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TECHNICAL NOTE

INSURANCE AND PENSION SECTORS

Prepared By
Monetary and Capital Markets Department

This Technical Note was prepared by IMF staff in the context the Financial Sector Assessment Program (FSAP) in the Netherlands. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP program can be found at http://www.imf.org/external/np/fsap/fssa.aspx.

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Glossary

AFM	Netherlands Authority for the Financial Markets (Autoriteit Financiële Markten)
AML/CFT	Anti-money laundering, combating the financing of terrorism
AOW	The First Pillar Pension Scheme (Algemene Ouderdomswet)
Awb	General Act on Administrative Rules (*Algemene wet bestuursrecht*)
Bankwet 1998	Bank Act 1998
BGfo	Decree on Conduct of Business Supervision Financial Institutions (Besluit Gedragstoezicht Financiële Ondernemingen Wft)
Bpr	Decree on Prudential Rules (*Besluit prudentiële regels Wft*)
Division Tv	Insurance Supervision Division (*Toezicht verzekeraars*)
DNB	The Netherlands Central Bank (De Nederlandsche Bank N.V.)
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
EU	European Union
EUR	Euro
FSAP	Financial Sector Assessment Program
FIRM	Financial Institutions Risk Analysis Method
FOCUS!	FOCUS! Supervisory Approach of the DNB
FOS	Freedom of Services
FTE	Full-time Equivalent
FTK	Financial Assessment Framework (*Financieel Toetsingskader Pensioenfondsen)*
G-SII	Global Systemically Important Insurer
IAD	Internal Audit Department (Interne Audit Dienst)
IAIS	International Association of Insurance Supervisors
IMF	International Monetary Fund
ISAE	International Standard on Assurance Engagements
IT	Information Technology
ITS's	Commission Delegated Regulations laying down implementing technical standards: http://ec.europa.eu/finance/insurance/solvency/solvency2/http://ec.europa.eu/finance/insurance/solvency/solvency2/
KifiD	Complaints Institute Financial Services (*Klachteninstituut financiële ienstverlening*)
LAC DT	Loss-Absorbing Capacity of Deferred Taxes
LTG	Long-term Guarantees
MA	Matching Adjustment

MMoU	Multilateral Memorandum of Understanding
MoF	Ministry of Finance
MoSA	Ministry of Social Affairs and Employment
MTPL	Mandatory Motor Third Party Liability (*Wettelijke Aansprakelijkheidsverzekering Motorrijtuigen*)
nFTK	New Financial Assessment Framework (*nieuw Financieel Toetsingskader Pensioenfondsen)*
NTNI	Nontraditional Noninsurance
ORSA	Own Risk and Solvency Assessment
PCA	The Pension Communication Act
PSC	Prudential Supervision Council
PW	Pension Law of 2006 (Pensioenwet)
RMS	Risk Management and Strategy Department (*Afdeling Risicomanagement en strategie*)
S-DH	EIOPA's stress scenario 2 DH
S-LY	EIOPA's stress scenario 1 LY
SCR	Solvency Capital Requirement
Tp	Pension Supervision Division (*Toezicht pensioenfondsen*)
UFR	Ultimate Forward Rate
Wbft	Act on Funding Financial Supervision (*Wet bekostiging financial toezicht*)
VA	Volatility Adjustment
VvV	Association of Insurers (Verbond van Verzekeraars)
Wft	Financial Sector Supervision Act (*Wet op het financieel toezicht*)
WNT	Law on Standards for Remuneration for Senior Officials in the Public and Semi-Public Sector (*Wet normering topinkomens*)
Zvw	Health Insurance Law (Zorgverzekeringswet)

EXECUTIVE SUMMARY[1]

The governance, accountability, and internal processes of the supervisors, operating under a well-functioning twin-peaks model, are robust. With two-tier boards that include independent members, and an internal audit department, the governance structure of both supervisors is vigorous**.** Detailed documentation supports the internal processes. The planned activities, several regular publications, and comprehensive reporting result in enhanced transparency and accountability of the supervisors. The Netherlands Central Bank (*De Nederlandsche Bank N.V.*; DNB) and the Netherlands Authority for the Financial Markets (*Autoriteit Financiële Markten*; AFM) have created second lines of defense that control the quality and consistent application of the supervision. Information sharing and cooperation between the DNB and AFM is well established and allows for the proper functioning of the twin-peaks model. At the time of the 2016 FSAP, the AFM had been operating under a newly adopted structure for only a few months. The AFM structure needs to reach maximum functionality and efficiency, and strong guidance from the board is required to effectively support its supervisory vision and approach.

Nevertheless, further coordination in some areas could boost the efficiency of supervision. The intensity of supervision has significantly increased, and larger groups are subject to more than 60 thematic work assessments and inspections in total from both supervisors. Each authority oversees its own ongoing interventions, but not those of the other supervisor. While the focus of the DNB and AFM is different, there are areas where a joint approach is recommended, particularly for culture, governance, and integrity issues. The data exploitation and data analytics is another area where a single approach would increase resources' efficiency. In practice, both supervisors share cases that require the highest level of supervisory attention to facilitate a coordinated approach. Earlier, formal information sharing on problem files should also be evaluated.

Important positive regulatory developments have taken place in the insurance and the pension sectors since the FSAP. In the insurance sector, the 2016 Solvency II framework—a market valuation and risk-based prudential regime, including a comprehensive group-wide supervision regime, in line with the International Association of Insurance Supervisors (IAIS) principles—has been implemented. In the pension sector, the new financial assessment framework (*nieuw financieel toetsingskader pensioenfondsen;* nFTK) with the supporting changes to the Pension Law of 2006 (PW) was put in place in 2015. The nFTK allows for longer recovery periods and benefit cuts as a measure of last resort. The information requirements have increased for insurers and pension funds, and the focus on the equal consideration of the interests of all participants has been sharpened.

However, elements affecting the operational independence of the supervisors remain present in the legislation. Two areas affecting the operational independence of the supervisors are of concern—the ability to issue technical regulation and the budgeting constraints:

[1] This technical note was prepared by Rodolfo Wehrhahn, IMF expert.

- Apart from the insurance sector, the limited ability of the supervisors to introduce technical regulations could have the potential to reduce effectiveness of the supervision. This limitation is important in the pension sector, in which the national regulations have a more prominent role than in the insurance sector. The latter follows European Union (EU) directives and regulations, and technical standards issued by the European Commission, under maximum harmonization; and

- The required approval of the Ministry of Finance (MoF) and the Ministry of Social Affairs and Employment (MoSA) for setting the supervision budget for the DNB and AFM could result in resources with insufficient quality and quantity needed to achieve effective supervision. The planned legislation on salary restrictions would diminish the ability of the supervisors to attract and retain senior professionals and specialists who are now paid more than the planned salary limits.

The supervisory approaches of the DNB and AFM have increased in forward-looking and risk-based aspects. The new supervisory approach—FOCUS!—has been used by the DNB since 2012. FOCUS! builds on the past risk methodology used by the DNB known as FIRM, with important improvements and progress toward a more comprehensive, risk-based approach. The risk assessment takes into consideration several risk drivers—(1) the macroeconomic environment; (2) business models; (3) culture; and (4) information technology (IT)—before evaluating prudential risks at the microprudential level. The AFM's supervisory approach is also new, with an enhanced risk-based focus and early risk identification supported by dedicated teams that monitor market information. The macroeconomic and system-wide risks are translated into sector-specific risks and used as drivers for the AFM supervisory actions.

The current approach to on-site supervision requires strong confidence in the off-site tools. The DNB's main use of the on-site inspections is as a guided risk-analysis tool rather than as an investigative tool. This approach sets strong reliance on the off-site supervision for risk identification and guidance for the on-site inspections. Random controls on the quality and truthfulness of the data reported and frequent back-testing on the predictive power of FOCUS! would enhance the robustness of supervision.

Group supervision has significantly improved but, in some cases, important powers for a comprehensive group supervision are not available. Under Solvency II, a comprehensive group supervision framework is in place. When a group is headed by an insurance holding company or a mixed financial holding company based in the EEA, such powers involving unregulated holding companies can be applied by the appropriate EEA group supervisor, where relevant in cooperation with the DNB or AFM. When a group is headed by an insurance holding company or a mixed financial holding company based outside the EEA, such powers cannot be effectively applied to the relevant insurance holding company or a mixed financial holding company. Stronger collaboration between home-host supervisor is particularly required in those cases. The Pension Law does not require supervision of service providers to which activities of pension funds have been outsourced.

Moreover, most service providers that are companies with one or more subsidiaries that provide services to pension funds are not subject to direct supervision on their governance and staff qualifications at group level.

The focus on Solvency II implementation remains strong; however, supervisory arbitrage remains a risk that needs to be addressed at the EU level. The DNB has implemented the Solvency II Directive with strict interpretation of the rules, in line with the maximum harmonization. The complexity of Solvency II, and the onerous requirements that Solvency II impose on insurers, could, theoretically, motivate the use of Freedom of Services (FOS) or Freedom of Establishment (branches) in the EU to search for jurisdictions where the supervision uses a lighter version of Solvency II. It is important that the Netherlands continues to contribute to the European Insurance and Occupational Pensions Authority (EIOPA) coordination mechanisms to remove any potential supervisory arbitrage.

