confidence.

At the same time, capital controls have had positive side-effects, with households and enterprises increasingly turning to e-payments. However, their widespread use entails heightened fraud risk, highlighting the need for payment service providers to strengthen security mechanisms in e-transactions, both deterring fraud and reducing its occurrence.

Greek banks' profitability outlook and quality of portfolio in their SE Europe (SEE) business appear to be positive, in light of the improved growth prospects of the countries in the region and Cyprus's successful exit from its Economic Adjustment Programme. Furthermore, these developments facilitate the implementation of the Greek banks' restructuring plans that have been approved by the European Commission, regarding their international activities.

In conclusion, risks to the Greek financial system, albeit still considerable, seem to have stabilised, while the medium-term outlook appears to be positive, subject to the macroeconomic environment improving, the second review of "The Economic Adjustment Programme for Greece" being completed, NPEs being resolved and depositors' confidence being restored, which would lead to fulfilment of the criteria of inclusion of Greek government bonds in the ECB’s quantitative easing programme.

II. MACROECONOMIC AND FISCAL DEVELOPMENTS

1. ECONOMIC ACTIVITY: DEVELOPMENTS AND PROSPECTS

GDP growth over January-September 2016 reflects the recovery of private consumption and the increase in total investment, while net exports had a negative impact on activity (see Table II.1). The successful completion of the first review under the Third Economic Adjustment Programme for Greece and the implementation of significant structural reforms, including the establishment of a framework for an effective management of non-Performing Exposures (NPEs), have underpinned the gradual normalisation of financing conditions for the real economy. In this direction, it is estimated that the decision of the Governing Council of the ECB in June 2016 to reinstate the waiver affecting the eligibility of Greek bonds used as collateral in Eurosystem monetary policy operations has also played a pivotal role. At the same time, tackling some pending issues from past reviews – such as finalising the privatisation of regional airports and the development of the old airport property in Hellinikon – has helped to gradually restore confidence.

Trends observed in recent years, which indicate that the Greek economy is moving towards a new, more export-oriented growth model, which is based on the sectors of tradable goods and services, support the expectations for a rebound in activity. The shift into a more export-oriented model is also evidenced by the growing share of exports in GDP, which increased from 19% in 2009 to 31.9% in 2015 (in nominal terms). It should also be noted that the increase in exports of goods

Table II.1 GDP and its main components (2014 - Q3 2016)

Percentage changes (constant market prices of 2010)

	2014	2015	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016
Private Consumption	0.6	-0.3	1.3	1.9	-4.1	-0.4	-0.8	-1.2	5.1
Public Consumption	-1.2	0.0	-0.1	-3.1	0.8	2.5	-2.1	-0.9	-0.6
Gross fixed capital formation	-4.6	-0.1	4.9	-13.0	-4.4	12.2	-9.5	17.9	12.6
Dwellings	-53.1	-26.0	-33.4	-11.7	-36.4	-18.5	-17.0	-23.3	-3.7
Others constructions	-3.9	4.2	-12.6	-4.8	1.5	40.9	13.6	19.1	20.1
Equipment	21.4	-2.8	51.8	-18.9	-12.4	-17.0	-23.2	40.3	17.0
Domestic demand	-0.4	-0.2	1.4	-0.9	-3.1	1.6	-2.1	0.7	4.7
Exports of Goods & Services	7.7	3.1	12.5	10.3	-7.0	-2.2	-10.5	-3.2	10.2
Exports of Goods	4.1	8.6	10.1	7.4	7.0	10.0	2.4	20.5	9.5
Exports of Services	12.2	-2.7	15.0	14.8	-21.8	-14.9	-22.8	-24.6	10.5
Imports of Goods & Services	7.6	0.3	15.1	4.0	-14.1	-2.7	-8.7	4.9	12.0
Imports of Goods	8.1	3.4	14.7	4.1	-7.7	3.5	-2.1	14.7	7.5
Imports of Services	5.6	-11.7	16.8	3.8	-39.2	-26.7	-31.6	-29.9	38.1
Real GDP at market prices	**0.4**	**-0.3**	**0.1**	**0.5**	**-2.2**	**0.4**	**-0.8**	**-0.5**	**1.8**

Sources: Hellenic Statistical Authority and Bank of Greece.

exceeded the increase in external demand in 2014-2015, which indicates that the export market shares of Greek goods in the global economy have grown.

According to Bank of Greece estimates, economic activity is expected to grow marginally in 2016, on the back of the recovery that was observed in the second half of the year. GDP is expected to continue to grow by 2.5%, 3% and 3%, in 2017, 2018 and 2019, respectively (see Table II.2)

In 2016, private consumption is estimated to decline slightly, whereas investment is expected to grow, as the increase in business investment is expected to offset the decreases in residential and public investment. For 2017, 2018 and 2019, economic growth is expected to be driven by the recovery in the main components of domestic demand, i.e. consumption and investment. Private consumption is expected to increase, mainly as a result of the increase in income (which also reflects the rise in employment), and supported by improving credit conditions and enhanced confidence.

The recovery of investment will be underpinned by the improvement in non-residential private investment. It is to be assumed that the gradual easing of capital controls and restored confidence will have a favourable impact on domestic lending to the private sector.

The projected decline in exports for 2016 reflects primarily a drop in shipping receipts, as a result of the capital controls, and secondarily a decrease in tourism receipts. Nevertheless, exports of goods are expected to continue to follow the upward trend of 2014-2015, in line with developments in external demand for Greek goods. Imports of goods and services are estimated to decrease, in line with developments in domestic demand.

Turning to the labour market, unemployment is expected to continue its downward trend through 2017, driven by the return of the economy to positive growth rates, the stabilisation of the economic sentiment, and the impact of active employment policies. The structural reforms that have already taken place in the labour market and the consistent implementation of the action plan on undeclared labour are expected to support employment. Nevertheless, the persistent high

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

	2015	2016	2017	2018	2019
GDP (at constant prices)	***-0.2***	***0.1***	***2.5***	***3.0***	***3.0***
Private Consumption	-0.2	-0.8	1.3	1.7	1.7
Public Consumption	0.0	1.8	1.1	0.0	1.9
Gross fixed capital formation	-0.3	2.3	10.2	12.2	9.3
Exports of Goods & Services	3.4	-4.3	3.2	4.2	4.3
Imports of Goods & Services	0.3	-3.5	2.8	3.1	3.5
Inventrory Changes	-1.0	0.2	0.1	0.0	0.0
HICP	-1.1	0.1	1.1	1.0	1.2
HICP excluding energy	0.2	0.6	0.6	0.8	1.1
Number of persons employed	2.1	2.0	2.1	2.2	2.2
Unemployment rate (% of labour force)	24.9	23.5	22.0	20.5	19.0
Balance of payments (% of GDP)	0.1	0.5	0.7	0.3	0.2

Sources: Hellenic Statistical Authority and Bank of Greece.

rate of long-term unemployment is not expected to be remedied automatically, even if a new virtuous circle of the economy is set in motion, thus calling for coordinated and effective policies.

Inflation fluctuated throughout 2016. Deflationary trends remained strong, in a context of low oil prices and weak domestic demand. Renewed tax hikes in goods and services, rising oil prices, as well as increasing domestic demand are expected to push overall inflation into positive territory from end-2016 onwards.

The risks surrounding the baseline scenario of the Bank of Greece are balanced. Upside risks are associated with a more favourable than expected effect on business activity from the decrease in government arrears, with a faster than expected restoration of confidence and expectations, and with a swifter than expected improvement of liquidity. Downside risks are related with the impact of high taxation and delays in the structural reform programme and the completion of the second review.

2. FISCAL DEVELOPMENTS

The first half of 2016 was marked by protracted negotiations with the country's international creditors in the context of the first review under the Third Economic Adjustment Programme for Greece, which stalled its completion. As was also the case in the corresponding period of 2015, financing under the programme froze and payment obligations were met through an increase in short-term borrowing from general government entities, while at the same time payments to general government suppliers were postponed, which led to a rise in government arrears with negative consequences for economic activity and the restoration of market confidence in the Greek economy.

The adverse economic environment was reversed when an agreement was finally reached regarding tax and social security reform. This resulted in a positive review of the programme implementation in May 2016, which in turn had a positive effect on confidence and the recovery prospects of the Greek economy. The positive review was accompanied by the approval of the second instalment amounting to €10.3 billion, of which €7.5 billion were disbursed in June 2016. Out of this first tranche, €1.8 billion concerned the payment of arrears and were channeled into the real economy in the following months. The disbursement of the second tranche of the instalment (€2.8 billion, of which €1.7 billion went to the payment of arrears) was partly associated with the implementation of prior actions, mainly in the areas of the energy sector and privatisations, as well as with the course of the clearance of government arrears, and was approved in October 2016 when such progress was verified. In the area of privatisations, the appointment of the board members of the newly established privatisation fund (Hellenic Corporation of Assets and Participations S.A.) and the transfer of entities to it, helped considerably in this direction. Other actions in the area of public finances included the full alignment of social security contributions and the functioning of a new Independent Authority for Public Revenue.

The successful completion of the first review of the Third Economic Adjustment Programme for Greece positively affected both fiscal management and the real economy. An immediate gain was the enhancement of liquidity for the government thanks to the disbursement of the second instalment, which facilitated government cash management. Furthermore, the provision of liquidity to the real economy through the decrease of accumulated arrears to general government suppliers is estimated to have supported economic activity.

Meanwhile, commitment to the reforms and the attainment of individual targets under the programme helped to improve market confidence and investors' expectations with respect to the prospects of the Greek economy. More specifically, the yield of the 10-year Greek government bond narrowed to 7.2% (30.12.2016), from 9.1% in early May (2.5.2016).

The completion of the first review was immediately followed by the second review, with a view to being completed as soon as possible. Prior actions mostly refer to the areas of the labour market, the energy sector and privatisations. With regard to public finances, the prior actions relate, among other things, to the publication of the Medium-Term Fiscal Strategy (MTFS) 2017-2020, the presentation of medium-term actions for the timely payment of general government suppliers, the completion of changes in special wage regimes and the enactment of a permanent framework for civil servants' mobility.

Delays in the completion of the second review must be avoided at all costs, with a view to safeguarding the gains from the reforms and fiscal efforts achieved so far and ensuring the unobstructed path of the economy towards sustainable growth rates. Besides, the timely completion of the second review will pave the way for the initiation of talks about the sustainability of public debt. The adoption of measures aimed at ensuring that public debt servicing needs will remain at more manageable levels, in the context of the relevant Eurogroup announcements on 9 and 24 May 2016[1], is expected to further boost market confidence in the growth prospects of the Greek economy and help to attract foreign investment, thereby fostering economic growth. Moreover, to this end, the inclusion of Greek bonds in the ECB's quantitative easing programme, which is conditional upon the strict adherence to the programme and the completion of the public debt sustainability analysis by the ECB, may have a beneficial effect.

The aforementioned developments are mirrored in ordinary budget tax revenue, which fell short of their target in the first four months of the year but has improved visibly ever since. According to data available for the January-November 2016 period, ordinary budget revenue increased remarkably year-on-year and overshot the target on the back of better revenue performance from both direct and, mainly, indirect taxation. This development was supported, apart from the recent measures, also by the wider use of electronic transactions as a result of the capital controls restricting cash withdrawals that were introduced in July 2015.

By way of illustration, VAT receipts followed a strong upward path despite a shrinking tax base during the two first quarters of 2016 and before the main VAT rate increase to 24% in June, which may also be attributed to the favourable impact from the increased use of credit and debit cards. Revenue from tax arrears recorded similar high positive growth rates, a development which is due, apart from the new measures regarding tax arrears, also to the intensification of audits.

[1] See Bank of Greece, *Monetary Policy Report 2015-2016, June 2016*, Special feature V.1, p. 133 [in Greek].

Given the satisfactory course of tax revenue, both on a cash basis (data covering the January-November period) and on a national accounts basis (data covering the first half), the Bank of Greece estimates that the fiscal balance in 2016 will outperform the programme target. For 2017 the fiscal balance, although it is considered to be attainable, is subject to uncertainties, which are associated with macroeconomic developments, the continuation of the good revenue performance and the decrease of non-productive public spending. Such uncertainties could be addressed through the promotion of actions involving: (a) the mandatory use of electronic transactions as a means of curbing tax evasion and improving tax compliance; (b) the intensification of tax audits; (c) the prompt implementation of an electronic registry; and (d) the more efficient functioning of the public sector.

The months ahead are critical for the successful completion of the second review. In the context of the implementation of all prior actions, the enactment of the MTFS 2017-2020 will be a major step towards defining the appropriate fiscal and, overall, economic policy for the years to come, as it determines the fiscal targets and outlines the macroeconomic context and the budgetary path to their achievement. Under the Third Economic Adjustment Programme for Greece, the fiscal targets are clearly set for the years from 2018 onwards, and provide for the achievement of primary surpluses of 3.5% of GDP each year. However, this target is deemed too high to be sustainable over time. Past experience has shown that only few countries have been able to maintain that high primary surpluses for long periods. A lowering of the fiscal target to a primary surplus of 2.0% of GDP is a more realistic approach to the required fiscal adjustment, without affecting public debt sustainability prospects. This lowering, coupled with the promotion of the aforementioned structural reforms, is likely to create the necessary conditions for a gradual reduction in taxation and a further pick-up in economic activity and investment, which in turn will bring the Greek economy to sustainable growth rates.

III. THE BANKING SECTOR: RISKS AND RESILIENCE

1. STRUCTURE OF ASSETS AND LIABILITIES

The first half of 2016 saw two important changes in the banking system's aggregates: a reduction in other assets due to the sale of National Bank's subsidiary Finansbank and a decrease in borrowing from the Eurosystem. The total assets of Greek commercial banking groups fell by €33 billion in the first half of 2016 to €312 billion as at 30 June 2016, from €345 billion as at 31 December 2015 (see Table III.1). This decrease was the combined result of (a) a €3.0 billion reduction in the net outstanding amount of loans; (b) a €3.0 billion fall in bond and equity valuations; and (c) a €27 billion decline in other assets due to the sale of foreign subsidiaries of Greek banks, most notably National Bank's sale of Finansbank.

During the reviewed period, the most important changes in assets structure were as follows: (a) despite declining in absolute terms, loans increased as a percentage of total assets to 58.2% as at 30 June 2016, from 53.5% as at 31 December 2015, due to the above-mentioned fall in total assets; and (b) other assets dropped as a percentage of total assets to 14% as at 30 June 2016, from 20.6% as at 31 December 2015 (see Chart III.1).

The most notable development in total liabilities, which shrank by €33 billion, was a €12 billion decline in liabilities to credit institutions as a result of a decline in borrowing from the Eurosystem by €20 billion (ECB lending: down by €6.0 billion, ELA: down by €14 billion) and a €8.0 billion increase in other liabilities to credit institutions. A further decrease in liabilities stemmed from a €21 billion reduction in other liabilities due to the aforementioned sale of Finansbank. The above developments also led to changes in the liabilities structure, namely: (a) customer deposits, despite remaining unchanged in absolute terms (€147 billion), rose to 47.2% as a percentage of total liabilities as at 30 June 2016, from 42.5% as at 31 December 2015, due to the fall in total liabilities; and (b) other liabilities dropped as a percentage of total

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

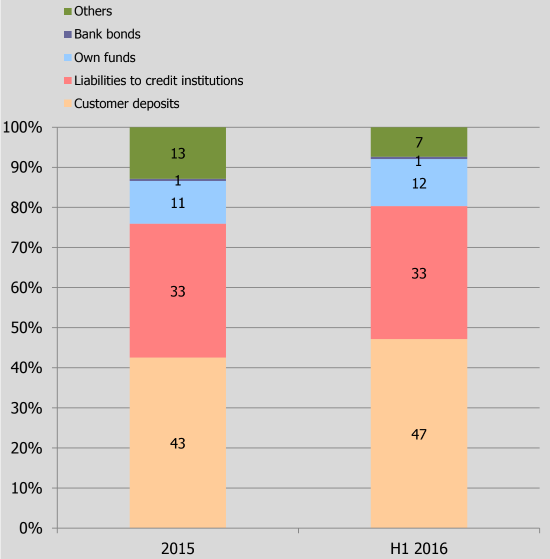
(amounts in EUR millions)

Assets	2015	%	H1 2016	%	Change
Loans	185,094	53.5	181,950	58.2	-3,144
Bonds & Equities	72,262	20.9	63,306	22.2	-2,955
Equity participations, Assets & Others	71,123	20.6	43,680	14.0	-27,443
Claims on credit institutions	7,830	2.3	8,432	2.7	602
Cash and reserves at the central bank	9,460	2.7	9,042	2.9	-418
Total	**345,769**	**100.0**	**312,411**	**100.0**	**-33,358**
Liability	**2015**	**%**	**H1 2016**	**%**	**Change**
Customer deposits	147,073	42.5	147,374	47.2	301
Liabilities to credit institutions	115,442	33.4	103,554	33.1	-11,889
Own funds	36,925	10.7	36,699	11.7	-226
Bank bonds	1,905	0.6	1,782	0.6	-123
Others	44,424	12.8	23,002	7.4	-21,421
Total	**345,769**	**100.0**	**312,411**	**100.0**	**-33,358**

Source: Bank of Greece.

