A. Macroprudential policy

1. Introduction

2015 was the first full year in which the Bank exercised the new macroprudential mandate conferred on it by the Law of 25 April 2014 (1) (the “Banking Law”). In that connection, the Board of Directors met three times as the macroprudential authority. Since the entry into force of the SSM, the Bank has fulfilled this responsibility jointly with the ECB.

This shared competence illustrates the specific role of macroprudential policy in the maintenance of financial stability within a system featuring a common currency and closely interlinked financial markets. In enabling account to be taken of the asynchrony of the Member States’ economic and financial cycles and of the more structural characteristics which still distinguish the national financial systems, macroprudential policy allows the authorities of the various euro area countries some scope to guard against the risks that these specific national characteristics and developments could present for financial stability within their own economy and, potentially, by extension, for the euro area as a whole. However, the ECB limits this significant degree of national autonomy in the conduct of macroprudential policy in view of the potential interference with monetary policy or the possible risks of distortion in the exercise of microprudential supervision.

Many EU countries, including Belgium, have recently applied macroprudential measures to their banking system, enabling the European arrangements to be tested. Those arrangements list the categories of instruments available to the supervisory authorities and also lay down detailed notification and authorisation procedures.

Macroprudential policy is generally aimed at two main objectives. The first is to limit structural risks, notably the risk of contagion that could result from an excessive concentration of financial operations in a small number of large systemic institutions. The macroprudential instruments set up for that purpose are examined in section 2.

The second objective is to attenuate the risks arising from financial cycles, which lead to rapid expansion of lending with the consequence of excessive debt in the economy as a whole or in certain sectors, and overvaluation of the prices of some financial or real assets. The subsequent correction can lead to a sharp fall in prices, severe debt repayment problems, and a general reduction in demand. This use of macroprudential policy for countercyclical purposes is discussed in section 3.

Finally, section 4 considers the possible extension of macroprudential policy beyond the banking sphere to which it has so far been largely confined.

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(1) Law of 25 April 2014 on the legal status and supervision of credit institutions.
2. Avoiding the concentration of banking activities

Systemically important banks are institutions whose failure could have a significant impact on the financial system or on the real economy. There are two reasons justifying the imposition of additional capital requirements in their case: (1) to limit the risk of the institution’s default, since such a failure would entail high economic and social costs; (2) to require the institution to maintain a capital reserve (“buffer”), reflecting the negative external effects that its default would cause.

At world level, the Basel Committee on Banking Supervision and the Financial Stability Board (FSB) have drawn up a list of global systemically important banks (G-SIBs) and divided them into sub-categories according to the institutions’ global systemic importance. From 2016 onwards, these G-SIBs will have to have a common equity Tier 1 (CET 1) buffer of between 1% and 3.5% of the total risk exposure, depending on the G-SIB class to which the credit institution belongs; the greater the bank’s systemic importance, the larger the buffer must be. BNP Paribas Fortis and ING Belgium are Belgian subsidiaries of global systemically important banks, but no Belgian group has been designated as a G-SIB.

Banks which are not of global systemic importance may nevertheless be systemic at regional or national level. Domestic systemically important banks (D-SIBs) are institutions whose failure could have a significant impact on the national financial system and on the real domestic economy. With effect from 1 January 2016, the Bank is required to list the D-SIBs established in Belgian territory (referred to as other systemically important institutions or O-SIs in the CRD IV) and publish it each year. The Bank may also impose supplementary capital requirements on D-SIBs.

During the year under review, the Bank adapted its methodology for identifying D-SIBs in line with the European Banking Authority (EBA) guidelines on the designation of O-SIs(1), and identified the Belgian D-SIBs in accordance with the new methodology. The Bank also decided to impose a capital surcharge on the D-SIBs.

2.1 Identification and publication of Belgian D-SIBs

The EBA methodology for identifying O-SIs comprises two steps. In the first step, certain institutions are automatically designated as O-SIs on the basis of a quantitative score for systemic risk; in the second step, other institutions may be added at the discretion of the supervisory authority.