Notwithstanding the Solvency II ratios well above 100 percent, the life sector is fragile. Elements in Solvency II that distort the economic-based valuation like the Ultimate Forward Rate (UFR) and the volatility adjustment (VA) have become of significant relevance for the solvency of the life insurers. The level of these benefits in the current low yield environment are very material. The 2016 EIOPA stress test data[2] confirmed this fragile situation. In case of an important shock that will require an economic valuation of the assets and liabilities of the company, the available own funds will be significantly less than as indicated in the valuation under Solvency II. In addition, supervisors are left with limited tools under Pillar 1 if the ratios remain above 100 percent.

The DNB should remain vigilant and closely monitor the transition into Solvency II. While Solvency II represents a substantial improvement in the prudential framework, its effectiveness remains untested. Some aspects should be reconsidered in the next Solvency II revision, in 2018, including the UFR methodology, the tax-loss absorbance capacity of tax credits, and the volatility adjustment (VA). In addition, elements that limit the economic valuation of the liabilities should be closely monitored; using Pillar 2 powers, a series of well-defined actions, like dividend restrictions and capital add-ons, should be taken at different degrees of impact that VA and UFR adjustments have on the solvency position of insurers.

The non-life sector is highly competitive and nonprofitable if investment income is excluded. The non-life sector is operating with combined ratios (claim payments plus expenses as a percentage of premium) above 100 percent and thus profitability is supported by investment income. However, that income is also under stress. The lack of growth in the non-life market is a sign of a saturated market where competition is not only at national levels but at European levels, with foreign insurers accounting for over 50 percent of the business (excluding health). The EU single market makes it even more difficult to adjust prices for domestic insurers to return to profitability. The competition will be further heated as the large insurance groups to mitigate the premium reduction in the life sector are considering non-life as a growth area.

[2] EIOPA will publish the 2016 European-wide stress test results in December 2016.

The winding up of insurers can be a lengthy process that requires a strengthening of current resolution tools at the national and the EU levels to protect policyholders. With the exception of the mandatory motor third party liability (MTPL) and health care insurance, there is no guarantee fund for insurance. Policyholders should not need to wait several years before receiving recoveries in the case of a winding up. The authorities are working on a new national law regarding recovery and resolution for the insurance industry to be implemented in 2018. The framework partly in the spirit of the EU Bank Recovery and Resolution Directive will take into account the special nature of insurers compared to banks. In this framework provisions are introduced that allow for fast advance payments to policy holders in winding-up situations.

The second pillar pension system is under stress with over ninety percent of the pension funds in terms of assets to be subject to a recovery plan as of Q2-2016. At the end of 2015, about 84 percent of all pension funds where subject to a recovery plan; however at the end of the first quarter of 2016, the average pension fund coverage ratio of all pension funds dropped to 102 percent due to market conditions leading to 90 percent in terms of assets of the pension funds to be subject to a recovery plan. In addition, the recovery plans are viable when the regulatory yield curves for the asset valuation are used that allow for instance up to 7 percent return for equity investments, but those returns appear extremely optimistic. The latest DNB report to parliament on the pension sector also points out to benefit cuts affecting a large segment of the population in the coming years. To avoid the substantial benefits cut, the excess investment returns over the risk-free interest rate needed with the full premium charged is in the order of 400 basis points and 450 basis points if 90 percent of the technical premium is charged. These spread levels are not deemed to be probable given the current low yield environment and the limited financial space to increase risk appetite for taking more market risk.

The pension system is in transition and a new model is under discussion. Discussions are under way to determine a new structure for the pension system, which may include shifting risks to the participants. The new pension system should address the main issues of the current system: lack of trust created by the uncertainty of the level of benefits or absence of a guarantee and the deficient portability of the pensions that becomes necessary due to the new labor environment with higher self-employment and more frequent job shifting. At the same time the system should ensure awareness among the participants so they can objectively judge the longevity and investment risks they might be assuming.

When designing the new pension system consideration should be made to reinstate the qualities that existed in the system and add portability. For years, the Dutch pension system has been delivering guaranteed defined benefits even though the guarantee was not binding. Lowering the replacement ratio may allow funds to provide such a guarantee without any conditionality. In addition, individual accounts could be created to be used as buffers for maintaining the guaranteed benefits in downturns of the economy or provide additional income in prosperous years. This system would complement the first pillar pension scheme (AOW) benefits without the need of government fiscal liabilities. Also, the portability will be positively addressed in this structure, as the DB funds will always be fully funded with the corresponding adjustment of the individual account. At the same

time, to maintain a high level of the fiduciary duty of the pension funds, they would have to explain and justify the reasons for any reduction in the individual accounts.

Table 1. Netherlands: Key Recommendations

Recommendations	Timeframe[1]	Authorities Responsible for Implementation
To enhance effectiveness in the insurance and pension supervision under the twin-peaks model, the supervisors should consider strengthening the already robust cooperation (para. 11), as follows: • While the focus of the DNB and AFM is different, there are areas where a single approach could be taken. In particular, for the culture, governance and integrity supervision, a single joint approach is recommended; • Data exploitation and data analytics are areas where a single approach would increase resource efficiency; and • Earlier formal information sharing on problem files should be considered.	I	DNB, AFM
The authorities are recommended to enhance the powers of the DNB and AFM to introduce technical regulation in accordance with national and EU legislations (para. 29-30).	I	MoF
Exemption from the WNT-3 for both supervisory authorities should be considered (para. 29-30).	I	Dutch government
For a smooth transition and effective functioning of the new structure, the AFM is recommended to apply flexibility in the resources allocation and strong guidance on the functioning of the new structure under a stable board of directors (para. 41).	NT	AFM
The AFM is recommended to be allocated a substantial budget for the development of capabilities to exploit big data for supervision (para. 63).	I	MoF, AFM
The Risk, Management and Strategy department should be in charge of following up on the implementation of the recommendations that the departments have agreed to implement (para. 56).	I	DNB
The potential risk of missing full exploitation of the sectoral thematic work carried out should be minimized by accompanying its growth with the account management and line supervision resources (para. 36).	NT	DNB
As the detailed and extensive reporting under Solvency II emerges, further tuning of FOCUS! to enhance its alignment with Solvency II is recommended (para. 48).	NT	DNB
The DNB is recommended to carry out random on-site inspections on the quality and validity of the data. The DNB should join selected AFM inspection of auditors and require specific inspections of auditors. On a regular basis, the predictive power of FOCUS! should be confirmed (para. 57).	I	DNB, AFM

[1] I (immediate): within one year; NT (near term): one–three years.

Table 1. Netherlands: Key Recommendations (continued)

The authorities are recommended to consider addressing the following weaknesses present in the group supervision (para. 78), as follows: • The PW should require group supervision; and • Given the detailed information on intragroup transactions expected as of 2017 for insurance groups, the monitoring of the contagion risk could benefit from an IT tool.	NT	MoF, MoSA
The authorities working together with EIOPA should continue supporting the coordination among supervisors of member states to minimize supervisory arbitrage (para. 82)	I	DNB, AFM
The winding up regulation needs to be upgraded (paras. 87-89), as follows: • The authorities are recommended to introduce regulation that allows for fast advance payments on all insurance liabilities and requires the approval of both supervisors for the portfolio transfers of insurance and pensions, except when resolution powers are applied; • The authorities are recommended to evaluate the introduction of a guarantee scheme for insurance as an important additional resolution tool; • The authorities are recommended to introduce the planned resolution framework following a similar approach to the EU Bank Recovery and Resolution Directive with due regard to the insurance business model; and • The DNB, in conjunction with EU authorities, should consider whether the current arrangements in the case of a cross-border failure ensure adequate coordination and flexibility between the various resolution tools and authorities.	I	MoF
An evaluation of the methodology to allow for company-specific parameters for small size companies and credit insurers falling under Solvency II is recommended. This should be done by the Netherlands in conjunction with the EU authorities over the coming years (para. 101).	I	Dutch and EU authorities
A strong focus on internal model approval of material changes and on the identification and monitoring of model drift risk should be maintained. Supervisory responses to model change requests that are central for capital reporting should be provided without compromising on quality of the approval within the market reporting timeframe (para. 107).	I	DNB
Elements that limit the economic valuation of the liabilities should be closely monitored. Using Pillar 2 powers, a series of well-defined actions should be taken at different levels of the impact that VA and UFR have on the solvency position of the insurers (para. 148).	I	DNB
The transition into Solvency II should be closely monitored. In particular, the following aspects should be included in the next revision of the framework: the UFR methodology, the tax-loss absorbance capacity of tax credits, and the VA methodology (para 148)	NT	DNB