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

(percentage %)

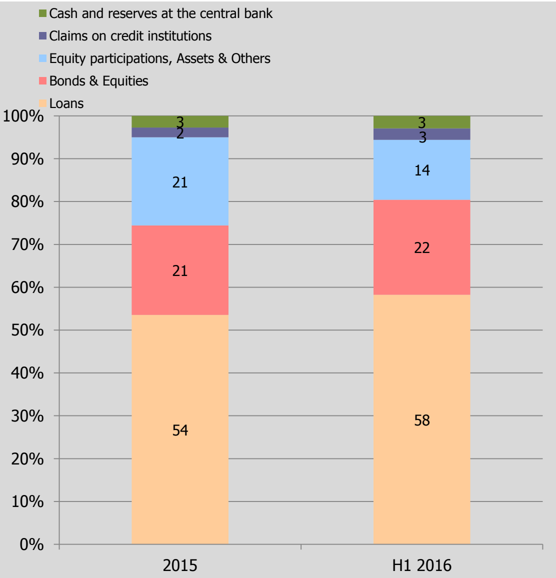


Source: Bank of Greece.

liabilities to 7.4% as at 30 June 2016, from 12.8% as at 31 December 2015 (see Chart III.2).

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

(percentage %)



Source: Bank of Greece.

Finally, it should be noted that the banking system's profitability improved in the first half of 2016 year-on-year, with marginal pre-tax profits of €90 million as at 30 June 2016, compared with losses of €7.5 billion as at 30 June 2015, as a result of a considerable €9.0 billion decline year-on-year in impairment charges to €1.9 billion.

The other income and expenses components remained almost unchanged year-on-year.

2. BANKING RISKS

2.1 CREDIT RISK

General review

The impairment of assets continued in 2016, albeit at a slower pace than in 2015; as a result, credit risk continues to be the most important source of instability for the financial system. This hampers the Greek banking system's intermediation role, i.e. its ability to supply credit to the real economy. However, during the first three quarters of 2016, the stock of NPEs stabilised, and accumulated loan-loss provisions were reduced commensurately. Consequently, if this trend continues, credit risk is not expected to increase in the near term.

Managing the stock of NPEs remains the most important challenge facing the banking system in the period ahead.

On the one hand, macroeconomic factors are increasingly conducive to dampening credit demand by enterprises, including viable ones, due to a rise in business risks; on the other hand, structural factors (e.g. the legacy of a high stock of NPEs) reduce banks' lending capacity and profitability potential. In addition, households have drastically cut consumer spending amid continued uncertainty about their future financial condition. The reduced scope for internal capital generation through retained profits, coupled with increased funding constraints, limit banks' ability to supply credit to the real economy, thus contributing to a low-growth environment.

The low-growth environment in turn directly impacts on banks' balance sheet size, as banks reduce the supply of credit, especially when it carries high risk, in order to protect their capital base. This may lead to a decrease in business generating high income for banks, thus worsening their profitability prospects.

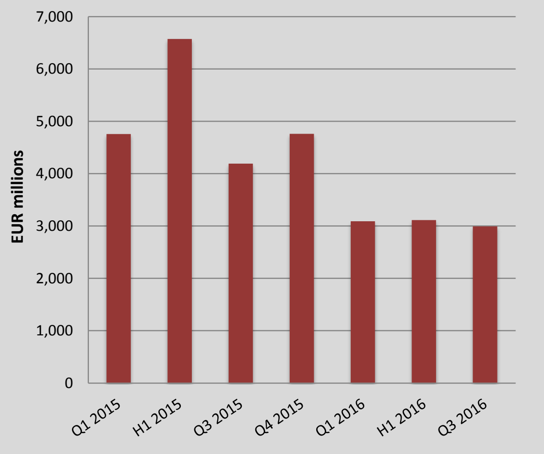
The prolonged recession in Greece has affected the quality of banks' assets, with the accumulated stock of NPEs remaining very high and the NPE ratio standing at 45.2% at end-September 2016.

Against this background, banks have already developed a framework for actively tackling the problem of NPEs, offering a number of loan restructuring solutions to their customers; at the same time, they have established in-house units dedicated to the appropriate management of NPEs. Banks have also recognised high (albeit declining) loan-loss provisions; as a result, the provisioning coverage ratio was 49.5% at end-September 2016.

Greek banks continued to deleverage in the first three quarters of 2016, albeit at a slower pace than in 2015, as a result of loan write-offs, sales of units abroad, as well as a rationalisation of their business, including sale of portfolios, which will be continued in the period 2017-2019, in keeping with banks' commitments under their restructuring plans. It should be recalled that deleveraging, at the international level, is a process implemented on the basis of a continuous assessment of cross-border units.

As a result of these actions, new NPE formation has been gradually declining since 2015, falling in the first, second and third quarters of 2016 year-on-year, when the level of new arrears was comparatively lower than in previous periods (see Chart III.3).

Chart III.3 New non-performing exposures creation



Source: Bank of Greece.

Further developments that could contain the level of new NPE formation at marginal levels also depend on the stabilisation of the economy, which would set the evolution of the quality of banks' assets on a virtuous path of declining NPEs in the near future. This would facilitate the achievement of banks' operational targets for reducing the stock of NPEs over the next three years.

Financial condition of households and enterprises

Household loans accounted for 46.2% of total bank credit to the private sector in September 2016, two thirds of which were housing loans. According to the Bank Lending Survey[2] 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 third quarter of 2016 relative to the second quarter of 2016, in line with expectations, and no change is expected in the fourth quarter of 2016.

Household credit risk remained relatively elevated in the first three quarters of 2016, given

[2] http://www.bankofgreece.gr/Pages/en/Statistics/monetary/BankLendingSurvey.aspx

the decline in households' disposable income from labour and professional activities, while households' net wealth has also declined year-on-year, as a result of lower equity and real estate valuations. The Athex composite price index fell by 10.4% in the first three quarters of 2016, while the year-on-year rate of change in the Index of Apartment Prices compiled by the Bank of Greece[3] remains negative (2016: Q3: -1.5%, Q2: -2.6%, Q1: -4.3%), although weakening over the last three quarters. The household sector will only recover once confidence in the real economy is consolidated, with a rise in employment and a gradual fall in the high unemployment rate, coupled with improved labour market conditions, which could create prospects for an improvement in household income over the long term.

Business loans made up 53.8% of total bank lending to the domestic private sector in September 2016.

According to the Bank Lending Survey, both credit standards, terms and conditions and demand for loans to non-financial corporations remained broadly unchanged in the third quarter of 2016 relative to the second quarter, in line with expectations in the previous round of the survey, and no change is expected in the fourth quarter of 2016.

Business profits turned negative in the first and second quarters of 2016, and total profitability remains weak. Risks to corporate balance sheets remain high.

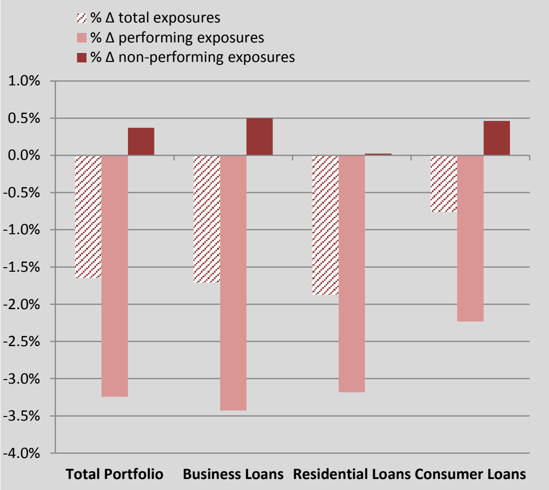
NPEs' structure and change

As a result of the above developments, the NPE ratio rose marginally during the first half of 2016 (to 45.1%, from 44.2% at end-2015), mainly on account of a decrease in performing exposures. Specifically, while total bank credit shrank by just 1.6% in the first half of 2016, total performing exposures fell faster, by 3.2% in comparison with end-2015. Total NPEs reached €108.4 billion, out of a total of €240.3 billion, rising marginally by 0.4% in comparison with end-2015. A similar picture (see Chart III.4) is presented by portfolio segments, with the exception of the consumer loan portfolio, which shows lower rates of decrease in bank credit and performing exposures (2.2% and 0.8%, respectively).

It should be noted that in the third quarter of 2016, total NPEs reached €107.6 billion and total exposures amounted to €240.3 billion, with the NPE ratio at 45.2%.

A more detailed picture of the breakdown and change in NPEs by portfolio during the first

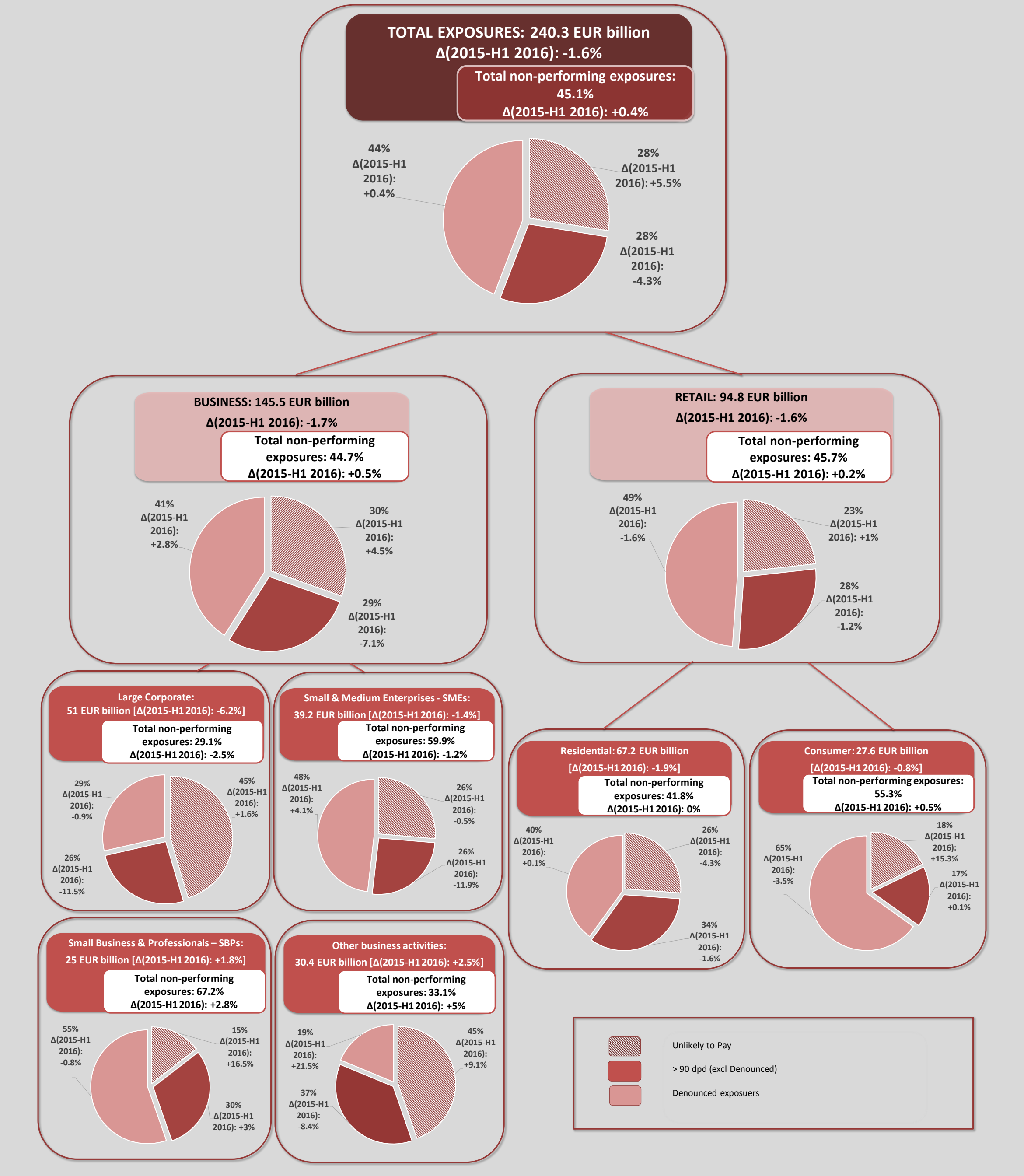
Chart III.4 Percentage change of total exposures, of performing exposures and of non-performing exposures of Greek banks by portfolio in the first half of 2016



Source: Bank of Greece.

[3] In compiling house price indices, the Bank of Greece uses a variant of the mix adjustment approach. To standardise real estate properties and identify homogeneous, as far as possible, market segments, the multiple stratification technique is used. Specifically, houses are classified in small groups with similar characteristics (location, age and size), and the average price (per square metre) is calculated for each group using the geometric mean; these prices are then aggregated, weighted on the basis of the total value of transactions for each group. See http://www.bankofgreece.gr/BogDocumentEn/Methodology_of_Short_Term_Indicators_English.pdf

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



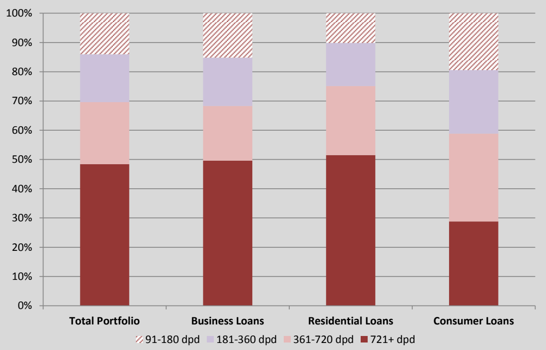
Source: Bank of Greece.

half of 2016 is given in Chart III.5.

Indications about the future evolution of credit risk are given by the amount of exposures unlikely to pay[4], 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

[4] 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 a little in arrears (<90 days past due).

Chart III.6 Non-performing exposures more than 90 days past due (excluding denounced loans)



Source: Bank of Greece.

to total NPEs rose marginally in the first half of 2016 to 27.6%, from 26.2% at end-2015, while the ratio of NPEs 1-90 days past due to total performing exposures (early arrears) stood at 12.2% in the first half of 2016, lower than at end-2015 (12.7%). It is noted that NPEs more than 90 days past due and denounced loans comprise 28.3% and 44.2% of NPEs, respectively.

These indications provide an early warning about the evolution of banks' credit risk, warranting a comprehensive plan with a proper toolkit for the management of early arrears.

It should be noted that 70% of total NPEs more than 90 days past due (excluding denounced loans) are in arrears by more than one year. The corresponding percentages for residential loans are 75%, for business loans 68% and for consumer loans, in arrears by more than six months, 81%.

It is noted that 48% of NPEs more than 90 days past due (excluding denounced loans) are in arrears by more than 720 days and are on the rise; this finding points to strong consolidation of the situation and is indicative of the difficulties of effective management (see Chart III.6).

Given that NPEs more than 90 days past due (excluding denounced loans) make up 28% of total NPEs, the 4.3% decrease in this category is a positive development.