First, scores are calculated for banks on the basis of indicators relating to their size, the complexity of their activities, their interconnectedness and their substitutability. The EBA guidelines are based on a list of mandatory indicators combined with a weighting factor in calculating the total score for an institution’s systemic relevance. In that respect, they correspond very closely to the criteria used in the methodology for identifying G-SIBs. Any bank which has a total systemic importance score above a set threshold is automatically designated as a D-SIB. Next, the authorities have the option, at their discretion, of using other indicators or applying other weighting factors to the EBA’s mandatory indicators in order to classify

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(1) EBA guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD IV) in relation to the assessment of other systemically important institutions (O-SIs). See also the National Bank of Belgium Regulation of 10 November 2015 on the method of designating domestic systemically important institutions and determining the amount of the Tier 1 capital buffer.
other institutions as D-SIBs in addition to those designated automatically.

On the basis of this methodology, eight Belgian banks were designated as D-SIBs: BNP Paribas Fortis, KBC Group, ING Belgium, Belfius Bank, AXA Bank Europe, Euroclear, The Bank of New York Mellon (BNYM) and Argenta. The first seven were designated automatically as D-SIBs on the basis of their score according to the EBA methodology, while Argenta was added in the second stage. The supplementary indicators taken into account in the second step of the methodology were the banks’ share in deposits in Belgium, in loans in Belgium, and in the liabilities and assets in the financial system in relation to Belgian counterparties. Particular attention focused on deposits. These supplementary indicators were chosen because indicators of national relevance are regarded as more appropriate for designating domestic systemically important banks than indicators of European or global relevance. The list of institutions designated as Belgian D-SIBs was published on the Bank’s website and will be revised annually, in accordance with the Banking Law and the EBA guidelines.

2.2 Additional capital requirements for Belgian D-SIBs

Although the European legislation does not lay down specific guidelines for determining the level of the capital surcharge for D-SIBs, the Basel framework specifies two principles for that purpose. First, the level of the additional capital requirement must be in proportion to the institution’s systemic importance. In practice, the institutions are divided into categories (or ‘buckets’) according to their systemic importance, and each category corresponds to a particular capital surcharge. Second, wherever possible and without prejudice to the need for a qualitative assessment, the authorities are required to use quantitative methods to determine the level of the capital surcharge. In that context, after calculating the total systemic importance score in accordance with the EBA guidelines, the Bank conducted a number of quantitative analyses to determine the amount of the additional capital buffers stipulated for Belgian D-SIB.

The Bank decided to apply capital surcharges to each of the eight Belgian D-SIBs, dividing them into two groups according to their systemic importance. Institutions in the first group, namely AXA Bank Europe, Argenta, Euroclear and BNYM, are of lower systemic importance and are required to maintain an additional Tier 1 capital buffer (CET 1) of 0.75 % of the risk-weighted assets. Institutions in the second group, namely BNP Paribas Fortis, KBC Group, ING Belgium and Belfius Bank, which are of greater systemic importance, are subject to a CET 1 buffer.

<table>
<thead>
<tr>
<th>TABLEAU 1</th>
<th>MANDATORY INDICATORS ACCORDING TO THE EBA METHODOLOGY (in %)</th>
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<tbody>
<tr>
<td><strong>Criterion</strong></td>
<td><strong>Indicators</strong></td>
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<tr>
<td>Size</td>
<td>Total assets</td>
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<tr>
<td>Importance (including substitutability/financial system infrastructure)</td>
<td>Value of domestic payment transactions</td>
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<td></td>
<td>Deposits from the private sector in the EU</td>
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<td>Loans to the private sector in the EU</td>
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<td>Complexity/cross-border activity</td>
<td>Value of OTC derivatives (notional)</td>
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<td></td>
<td>Cross-border liabilities</td>
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<td></td>
<td>Cross-border claims</td>
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<tr>
<td>Interconnectedness</td>
<td>Liabilities towards financial institutions</td>
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<td></td>
<td>Claims on financial institutions</td>
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<tr>
<td></td>
<td>Outstanding debt instruments</td>
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</tbody>
</table>

Source: EBA guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD IV) in relation to the assessment of O-SIIs.