Table 1. Netherlands: Key Recommendations (concluded)		
The DNB is recommended to carry out country-specific stress tests in addition to the EIOPA stress testing (para. 157).	NT	DNB
Pension funds and insurers should be required to have liquidity plans that consider the effect on their hedging positions under stress (paras. 162, 198).	I	DNB
The reporting requirement for insurance intermediaries should be revised and its frequency increased from annually to quarterly. In addition, the reporting requirements for insurers and pensions funds should be enhanced with market conduct indicators complementing the reporting requirements set by the DNB (para. 64).	I	MoSA,, MoF, AFM, DNB
The authorities are recommended to include the product regulation independently of the location of the provider and to establish mechanisms to credibly enforce national market conduct regulation for the FOS operations (para. 123).	NT	MoSA, MoF
The authorities are recommended to introduce a license requirement for pension funds (para. 80).	NT	MoSA
The DNB is recommended to closely monitor search for yield activities in the sector (paras. 166).	I	DNB
The authorities are recommended to reinstate the sound requirement to charge a pension contribution that does not increase the coverage deficit under a recovery plan (para. 114).	NT	MoSA, DNB
The authorities are recommended to tighten the prudent person regime closer to the Solvency II definition (para. 115).	I	MoSA
The authorities are recommended to introduce an additional test to the feasibility assessment of the pension funds with a projection period of about 10 years (para. 116).	I	MoSA
The authorities are recommended to introduce mechanisms to ensure pension participants receive financial advice (para. 128).	NT	MoSA
The authorities are recommended to harmonize the Financial Sector Supervision Act (Wft) and the PW with respect to the regulations on the quality of advice and suitability of product. This will be critical when more choices become available for pension participants (para. 129).	NT	MoSA, MoF
The new pension system should aim to reinstate the qualities that existed in the system, confidence in a guaranteed defined benefit and add portability (para. 197).	I	MoSA

INTRODUCTION

1. This technical note, part of the 2016 Kingdom of the Netherlands IMF Financial Sector Assessment Program (FSAP), presents the analysis of the insurance and pension sectors' supervision and regulation. Two authorities supervise the sectors using a twin-peaks model. De Nederlandsche Bank (DNB; Dutch Central Bank) is responsible for prudential supervision of financial institutions, including insurers and pension funds. The Autoriteit Financiële Markten (AFM; Netherlands Authority for the Financial Markets) is responsible for the supervision of business conduct of financial institutions and markets. Financial sector regulation is issued by the Ministry of Finance (MoF) and the Ministry of Social Affairs and Employment (MoSA). The analysis is based on the regulatory framework in place, the supervisory practices employed and other conditions, as they existed in June 2016, as well as on the self-assessments and questionnaires completed by the authorities.

2. The focus of the technical note was determined by the findings of the 2011 FSAP and the degree of the sectors' development. The technical note explores the following aspects of supervision and regulation:

- Elements supporting the effectiveness and efficiency of the supervision by both authorities in insurance supervision and regulation are discussed. While references to the insurance core principles (ICPs) of the IAIS and to the principles and best practices of the International Organization of Pension Supervisors (IOPS) are made, this is not an assessment of the IAIS principles and the observance of the principles is not evaluated;

- Level of implementation of Solvency II. Including the internal model approval, group supervision and reporting requirements; and

- An assessment of the resilience of the insurance and pension sectors based on the available 2016 EIOPA stress test results, the review of the Own Risk and Solvency Assessments of selected insurers, and sensitivity tests carried out in collaboration with the DNB.

3. The FSAP team is grateful for the exceptional support received during the assessment that facilitated this analysis. The valuable self-assessments prepared by the authorities and the in-depth discussions with the authorities, market participants, and professional bodies greatly benefited the analysis. Also, the logistic support received was much appreciated.

INSTITUTIONAL, REGULATORY, AND SUPERVISORY ISSUES

A. Institutional Framework and Arrangements

4. The financial sector is regulated by the Wft. In force since January 2007, the Wft contains the core of regulations for the financial sector. As a framework act, it contains its own rules and forms an umbrella for secondary legislation and regulations. Four layers of legislation and regulations can be distinguished: (1) the Wft itself; (2) the Orders in Council (the Royal Decrees); (3) the statutory rules of the MoF, DNB, and the AFM; and (4) the policy rules of the MoF, DNB, and AFM. The latter are not generally binding provisions. For the pension sector, the PW is of central relevance. As a practice, laws and regulations are regularly updated in order to incorporate developments in the financial markets and industry. This includes new regulation by the Dutch government, implementation of EU legislation, and global developments in standard setting and policy recommendations.

5. The Wft is influenced by EU regulations, especially strongly for insurance. The Wft incorporates several financial sector EU regulations. The current prudential insurance regulation, Solvency II, has been established at the EU level under maximum harmonization. Thus, a significant part of the insurance regulation follows the EU directives, which are incorporated into national legislation. Further Delegated Acts and Technical Standards, issued by the EC, apply. The PW is determined at the national level with due regard to less extensive EU applicable directives.

6. The supervisors' role in regulation is limited to issuing rules for clarity and the application of the regulation. The MoF issues financial sector regulation. For the pension sector, the MoSA is primarily responsible. Where applicable, the Wft, directly or indirectly on the basis of Royal Decrees issued by the MoF, gives the DNB and AFM the power to release supervisory rules about subjects specified in the Wft or the relevant Royal Decrees. Moreover, based on Chapter 4.3 of the General Act on Administrative Rules (Awb; Algemene wet bestuursrecht), the DNB and AFM have the power to issue policy rules on the application of rules and requirements following the Wft and Royal Decrees thereupon. Further, Delegated Acts and Technical Standards, issued by the EC, apply.

7. The DNB and AFM may propose several adjustments to the financial sector laws and regulations, which should contribute to fulfilling their objectives. On a yearly basis, the DNB and the AFM send a so-called "Regulatory Letter" to the MoF. The MoF determines whether the proposed adjustments are achievable, from a legislative and political point of view. Next, the Parliament receives the supervisors' Regulatory Letter, including the MoF response, and thus is informed of the legislative proposals.

8. Since 2002, the Netherlands's supervision has followed a twin-peaks model with clear supervisory objectives. The DNB and AFM have been identified as the supervisors according to the Wft and the PW. Article 1:24, subparagraph 2, of the Wft stipulates that the DNB is responsible for prudential supervision of financial undertakings. Article 4, subparagraph 1, under "a," Bank Act 1998 also stipulates that the DNB is responsible for the supervision of financial undertakings. Moreover, the DNB is responsible for the stability of the financial sector (Wft, Article 1:24, subparagraph 1, and Bank Act 1998, Article 4, subparagraph 1, under "c"). Article 1:25, subparagraphs 1 and 2 of the Wft stipulate that the AFM is responsible for the conduct of business of financial undertakings. The Wft further states that the "conduct of business supervision shall focus on, also in view of the stability of the financial sector, orderly and transparent financial market processes, integrity in relations between market participants and due care in the provision of services to clients." Chapter 2 of the Wft under several articles assigns the authority to the DNB to grant and withdraw licenses to insurers. Chapter 6 of the PW directs that a newly established pension fund must register at the DNB within six weeks from its establishment. The AFM licenses investment managers of investment institutions, financial service providers, asset managers, and other investment undertakings. For pension funds, Article 151 of the PW stipulates that the AFM is charged with conduct-of-business supervision, and the DNB is charged with prudential supervision and all other supervision.

9. The DNB and AFM have appropriate safeguards for the exchange of Wft information among themselves and with other relevant supervisors. The Wft applies the internationally accepted standards in relation to confidentiality of supervisory information and sharing of confidential supervisory information. The existence of an agreement or understanding on information exchange is not a prerequisite for information exchange; however, there are strict requirements on confidentiality before information can be exchanged. The safeguards as laid down in Article 1:90, subparagraph 1, Wft, and Article 205 of the PW have to be met. The Wft allows information exchange with other supervisors and mentions explicitly the European Central Bank (ECB) (Article 1:93, subparagraph 1, under "a," Wft) and law enforcement agencies (Article 1:93, subparagraph 1, under "f," Wft); Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT)-information can be shared with relevant supervisors under the Dutch AML/CFT Act. A similar system, with safeguards stipulated as in Article 1:90, Wft, was established for AML/CFT information (Article 22, Dutch AML/CFT Act).

10. Cooperation and coordination between the DNB and AFM is robust, with clear leadership and veto roles. A covenant between the DNB and AFM facilitates the legal framework for supervisory cooperation. The covenant also facilitates the designation of a lead supervisor under the Wft, that is, the DNB generally leads the supervision of banks, insurers, and pension funds, while the AFM leads for securities firms. The lead supervisor would defer to the judgment of the other supervisor in its areas of responsibility, not without considering and in case of differences explaining the other opinion. In the fit-and-proper assessment of key persons, each supervisor has veto power. The covenant also establishes mechanisms for consultation and the sharing of supervisory information.

11. However, working together more extensively in some areas could boost efficiency of the supervision. The twin-peaks model requires intensive coordination and cooperation of the two supervisors, and new ways to enhance such cooperation should be an ongoing process. It is in this spirit that the following recommendations are made:

- The intensity of supervision has significantly increased, and larger insurance groups are subject, on an ongoing basis, to more than 60 thematic work assessments and inspections in total from both supervisors. Each authority has the responsibility for its ongoing supervisory activities, but not for those carried out by the other supervisor. While the focus of the DNB and of the AFM is different, there are areas where a single approach could be taken. In particular, a joint approach to the supervision of culture, governance, and integrity issues is recommended;

- Data exploitation and data analytics is another area where a single approach would increase resources' efficiency; and

- Earlier, formal information sharing on problem files should be evaluated. Both supervisors share cases under the highest level of supervisory attention, but their coordination could be increased by the DNB's sharing company information at an earlier stage of concern.