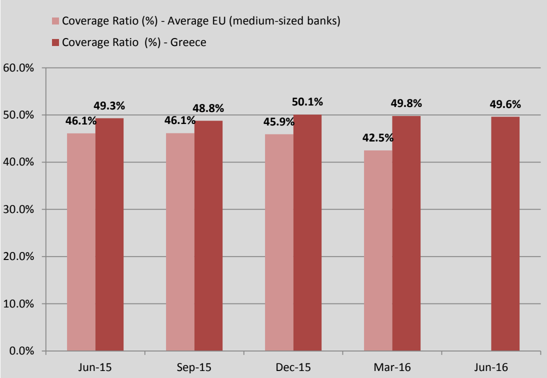
At the same time, denounced loans for which no resolution and closure solution has been reached are very high (91%).

Indicators used for monitoring and assessing NPEs

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

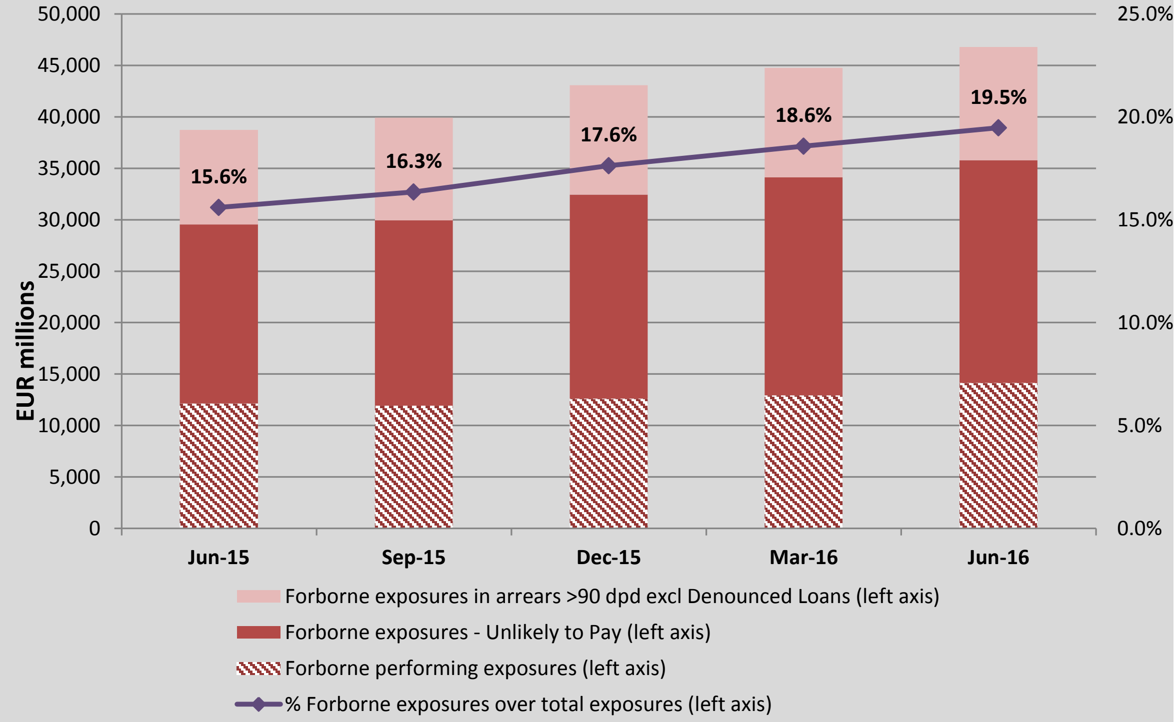
- The provisioning coverage ratio of NPEs remained generally stable during the first half of 2016 (49.6%), suggesting that no increase in credit risk is expected in the near term. At the same time, the Texas index (i.e. the ratio of NPEs to the sum of tangible equity and loan loss reserves) reached 126%. Specifically, banks' loan-loss provisions came to a cumulative €53.8 billion in June 2016, compared with €51.8 billion in June 2015. As a result, the coverage ratio is higher than the average for medium-sized European banking groups, which was 42.5% in the first quarter of 2016 (see Chart III.7).

Chart III.7 Provisioning coverage ratio of non-performing exposures



Sources: Bank of Greece and European Central Bank.

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



Source: Bank of Greece.

- Total forborne exposures[5] came to €46.7 billion, rising by 8.6% in the first half of 2016 in comparison with end-2015. The ratio of forborne exposures to total exposures rose to 19.5% in the first half of 2016, from 17.6% at end-2015. In particular, forborne performing exposures rose by 12.1% over end-2015, compared with 7.2% for forborne NPEs. However, it should be noted that 72.4% of exposures unlikely to pay have been forborne (see Chart II.8).

- Housing loans present the highest ratio of forborne exposures to total housing loan exposures (29.4%), compared with 19% for consumer loans and 15% for business loans.

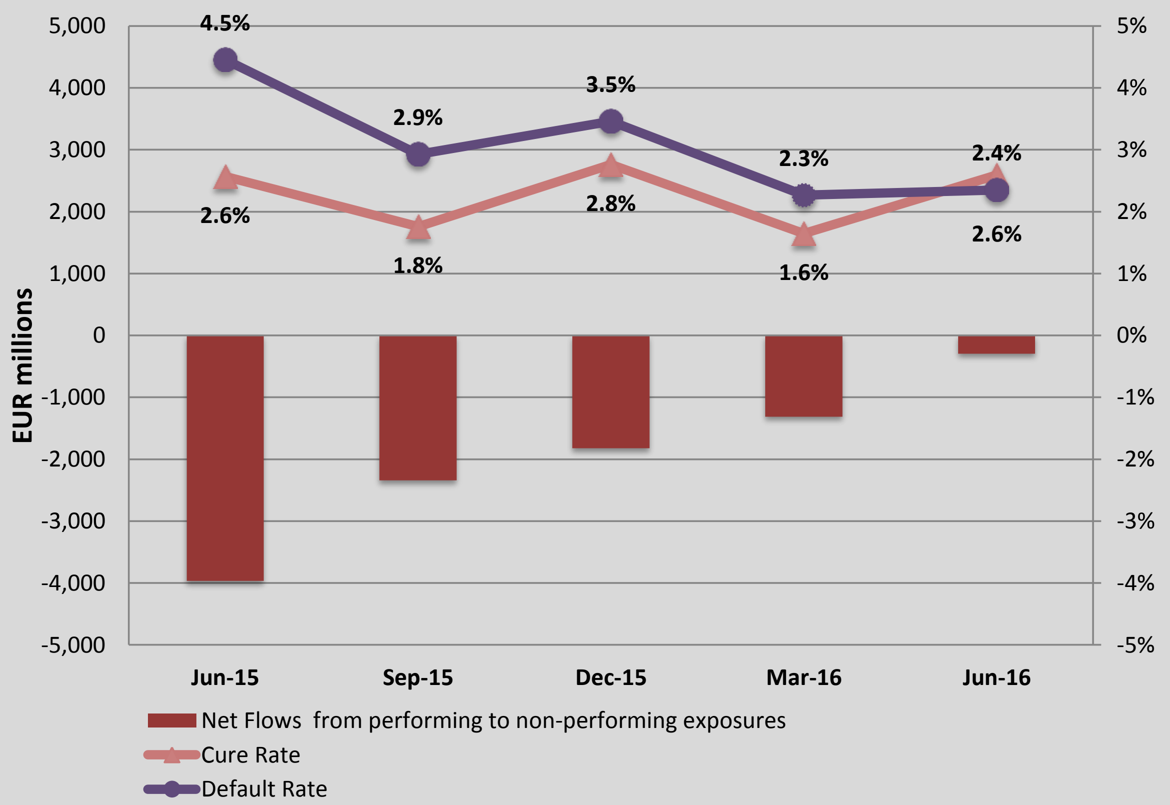
- Loan write-offs during the first half of 2016 reached €1.6 billion, compared with €687 million in the same period of 2015, and mainly concern denounced loans.

- The collateral coverage ratio for NPEs remains low (51%). It should be noted that 81.3% of collateral is in the form of real estate. The portfolio subindices remained almost unchanged (75.6% for housing loans, 14.5% for consumer loans and 49% for business loans). The collateral coverage ratio for forborne NPEs is 59%, reflecting banks' tendency to seek additional collateral in the context of forbearance solutions. However, the above ratio is on the decline, as borrowers probably do not provide (perhaps due to inability) collateral proportional to the amounts of forborne exposures.

- On a positive note, the flows of performing exposures that moved to NPE status

[5] 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 Net flows from performing exposures to non-performing exposures and the cure rate and default rate



Source: Bank of Greece.

dropped considerably and the flows of NPEs that moved to performing status rose, pointing to an improvement in the quality of the loan book. In particular, it should be noted that the cure rate[6] came to 2.6%, higher than the default rate[7] (2.4% – see Chart III.9). In June 2016, net NPE flows reached €300 million, well below the figure in the same period of 2015 (€4.0 billion).

Regarding the management of NPEs, there is a lengthening of the horizon of modifications; it is mentioned that a considerable percentage of contracts are remodified, even if a long-term solution had been implemented in the past. Specifically, banks have turned to long-term solutions, which have risen by 31% since the start of the year and 61% since June 2015. The largest percentage concerns mainly business and housing loans, with the latter rising by 145% in the first half of 2016 over end-2015 (see Chart III.10).

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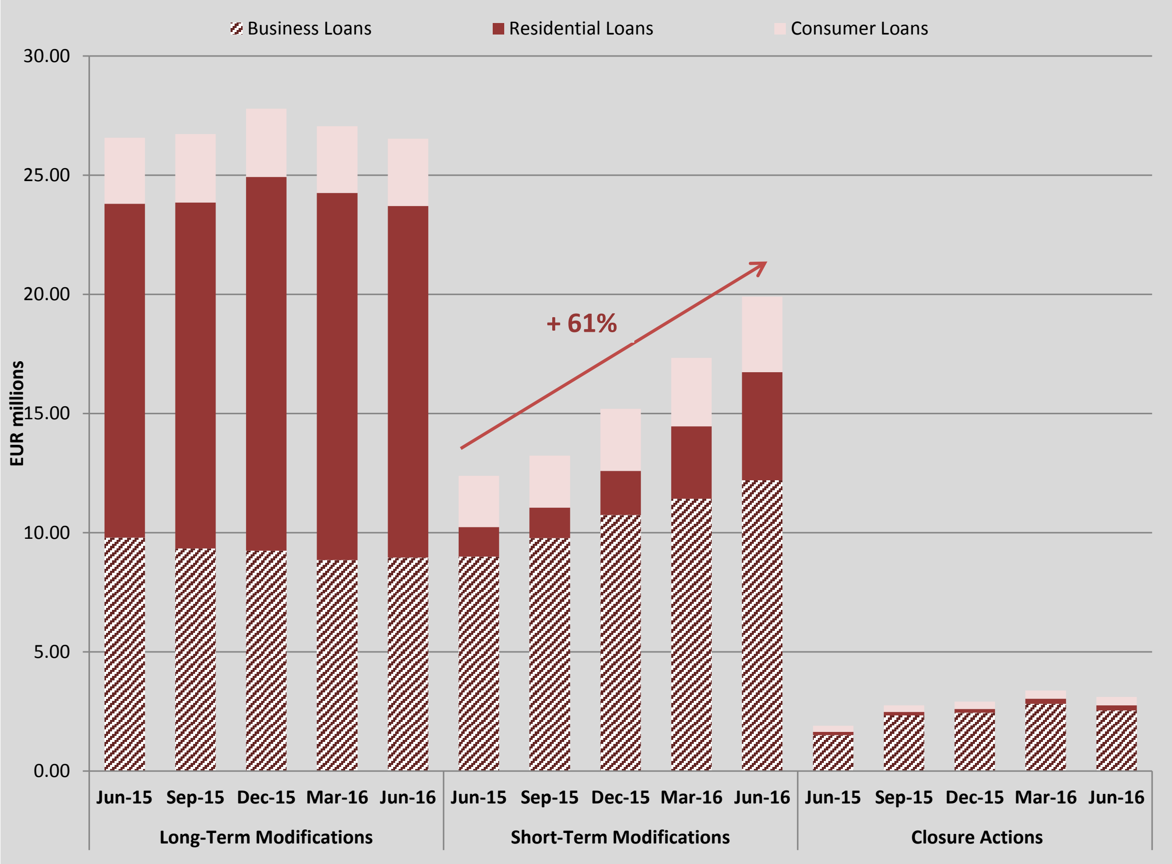
[6] The cure rate is the ratio of NPEs moved to performing status to total NPEs at the start of the period.
[7] The default rate is the ratio of performing exposures moved to NPE status to total performing exposures.

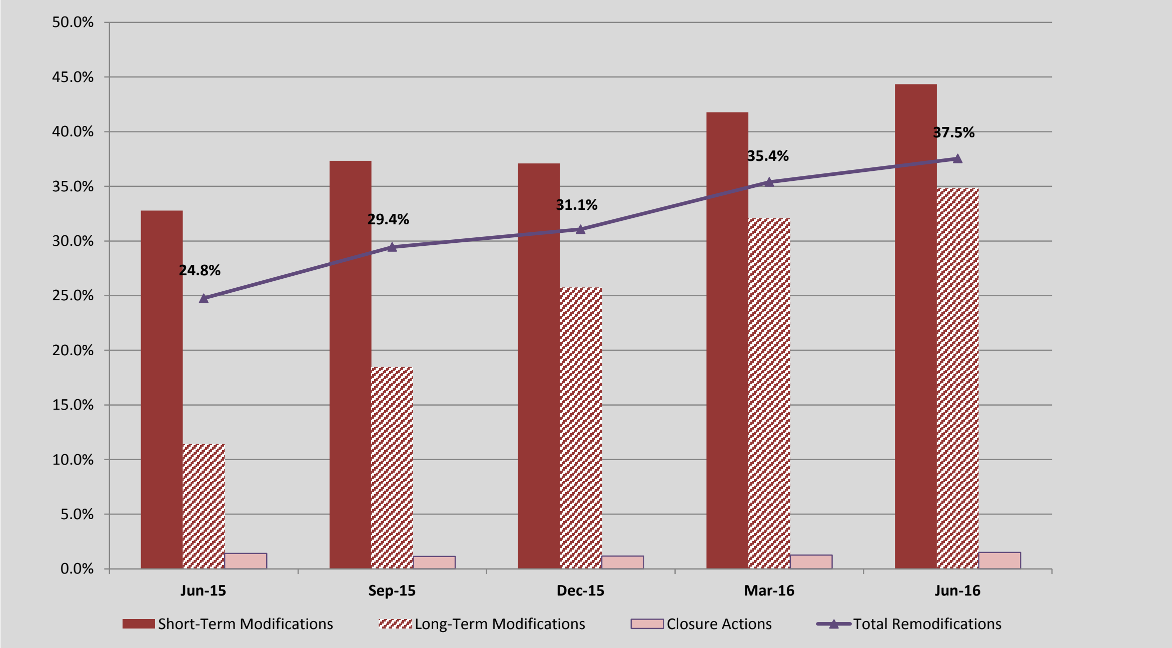
Chart III.10 Forborne exposures by type of modification and portfolio



Source: Bank of Greece.

However, 37.5% of total modified contracts (files) are remodified (see Chart III.11). This trend is more obvious in loans for which a long-term solution had been implemented, which raises doubts about banks' ability to manage NPEs effectively.

Chart III.11 Remodified contracts over total modified contracts by type of modification



Source: Bank of Greece.

Credit risk by sector

Business loans amounted to €145.5 billion in the first half of 2016, accounting for 60.6% of Greek commercial banks' total financing. As can be seen in Chart III.5, the NPE ratio for business loans is mainly affected by the high percentages for SME (59.9%) and SBP loans (67.2%).

Regarding the structure of financing of the Greek economy sectors, it should be noted that 23% of total business loans has been extended to retail businesses, with an NPE ratio almost equal to the average NPE ratio for business exposures (45.1%).