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(1) Since Dexia is subject to specific requirements of an EU-approved restructuring plan, it was not included in calculating the systemic relevance score.
(3) National Bank of Belgium Regulation of 10 November 2015 on the method of identifying domestic systemic institutions and determining the amount of the Tier 1 capital buffer (CET 1).
These capital surcharges will be phased in over a three-year period from 1 January 2016.

A comparison of the levels of capital surcharges already announced in other European countries shows that most of them range between 1% and 3%, though there are exceptions, lower levels being imposed in Spain, Hungary, Italy, Luxembourg, Portugal and Slovenia, and higher ones in Sweden. This comparison also shows that the capital surcharges imposed on Belgian D-SIBs correspond to the European average. More specifically, the Belgian requirements are generally higher than those in the countries mentioned above as imposing relatively low surcharges, but lower than those in Denmark, Lithuania, the Netherlands, Sweden and Slovakia. The requirements specified by the Belgian authorities are more comparable to those in Finland, France, Greece, Ireland and Malta. These differences between European countries may be due to the degree of the banks’ systemic importance or to divergent policy choices.
3. Limiting the cyclical effects of banking activities

3.1 Countercyclical capital buffer

During the year under review, the Bank defined the scope of the countercyclical capital buffer (countercyclical capital buffer – CCB) in accordance with the European and Belgian regulations. The CCB was introduced under the Basel III framework and aims to promote sustainable lending during the cycle by augmenting the credit institutions’ resilience. Thus, capital buffers are imposed if the cyclical systemic risk increases (e.g. in the case of excessive credit expansion) and the requirements can then be eased when the cycle turns around and the risks begin to diminish. If risks become apparent, as in a financial stress situation, the supervisory authority may decide to release the buffer in order to give the banks some scope for absorbing losses and maintaining their supply of credit.

By law, the Bank must set the percentage of the countercyclical capital buffer on the basis of one or more reference indicators reflecting the credit cycle and the risks associated with excessive credit expansion in Belgium, taking account of the specific characteristics of the national economy. That primarily concerns the ratio between the volume of lending in Belgium in relation to GDP and that ratio’s deviation from its long-term trend, known as the credit/GDP gap. As described in its Communication on strategic choices (1) and in chapter 3 of the section of this Report on “Economic and financial developments”, the Bank bases its calculation of the credit/GDP gap on the narrow concept of credit which comprises lending by resident banks to the resident non-financial private sector, adjusted for securitisation. However, the buffer percentage is not automatically deducted from the value of the credit/GDP gap. In accordance with the ESRB’s recommendations, a wide range of indicators regarded as relevant for signalling an increase in cyclical systemic risks are also monitored. They reflect not only developments in lending such as credit expansion in various sectors and the credit/GDP gap on the basis of broader credit concepts, but also, for example, signs of property price overvaluation and structural vulnerabilities, such as private sector debt levels and the leverage effect in the banking sector. The decision on the countercyclical buffer percentage forms part of the Bank’s broader macroprudential risk analysis framework, described in the 2014 Report (2).

With effect from 1 January 2016, the Bank has to determine each quarter the countercyclical capital buffer percentage applicable to credit exposures on counterparties established in Belgium. The buffer percentage must in principle be set between zero and 2.5% of the risk-weighted assets, but it may be set at a higher level if that is justified by the underlying risks. On the basis of the information mentioned above, from which a selection of key indicators is published in detail on the Bank’s website at the time of each decision, the Bank sets the appropriate countercyclical buffer percentage and informs the ECB. The ECB has the power to increase that percentage but may not reduce it. According to the information available in the last quarter of the year under review, neither credit developments nor the other indicators used implied any increase in systemic risk. For the first quarter of 2016, the CCB was set at 0% (3) for credit risk exposures on counterparties established in Belgium. That buffer percentage applies from 1 January 2016 and will be reviewed after three months.

(1) “Strategic choices for determining the countercyclical buffer in Belgium” (www.nbb.be).
(2) See box 3 in the section on “Prudential regulation and supervision” in the 2014 Report.
(3) National Bank of Belgium regulation of 24 November 2015 on the determination of the countercyclical Tier 1 capital buffer percentage (CET 1).
The Belgian banks also have to apply the CCB percentage set by foreign supervisory authorities for their credit risk exposures in the countries concerned. However, in view of the current financial cycle position, the Member States set the level of their CCB at 0% for the first quarter of 2016. Only Norway and Sweden set a positive buffer percentage of 1%, applicable from the third quarter of the year under review. The CCBs of third countries must also be applied in the case of local risk exposures. In that connection, the European Systemic Risk Board (ESRB) centrally monitors any third country risks relevant to Belgium.