12. The regulatory regime in the insurance and the pension sectors has significantly changed since the last FSAP, in 2011. In the insurance sector, the 2016 Solvency II framework—a market valuation and risk-based prudential regime, including a comprehensive group-wide supervision regime in line with the IAIS principles—has replaced the outdated regulatory framework Solvency I (1973). In the pension sector, since 2015 the nFTK with the supporting changes to the Pension Law has been in place. The nFTK allows for longer recovery periods and enables the extreme measure of benefit cuts to become a measure of last resort. The information requirements have increased, and the focus on the equal consideration of the interests of all participants has strengthened. In addition, the governance of the pension funds has been underpinned through the introduction of the Act of Strengthening of Pension Fund Governance (Wet Versterking Bestuur Pensioenfondsen; Wvbp) in 2014.

13. The supervisory approaches of the DNB and AFM have increased in forward-looking and risk-based aspects. An innovative supervisory approach known as FOCUS! was implemented by the DNB in 2012. FOCUS! builds on the past risk methodology used by the DNB known as the Financial Institutions Risk Analysis Method (FIRM). The use of FOCUS! has resulted in important improvements and significant progress toward a more comprehensive risk-based approach. The supervised institutions are now classified into four risk categories based on the potential level of impact of problems at a given institution, according to the DNB's supervisory objectives. The risk assessment takes into consideration (1) the macroeconomic environment; (2) business models; (3) culture; and (4) IT as risk drivers before assessing the prudential risk at the microprudential level. The AFM supervisory approach is also new, with an enhanced risk-based focus and early risk identification supported by teams dedicated to monitoring market information. The macroeconomic and system-wide risks are translated into sector-specific risks and used as drivers for the AFM supervisory actions.

14. Financial service disputes can be mediated, and a fast track dispute resolution is available for individual consumers. The Financial Services Disputes Institute (Klachteninstituut Financiële Dienstverlening; KifiD) is currently the only disputes agency recognized by the MoF. KiFiD consists of the Financial Services Ombudsman and the Financial Services Disputes Committee. The Financial Services Ombudsman first tries to mediate between the affiliated financial undertaking and the consumer. Mediation is free of charge. The next step is to apply to the Financial Services Disputes Committee. For a nominal fee, the Disputes Committee will render a decision on the dispute.

15. Solvency II is reshaping the role of auditors. Accounting standards are in line with the International Financial Reporting Standards of the International Accounting Standards Board. Some standards are further recorded in domestic legislation, mostly applied by locally active undertakings. Internationally active undertakings, which are listed on the stock exchange, may apply the international standards directly. Under Solvency II, additional responsibility is placed on auditors to include the actuarial report as part of their external audit report. This removes the reliance of the audited report on an actuarial report prepared outside of the audit firm. Audit firms are in the process of adapting to the requirements of Solvency II, which has also introduced internal models and the need for external audits on several aspects of the new framework. Auditors are supervised by the AFM.

16. There might be an expectation gap between auditors, insurers, and pension funds boards and the DNB on the scope of the audit performed. The expectation of the supervisor and of smaller pension fund boards is that auditors provide opinions on the effectiveness of all processes. However, under current requirements, only the International Standards on Auditing 3402 (International Standard on Assurance Engagements (ISAE)) is performed; it focuses exclusively on those processes that could have an impact on the annual accounts. With the forthcoming introduction of ISAE 3000, that gap should be removed. Also, under the market consistent valuation of assets framework of Solvency II, the fair valuation of illiquid assets presents a challenge for auditors and supervisors to come to a mutual understanding. The tripartite meeting among the auditors, the board of the supervised entities, and the DNB is an important platform for reaching mutual understanding of the aspects of Solvency II.

17. The insurance and pension sectors are supported by well-established trade associations. The largest four global audit companies that are members of the Royal Dutch Professional Organization of Auditors audit 90 percent of the insurance and pension market. The Actuarial Association carries a register of its members that need to abide by actuarial standards and a code of ethics set by the association. The Dutch Association of Insurance and the Federation of Pension Funds provide market statistics and lobby for the respective industries. These trade organizations comment on forthcoming regulations and support the supervision through self-regulation.

18. A wide range of public information is available. Information on the financial strength and performance of the insurance sector is available on the DNB's website, and Solvency II disclosure requirements will make the information richer. The DNB and AFM webpages contain information about the financial market, financial institutions, financial stability, and a few market conduct

indicators. In addition, extensive socioeconomic data are available from the Central Bureau of Statistics (CBS; Centraal Bureau voor de Statistiek), the Centraal Planbureau (CPB; Netherlands Bureau for Economic Policy Analysis), the Sociaal-Cultureel Planbureau (SCP; Social and Cultural Planning Bureau), and from a number of other organizations, including several entities in the financial industry. The Verbond van Verzekeraars (VvV; Association of Insurers) has its own Centrum voor Verzekeringsstatistiek (CVS; Insurance Statistics Centre).

B. The Supervisor

Legal structure

19. The DNB is a state-owned public limited company. According to Article 7 of the DNB Statutes, the Governing Board represents the DNB. The board is in charge of the management of the DNB (Article 12, Bankwet 1998). The Governing Board is comprised of a President and at least three and at most five Executive Directors. At the time of this assessment, two Directors of the DNB Executive Board had been given a mandate for microprudential supervision. They are assisted by a Prudential Supervision Council, chaired by one of the microprudential supervision Executive Directors. The President and the Executive Directors are appointed by Royal Decree for a term of seven years and can be reappointed for one additional term. The President and the Executive Directors may be suspended or relieved from office by the Minister of Finance only if they no longer fulfil the conditions required for the performance of their duties or if they are found guilty of serious misconduct. Dismissal must be made public (Bankwet 1998, Article 12, subparagraphs 4 and 5); however, the reasons need not be disclosed.

20. The DNB's Governing Board is overseen by a Supervisory Board. The Supervisory Board consists of at least seven and at most 10 members. The Chairman and the members of the Supervisory Board are appointed by the government for a term of four years. The Supervisory Board supervises the management and general affairs of the DNB and acts as an advisor to the Governing Board. The Supervisory Board's tasks include the prior approval of the budget and the accountability report, and the annual accounts. From among its own members, the Supervisory Board elects an Audit Committee and a Remuneration Committee and an Appointments Committee. Furthermore, the DNB set up a Prudential Supervision Council (Article 17a, DNB Statutes), which is charged with preparing deliberations and decision-making of the Executive Directors of Supervision.

21. The AFM is an independent government agency. As with the DNB, the governance structure of the AFM consists of a supervisory and a governing board. The Board of Directors consists of at least three and at most five members. The MoF appoints the Chairman and the members of the Board after a nonbinding nomination by the Supervisory Board for a period of four years with a maximum of two reappointments. The Supervisory Board tasks include the prior approval of the budget, year plan, financial statements, and significant decisions made by the Board of Directors.

22. Internal audits are conducted in both the DNB and AFM. The Internal Audit Department (IAD) performs operational audits, financial audits, ICT-audits, Eurosystem audits, and SSM audits. The IAD operates independently from the DNB's business activities and reports directly to the Governing Board and the Supervisory Board. Based on its findings, the IAD drafts an annual risk analysis and audit plan. The AFM IAD focusses on operational processes and the primary supervision processes. The AFM IAD conducts its risk-oriented audits, as described in the Audit Charter, and drafts an annual audit year plan. An external auditor performs financial and ICT audits within the AFM.

23. The DNB and AFM are accountable to the Minister of Finance for their supervisory activities. The MoF may revoke supervisory rules issued by the DNB or AFM following the Wft or subsequent Royal Decrees only when such rules are deemed to be contrary to the law, a treaty, or a binding decree of an international institution, or when such rules impose an unreasonable burden on the financial markets (Article 1: 29, subparagraphs 1 and 2, Wft). In addition, only in those exceptional circumstances when the supervisor seriously fails to perform its duties, the minister may take required measures (Article 1:43, Wft, and article 165, PW). The latter powers of the MoF and MoSA have never been exercised. With relation to the DNB, the MoF also has to approve any adjustments of the Articles of Association (Article 1:37, Wft).

24. The supervisory decisions can be appealed at the Court of Justice in Rotterdam. The Wft clearly establishes the enforcement powers available to the DNB and AFM. In some cases, court orders are required by law. Where applicable, any interested party (natural or legal person) may appeal a decision of the DNB or AFM under the Wft. Appeal procedures follow the rules outlined in the Awb. Appeals must be submitted at the Court of Justice in Rotterdam. Further appeal must be lodged at the College van Beroep voor het bedrijfsleven (CBb; College of Appeal for Industry). The supervisor decisions remain in force during the appeal process; however, the appellant could seek a preliminary injunction against enforcement of the supervisor decision.

Resources

25. The budgeting process follows a formal procedure. Every year the DNB and AFM must prepare a budget for the next year for the performance of the tasks assigned to them following the Wft (Kaderwet zelfstandige bestuursorganen [Kzb; Framework Act on autonomous administrative bodies]), Chapter 4—Financial supervision rules, Part 1—Budget autonomous administrative bodies). The DNB and AFM fund the budget for their supervisory tasks through levies imposed on the supervised financial undertakings. An advisory panel, consisting of a representative delegation of supervised financial undertakings, is consulted on the budget. This panel, however, does not have decision-making powers. The power to set tariffs to determine the levies is set out in the Wet bekostiging financieel toezicht (Wbft; act funding financial supervision). Each year the DNB reports on the budget realization. In 2015, the regular supervision costs amounted to €144 million, €8.4 million lower than the budget.