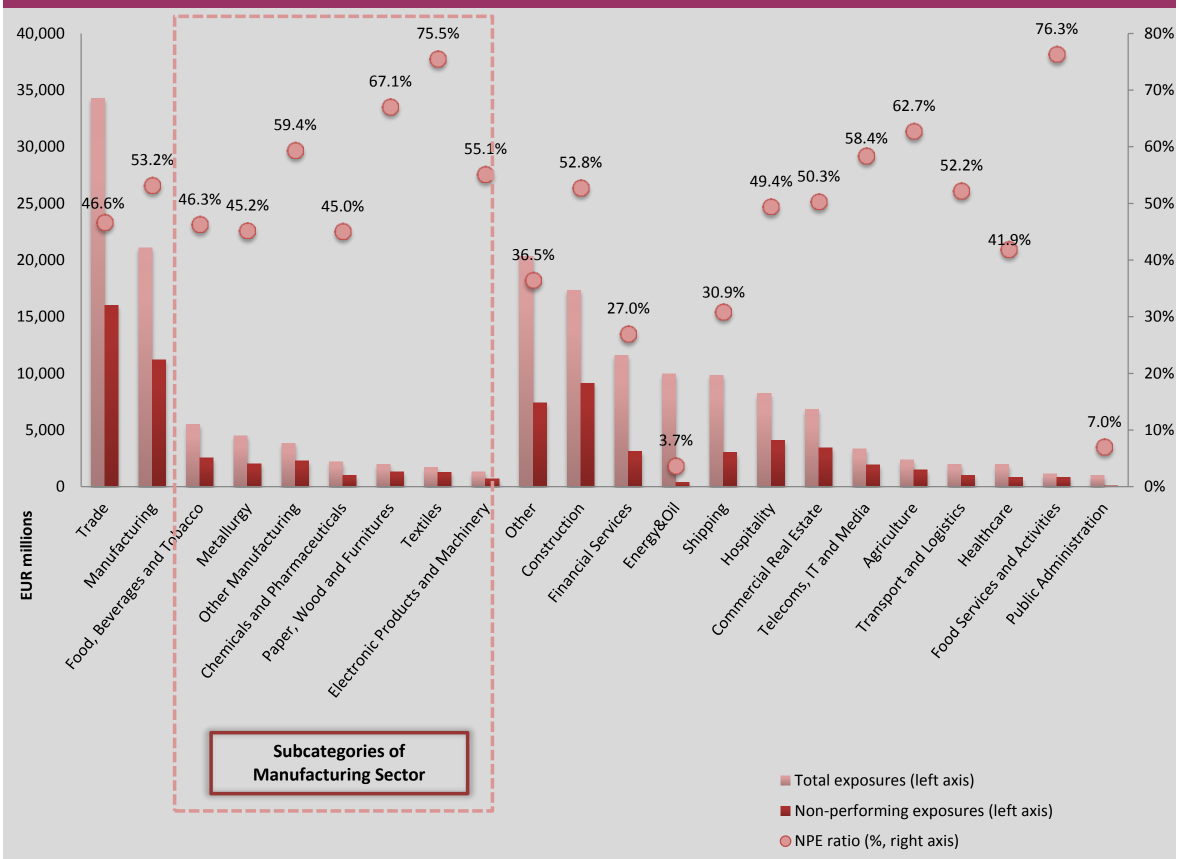
As reflected in Chart III.12, very high NPE ratios are recorded in the food service sector (76.3%), farming (62.7%), telecommunications, informatics and media (58.4%), manufacturing (53.2%) and construction (52.8%), while the lowest ratios are observed in energy (3.7%), public administration (7%), financial corporations (27%) and shipping (30.9%).

Management of NPLs

Managing NPLs is the most important challenge facing the banking system. In this context, since the formulation of the national NPL management strategy by the government in August 2015, a number of actions have been taken to tackle the problem. The aim remains the same and is dual: to ease the burden on borrowers and to release resources that could be channeled by credit institutions to the real economy, supporting the financing of viable firms.

Key to this effort is creating appropriate conditions by enhancing the supervisory and regulatory framework so as to allow for the effective management of NPLs, both on and off

Chart III.12 Sectoral analysis of business loans over the first half of 2016



Source: Bank of Greece.

the balance sheets of credit institutions.

Challenges, risks and uncertainties

Despite the actions taken to improve the quality of banks' loan books, challenges remain as the NPE ratio persists at very high levels. However, in the first half of 2016 the growth rate of NPEs was minimised.

In any case, despite improving liquidity conditions (see Section 1.2), the lack of demand by households and firms and continued deleveraging dampen the prospects of a pick-up in credit, while banks' capacity to supply new credit is very low.

Consequently, effectively managing the stock of NPEs by streamlining the insolvency framework and taking further measures to resolve NPEs are crucial for achieving sustainable growth over the long term.

Moreover, achieving credit institutions' operational targets for the period 2016-2019, completing the legislative reform of out-of-court debt settlement, simplifying the resolution and special liquidation of firms and, above all, creating a secondary market for loans, in which credit servicing and credit acquiring firms will participate, are additional challenges.

In conclusion, credit risk will not decrease soon if:

(a) macroeconomic conditions turn out less favourable than expected. Specifically, a prolongation of the recession in the Greek economy would push the real estate market lower; in case of loss of a household's stable income, it would no longer be able to meet its mortgage payments, even by selling its real estate, while banks' recovery capacity through realisation of collateral would be significantly affected.

(b) borrowers' credit ratings deteriorate further, in which case resolution measures would not be able to offset a further increase in the stock of NPLs.

Enhancing the supervisory framework

Doubling up on its efforts to enhance the current supervisory framework, in the second half of 2016 the Bank of Greece took targeted actions to improve credit institutions' management and monitoring of NPEs.

The new Financial Facility Agreement required a revision of the Code of Conduct introduced by Law 4224/2013.

Following the completion of the revision, the new Code of Conduct applies also to credit servicing and credit acquiring firms (Law 4354/2015) and its procedures will only apply to individuals, professionals and small businesses with an average turnover of less than €1.0 million during the last three years. For the first time, different treatment is introduced for medium-sized and large firms, to which, as requested by the Hellenic Bank Association, only the general principles will apply (full exception would be in conflict with Law 4224/2013). The time of the first notification to join the Arrears Resolution Procedure is moved from 30 days to 60 days for non-payment of an instalment. The time limit for notification by the bank is extended from 15 to 30 days and communication between credit institutions and borrowers becomes more flexible, as the Code clarifies which notifications must be sent in paper form and which by email. The Code introduces the concept of a minimum level of "reasonable living expenses" and extends the right of objection to (a) all natural persons, not only those whose residence is at stake; and (b) micro enterprises. It requires the credit institution to calculate the present value of the proposed settlement plan, and a recent estimate of the liquidation value of the relevant property in the event that a forbearance solution has been ruled out and a resolution and closure action is proposed instead, which entails disposal of the borrower's primary residence. It also requires credit institutions to use certified appraisers and appraisal standards in appraising the value of any real estate (especially residence) involved in a workout. The Code also introduces special treatment of borrowers belonging to socially vulnerable groups, requiring credit institutions to adopt a policy regarding their communication with persons with disabilities. For cooperating borrowers who provenly face serious financial distress, i.e. lack of real estate assets other than their residence, the objective value of which is no more than €140,000, and low disposable income, credit institutions are required to propose either a long-term forbearance solution or, if not possible, a repayment schedule that is in keeping with the minimum level of "reasonable living expenses" and does not lead to over indebtedness.

Executive Committee Act 102/30.8.2016 revised Executive Committee Act 42/30.5.2014 "Supervisory framework for the management of loans in arrears and non-performing loans". This revision was necessary in order to improve the level of information on credit institutions' management of NPEs by providing further analysis of management practices by loan category. Moreover, it introduced technical improvements to existing models in order to allow for a more detailed presentation and monitoring of reported data, as well as of the key and additional performance indicators. Finally, reported data will include information on the implementation of the Code of Conduct and the calculation of banks' operational targets in the management of NPEs.

It should be noted that the Bank of Greece, in the context of the implementation of the national strategy on NPLs, has set, in cooperation with credit institutions and the SSM, operational targets regarding the management of NPLs for the period June 2016-2019. The targets, which were set by bank, specify clearly the percentage of reduction in NPLs that credit institutions have to achieve, including the actions (e.g. loan write-offs, increase in long-term forbearance solutions, restructuring etc.) required for achieving the targets. To facilitate the monitoring of operational targets, as from September 2016 credit institutions submit to the Bank of Greece quarterly reports[8] on their performance against these targets, which can be revised on an annual basis in the light of progress in their implementation.

Finally, to strengthen the regulatory framework, the Bank of Greece revised Executive Committee Act 82/8.3.2016 "Framework of establishment and operation of credit servicing or credit acquiring firms (concerning credit institutions' NPLs) (Law 4354/2015)" in order to provide clarifications and specify the criteria of authorisation of such firms. To this, end, one license has already been granted.

The steps ahead

In the immediate future, an important priority – as well as obligation under the "Third Economic Adjustment Programme for Greece" – is the revision of the out-of-court debt settle-

[8] A detailed presentation of the targets is available (in Greek) on the Bank of Greece website:
http//:www.bankofgreece.gr.BoGAttachments/Report_Operational_Targets_for_NPEs_GR.pdf.

ment framework, to allow for quick, effective and transparent settlement of debts to the private sector and the Greek government. This new legislation will complete the Greek government's prior actions.

At the same time, the Bank of Greece, in order to promote the creation of a secondary market for NPLs, will promptly examine the submitted applications of potential credit servicing firms, with a view to authorising without delay those that meet the regulatory criteria, so that the restructuring of banks' portfolios may start forthwith.

At the same time, efforts will be stepped up to promote further active management of exposures, with tools such as securitisation, including, where necessary, legislative or regulatory changes.

Further actions will aim at:

- improving the judiciary's infrastructure and know-how;
- providing financial education and consultation to (indebted) households and professionals;
- solving chronic problems in the tax treatment of loan write-offs and loan-loss provisions both for borrowers and lenders.

The above actions will be decisive for improving the NPE management framework; however, they can only achieve their potential and lead to a decline in the stock of NPLs if the recession is halted and conditions facilitate the return of the economy to growth.

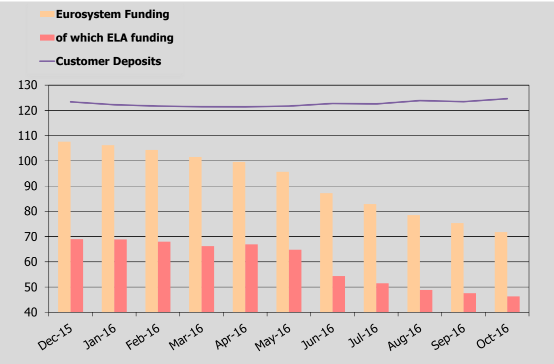
2.2 LIQUIDITY RISK

General overview

After the substantial outflows of deposits observed in the first half of 2015, liquidity conditions improved, banks' deposit base stabilised in the third quarter of 2015 and increased by €1.7 billion in the fourth quarter (December 2015: €123.4 billion, September 2015: €121.7 billion). This rise is largely attributable to the consolidation of confidence after the completion of banks' recapitalisation in December 2015. However, during the first quarter of 2016, the deposit base was adversely affected by heightened uncertainty about of the completion of the first review of the Third Economic Adjustment Programme for Greece regarding social security reform and additional fiscal measures. As a result, deposits dropped by €1.9 billion (March 2016: €121.5 billion, December 2015: €123.4 billion). However, after the first quarter of 2016, deposits rose (October 2016: €124.6 billion, September 2016: €123.5 billion, June 2016: €122.7 billion) due to the following factors that strengthened depositors' confidence: (a) optimism about convergence between Greece and its international creditors following the completion of the first review of the Third Economic Adjustment Programme for Greece and the approval of the second tranche of €10.3 billion by the Board of Directors of the ESM on 17 June 2016; and (b) the decision of the ECB Governing Council to reinstate the waiver for Greek government bonds used as collateral in Eurosystem monetary policy operations, on 22 June 2016. The above mentioned developments resulted critically in the significant reduction of banks' reliance on ELA, which stood at €46.3 billion in October 2016, from €68.9 billion at the end of 2015. Chart III.13 shows the evolution of deposits and Eurosystem liquidity provision, broken down into liquidity provided by the monetary policy operations of the ECB and ELA. It is observed that ELA did not present noteworthy decrease until May 2016. From June 2016 onwards, reliance on ELA declined considerably, while a part of ELA liquidity was re-

Chart III.13 Deposits of non-financial corporations and households over Eurosystem Funding

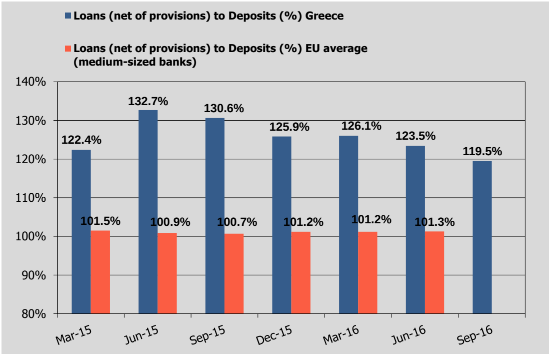
(EUR billions)



Source: Bank of Greece.

Chart III.14 Loans (net of provisions) to commercial banks' Deposits

(percentage %, consolidated basis)



Source: Bank of Greece.

placed by the Eurosystem monetary policy operations. After the second quarter of 2016, both overall reliance on the Eurosystem and reliance on ELA continued to decline (October 2016: €46.3 billion, September 2016: €47.6 billion, June 2016: €54.4 billion).

The gradual reduction in ELA is expected to continue in the future due to (a) the enhancement of the deposit base; (b) the expansion of liquidity sources (use of banks' assets that are not eligible as collateral in the Eurosystem monetary policy operations, for interbank repos); and (c) the raising of liquidity from the bond market.

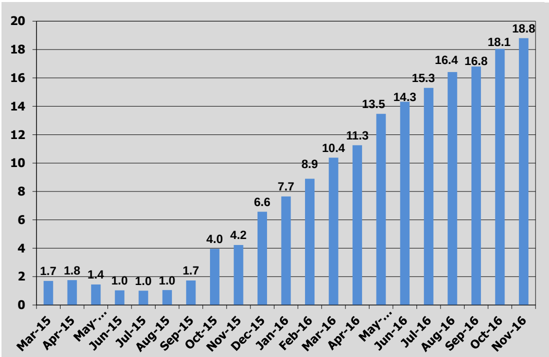
The stabilisation of deposits, coupled with continued deleveraging, resulted in a considerable decrease in the loan-to-deposit ratio. Given the mild deleveraging of Greek banks in the period January-September, the change in the ratio is mainly attributable to the evolution of deposits, which, after declining in the first quarter of 2016 due to the aforementioned reasons, rose once again in the second and the third quarter of 2016 (September 2016: 119.5%, June 2016: 123.5%, March 2016: 126.1%). Chart III.14 shows the evolution of the loan-to-deposit ratio, which continues to be quite higher than the average for medium-sized banks in the EU.

In any case, deleveraging is expected to continue given the targets set by the Bank of Greece for the decrease in NPEs and NPLs over the period 2017-2019, according to the schedule submitted to the SSM at the end of September 2016.

Regarding the interbank market, access to financing through interbank repos has been on the rise since September 2015 (see Chart III.15), while banks have obtained credit lines at continuously more favourable interest rates.

Chart III.15 Domestic credit institutions' financing through Interbank market

(EUR billions)



Source: Bank of Greece.

It should be noted that short-term funding through interbank repos is obtained from an increasingly wider range of counterparties, which are willing to lend banks against collateral of Greek corporate bonds, Pillar II bonds under Law 3723/2008 and Treasury bills. This has partly assisted banks in reducing their reliance on ELA. However, banks' ability to raise unsecured interbank funding is still very limited, also given the thinness of the market, and largely depends on macroeconomic developments. Access to the capital markets is still difficult, with the liquidity sources remaining limited in 2016. In particular, National Bank of Greece raised up to €300 million through a securitization transaction of corporate loans, while Eurobank issued two covered bonds of €975 million and €1.2 billion respectively. Moreover, the relaxation of capital controls (by ministerial decisions published in Government Gazette 2282/22.7.2016 and 3724/18.11.2016) has already contributed to the consolidation of confidence in the banking system and a gradual recovery of the deposit base (see Special Feature II).