3.2 Residential property

On the subject of residential property, the Bank has conducted an in-depth analysis of the Belgian mortgage market in the past few years and has charted the risk profile and quality of credit institutions’ mortgage loan portfolios. That examination was based partly on data collected from sixteen credit institutions via a reporting scheme developed specifically for data on Belgian mortgage loans held and granted by these institutions. The analyses conducted by the Bank and by international institutions such as the ECB, the ESRB, the OECD and the IMF drew attention to the potential risks associated with the Belgian housing and mortgage market. Although the household solvency indicators do not yet point to any deterioration in the mortgage loan default rate in recent years, there are nevertheless several factors which could lead to increased loan losses in the future. In the face of less favourable developments on the Belgian residential market, the riskier outstanding mortgage loan segments could be a source of higher-than-expected loan losses for the banks. As described in the 2013 Report, the Bank considered it justified to adopt a range of prudential measures in order to enhance the banks’ resilience and reduce the concentration risk. The most important measure adopted in the final quarter of 2013 was a macroprudential measure stipulating a flat-rate 5 percentage point increase in the risk weightings for banks using an internal ratings-based approach (IRB model) to calculate their minimum capital requirements for mortgage loans in Belgium. However, considering the cyclical nature of this measure, the Bank kept a close eye on market developments during the year under review so that it could continuously assess the appropriate level of this percentage supplement. It concluded that the 5 percentage point supplement (equivalent to around €600 million of additional capital) still provided an adequate but necessary capital buffer in view of the risks identified. In the final quarter of the year under review, it therefore initiated the necessary procedure for extending the measure in 2016. That extension requires the agreement of the competent European institutions in accordance with Article 458 of the Capital Requirements Regulation (CRR).

(1) Brazil, Hong Kong, China, Turkey, Russia and the United States.
4. Extension to other financial sectors

4.1 The shadow banking system

Financial and technological innovations have facilitated and accelerated the emergence of alternatives to bank intermediation. Moreover, the search for yield and the regulatory requirements have prompted the transfer of the activities of traditional financial institutions to structures subject to less stringent rules or weaker constraints. It is important to monitor the development of these new structures, often referred to as shadow banking (for the definitions, see box 12 “Shadow banking in Belgium”). On the one hand, the growth of the non-bank financial sectors, including shadow banking, has led to diversification of funding sources. The resulting more efficient allocation of capital contributes to the deepening of the financial sector, which is one of the aims of the European Capital Markets Union project. On the other hand, there are also risks in the development of shadow banking: it increases the complexity of the intermediation circuit, and the less stringent regulation plus the absence of a legal safety net heightens the vulnerability of not only the shadow banks but also the financial sector as a whole, owing to the interconnections with other financial institutions.

In order to prevent the risks from jeopardising the stability of the entire financial system and to devise appropriate regulations, the FSB recommends introducing shadow bank monitoring in order to identify and regularly assess the risks. In Belgium, the results of this monitoring exercise discussed in box 12 “Shadow banking in Belgium” indicate that the investment fund sector has grown considerably since 2011, owing to the search for yield in a low interest rate environment, and that trend continued during the year under review.

Box 12 – Shadow banking in Belgium

The FSB defines shadow banking as a “credit intermediation involving entities and activities outside the regulated banking system”, and renders that definition applicable in practice by including in the national financial accounts – which are drawn up on the basis of a residence criterion – money market investment funds, non-money market investment funds, other financial intermediaries, financial auxiliaries and non-institutional lenders in a multinational group (captive financial institutions and money lenders). That is the broad definition of the shadow banking system (1).