26. The annual supervision-related budget of the DNB and AFM requires approval by the MoF or the MoSA. The DNB and AFM are independent administrative bodies. Accordingly, the supervision budget of the DNB is separate from the overall budget of the DNB with respect to other tasks prescribed by the Banking Act. The supervision budget must be approved by the MoF and the MoSA[3]. This budget is based on the tasks assigned to the DNB and AFM under the Wft and PW, taking into account the risks perceived with respect to the supervised financial firms. Upon approval of the MoF and the MoSA, the DNB and AFM arrange their resources for performing their supervisory tasks under the Wft and the PW. Once the budget is approved, the supervisors have room for reallocation of resources in order to address unforeseen matters of supervisory concern.

27. Current staffing policies enable attracting and retaining the required professionals, but the AFM is seeing a reduced ability to attract needed staff. The DNB has its own Collectieve Arbeidsovereenkomst (CAO; Collective Labor Agreement), based on the CAO for private banks. The terms of employment (salary and fringe benefits, for example) are deemed competitive. Outsourcing supervisory tasks to third parties is not a standard practice, but may be applied occasionally. Apart from that, the DNB employs outside service providers for facility management activities such as IT. The AFM does not have a CAO, but has terms of employment. The attractiveness of the terms of employment are subject to the AFM's increasing focus spurred by the authority's need of specialized personnel, and vacancies for managerial and specialists' positions have remained open for long periods.

28. Legislative changes that will be enforced or are in discussion may deteriorate the ability to attract and retain required professionals. As of January 1, 2013, the governing board members of the DNB and AFM are subject to the Law on Standards for Remuneration for Senior Officials in the Public and Semi-Public Sector (Wet normering topinkomens, WNT). The effects of the WNT are not crystalized as yet, as its implementation includes a transitional period. This means that the actual reduction of remunerations that exceed the WNT maximum would only be capped as of January 1, 2017. The MoF has expressed no intention to allow a general exception for the DNB and AFM boards. Individual exceptions are possible, though the minister has stated to Parliament that he will only request such individual exception for board members if the need for specific qualifications is required. It should be noted that the WNT currently does not apply to nongoverning/supervisory board members, but a proposal to extend the WNT to all staff (referred to as WNT-3) is currently out for consultation. It seems likely that the decision will affect the salaries of current staff.

29. Elements affecting the operational independence of the supervisor are present in the legislation. Two areas affecting the operational independence of the supervisor are of concern, the ability to issue technical regulation and the budgeting constrains:

[3] The approval of the budget also applies to activities of the DNB, as national resolution authority for the banking sector.

- Apart from the insurance sector, the limited ability of the supervisor to introduce technical regulations[4] could have the potential to reduce the effectiveness of supervision. This limitation is important in the pension sector, where the national regulations have a more prominent role than in the insurance sector, which follows EU directives, and regulations and technical standards issued by the EC, under maximum harmonization;

- The required approval of the MoF or the MoSA for setting the supervision budget for the DNB and AFM could result in resources insufficient in the quality and quantity necessary for effective supervision; and

- The restrictions imposed by the WNT and the planned WNT-3 would diminish the ability of the supervisors to attract and retain senior professionals and specialists who now earn more than the planned salary limits.

30. The authorities are recommended to enhance the powers of the DNB and AFM to introduce technical regulation in accordance with national and EU legislations—and exemption from the WNT-3 for both supervisory authorities should be considered.

Organizational structure

The DNB

31. The insurance and pension supervision at the DNB is led by two divisions involving several cross-sectoral departments. The Division Toezicht verzekeraars (Division Tv; Insurance Supervision) and the Division Toezicht Pensioenfondsen (Division Tp; Supervision of Pension Funds) perform the day-to-day oversight of insurers and pension funds. Under both divisions, departments of expert centers are allocated to support supervision. In addition, the DNB's wide divisions are also active in the supervision of insurers and pension funds in areas that allow for synergies and cost effectiveness, such as financial stability, integrity, and enforcement.

32. Several expert centers provide shared services to support daily supervisory activities. Independent of the division under which the department of expert center operates, the services of these centers are a shared resource for the supervision of insurance and pension funds. The Division Tv hosts the two expert centers, the expert center for financial risk for insurers, and the expert center for capital. The Pension Supervision Division (Tp) hosts the expert center for on-site inspections, the center for business and organization, and the center for financial risks pension funds. The Division for Horizontal Functions and Integrity Supervision, which provides support for the supervision of all entities under the responsibility of the DNB and hosts (1) the center for thematic supervision integrity; (2) the center for integrity strategy; (3) the expert center for governance,

[4] Examples of technical regulations are the size of the parameters shocks and the diversification benefits to determine solvency requirements, as well as the maximum returns allowed for types of assets when determining the sufficiency of the pension contributions.

behavior, and culture; (4) the center for intervention and enforcement; the center for fit-and-proper testing; and (5) the center for market access.

33. The resources are planned on an annual cycle with an initial allocation of expert resources explicitly for insurance and pension fund supervision. Currently there are seven departments in the Division Tv and six departments in the Division Tp. Five departments in the Division Tv and three departments in the Division Tp are in charge of "account" supervision, depending on the classification of the supervised undertakings. Two Tv departments and three Tp departments are expert departments, respectively. The Division Tv consists of about 93 full-time equivalents (FTEs), and the Division Tp has roughly 80 FTEs. Annually, the divisions formulate a Division Plan (based on the Supervisory Strategy),[5] which includes the priorities and subjects of planned investigations. With a fixed but flexible allocation of resources to each activity, the expert centers manage the demand for their cross-sectoral support. If necessary, external experts can be hired.

34. The decision-making process at the DNB is well structured and aligned with the relevance of the situation. The governance framework at the DNB supports its matrix organizational structure. Shared resources are clearly allocated to the different sectors, with a degree of flexibility and access to external resources if necessary. Accountability is clearly assigned, and, depending on the relevance of the decision to make, senior management is involved. For the DNB's most important institutions, the Executive Director is responsible for supervision of banks and insurers and chairs the Prudential Supervision Council (PSC), in charge of approving supervisory actions. The expert centers are responsible for assigning risk scores to institutions following a peer review process. Account supervisors are responsible for the mitigation of the risks. Most decisions are peer reviewed and escalated in cases of conflicting views. Detailed information on the escalation process for a series of decisions are set out in the DNB's internal processes documentation.

35. The matrix organizational structure of the supervision has encouraged interaction between supervisors, and has made specialized expertise available without creating holdups. The annual allocation of resources, with a clear number of experts dedicated to each sector, has allowed the DNB to create an organizational structure that benefits from sector-wide knowledge, cost effectiveness, and information flows both across and up through the organization. The clear accountability for the different processes and the challenges between the account managers and the experts, together with the peer reviewing among experts, has also enhanced the quality of supervision. Demand on the account managers is constantly increasing as more thematic and specialized work is done.

[5] In the Supervisory Strategy 2014–2018, the focus is on intensifying improvements in information provision, quality of risk analyses, and adjustments in behavior at institutions under the DNB's supervision. The DNB also intends to intensify the surveillance of financial sector integrity and will, within the constraints of the law, seek greater openness on its supervisory practice.

36. The effectiveness of the sectoral thematic work supporting risk identification and enhancing the level of professionalism in the industry should be maintained. Given the significant amount of thematic work, in some larger financial groups more than 30 on-site activities are ongoing at the same time. The DNB should consider the potential risk of missing full exploitation of the sectoral work carried out, identifying risk by accompanying its growth with the account management and line supervision resources responsible for the mitigation of risks.

The AFM

37. A new supervisory board is guiding the AFM. After the departure of several Supervisory Board members at the end of 2014, the Minister of Finance appointed four new members, including the chair, on July 15, 2015, to fill vacancies. One of the newly appointed board members resigned as of January 1, 2016. The newly appointed chair, a former union activist and the leader of the political party GroenLinks, replaced the former chair, who resigned overnight in January following a critical report about the way the supervisory board functioned. In April 2015, following the resignation of an executive board member, his successor was appointed on October 1, 2015. At the same time, a new Chief Operations Officer with responsibility for all the AFM business operations was appointed. Rotation and renewal were implemented at the managerial level.

38. The AFM has recently introduced a new structure with the aim to better execute its objectives in the rapidly changing financial sector. Supervision by the AFM is undergoing a radical change to adapt to the rapidly growing innovation in the financial sector, such as that relating to technology and new revenue models, which demands different standards for the type, quality, and intensity of supervision. The Multi-Year Agenda was launched in 2015 to define the AFM in the medium term. The AFM has developed a four-part vision for the Multi-Year Agenda, with a renewed mission, revised core values and qualities, and an ambitious goal for 2022. The aim is to be a recognized groundbreaking supervision authority by 2022. Accordingly, as of April 2016, AFM has operated under a new structure. It consists of six divisions ("domains") for supervision, six divisions providing horizontal technical support, and four other divisions for general support functions, such as IT and Human Resources.