Risks and prospects

Further improvements in liquidity conditions are subject to a number of risks. The first risk concerns worse than expected developments in the Greek economy and macroeconomic aggregates, which may impact considerably banks' financial results, further reducing their ability to tap financial markets for liquidity.

Moreover, to the extent that the observed negative correlation between country risk and the deposit base limits banks' ability to supply credit to the real economy in times of recession, banks' procyclical role in transmitting fiscal imbalances to the economy will continue to be in play.

On a positive note, the measures already taken to improve the macroeconomic environment and restructure bank portfolios may contribute to strengthening depositors' confidence and banks' ability to raise liquidity through deposits. An adequate capital buffer and an enhanced deposit base, coupled with short-term measures to reduce the burden of public debt, may be the key to bolstering resilience to fiscal shocks.

In addition to fiscal tightening, liability management exercises (aimed at reducing borrowing needs) and burden-sharing with banks, understanding the dynamics of the correlation between macroeconomic aggregates and liquidity risk is useful for the implementation of macroprudential policies that could help improve conditions over the long term.

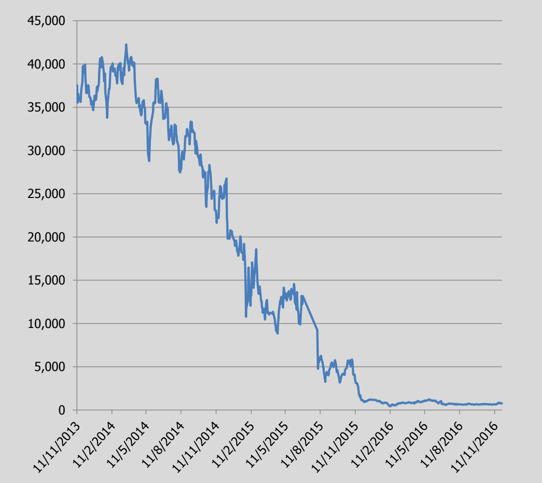
It should be noted, however, that the recovery of the deposit base crucially hinges on the elimination of uncertainty both in the business and the macroeconomic environment, which will encourage households and firms to re-deposit hoarded banknotes.

2.3 MARKET RISK

Despite the recovery of the bank equity index in the second quarter of 2016, bank equity valuations remain at low levels, reflecting also the overall pressures on the banking industry throughout Europe. However, it should be noted that equity indices have shown remarkable stability after the second quarter of 2016 (see Chart III.16).

Chart III.16 Banks Equity Index

(11.11.2013 – 29.11.2016, daily prices)



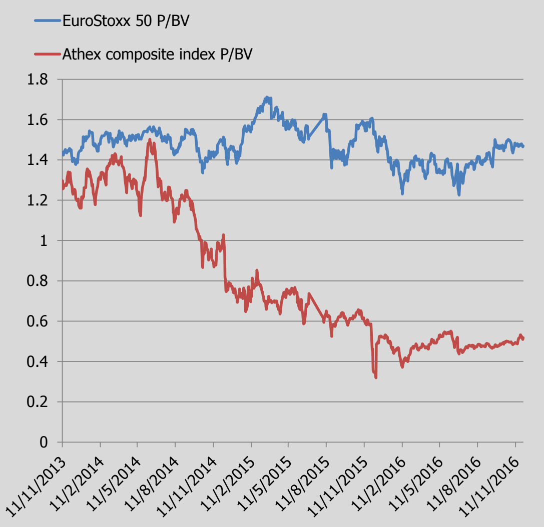
Source: Bloomberg.

Reluctance to invest in bank stocks persisted throughout 2016 due to meagre profitability prospects in an environment of low rates and high NPEs.

This reluctance is also accounted for by the structural problems facing banks as a legacy of the sovereign debt crisis, warranting an improvement of their efficiency and a strengthening of their business models. The combination of cyclical (e.g. macroeconomic conditions) and structural factors (e.g. high stock of NPEs) contributes to keeping equity indices low (see Charts III.17, III.18).

Chart III.17 Equity Indices

(11.11.2013 – 29.11.2016, daily prices)

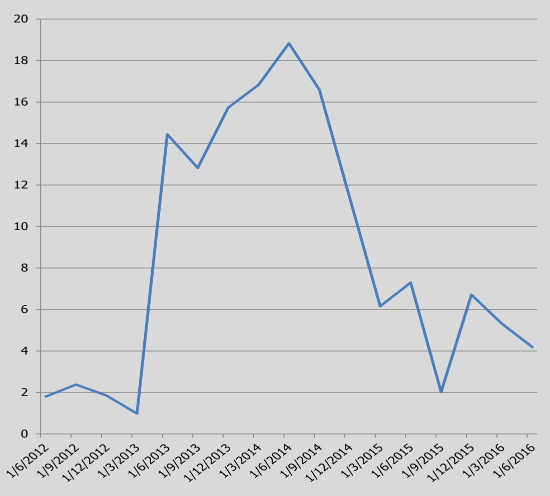


Source: Bloomberg.

Nevertheless, the impact of market risk was limited due to the small size of the banking system's equity portfolio[9], valued at €2.37 billion as at 30 June 2016. The loss on this portfolio under an adverse scenario of a 40% drop in equity prices is estimated at €948 million or 2.78% of own funds, equivalent to a 41 basis points fall in the Capital Adequacy Ratio – CAR (see Chart III.19).

Chart III.18 Banks' capitalization to weighted assets

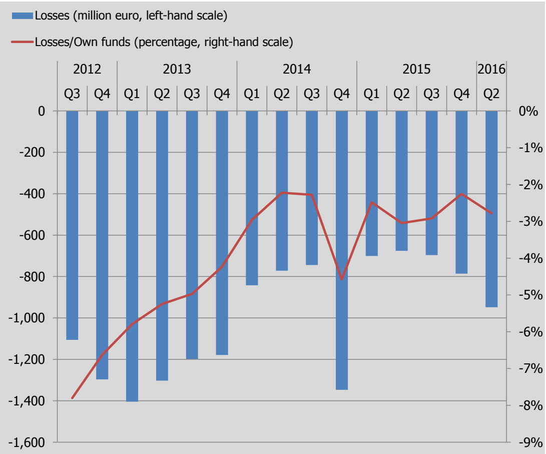
(30.6.2012 – 30.6.2016)



Source: Bloomberg.

Chart III.19 Equity price risk

(30.9.2012-30.6.2016)



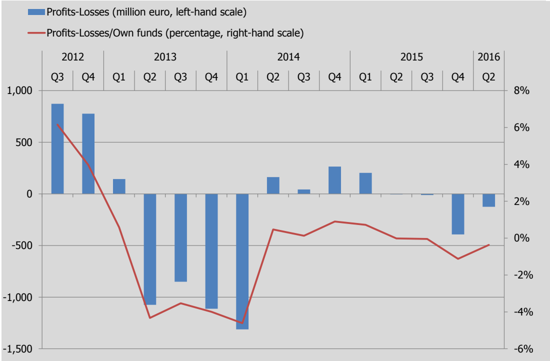
Source: Bank of Greece.

Interest rate risk of the banking system's bond portfolio, valued at €15.7 billion as at 30 June 2016, was low. The loss on this portfolio under an adverse scenario of a 300 basis point hike in interest rates is estimated at €125 million or 0.37% of own funds, equivalent to a 5 basis point drop in the CAR (see Chart III.20).

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

Chart III.20 Interest rate risk

(30.9.2012-30.6.2016)

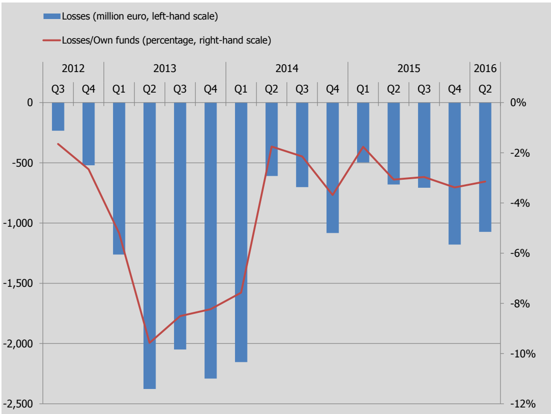


Source: Bank of Greece.

Overall, the aggregate loss from equity price risk and interest rate risk of the trading book under the above adverse scenarios is estimated at €1 billion or 3.15% of own funds, equivalent to a 47 basis points decline in the CAR (see Chart III.21).

Chart III.21 Market risk

(30.9.2012-30.6.2016)



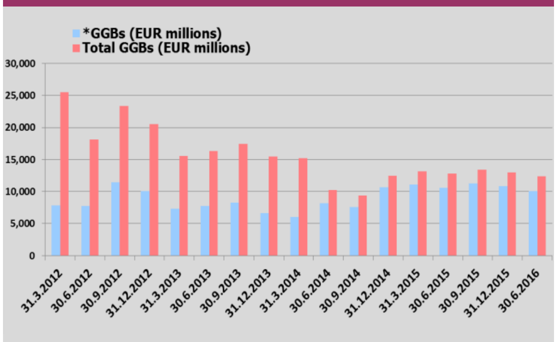
Source: Bank of Greece.

In conclusion, the Greek banking system faces low market risk and the above-mentioned aggregate loss can be easily absorbed by banks' capital buffer of €34 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, especially in periods of market stress in the capital markets.

2.4 THE BANKING SYSTEM'S EXPOSURE TO GREEK GOVERNMENT BONDS (GGB)

Greek banks' GGB portfolio was valued at €12.3 billion as at 30 June 2016, down by €600 thousand (or 5%) approximately in comparison with 31 December 2015. It should be noted that GGBs make up around 4% of the banking system's total assets. Out of the total bond portfolio, bonds of €10 billion are valued at current prices and concern the available-for-sale portfolio, at fair value and held-for-trading (Chart III.22). Valuation of GGBs at current prices also reflects investors' expectations.

Chart III.22 The Greek banking system's holdings of GGBs



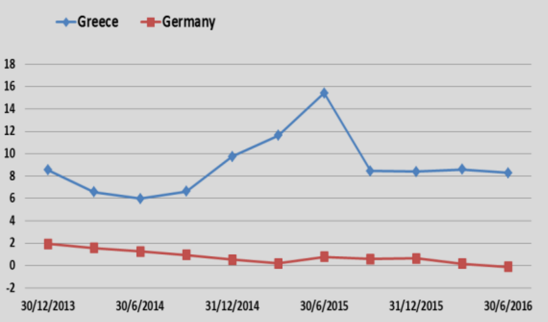
* GGBs: refer to GGBs that are valued as available for sale, at fair value & held for trading.

Source: Bank of Greece.

In the first half of 2016, the yields of 10-year GGBs remained at the same high levels as at the end of 2015, as political uncertainty and capital controls lingered on. Specifically, at the end of the first quarter of 2016, the yields of GGBs were 8.58%, improving slightly to 8.29% on 30 June 2016. The spread of 10-year GGBs over Bunds with the same maturity deteriorated, the Bund yield being -0.13% as at 30 June 2016 (Chart III.23).

Finally, 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 30 June 2016 would post a loss of

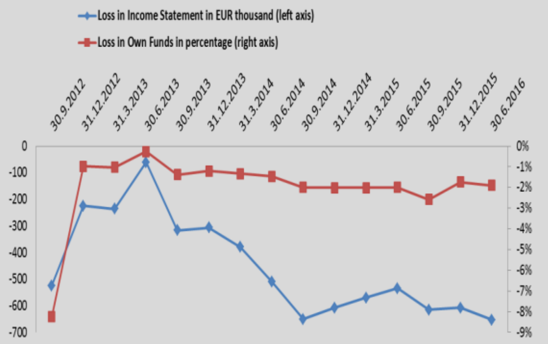
Chart III.23 Yields of 10-year Greek and German bonds



Source: Bloomberg.

around €650 thousand, with a 1.9% negative impact on Greek banks' own funds (31 December 2015: loss of €600 thousand approximately, negative impact on own funds: 2%) (Chart III.24).

Chart III.24 Loss in the Income Statement and the Own Funds of Greek systemic banks from an increase in credit spreads by 300 b.p.



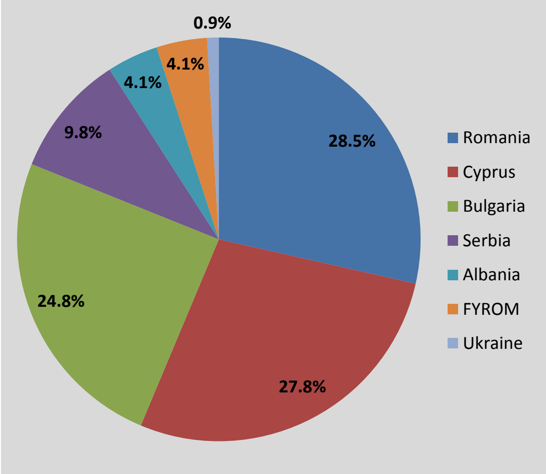
Source: Bank of Greece.

2.5 RISKS AND OUTLOOK OF GREEK BANKS' ACTIVITIES IN SOUTHEASTERN EUROPE (SEE)

The activity of Greek banks in SEE[10] currently focuses on three countries, namely Romania, Cyprus and Bulgaria (see Chart III.25), as a result of National Bank of Greece's disinvestment in Turkey[11]. Greek banking groups' assets in SEE countries amounted to €34.3 billion in June 2016, up by 1.8% over December 2015, and accounted for 11% of their assets on a consolidated basis.

Chart III.25 Assets of the Greek banking groups in Southeastern Europe

(percentage %)



Source: Bank of Greece.

In the first half of 2016, Greek banks' international business had a positive contribution to their results, with pre-tax profits of €129 million (against losses in the first half of 2015), stemming mainly from Bulgaria (43.4%), Cyprus (28.4%) and FYROM (17.2%). Their business in Albania and Ukraine was loss-making. Profitability contributed to a slight increase in supervisory own funds in comparison with the first half of 2015, while risk-weighted assets fell by 2%.

The quality of the loan book deteriorated marginally. Loans in arrears[12] rose by 1.4% in comparison with December 2015 to €8.6 billion or 31% of the loan book. This increase in loans in arrears is exclusively attributable to deterioration in the Cyprus loan book. Regarding the breakdown of loans in arrears, consumer loans in arrears dropped considerably by 27% in the first half of 2016 as a result of substantial write-offs. Despite these write-

[10] Greek banks have subsidiaries and branches in the following SEE countries: Albania, Bulgaria, Cyprus, FYROM, Romania, Serbia and Ukraine.

[11] Pursuant to Greek banks' restructuring plans approved by the European Commission, National Bank of Greece sold its subsidiary in Turkey (Finansbank) in June 2016. Alpha Bank also sold its subsidiary in FYROM in May 2016.

[12] Loans more than three months past due.

offs, Greek banks increased their loan loss reserves (€5.8 billion, up by 1.2%); as a result, the provisioning coverage ratio of loans in arrears remained at 67%.

Finally, regarding liquidity, deposits rose by 6% in comparison with December 2015, while net parent funding declined to €2.2 billion (from €3.7 billion in December 2015). The fact that deposits in SEE now exceed loans net of provisions by €1.5 billion is a positive development.

The outlook for the profitability and asset quality in Greek banks' SEE activities is positive, considering the improvement in the growth outlook of the countries in the region and Cyprus's successful exit from the Economic Adjustment Programme. Against this background, Greek banks can further explore strategic opportunities in SEE, in line with their restructuring plans approved by the European Commission.

2.6 RESILIENCE

In the first half of 2016, Greek banks improved their resilience indices, due to the gradual improvement in the economic and financial environment among other factors. They reported marginal pre-tax profitability, moved to fulfil their commitments pursuant to their restructuring plans and bolstered their capital base. This picture was maintained during the first nine months of 2016.