The Bank applies this basis of international comparison while adapting it in the light of the systemic risks associated with the activities of those sectors in Belgium. For that purpose, the Bank has adopted a criterion which is both narrower in some respects and wider in others to take account of the specific characteristics of the Belgian

(1) There are financial interconnections between the various entities of the financial sector as a whole and in the shadow banking sector in particular. Those interconnections lead to double counting if their assets are added together. That applies, for example, to insurance companies that invest in investment funds, or investment funds that invest in other funds.
financial sector. The criterion is made narrower by excluding financial institutions and non-institutional lenders operating within a multinational group, on account of their specific nature. Although these institutions have expanded significantly, thanks first to the attractiveness of the coordination centres and then the notional interest deduction system (their assets totalled €460 billion in the second quarter of the year under review, or 55% of the broad indicator), they nevertheless effect mainly intra-group transactions and engage in hardly any investment or borrowing with external institutions (such as banks). They therefore do not have any credit intermediation function.

Conversely, the Belgian criterion was widened concerning the coverage of investment funds. These form a major category in shadow banking which has expanded greatly in recent times. To obtain a more comprehensive overall view of this sector, the assets of Belgian funds were extended to include acquisitions by Belgian residents of units in investment funds based in other countries but marketed in Belgium, often managed by resident banks. However, no data are available before the year 2013.

**MAIN FINANCIAL SECTORS AND SHADOW BANKING**

(assets in € billion, unless otherwise stated)

- Banks
- Insurers and pension funds
- Shadow banks: broad criterion
- Shadow banks: narrow criterion excluding Belgians’ purchases of foreign funds
- Shadow banks: narrow criterion including Belgians’ purchases of foreign funds
- EU broad criterion (in € billion)
- Euro area broad criterion (in € billion)

Source: NBB.

(1) The broad criterion for shadow banks includes money market funds, non-money market investment funds, other financial intermediaries, financial auxiliaries and intra-group financial institutions and non-institutional lenders.

(2) The narrow criterion for shadow banks corresponds to the broad criterion except for financial institutions and non-institutional lenders operating within a multinational group.

(3) Estimate based on the financial accounts for investment by Belgian residents in foreign investment funds.
A review of the growth of the various financial market segments reveals that the expansion of the assets of the largest sector – the banking sector – stagnated in 2008 when a major restructuring of the banking industry was undertaken, following the economic and financial crisis. Since 2013, the sector has resumed a slow upward trend. During the crisis, shadow banking continued to gain ground, and – defined according to the broad criterion – it continued to grow until 2012, when it stabilised at roughly € 850 billion or 36 % of the global financial sector. That stabilisation was not seen in either the EU or the euro area. On the contrary, in 2014 and at the beginning of the year under review, the sector continued to grow strongly. It also recorded steady growth according to the narrow Belgian criterion, and, in the second quarter of the year under review, represented 16 % of the financial sector as a whole, or € 381 billion; that rises to € 551 billion if Belgians’ investments in foreign funds are included.

The recent growth of the shadow banks is due largely to the success of investment funds, attributable to investors’ search for yield in a low interest rate environment. In regard to Belgian investment funds, it is mainly mixed funds offering investment in equities and bonds that have enjoyed increasing success since 2011. Apart from net purchases of fund units which remained positive during the year under review, price effects also contributed to the rise in the outstanding amounts. As a result of these two factors combined, Belgian investment funds recorded an outstanding total of € 144 billion at the end of the second quarter in the year under review. Belgian residents also invested € 169 billion in foreign funds.

<table>
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<tr>
<th>ASSETS OF BELGIAN INVESTMENT FUNDS AND ACQUISITIONS OF FOREIGN FUNDS BY BELGIANs</th>
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</thead>
<tbody>
<tr>
<td>(assets in € billion)</td>
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Source: NBB.

(1) The broad criterion for shadow banks includes money market funds, non-money market investment funds, other financial intermediaries, financial auxiliaries and intra-group financial institutions and non-institutional lenders.

(2) The narrow criterion for shadow banks corresponds to the broad criterion except for financial institutions and non-institutional lenders operating within a multinational group.