39. Under the new structure, the forward-looking and risk-based approach aspects of supervision have increased and the concentration on data exploitation has intensified. The new structure has strengthened the focus on macroeconomic risks and unified risk assessment and view throughout the AFM. It has increased the attention on data exploitation and market monitoring through the creation of the Expert Center Division. The structure supports a single coordinated point of contact for the largest institutions, enabling an integrated supervisory strategy for these entities. Because the structure is new, function details need to be defined.

40. Insurance and pension supervision are now in one division. The separated approach of insurance and pension supervision of the former AFM structure has changed, and is now carried out within the recently introduced structure. The supervision of insurance and pension funds is one of the two divisions for retail market supervision. Within the insurance and pension funds division, there are three teams with a total of 35 FTEs. Two teams, with 11 and 13 FTEs, are dedicated to day-to-day

supervisory activities that include on-site inspections and follow-up work on imposed measures. The third team focuses on off-site risk identification for all retail market supervision. The other division for retail market supervision is the Retail Loans, Savings & Investments division. Together, these two divisions supervise the entire landscape, from the large banks and insurers to the about 8,000 insurance intermediaries and financial advisors. The horizontal technical support divisions cover several areas. The Account Management division is in charge of supervision coordination among the largest institutions, including the six largest insurance groups, with assigned supervisors for the whole group that could consist of entities operating in several areas of the financial sector. The Expert Center and the Supervision Service Center provide technical supervisory support to both the retail and the market supervision divisions. The divisions of Strategy Policy and International Affairs, Communication, and Legal Affairs complete the six horizontal technical support divisions.

41. The newly adopted AFM structure needs to become fully functional and efficient to effectively support its supervisory vision and approach. At the time of the FSAP, the AFM had been operating for only a few months within the new structure. For a smooth transition and effective functioning of the new structure, it is recommended that the AFM apply flexibility in the resources allocation and strong guidance on the new structure led by a stable board of directors.

C. Supervision Approach

The DNB

42. The DNB's mission is to work to achieve strong and sound financial institutions that meet its obligations and commitments. This mission is divided into five goals: (1) minimize the chance of bankruptcies and instability; (2) promote trust in the financial sector; (3) achieve a supervision on a par with international best practice; (4) carry authority in the Dutch financial sector; and (5) manage costs effectively. The medium-term strategy to achieve those goals is published in the DNB's annual "Supervision Outlook," which includes annual priorities aligned with the strategy.

43. The DNB's supervision approach is risk based and forward looking with due regard to macroeconomic conditions. Since 2012, the DNB has used a new supervisory approach named FOCUS! It has created greater discipline and consistency in the supervision process. The approach has enhanced the previous FIRM by incorporating external macroeconomic and system-wide risk drivers into the risk assessment process. FOCUS! comprises the analysis, judgment, and mitigation of risks, and is based on insights derived from the entire spectrum, from macro-level to micro-level relationships. The method draws on macroeconomic and sectoral developments, as well as specific themes, and uses these as a basis from which to zoom in on individual risks.

44. The introduction of FOCUS! has enhanced the risk-based supervision of the DNB. FOCUS! directs the DNB in the allocation of resources according to the impact on its objectives, given default and the probability of default by the supervised entities. On an annual basis, or when important events change the financial conditions of the sector or of an entity, the supervised entities are classified into five categories (T1 to T5), each with its own risk analysis to assess its impact given default on DNB objectives. According to this classification, resources and activities are allocated for

risks analysis. Complementing this initial step, on a biannual basis, an assessment of the probability of default or current financial condition of each entity is conducted. There is also a quarterly assessment of certain risks using reported data. Depending on the probability of default, different levels of supervision intensity apply.

45. Annual plans set the priorities for the supervision and determine the appropriate depth and level of off-site monitoring and on-site inspection activities. Following the Supervisory Strategy 2014–2018, the Division Plan, and the departmental plans, the Divisions Tp and Tv determine the action plans for each insurer and pension fund. These plans are in line with the results of the FOCUS! process. Depending on the category of the insurer or pension fund, the plans are more or less risk-based and detailed. The supervisory plans for the most important entities (categories T5 and T4) are reviewed and approved by the PSC (Executive Director, responsible for the supervision of banks and insurers (Chair), and the Executive Director responsible for pension fund supervision). The action plans for the lower-impact entities (T3, T2, and T1 categories) are reviewed at the division-head level.

46. The supervision cycle consists of the segmentation into supervision categories: risk identification, risk assessment, and risk mitigation. At a high level, the FOCUS! framework entails the following actions:

- Prior to the cycle of risk analysis and risk mitigation, all institutions—individually or as a group—are divided into five categories (T1 to T5), each with its own risk analysis intensity;
- The risk analysis begins with an assessment of the risk drivers: developments in the external environment, business model and strategy, conduct, culture and governance, and infrastructure and IT. This assessment helps prioritizing risks from the entire gamut of prudential risks (such as market risk and interest rate risk) and integrity risk;
- The relevant prudential and integrity risks are assessed, followed by an analysis of the capital and liquidity of the institution. The results of all the assessments are summarized in a risk profile for the institution. Based on this profile, the institution is assigned to the appropriate supervision regime (low, neutral, high, or urgent). In combination with the supervision category in which the institution has been placed, this supervision regime dictates the approach to risk mitigation; and
- Risk mitigation focuses on establishing the desired effect without delay. The new Intervention and Enforcement department plays a key role in this.

47. The FOCUS! based supervision is supported by frequent and detailed reported data. Under the PW and the underlying nFTK, sufficient granularity of the data on pension funds is available for the supervisor to carry out regular risk assessment under FOCUS!. Also, the new detailed and frequent reporting requirements for insurers under Solvency II will continue enhancing the robustness of FOCUS!.

48. As the detailed and extensive reporting under Solvency II emerges, further tuning of FOCUS! to enhance its alignment with Solvency II is recommended. While FOCUS! risks scoring in some areas are similar to the Solvency II approach, FOCUS! was developed before Solvency II was implemented. To take full advantage of the Solvency II risk framework, including the significant amount of detailed data expected, the DNB should further align FOCUS! to Solvency II. Detailed data on the assets of the pension funds is received with quarterly frequency. This has allowed to FOCUS! to adapt to the nFTK already.

49. The intensity of supervision is determined by a monitoring regime approach. Each institution is classified in a monitoring regime according to the probability of risk materialization. The risk profile of an institution forms the basis for this assessment. The supervisory monitoring regime sets the tone for risk mitigation. There are four monitoring regimes: low, neutral, high, and urgent. In the highest regime "urgent," the risks need direct intervention involving all possible mitigation measures. The supervision in the high regime contains always a risk mitigation plan. The monitoring regime Neutral is the basic regime of regular supervision, and in the lowest regime no substantial intervention is necessary.

50. Preventive and corrective actions are often triggered following transgressions to Article 3:17 of the Wft. The rules that allow the DNB to initiate supervisory actions are related to:

- Control of business processes and business risks;
- Integrity, which is understood to mean the prevention of: conflicts of interest; offences or other transgressions of the law committed by the financial enterprise or its employees that could damage confidence in the financial enterprise or in the financial markets; relations with clients that could damage confidence in the financial enterprise or in the financial markets; and other acts performed by the financial enterprise or its employees that are so contrary to generally accepted standards as to seriously damage confidence in the financial enterprise or in the financial markets; and
- The soundness of the financial undertaking that is related to the ability to manage and monitor financial and other risks that may affect the soundness of the financial enterprise; ensuring the maintenance of the required financial safeguards.

51. In case of foreseen problems in the stability of the insurer, which can jeopardize the interests of the policyholders, several measures are available to the supervisor:

- The DNB may require the supervised entity to present a risk mitigation plan (RMP). Here the supervisor describes the problem, the target, and time frame to mitigate the risk. The insurer is required to take appropriate measures to solve the problem within the time frame. Specialists can help the supervisory team discuss the subject with the insurer. Examples of an RMP are: applying appropriate governance (for example, improving the three lines of defense); mitigating a specific underwriting risk (for example, motor liability insurance); and mitigating a specific market risk (for example, overweight position mortgages);

- The DNB may place an insurer that requires special attention on the Watch List (Voorportaal). The list is for internal use only, and the insurers on the list are monitored more closely. Criteria to put an insurer on the Watch List are, for example, upcoming solvency problems and integrity issues;

- If the problems of an insurer prove to be more severe, the DNB may label an insurer as a Problem Case (Probleem Dossier; PDR). Various DNB experts support the supervisory team, and the frequency of contacts with the insurer is increased. The insurer is required to take appropriate measures to mitigate the issue (for example, increase own funds, de-risk the investment portfolio, and adjust governance); and

- In the most severe cases, and when market-sensitive information is involved, the DNB labels the insurer a Protocol Case, and the problem institution is handled on a project basis by a select team of DNB supervisory officers. The Protocol Case is given a code name and is only accessible to classified DNB staff. The intention is to mitigate the problem before taking further measures of enforcement.