Profitability

In the first half of 2016, Greek commercial banks posted marginal pre-tax profits on a consolidated basis after a row of loss-making years. Underlying the recovery of profitability were an improvement in operating results and, mainly, a large decrease in loan-loss provisions (see Table III.2). This trend was

Table III.2 Financial results of Greek commercial banking groups (1st half 2015 - 1st half 2016)

(amounts in EUR millions)

	H1 2015	H1 2016	Change (%)
Operating income	**4,341**	**4,651**	**7.2**
Net interest income	3,651	3,713	1.7
-Interest income	5,781	5,202	-10.0
- Interest expenses	2,131	1,489	-30.1
Net non-interest income	690	938	35.9
- Net fee income	501	538	7.4
- Income from financial operations	12	210	>100
- Other income	177	189	6.7
Operating costs	**2,394**	**2,440**	**1.9**
Staff costs	1,290	1,307	1.3
Administrative costs	893	924	3.5
Depreciation	211	209	-0.8
Net income (operating income less costs)	**1,947**	**2,211**	**13.6**
Provisions for credit risk (impairment charges)	9,252	1,941	-79.0
Other impairment	355	106	-70.3
Non-recurring profits/losses	129	-73	-
Pre-tax profits/losses	**-7,531**	**91**	**-**
Taxes	-1,808	42	-
Profit/Loss after Tax from discontinued Operations[1]	-115	-2,958	-
After-tax profits/losses	**-5,838**	**-2,909**	**50.2**

Source: Financial statements of Greek commercial banking groups

[1] During the first half of 2016 non-recurring losses of €3.095 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.

continued during the first nine months of 2016 on the basis of the data of the four core banks.

Specifically, net interest income grew by 1.7% in comparison with the first half of 2015 due to a considerable decrease in interest expenses, which offset a fall in interest income. This decline in interest expenses is attributable to a reduction in the cost of Eurosystem financing, a gradual fall in interest rates on new deposits and a shift in the deposit base to current and saving accounts. Interest income was mainly affected by the shrinking of the loan book. As a result, the net interest rate margin improved in the first half of 2016 year-on-year (see Table III.3), remaining well above the net interest rate margin of medium-sized banking groups in the EU.

Net non-interest income rose by 35.9% on an annual basis, mainly due to profits from financial operations, reflecting the sale of Greek banks' stake in Visa Europe. At the same time, net commission income grew owing to the increased use of POS devices and the repayment of part of the Pillar II bonds under Law 3723/2008.

Operating costs rose slightly in the first half of 2016, after shrinking considerably in recent years. However, this was offset by a faster growth of operating income; as a result, net income improved in the first half of 2016, as well as the efficiency ratio of Greek banks, which continues to be higher than that of medium-sized banking groups in the EU.

In the first half of 2016, banks continued their conservative provisioning policy, setting aside additional provisions of €1.9 billion, or 210 basis points of their loans net of provisions. Despite this policy and a decline in the default rate, banks' increased write-offs in the first half of 2016 resulted in a marginal decline in the provisioning coverage ratio of NPEs on a consolidated basis (June 2016: 49.6%, December 2015: 49.7%).

As a result of all the above-mentioned developments, banking groups' ROA and ROE improved considerably (see Table III.3).

Long-term profitability prospects are inextricably linked with the stabilisation of the Greek economy and the restoration of confidence in the banking system. However, there are still important challenges, most notably

Table III.3 Profitability indicators in Greece and in the European Union

Percentage (%) [1]	Greece		EU28
	Banking groups		Banking groups [2]
	H1 2015	H1 2016	2015
Net interest margin	2.1	2.4	1.4
Operating costs / total assets	1.4	1.6	1.4
Cost to income ratio	55.1	52.5	61.9
Provisions for credit risk / total assets	2.6	0.6	
Provisions for credit risk / operating income	213.1	41.7	
Return on assets - ROA (after tax)	-3.3	0.0	0.2
Return on equity (after tax)	-44.7	0.3	2.7

Source: Financial statements of Greek banking groups, ECB Statistical Data Warehouse (SDW).

1 Indicators are computed using total assets in each period.

2 Data refer to medium-sized, in terms of assets, banking groups in EU 28.

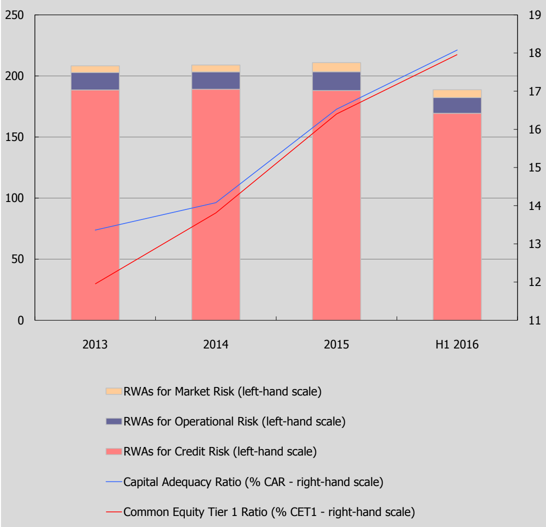
the completion of the second review of the Third Economic Adjustment Programme for Greece, the reaching of a mutually acceptable solution on public debt sustainability, and the inclusion of Greek government bonds in the ECB's quantitative easing programme. A successful outcome would drive down banking groups' funding costs and assist them in the effective management of their NPLs.

Capital adequacy

The capital adequacy of Greek banking groups further improved during 2016. Specifically, the CET1 ratio on a consolidated basis rose to 17.8% in June 2016 and 18.1% in September 2016, from 16.3% in December 2015. Likewise, the CAR increased to 18% in June 2016 and 18.2% in September 2016, from 16.5% at end-2015 (see Chart III.26).

Underlying the improvement in the capital adequacy ratios are a considerable 10.4% decline in weighted assets in June 2016 over December 2015 and, most importantly, a decrease in risk-weighted assets for credit risk, which make up 89.8% of total weighted assets. This reduction is accounted by the sale

Chart III.26 Breakdown of risk-weighted assets by type of risk and evolution of capital adequacy of Greek commercial banks



Source: Bank of Greece.

of National Bank's subsidiary in Turkey, as well as increased loan-loss provisions.

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

IV. OPERATIONAL TARGETS FOR NON-PERFOMRING EXPOSURES AND CAPITAL ADEQUACY

1. OPERATIONAL TARGETS

In September 2016, Greek credit institutions submitted to the Bank of Greece and the Single Supervisory Mechanism (SSM) operational targets for the management of their Non-Performing Exposures (NPEs)[13]. In line with those targets, credit institutions have committed themselves to reducing the absolute level of their NPEs over the June 2016-December 2019 period.

As shown in Table IV.1, the initial outstanding amount of NPEs (June 2016) for Greek commercial and cooperative banks as a whole reaches €106.9 billion (it should be noted that such exposures do not include off-balance-sheet items amounting to about €1.5 billion). Banks have set a target for a 38% reduction of their NPEs over the June 2016-December 2016 period, with a view to bringing down the outstanding amount of NPEs to €66.7 billion by end-2019.

In more detail, according to banks' submissions, the reduction will be driven by a combination of concrete actions by credit institutions, including forbearance solutions[14], loan write-offs, collateral liquidations, and sales of non-performing loans. Against this backdrop, it is clear that some of these actions may entail additional capital costs on credit institutions that would negatively affect their Capital Adequacy Ratios (CAR).

The objective of this exercise is to explore and assess the impact on banks' capital adequacy from the implementation of the NPE reduction strategy on the basis of the submitted operational targets. In parallel, this exercise aims to examine the consequences, under the spectrum of a range of scenarios with changes in assumptions.

Table IV.1 Operational targets for the management of non-performing exposures

(amounts in EUR billions)

	June 2016	Sept. 2016	Dec. 2016	Mar. 2017	June 2017	Sept. 2017	Dec. 2017	2018	2019
Target 1: NPE Volume (Gross)	**106.9**	**106.9**	**105.8**	**105.2**	**103.4**	**102.0**	**98.2**	**83.3**	**66.7**
Monitoring:NPE Ratio	51%	51%	51%	51%	50%	50%	48%	42%	34%
Target 2: NPL Volume (Gross)	**78.3**	**78.1**	**76.3**	**74.7**	**72.4**	**70.5**	**65.9**	**53.0**	**40.2**
Monitoring: NPL Ratio	38%	37%	36%	36%	35%	34%	32%	27%	20%

Source: Bank of Greece.

[13] According to the current framework of the European Banking Authority (EBA) and the regulatory provisions of the Bank of Greece, NPEs include exposures in arrears 90 > days past due and exposures unlikely to pay without collateral liquidation, independently of days past due (EBA, Annex V. Part 2. 145-162).

[14] Forbearance solutions are specified in the Bank of Greece Executive Committee Act 42/ 30.5.2014.

Sensitivity analysis perimeter – data – assumptions

The perimeter of the sensitivity analysis encompasses the four significant institutions (SIs) and the three high-priority, less significant institutions (HPLSIs), i.e. 99.6% of the banking system in terms of assets and NPEs.

The capital adequacy of the aforementioned credit institutions as a whole for the June 2016-December 2019 period was calculated using banks' data from the submitted NPE strategies on the anticipated evolution of pre-provision income, the future path of loan-loss provisions during this period and the expected losses as a result of the NPE management actions on unprovisioned loans in their portfolios. Moreover, the analysis was conducted on a solo basis in order to be consistent with banks' NPE individual operational targets, while data on capital adequacy in accordance with Regulation (EU) 575/2013[15] (on a fully-loaded basis) were used, without taking into account any scheduled actions by banks towards changing their regulatory capital. It should be stressed that a key assumption of the exercise is the achievability of the operational targets set by credit institutions[16] for each year, while no account was taken of factors that would impede the attainment of NPE reduction targets, such as a slowdown in the implementation pace of the reforms envisaged under the Third Economic Adjustment Programme for Greece, which was signed in August 2015 with the country's international creditors.

Furthermore, calculations for the sensitivity analysis under different scenarios are based on assumed changes in the key determinants of banks' operating results. More specifically, possible changes in the pre-provision income (PPI) and in the cost of risk (CoR) are examined.

2. RESULTS OF THE SENSITIVITY ANALYSIS

Overall, it is estimated that despite a considerable reduction in NPEs within the next 3½ years, credit institutions will continue to exhibit high levels of capital adequacy even under the worst-case scenario. The results of the exercise, which are outlined further below, suggest that financial stability would still not be compromised even if a more aggressive NPE management were to be pursued relative to the aforementioned operational targets.

In more detail, on the basis of June 2016 data, the Common Equity Tier 1 (CET1) ratio (fully loaded), at the system level on a solo basis, stands at about 17%.

In light of the above, a sensitivity analysis was carried out, with a view to estimating the impact on capital adequacy from:

a) a lower-than-estimated recovery in PPI for the 2016-2019 period, compared to the one forecast by credit institutions when setting their operational targets; and

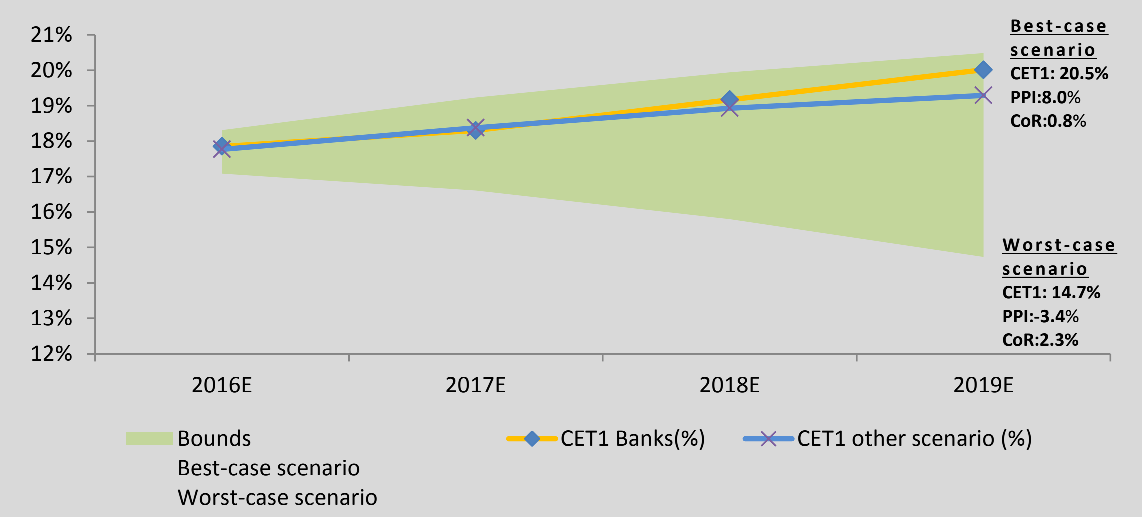
b) a higher-than- estimated CoR, as a result of either persisting, high inflow rates of new defaulters or higher-than-expected losses arising from NPE management.

Chart IV.1 summarises the results of the exercise, illustrating the potential variance (in green) of the CET1 ratio under two selected

[15] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (including the transitional provisions set out in Articles 465-485).

[16] The monitoring of targets in accordance with the template laid down in Bank of Greece Executive Committee Act 47/9.2.2015 confirms the achievement of operational targets so far, as data for the third quarter of 2016 suggest. It should be noted that Bank of Greece Executive Committee Act 47/9.2.2015 has been replaced by Bank of Greece Executive Committee Act 102/30.08.2016.

Chart IV.1 Range of change in the Financial System's capital adequacy



Source: Bank of Greece.

scenarios, namely a best-case and a worst-case scenario. Thus, these scenarios determine the bounds of the possible range of change in banks' CET1 ratio over the 2016-2019 period.

In more detail, it is evident that under the best-case scenario the ratio comes to 20.5% according to estimations of analysts, who determine the average annual increase in PPI and the CoR at 8% and 0.8%, respectively, for the 2016-2019 period. Accordingly, under the worst-case scenario the ratio is estimated at 14.7%, taking into account an annual decline of 3.4% in PPI at the banking system level and a CoR equal to 2.3%.

Furthermore, the yellow curve depicts the evolution of the average CET1 ratio on the basis of banks' forecasts according to the submitted operational targets. As regards the average annual evolution of PPI, credit institutions estimate that it will come to about 12%, while the average CoR will reach 1.3% and after-tax profits will improve visibly as early as in 2017. Improved profitability is expected to push the average CET1 ratio upwards to about 20% in 2019.

Lastly, the blue curve refers to a scenario under which year-on-year PPI will increase by 5.5%, while the CoR will rise to 1.6% in 2016, 1.2% in 2017 and 0.9% in 2018-2019[17], in annual terms. Under this scenario, the CET1 ratio is estimated to stand at 19.3% by end-2019.

3. CONCLUSIONS

Reducing NPEs is of vital importance for the rebound of credit expansion and hence for kick-starting economic growth in Greece, as well as for the sustainability of credit institutions' business models. To this end, credit institutions have submitted ambitious operational targets for a sharp reduction of 38% in their NPEs within the next 3½ years, yet the fulfilment of these targets is expected not to weigh heavily on their solvency[18].

The elevated levels of banks' capital adequacy, coupled with a high coverage ratio of about 49% over the same period, provide

[17] Both the yellow and the blue curves are within the bounds of the defined green area.

[18] See Special Feature II: Transfers of non-performing exposures and the capital adequacy of credit institutions.

credit institutions with a capital buffer that would potentially enable them to take even more drastic measures towards reducing their NPEs, if deemed necessary or desirable. Notwithstanding this, the successful outcome of the defined road map is strictly conditional on the prompt implementation of the provisions of the Third Economic Adjustment Programme for Greece regarding the removal of all impediments to NPE management, as well as on the speeding-up of procedures for the establishment of an effective secondary market for NPEs.

V. ELECTRONIC PAYMENT INSTRUMENTS

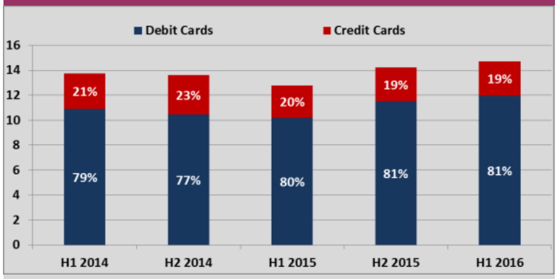
One full year after the introduction of capital controls, restricting fund transfers and cash use, both firms and consumers are now extensively familiarised with electronic transactions for business and personal payments. Transactions are carried out using electronic payment instruments that comprise payment cards, credit transfers and direct debits. The extensive use of such instruments inevitably implies an increasing risk of fraud incidents across payments. In this direction, the use of effective security mechanisms for electronic transactions by Greek payment service providers appears to have notably acted as a deterrent against attempted fraud and to have limited the success rates of actual fraud.