(3) Estimate based on the financial accounts for investment by Belgian residents in foreign investment funds.
Apart from better risk monitoring, further work is in progress, notably at the instigation of the FSB, the Basel Committee on Banking Supervision and the ESRB, to revise the regulations on shadow banking. There seems to be a broad consensus that it will not be possible to impose the same measures as those applicable to banks, but that account will need to be taken of the specific characteristics of the entities and their activities. In the case of investment funds, a fast-growing sector as described in box 1, the risks are twofold. In periods of financial stress and low market liquidity, open-end funds which investors can exit at any time may be obliged to sell off their assets cheaply or even suspend redemptions in the event of a liquidity shortage. Investment funds must of course respect the consumer protection stipulated by law, but if the risks materialise simultaneously and in acute form in periods of financial stress, the impact on the real economy will be unavoidable, with potential indirect repercussions on the banking sector. From the banks’ point of view, there is also a risk of contagion for the rest of the financial sector owing to the interconnections between investment funds and the traditional banking sector, if a bank linked to a fund manager decides to intervene for reputational reasons, even if it is not under any contractual obligation to do so (“step-in risk”). That risk is particularly worrying since it is heavily concentrated on a few Belgian banks. Scrupulous monitoring is therefore advisable.

That monitoring and those activities form part of the broader international approach from a more macroprudential angle. In that context, the ESRB is examining the risk associated with leverage effects and the liquidity risk in investment funds. More specifically, it is examining whether the current restrictions on individual funds could be better harmonised between Member States to permit consistent monitoring. On the basis of that monitoring, macroprudential measures such as stress tests, capital buffers or redemption restrictions can be developed for a sub-group of institutions which are particularly susceptible to these risks or which, owing to their size, represent a threat to financial stability.

4.2 Insurance companies

Through the essential functions that they perform in supporting economic activity and their significant role as investors on the financial markets, insurance companies may also be a source of risk to the stability of the financial system as a whole. However, insurers were less directly affected by the 2008 financial crisis, while the nature of their activities means that risks in that sector develop more slowly and over a longer time scale than in the case of the banks.

Nonetheless, the persistently low interest rates are exerting ever-increasing pressure on the profitability of that sector. While mixed insurance groups can to some extent offset the impact of these adverse financial conditions on their life insurance business with the good results achieved in the non-life segment via their efforts to improve cost management, pure life insurance companies are particularly vulnerable, especially as many of them still hold contracts in their portfolio offering guaranteed yields well above the returns that can currently be obtained on the financial markets.

This severe constraint obliges insurance companies to take long-term measures, some being aimed at improved matching of the assets and liabilities while others restrict the distribution of profits to policy-holders and shareholders when that proves necessary to preserve long-term solvency. Several years ago, in order to back up these measures, the Bank required insurers facing such a situation to form an ‘additional’ technical provision. Income from the assets covering that provision must be added to the income generated by the assets representing the life insurance provision, in order to guarantee the interest rate level promised in the contract.

Up to 2012, insurance companies which could demonstrate that the financial flows generated by their covering assets were sufficient to meet the liabilities arising from their insurance contracts could apply for exemption from creating this additional provision. That option has since been abolished as the current economic situation makes it likely that interest rates will remain at a low level for quite some time.

In accordance with the current insurance supervision law, the Bank, as the supervisory authority for insurance companies, is responsible for setting the maximum reference interest rate on long-term life insurance contracts (more than eight years) and revising it as circumstances change. In that connection, the Bank proposed cutting this maximum reference interest rate from 3.75 % to 1.5 % owing to the current market developments. At the beginning of January 2016, the Minister of the Economy used his power of evocation to set the maximum reference interest rate at 2 %, thus bringing it into line with the regulations on supplementary pensions.

Looking ahead, the new Solvency II Law provides for a mechanism whereby the maximum reference interest rate is fixed once a year, and for the first time on 1 January 2017. Under the new regime, the Minister of the Economy retains the option of approving, amending or rejecting the new maximum interest rate. The mechanism for calculating the maximum reference interest rate...
proposed under the new legislation should more accurately reflect the current market conditions and prevent distortions of competition that could be contrary to the consumer’s interests. The Bank also welcomes the agreement between the social partners on the revision of the system of guaranteed minimum interest rates for group insurance and pension contracts, as laid down by the Law of 28 April 2003 on supplementary pensions. That agreement was enshrined in the Law of 18 December 2015 and means that, from 1 January 2016, the minimum guaranteed interest rates will likewise reflect market conditions more closely.