52. An independent on-site inspection team conducts the supervision of insurers. Within the DNB there is a dedicated department that conducts on-site inspections. This department, on-site supervision of pension funds and insurers (OTPV), started operation on November 1, 2014. Its main objective is to improve the quality and focus of risk analysis on the basis of an independent assessment to supplement the off-site monitoring. For pension funds and insurers, this department investigates specific problems (basically all risk drivers or risk categories, such as credit risk and market risk), targeting an independent risk analysis. On-site investigations can take place at a single institution or a group of institutions, and may have a specific focus or full scope. The investigation process consists of three phases: defining a negative hypothesis, research questions, and desk research; on-site investigation; and findings/observations and recommendations.

53. The strict separation of responsibilities of the off-site supervisors from the on-site inspectors is in line with the ECB design for on-site supervision of banks. The on-site inspections are performed at the request of the account supervisors. Based on the FOCUS! assessment and additional findings, the account supervisor formulates the objectives and goals for an on-site inspection. The OTPV, acting independent of the off-site supervisors, performs the agreed on-site inspection. After issuing the report, the OTPV has no role in deciding what further action should be taken following the findings after on-site investigations. This decision and any risk mitigation (strategy, implementation, or monitoring) are the responsibility of the account supervisor. However, following a risk mitigation process, further on-site inspections can be applied in order to test the efficiency of the risk mitigation and verify whether follow-ups have been met. This is the case in more complex mitigation processes.

54. The DNB uses on-site inspections to analyze or confirm perceived risks rather than as an additional investigative tool. The on-site inspections are mainly targeted inspections guided by the risk indicators. The frequency of scheduled on-site inspections is determined by the corresponding risk category and varies from three to five years for the category T5 to T3 institutions

and some larger T2 institutions. The lower T2 and T1 institutions do not have scheduled on-site inspections, but are subject to thematic inspections. Thematic inspections are determined based on FOCUS! scores for the market, market intelligence, and economic and system-wide conditions. In case of elevated risk or special events affecting the financial situation of an entity, on-site inspections can be triggered ad hoc.

55. The reliance on off-site supervision for risk identification is supported by existing regulation. Material changes or incidents that could affect a firm's condition or its customers need to be reported immediately, as they could warrant supervisory action. Article 12, subparagraph 3, Bpr (Besluit prudentiële regels; Decree on Prudential Rules) requires insurers to inform the DNB without delay in case of an incident that could harm the reputation of an insurance company. There could be incidents related to the integrity of the firm and its employees, or related to misconduct toward clients. Within the DNB, these notifications are being collected within the DNB in a register Toezichtincidenten (Supervisory Incidents). The past three years' average annual number of incidents for the insurance sector was about 30. In some cases, immediate remedial action was taken; in most cases, the DNB performed a root-cause analysis and determined how the insurer would proceed with remedial actions. Repeated citation of an insurer in the register is noted as an integrity risk in the FOCUS! analysis, and could lead to a risk-mitigation plan.

56. The Risk, Management and Strategy (RMS) department has the responsibility to independently assess the quality of the supervisory processes and supervisory approach at the DNB. In response to the lessons from the financial crisis, the DNB set up in 2010 a separate, dedicated risk-management department to enhance and monitor the effectiveness of financial supervision. The Risk Management and Strategy Department (RMS) constitutes a second line of defense, evaluating the quality of the supervisory work at the DNB and constantly trying to improve it. The department's main deliverables are internal evaluations, thematic reviews, quality assessments, and the annual stakeholder analysis. The recommendations of the RMS department are implemented by the divisions. RMS should monitor the implementation of its recommendations.

57. The current approach to on-site supervision requires strong confidence in the off-site tools. The DNB's main use of the on-site inspections is as a guided risk-analysis tool rather than as an investigative tool. This approach sets strong reliance on off-site supervision for risk identification and guidance for the on-site inspections. This approach should be safeguarded by:

- Random controls on the quality and truthfulness of the data reported. This includes assessment of the auditor's work for insurers that now also incorporates the actuarial assessment;
- Frequent and robust back-testing on the predictive power of FOCUS!; and
- The DNB's teaming with the AFM on selected AFM auditor inspections, and requiring some specific AFM inspections of auditors.

The AFM

58. Guided by its mission statement, the AFM supervises the conduct of the financial market sector. The AFM recently has reviewed its organization and mission. Its mission is not new, as the AFM has retained the essence of the old mission of "fair and transparent markets:"

- The AFM is committed to promoting fair and transparent financial markets. As an independent market conduct authority, it contributes to a sustainable financial system and prosperity in the Netherlands;
- The AFM has set an "ambitious objective" to go with its mission statement: The AFM's ambition is to be a demonstrably ground-breaking supervisory authority and leader by 2022;
- The AFM has set core values as the guiding principles in daily work and to support decision-making. In choosing these core values, it wanted to show the considerations to be made in the exercise of its supervisory duty. The core values are that AFM is both *careful* and *vigorous*, and both *autonomous* and *connected*; and
- To achieve its mission, the AFM has set core qualities that every staff member needs to possess. These are *discipline*, *analytical strength,* and *progressiveness*.

59. The AFM conducts its supervision by means of inspections, enforcement, and transfer of standards. If the AFM identifies any breaches, it can impose a variety of supervisory actions. It may among other measures (1) issue private or public warnings, (2) place institutions under undisclosed intervention, (3) withdraw licenses, (4) cancel or refuse registrations, (5) submit a disciplinary complaint against an external auditor, or (6) file reports with the Public Prosecution Service. The AFM is also authorized to impose fines and orders for periodic penalty payments.

60. The Account Supervision division is coordinating the supervision of the largest institutions, including the six largest insurers. Each insurance group is assigned two account supervisors who serve as contact point for the supervision of the whole group, and who may operate in several sectors, offering financial services, including pension fund administration. On an annual basis, an integral supervision strategy for the largest institutions is determined. The assessment is captured in a reflection document that scores risks in six categories: (1) openness, (2) controls, (3) compliance, (4) governance, (5) strategy, and (6) customer interest. According to the findings, the current and required situation of each entity is determined. This analysis leads to a series of projects scheduled throughout the year. Projects can also be initiated by the Insurance and Pension Supervision division, but always in consultation with the Account Supervision division. Any thematic work and proposed actions from the Supervision department that involves the largest institutions needs to be aligned with the integral supervision strategy. The development in the scores under the reflection framework is tracked over the years to assess the effectiveness of the supervision.

61. The smaller insurers and all pension funds are overseen by the Supervision Insurance and Pension division. The team's monitoring information is the main driver of supervisory action. Supervisory action entails on-site inspections and enforcements, but also thematic projects. Currently in some larger insurance groups, a large number of on-site supervisory activities are ongoing.

62. The sectoral risk identification and consistency in the supervisory approach is being enhanced. At a macro level, the AFM is developing the top 10 risks and how they translate to the individual sectors. These top risks guide the supervisory actions and prioritized the thematic activity within the AFM.

63. The AFM information and data usage is in the process of being reviewed. The AFM agenda for 2016–2018 indicates that the AFM would like to be a leading, data-driven supervisor that anticipates innovation/FinTech and uses modern insights, for example, concerning consumer behavior and organizational change. Major investments will be necessary given the existing IT system that was developed internally several years ago. Despite the AFM's stated ambition to become a data-driven supervisor, the IT budget—including personnel expenses, advisory expenses, depreciation on investments in hardware and software, and so one—has decreased since 2013 from €10.8 million to €9.3 million forecast for 2016. The AFM should allocate a substantial budget for the development of capabilities to exploit critical data.

64. The reporting requirements for insurance intermediaries should be improved. The AFM uses the reporting data on insurers and pension funds that the DNB receives. However, the requests for information are not automatized, and the AFM system does not have direct access to the DNB database. Further, no additional market conduct-specific regular information is required to be reported by insurers or pension funds. For the insurance intermediaries' supervision, on an annual basis the AFM receives information generated by a self-assessment. The AFM's ambition to improve supervision by a better use of data should be supported by the following actions:

- The reporting requirement for insurance intermediaries should be revised and its frequency increased from annual to quarterly;
- The reporting requirements for insurers and pensions funds should be enhanced with market conduct indicators complementing the reporting requirements set by the DNB; and
- To take full advantage of the data received by the DNB on pension funds and insurers under Solvency II, the AFM's IT system should have direct connectivity with the DNB's relevant database.

D. Enforcement

65. A wide range of enforcement actions that facilitate timely and effective actions to remedy Wft breaches or developments that endanger solvency are available to the supervisor. According to Article 1:75, Wft, the supervisor has the power to issue a direction when it is of the opinion that the insurer fails to comply with the provisions of the Wft or related secondary legislation, or when the DNB discovers indications of a development that may endanger the own

funds, solvency, liquidity, or technical provisions of that insurer. A formal direction can, if necessary, be issued via a short internal procedure. The DNB always has to substantiate whether a proposed enforcement measure is appropriate to mitigate the identified risks and is proportional to the seriousness of these risks. The enforcement tools include: (an order for) interim penalty payments; an administrative fine, requiring a recovery plan to be produced (Article 3:135, Wft) in case of a breach of the Solvency Capital Requirement (SCR), or a short-term finance scheme (Article 3:136, Wft), in case of a breach of the Minimum Capital Requirement (MCR); apply a temporary capital add-on; restrict the activities of the insurer; or appoint a trustee, or a receiver. The DNB can also ultimately withdraw the insurers' license and request the court to apply the Emergency Regulations (Noodregeling) to the insurer.