1. PAYMENT CARDS

1.1 NUMBER OF PAYMENT CARDS

As a result of the sharp rise (+11.26%) in the number of payment cards which was recorded in the second half of 2015, and in order for households and businesses to meet the new conditions in payment transactions, the total number of payment cards rose further in the first half of 2016 by 440 thousand (+3%), compared to the previous semester, and came to 14.6 million. This upward trend that is also observed into the second half of 2016 is attributed to the ongoing replacement of passbooks with cards, which helps bank account holders to manage their accounts more effectively. Against this background, the rise is mainly recorded in debit cards as 385 thousand cards (+3%) were additionally issued relative to the second half of 2015. Regarding the types of cards, at the end of the first half of 2016 the percentages of debit cards (81%) and of credit cards (19%) in total active cards in circulation remained unchanged at their end-2015 levels (see Chart V.1).

Chart V.1 Number of cards per card type
(in millions of cards)

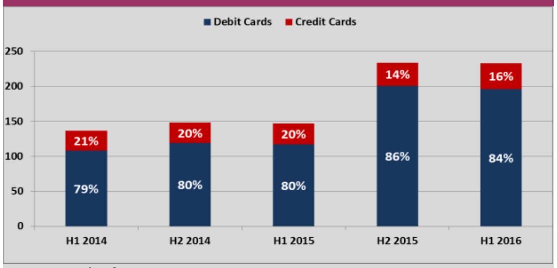


Source: Bank of Greece.

1.2 TRANSACTIONS WITH PAYMENT CARDS

Despite the rising number of payment cards in the first half of 2016, the total number of card transactions remained at the same elevated level as in the second half of 2015, while the total value of transactions dropped by 7%. More specifically, the volume of transactions with payment cards came to 233 million transactions (see Chart V.2).

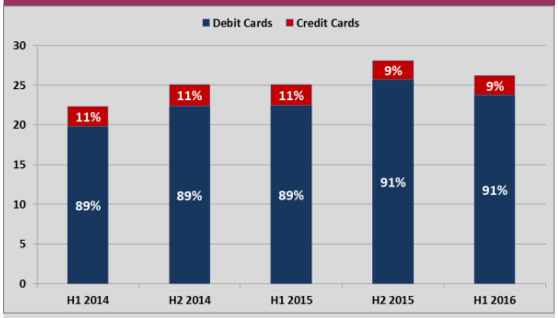
Chart V.2 Card transactions – Number
(in millions of transactions)



Source: Bank of Greece.

The corresponding value amounted to €26.2 billion (see Chart V.3).

Chart V.3 Card transactions – Value
(EUR billions)

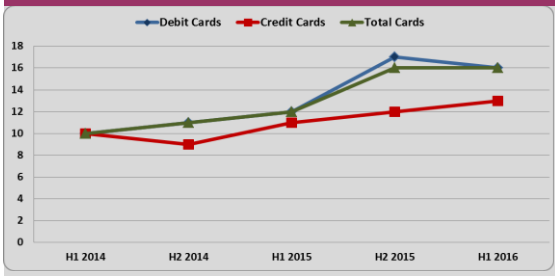


Source: Bank of Greece.

Developments in the abovementioned transactions data, in both absolute and relative terms, may be due to: a) the growing familiarisation of customers with the use of cards for payment purposes; b) the envisaged tax reforms whereby the tax-free threshold will be achieved exclusively on the basis of electronic transactions using cards and other electronic payment instruments; c) a further decline in the disposable income for consumption; and d) the lower value of tax liabilities due for 2015, which households and businesses had to settle during the first half of 2016.

Focusing on transactions per card, the average number of transactions per card remained unchanged at 16 transactions, in line with the flat pattern of total transactions in the first half of 2016. Debit cards continued to be the leading substitute for cash, with the average number of transactions per debit card falling to 16 transactions from 17 and the average number of transactions per credit card rising to 13 transactions from 12, compared to the previous semester (see Chart V.4).

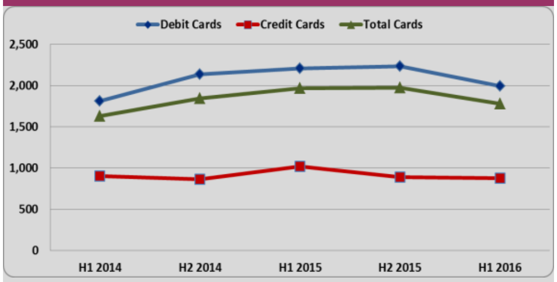
Chart V.4 Average number of transactions per card type



Source: Bank of Greece.

Although the average number of transactions per card has virtually remained unchanged in the second half of 2016, the average value of transactions per card shrank to €1,781 (-10%) compared with the second half of 2015 (see Chart V.5). This decrease is due to a drop in the average value of transactions per debit card to €1,991 (-10%).

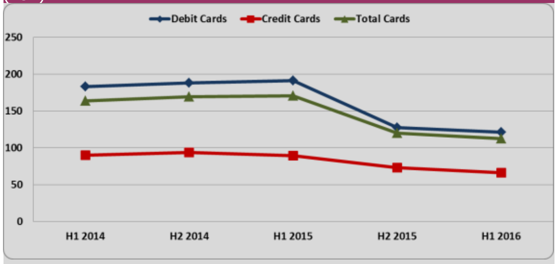
Chart V.5 Average value of transactions per card type
(EUR)



Source: Bank of Greece.

The dire financial condition of households and firms continues to be reflected in the indicators of the average value per transaction (see Chart V.6). In the first half of 2016, the average value per transaction for all types of cards decreased to €112 (-7%), compared with the second half of 2015. For debit cards in particular, the average value per transaction declined to €121 (-5%).

Chart V.6 Average value per card transaction
(EUR)



Source: Bank of Greece.

1.3 CARD FRAUD

Monitoring the development of card fraud is of particular relevance for the stability of the financial system and the public's trust in new transacting practices, in the context of capital controls and the promotion of electronic transactions.

Key indicators of the intensity of card fraud are the ratio of fraudulent transactions as a percentage of total transactions and the ratio of the value of fraud as a percentage of the total value of card transactions. In terms of fraud value, the ratio stands at the low level of 0.01% (see Table V.1) and accounts for €1 of fraud per €10,000 of card transactions in the first half of 2016.

Table V.1 Fraud to transaction ratio - Value
(EUR)

Period	Value of transactions	Value of fraudulent transactions	Fraud to transaction ratio
H1 2016	26,209,423,595	2,621,141	0.01%
H2 2015	28,096,973,502	2,021,590	0.01%
H1 2015	25,108,023,828	2,797,699	0.01%
H2 2014	25,111,638,873	2,159,213	0.01%
H1 2014	22,349,672,460	2,363,410	0.01%

Source: Bank of Greece.

In terms of fraud volume, the corresponding ratio stands at 0.01% (see Table V.2) and accounts for one fraud incident per 8,000 card transactions.

Table V.2 Fraud to transaction ratio - Number

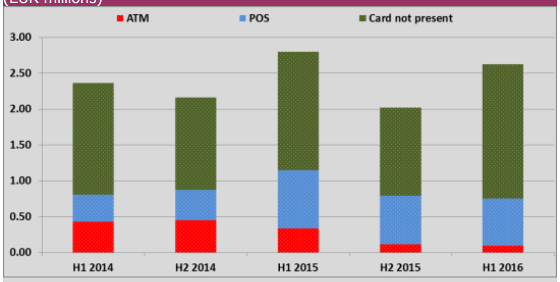
Period	Number of transactions	Number of fraudulent transactions	Fraud to Transaction ratio
H1 2016	233,192,850	29,673	0.01%
H2 2015	234,034,179	18,821	0.01%
H1 2015	147,150,009	21,134	0.01%
H2 2014	148,322,401	19,444	0.01%
H1 2014	136,470,947	20,914	0.02%

Source: Bank of Greece.

These low ratios were achieved due to the adoption of robust security mechanisms and procedures by payment service providers, with the aim to control and prevent card fraud more effectively.

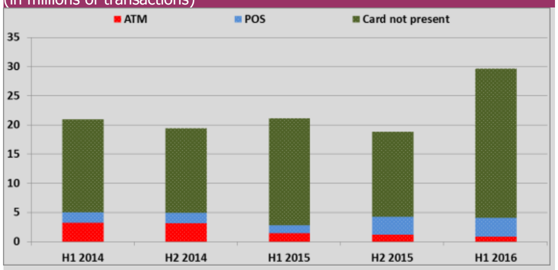
The breakdown of fraud per card transaction type, such as a) ATM transactions, b) POS payments, and c) CNP (card-not-present) transactions, reveals that fraud in CNP transactions via mail, telephone or the internet is the most prevalent one (see Charts V.7 and V.8).

Chart V.7 Value of fraudulent transactions per transaction type
(EUR millions)



Source: Bank of Greece.

Chart V.8 Number of fraudulent transactions per transaction type
(in millions of transactions)



Source: Bank of Greece.

An in-depth investigation into CNP fraud suggests that the majority of incidents involve Greek payment cards which were used for online purchases abroad. In contrast to the Greek market, where payment service providers make extensive use of the international protocol for secure transactions "3D Secure", thereby maintaining fraud in domestic internet transactions at a persistently low level, the non-use of this technology by foreign payment service providers leads to higher fraud rates in cross-border transactions involving Greek cardholders' payment cards.

With respect to fraudulent ATM and POS transactions, in which the physical presence of the card is required, a decline in the value of fraud is observed in the second half of 2016 by 13% and 4%, respectively. This development is in line with the enhanced level of security in such types of transactions.

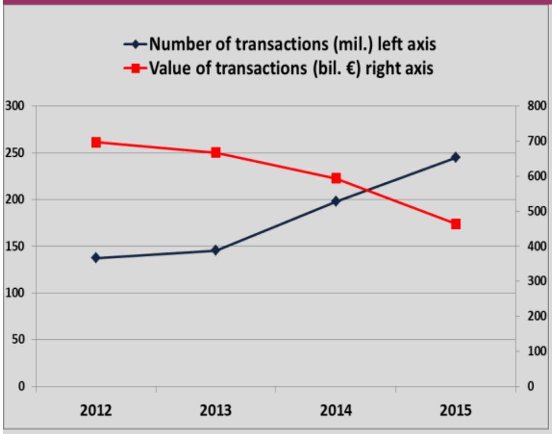
In any event, it is deemed important that payment service providers continue and improve raising cardholders' awareness of best practices in the secure use of cards, placing emphasis on the purchase of goods and services via the internet.

2. CREDIT TRANSFERS

2.1 CREDIT TRANSFER TRANSACTIONS

On the basis of annual data collected by the Bank of Greece, during 2015 a total of 245 million customer transactions using credit transfers were effected, corresponding to a value of €464 billion. Compared to 2014, the number of credit transfer transactions increased by 24%, while their corresponding value shrank by 22% (see Chart V.9).

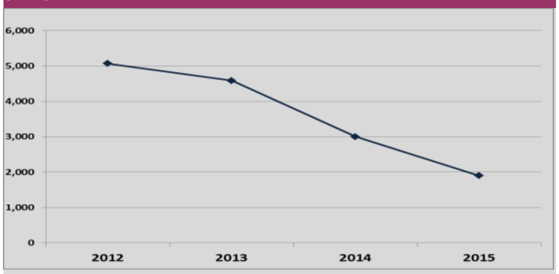
Chart V.9 Credit transfers – Number and Value of transactions



Source: Bank of Greece.

As in the case of card payments, capital controls brought about an increase in the volumes of credit transfers, albeit with a concurrent decrease in the values transferred, mainly on account of the introduction – in the second half of 2015 – of daily and monthly ceilings on credit transfers abroad for natural and legal persons and of the imposition of ceilings on cash payments. This development is mirrored in the average value per transaction, which decreased to €1,900, from €3,000 in 2014 (see Chart V.10).

Chart V.10 Credit transfers – Average value per transaction
(EUR)



Source: Bank of Greece.

2.2 CREDIT TRANSFER FRAUD

With reference to 2015 data collected from a representative sample of payment service providers[19], one fraudulent transaction per 1.7 million credit transfer transactions was effected, with the value of fraud amounting to €1 out of every €530,000 transferred. In relation to 2014 data from the same representative sample, fraudulent transactions involving credit transfers followed an upward trend, mainly as a result of the respective increase in the number of this type of transactions, but they remained at a very low level, with the rate of fraud incidents standing at 0.00006% of total credit transfers and the rate of fraud value at 0.00019% of the total value of such transactions.

With regard to the evolution of fraud techniques, a shift is observed from the use of techniques that focus on the interception of users' personal security credentials through deceptive e-mail messages (phishing) towards the use of sophisticated methods of contaminating users' personal computers through the installation of malware, which intercepts security credentials without the user's knowledge.

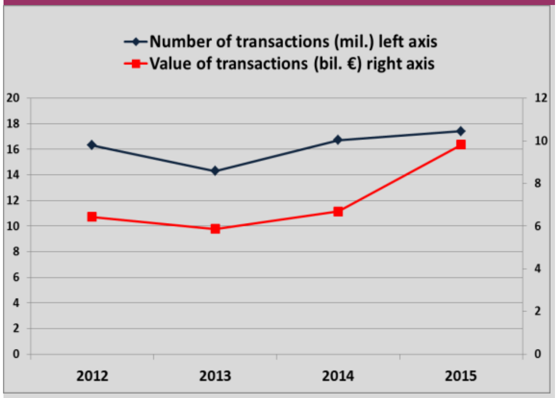
In recent years, with the aim to raising users' awareness on security issues, payment service providers have been engaged in large-scale campaigns to inform both consumers and businesses. The objective of information campaigns is to urge users to adopt transacting practices that are safe from malicious actions.

3. DIRECT DEBITS

3.1 DIRECT DEBIT TRANSACTIONS

On an annual basis, customer transactions with direct debits rose by 4% in 2015, relative to 2014, and came to 17.4 million. Their corresponding value surged by 47% to €9.8 billion (see Chart V.11).

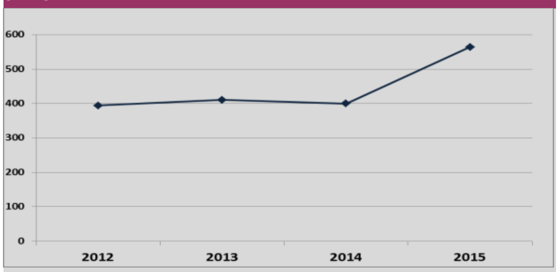
Chart V.11 Direct debits – Number and Value of transactions



Source: Bank of Greece.

This rise may be due to the fact that consumers and businesses are now opting for the use of direct debits to carry out standing payment orders to third parties, such as utilities or providers of goods and services, in the context of the capital controls restricting fund transfers and cash usage. This shift in transacting preferences is captured by the average value per transaction, which increased to €564, from €400 in 2014 (see Chart V.12).

Chart V.12 Direct debits - Average value per transaction
(EUR)



Source: Bank of Greece.

3.2 DIRECT DEBIT FRAUD

Direct debits are deemed the safest payment instrument, given that in years 2014-2015 no fraud incidents were recorded by payment service providers.

[19] The sample accounts for 77% of the total volume and 69% of the total value of customer credit transfers.

4. DEVELOPMENTS IN THE LEGAL FRAMEWORK ON PAYMENT SERVICES

The revised Directive (EU) 2366/2015 on payment services in the internal market, which was published on 23 December 2015 in the Official Journal of the European Union, is effective from 13 January 2016 and must be transposed by Member States to national law by 13 January 2018. The Directive is also known as "Payment Services Directive 2 (PSD2)", as it fully replaces and repeals the preceding Directive (EC) 64/2007, which had been transposed to Greek legislation by Law 3862/2010.

The main objectives of the new Directive are the following:

a) Enhance legal clarity and security to close the regulatory gaps in the first Directive, thereby safeguarding a uniform transposition of the PSD2 by Member States, with a view to ensuring the consistent application of the legislative framework for payment services across the EU; and

b) Introduce new regulatory rules that take into account the various innovative business and technological advances of recent years in the EU-wide payments market.

The PSD2 establishes two new types of payment services: (i) payment initiation services and (ii) account information services. Those new services may also be rendered by third parties, other than the supervised payment service providers of the financial system, that do not hold client payment accounts or client funds. In several Member States, such services are already being provided by third parties, which however operate under an uncertain legal framework. The PSD2 introduces a legal framework on the operation of third-party service providers, the business activities of which shall consist in granting natural and legal persons remote access to their payment accounts for the execution of payment orders or for information purposes. Furthermore, such providers shall be subject to a prudential supervision regime under the competent authorities of Member States.

In addition, the Directive aims at enhancing the protection of payment service users through the adoption of measures regarding their rights and obligations, as well as at providing a higher level of security in payment services in view of the increasing number of fraud incidents and cyberattacks.

The new measures are laid down both in the main provisions of the Directive and in relevant regulatory technical standards and guidelines. Under the Directive, the development of such standards and guidelines has been assigned to the European Banking Authority (EBA) in conjunction with the European Central Bank (ECB). The Bank of Greece continues to contribute to the drafting of such regulatory documents through its active participation in the competent committees and working groups of the Eurosystem and EBA.

SPECIAL FEATURE I
THE IMPACT OF CAPITAL CONTROLS ON THE STABILITY OF THE FINANCIAL SYSTEM AND THE ECONOMY

The recapitalisation of the Greek banking system in December 2015, coupled with the completion of the first review of the Third Economic Adjustment Programme for Greece, played a key role in the gradual restoration of confidence in the prospects of the Greek economy and the stability of the financial system, thereby facilitating a further relaxation of the capital controls.

Specifically, amendments were made to the restrictions that were effective from January 2016 on cash withdrawals, the opening of bank accounts and the transfer of funds. Changes include cash withdrawals up to a cumulative amount of €840 per two-week period; the early repayment, partial or in full, of a loan to a credit institution; cash withdrawals up to a percentage of 100% in total of funds that are deposited in cash after 22 July 2016 to the bank accounts of beneficial owners who hold these accounts; as well as cash withdrawals up to a percentage of 30% in whole from funds that are transferred from abroad after 22 July 2016 and are credited to existing accounts (Government Gazette B 2282/22.7.2016).

Besides, as from 18.11.2016 (Government Gazette B 3724/18.11.2016) companies may open a sight or deposit account with a credit institution through the creation of a new Customer ID notwithstanding that there is also another account of which they are the owners.

As from the beginning of 2016, the ceiling for fund transfers abroad, executed by credit or payment institutions, was set at €1,000 per natural/legal person per calendar month. By decision of the Committee for the Approval of Banking Transactions, the acceptance and execution of orders for fund transfers abroad by all credit institutions operating in Greece for the aforementioned transactions was raised to the amount of €54 million (Government Gazette B 2415/4.8.2016) from €40 million (Government Gazette B 1069/15.4.2016) and the aggregate monthly ceiling of fund transfers abroad by payment institutions (which are authorised either by the Bank of Greece or by the competent authorities of other EU Member States and which provide money remittance services in Greece through their agents or through Hellenic Post S.A.) was raised to €43 million (Government Gazette B 3313/14.10.2016), from €32 million (Government Gazette B 1069/15.4.2016). Thus, the total approved monthly ceiling of fund transfers abroad amounts to €97 million. Furthermore, the daily ceiling per customer (legal person or self-employed professional) for transfers of funds abroad which are directly processed by credit institutions was raised to €10,000, from the previously applicable €5,000.

Finally, the Committee for the Approval of Banking Transactions increased further the ceiling of the aggregate amount of requests per customer, that is subject to the approval of credit institutions' Special Subcommittees, to €350,000 per working day (Government Gazette B 2359/29.7.2016), from €250,000 that was applicable since January 2016. The weekly ceiling of requests by legal persons, self-employed professionals and sole proprietors for transactions involving a transfer of funds abroad, which are subject to the approval of Special Subcommittees, was set at €480 million for credit institutions on aggregate (Government Gazette B 2359/29.7.2016).

The relaxation of restrictions on cash withdrawals and fund transfers, as well as the higher approval ceilings of credit institutions' Special Subcommittees, as presented above, are also captured by the decrease in total requests submitted to the Committee for the Approval of Bank Transactions by 30% in the first nine months of 2016. Over this period, total requests to the Committee amounted to €43,375, of which 62% were approved.

The effects of capital controls on the financial system

The imposition of capital controls has greatly contributed to an improvement in the liquidity of the banking system, as it halted deposit withdrawals and capital outflows abroad. In the past fifteen months, developments in the banking sector, which were marked by the recapitalisation of Greek banks in December 2015 and the reinstatement of Greek government bonds as eligible collateral in Eurosystem monetary policy operations (waiver), coupled with the stabilisation of the Greek economy, led to the gradual restoration of consumers' confidence and allowed for the gradual relaxation of the initial restrictions. Specifically, between December 2014 and June 2015, private sector deposits shrank by 24%, while from the period following the introduction of capital controls until September 2016 they rose by 2%. The completion of the first review of the Third Economic Adjustment Programme for Greece and the subsequent easing of capital controls further enhanced the rate of return of deposits to the banking system, which came to 1.4% between May and September 2016. The above developments had as a direct positive effect the considerable decline in ELA (Emergency Liquidity Assistance) funding of the domestic banking system.

In addition, the wide use of electronic means of payment by households and businesses, which ensued from the introduction of capital controls, was sustained and contributed to an increase in Greek banks' commission fees.

The impact of capital controls on the economy

The adverse effects of capital controls on the economy, albeit milder than initially expected, have had a negative impact on macroeconomic aggregates.

Economic activity, as evidenced by its course in the second quarter of 2016, slowed down by 1.1% on an annual basis, among others on account of a 1% decline in private consumption, which is partly attributable to the maintenance of capital controls, as well as to the higher tax rates that have negatively affected consumers' purchasing power. This trend shows signs of reversal based on data of the third quarter of 2016.

The deficit on the balance of goods excluding oil and ships widened by 13.3% over the January-August 2016 period year-on-year, mainly as a result of increased imports, a trend which is confirmed by data from the January-September 2016 period. In more detail, exports of goods decreased by 1.1% over the period from January to August 2016 year-on-year, whereas imports increased by 4.7%. It should be noted that in August 2015, following the introduction of capital controls, imports and exports reached a post-2011 trough. The gradual relaxation of capital controls strengthened imports, widening the goods balance deficit excluding oil and ships, while exports did not follow a similar upward trend.

This is in part explained by the shortage bank financing and the increased tax burden on corporations. Nevertheless, as depositor confidence is slowly being restored, the return of deposits will gather pace, the cost of funding for Greek banks will further drop and capital controls will ease further, facilitating lending to the real economy to increase and boosting the economy's export sector.

The eventual removal of capital controls is conditional upon several factors. More specifically, the completion of the second review of the Third Economic Adjustment Programme for Greece as well as ensuring the sustainability of public debt are significant steps for Greece's participation in the quantitative easing programme of the ECB. These developments are expected to contribute further to the consolidation of confidence and support economic recovery, which in turn will allow for the gradual removal of capital controls.

SPECIAL FEATURE II

TRANSFERS OF NON-PERFORMING EXPOSURES AND THE CAPITAL ADEQUACY OF CREDIT INSTITUTIONS

The current supervisory framework[20] divides non-performing exposures (NPEs) into three categories, at the same time allowing the collection of detailed data on arrears buckets and impairment of NPEs by portfolio. Specifically, NPEs are divided into:

1. **Exposures Unlikely to Pay without delay or with delay ≤ 90 days**. Subcategory of the exposures that are considered as non-performing although they are not in arrears or are less than 90 days past due.

2. **Exposures in Arrears 90 > dpd excluding Denounced Loans**. Subcategory of the exposures that are more than 90 days past due, excluding, for the needs of this exercise, denounced loans.

3. **Denounced Loans**. The loan contract has been terminated by the lender and such termination has been notified to the borrower.

Total NPEs of the above three categories make up the sum of NPEs and add up to €107.5 billion as at end-September 2016 (including off-balance-sheet exposures). Total NPEs more than 90 days past due (including denounced exposures) come to about €80 billion, of which some €48 billion are denounced loans.

The aim of this exercise is to assess the potential impact on the capital base of the banking system from the sale of loans, in particular those in the portfolios with the highest NPE ratios, namely:

- Consumer Loans
- Housing Loans
- Loans to Small Businesses and Professionals (SBPs) with a turnover of less than €2.5 million
- Loans to Small and Medium Enterprises (SMEs) with a turnover of more than €2.5 million and less than €50 million
- Corporate Loans (corporations with a turnover of more than €50 million)
- Shipping Finance
- Commercial Real Estate and Project Finance.

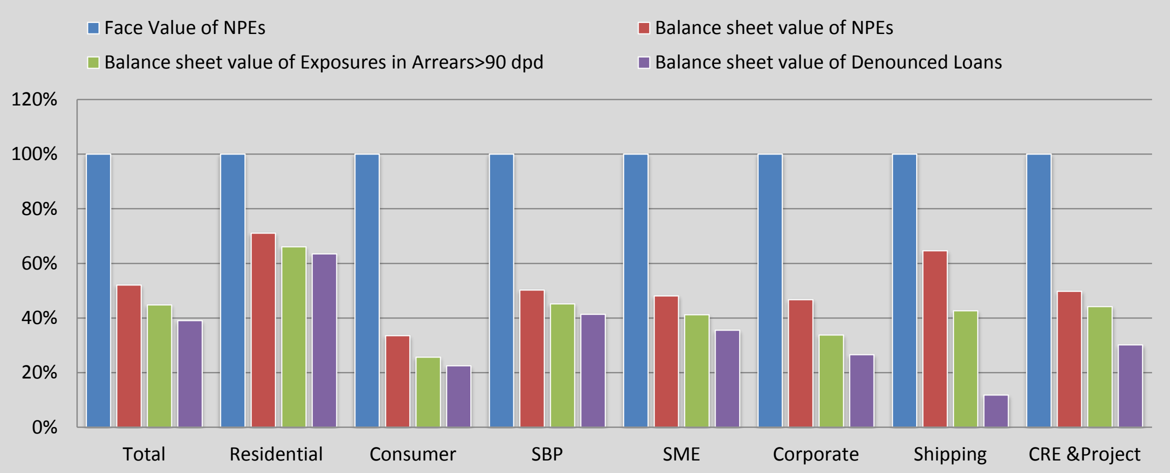
In order to shield their balance sheets against credit risk, following four diagnostic exercises conducted in recent years, Greek banks have recognised high loan-loss provisions and written down the balance sheet value of NPEs. On the basis of September 2016 data, total loan-loss provisions were more than €53 billion and the provisioning coverage ratio of NPEs was about 50%.

The change in the value before provisions (face value) and the value net of provisions (balance sheet value) by portfolio and arrears bucket is depicted in Chart A.

According to Chart A, impairment varies across loan portfolios and arrears buckets; as was to be expected, banks have recognised higher provisions for denounced exposures. Indicatively, on the shipping portfolio there are denounced exposures with a face value of some €270 million which have been impaired by 88%, bringing their balance sheet value to €32 million, which means that they could be transferred at 12% of face value with no loss. By contrast, the housing loan portfolio presents comparatively lower impairment rates,

[20] Bank of Greece Executive Committee Act 42/2014, as amended by Executive Committee Act 47/2015.

Chart A Face value and book value of non-performing exposures by portfolio

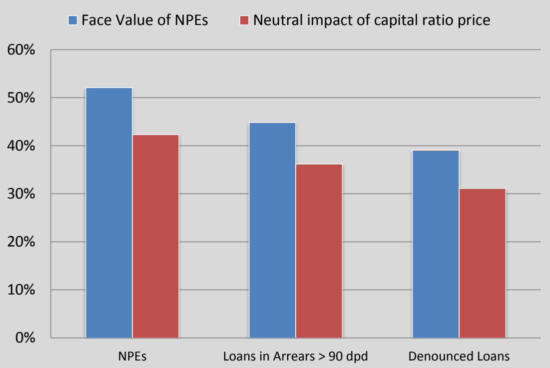


Source: Bank of Greece.

not exceeding 40%, even for denounced exposures.

The percentages in Chart A effectively depict the losses already recognised by banks on their balance sheets and the price at which the relevant exposures could be sold without any impact on their capital[21]. As a transfer of loans, in addition to impacting on capital adequacy, also leads to risk-weighted assets relief[22], we also calculated the amount of further impairment that would have a neutral impact on banks' key supervisory capital ratios (Chart B).

Chart B Loan transfer price with neutral impact on banks' capital ratios



Source: Bank of Greece.

As shown in Chart B, banks could transfer their troubled assets at a price lower than their already impaired balance sheet value without any impact on their capital adequacy. Indicatively, the total of denounced loans of €48 billion, backed by collateral of around €22 billion, could be transferred at 30% of face value, i.e. €14 billion, without affecting the existing capital buffer[23].

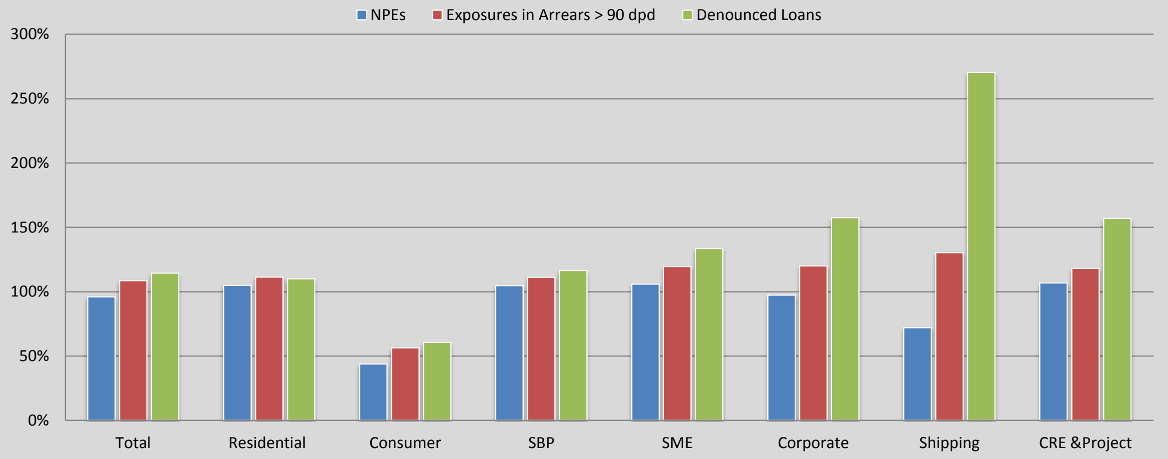
However, it should be noted that the kind and value of collateral are a decisive factor in provisioning and the potential pricing of portfolio transfers.

Chart C shows that, at least for exposures more than 90 days past due (including denounced exposures), or only for denounced exposures, the value of collateral[24] exceeds by far the balance sheet value (net of provisions) of these loans.

[21] Without taking into account any impact from the legislation on deferred tax assets.
[22] Assuming an average weighting of 100% for the uncollateralized part of the loan. To simplify the calculation, no special treatment was afforded to portfolios subject to the IRB approach.

[23] According to September 2016 data, the total CAR of Greek banks on a consolidated basis is about 18%.
[24] In reporting templates, banks report the current value of collateral, as estimated by each credit institution and with a maximum reference value equal to the face value of the loan (any overcollateralization of a loan, i.e. above 100% of its nominal value, is not taken into account).

Chart C Coverage ratio of NPEs by collateral per portfolio (NPEs value net of impairment charges)



Source: Bank of Greece.

The above analysis rests on the following key assumptions: (a) there is a secondary market for Greek NPEs; and (b) there are no tax or other effects that would mitigate the impact from the transfer of banks' assets on their capital adequacy.

In conclusion, the analysis shows that for certain kinds of exposures, in particular denounced corporate and consumer loans, banks could consider conducting transfers of exposures that would have no impact on their capital adequacy, provided that obstacles to the management of NPEs are lifted and an efficient secondary market for bank loans is created in Greece.

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