66. Consistency is ensured in the preparation of the enforcement and follows from the internal procedures. For this purpose, the DNB and AFM jointly issued on July 10, 2008 "The policy rule on enforcement policy AFM and DNB." Moreover, internally, the DNB applies a Working Instruction Enforcement. A firm can be penalized by each of the two authorities for the same action if the action breached the rules of both authorities. Fines have been applied to both firms and individuals. Fines do not address redress,[6] but can be substantial, and board members have been removed in the insurance sector.[7]

67. Legislation provides an effective timely deterrent by requiring the publication of administrative fines. The DNB is obliged to make administrative fines public, as well as (an order for) interim penalty payments if and when penalty payments have been incurred. An administrative fine is to be made public anonymously if the DNB can determine that full publication would: (1) have a disproportionate effect on the parties involved; (2) hamper ongoing criminal investigations; or (3) endanger the stability of the financial system. Interested parties can request a provisional measure at the District Court of Rotterdam to prevent the publication of an administrative fine or (an order for) interim penalty payments within five days from the date of the decision announcing the publication. As an exception to the general rule, the court hearing takes place behind closed doors in such cases.

68. An objection against the imposition of an administrative fine can be filed with the supervisor and in a second instance with the courts. An insurer and other legal or natural persons with interests that are directly affected by administrative decisions of the DNB have the right to object to such decisions within six weeks from the date of the decision. After this, the objections procedure is completed. Directly affected persons have the right to appeal the decision made on the basis of the prior objection with the court within six weeks. The Court of Rotterdam is exclusively competent for cases concerning administrative decisions of the DNB based on financial regulatory laws. Ultimately, the ruling in the first instance can be appealed at the Trade and Industries Appeal Tribunal. The possible provisional measures include an order to suspend the effect of measures taken by the DNB or to suspend the publication of such measures. Acts by Dutch government bodies that

[6] Redress can be obtained through a civil court process.

[7] The DNB fined the record sum of €23 million in 2015 to an insurance company. The AFM recently fined the big four audit companies for noncompliance with their duty-of-care requirement a total of €6 million.

do not qualify as administrative decisions cannot be objected to or appealed on the basis of the Dutch general administrative act. Such acts can be appealed again in civil proceedings on the basis of tort. An accelerated procedure is available under certain conditions if the offender does not dispute the facts and cooperates voluntarily in the accelerated settlement of the fine. The offender will receive a 30 percent discount on the amount of the fine to be imposed, and the supervisor will state—together with the publication of the fine—that the offender cooperated.

E. Group Supervision

69. Given the high concentration of market share in the six largest insurance groups, the DNB's involvement in group supervision is important. The largest six Dutch insurance groups (and their undertakings) combined cover 86 percent of the national life market and 73 percent of the overall national insurance market. The DNB supervises 23 insurance groups, 21 mixed insurance groups, and 6 financial conglomerates; and it participates in the supervision of 15 European economic area (EEA) insurance groups. The authority is the lead supervisor for four insurance groups, one of which has been designated as a global systemically important insurer (G-SII). While the number of mixed insurance groups is large, the majority of them are captives that, given their business activity, require limited supervisory attention.[8] During 2015, of two financial conglomerates separated from the bank ownership, one has become an insurance group and the other only a solo entity. A number of pension funds are part of financial groups.

70. The supervisors have signed several MoUs to support communication and coordination. The DNB and AFM have the authority to enter into agreements or understandings with other supervisors. In addition, that the DNB has signed the IAIS Multilateral Memorandum of Understanding (IAIS MMoU). This IAIS MMoU was designed specifically to cater to practical arrangements concerning cross-border cooperation and information exchange, while acknowledging and emphasizing observance of the IAIS Insurance Core Principles.

71. The Solvency II Directive has fortified group supervision, defining the scope and requiring supervision of the whole group. Under Solvency II, a comprehensive Group Supervision Framework is in place, so there is a clear focus on group supervision and the powers of a group supervisor. Article 1:1, Wft, defines a participating enterprise, a holding subsidiary, a financial holding company, a mixed activity insurance holding company, a mixed financial holding company, an affiliated enterprise, an insurance holding company, and an insurance group. Article 3:285, Wft, and Article 3:296, Wft, states that these entities are subject to group supervision. Article 247, Solvency II Directive, stipulates which single supervisor will be responsible for coordination and exercise of group supervision (see Article 1:1, under "'group supervisor," Wft).

[8] Captives insure the risks of their owner to facilitate and increase the negotiating power in case reinsurance is needed.

72. The SRPs for groups under Solvency II are comprehensive, and the DNB complies with the vast majority of them. The DNB complies with the following group supervision-related SRPs:

- The Group SRP that addresses, among others, the preconditions for group supervision;
- The College of Supervisors SRP that addresses the college structure and what this involves;
- The Supervision of Intra-Group Transactions SRP that addresses the importance of understanding intragroup transactions, the supervisory steps to review intragroup transactions, and potential misuses relating to intragroup;
- The Supervision of Risk Concentration SRP that addresses the requirements of Article 244 of the Solvency II Directive and includes the review of risk concentrations in the group;
- Group Own Risk and Solvency Assessment (Group ORSA);
- The System of Governance SRP that addresses the group governance; and
- The Recovery & Resolution SRP will be addressed during 2016.

73. Solvency II has also provided additional power to the supervisor of groups. The DNB has the following additional powers: (1) when the DNB is the group supervisor, it has the authority to issue a directive to a mixed financial holding company or an insurance holding company with its registered office in the Netherlands (Article 1:58e, in conjunction with Article 1:75, Wft) to adhere to a particular line of conduct when the holding company or one of the insurers in the group violates provisions laid down in Chapter 3.6 of the Wft; and (2) when the DNB is not the group supervisor, it has the power—upon request of the group supervisor—to issue/impose (Article 1:58e, Wft) a directive (Article 1:75, Wft), (an order for) interim penalty payments (Article 1:79, Wft), an administrative fine (Article 1:80, Wft), and a temporary capital add-on (Article 1:51e).

74. Some important powers for the supervision of international groups and of pension funds are unavailable to the supervisor. With the transposition of the Solvency II Directive, additional powers for the supervision of corporate governance, including fit-and-proper requirements at the group level, have been secured. However, these powers, which encompass unregulated holding companies, can only effectively be enforced when a group supervised by the DNB or AFM is headed by an insurance holding company or a mixed financial holding company based in the Netherlands or within the EEA—in the latter case, on the basis of cooperation arrangements according to the Solvency II Directive. When a group is headed by an entity based in the EEA, such powers can be applied by the relevant EEA group supervisor, where relevant, in cooperation with the DNB or AFM. When a group is headed by an entity based outside the EEA, such powers cannot be effectively applied to the relevant insurance holding company or mixed financial holding company, although Articles 3:269a and 4:6a of the Wft give some powers with respect to governance of the group to the supervisory authorities. The PW does not require supervision of

service providers to which activities of pension funds have been outsourced. Moreover, most service providers with one or more subsidiaries that provide services to pension funds are not subject to direct supervision of their governance and staff qualifications at the group level. The two largest

pension funds have divested their insurance operations and are active only in asset management, and thus are now no longer subject to group governance supervision. Group supervision of pension funds is not required in the PW.

75. Group reporting, including intragroup transaction reporting, has been improved. Under Solvency II, consistent and comprehensive regulatory reporting by insurance undertakings at the group level is required. This reporting consists of quantitative reporting templates (QRTs), the Group ORSA supervisory report, the regular supervisory report (RSR), and the solvency and financial condition report (SFCR):

- Insurance groups must submit 10 quarterly and 42 comprehensive annual QRTs to their group supervisor. These include annual intragroup transactions. The technical standards upon which these QRTs are based are specific to groups;
- Parent undertakings must submit a Group ORSA supervisory report to the DNB. This may be a single group-wide report covering the entire group and its subsidiaries, or a Group ORSA in which the risks pertaining to subsidiaries are taken into account by an ORSA at the subsidiary level rather than in the Group supervisory report;
- The Group RSR must provide detailed information on the group financials: how the group's consolidated information has been prepared; the terms and conditions of significant intragroup transactions.[9] any significant risk concentration at group level; and Group Technical provisions; and
- The Group SFCR must provide information about material differences between the scope of the group used for different reporting bases and on the Group own funds. The SFCR must include a clear and concise summary that highlights any material changes to the insurance or reinsurance undertaking's business and performance, system of governance, risk profile, valuation for solvency purposes, and capital management over the reporting period.

76. The preparation for group supervision by the DNB under Solvency II has been ongoing for several years. The first assessment in preparation for Solvency II was carried out in 2011. In 2015, another assessment of groups was done. The DNB has created colleges of supervisors for the groups in which it is the lead supervisor. These colleges have been active for a few years with annual physical

[9] Under the Directive 2002/87/EC, the materiality of intragroup transaction reporting was defined if its amount exceeded at least 5 percent of the total amount of capital adequacy requirements at the level of a financial conglomerate. Now, materiality is also measured at the institution level.

meetings taking place, and have moved into compliance with the EIOPA requirements on colleges.[10] The risk assessment of the group follows an adapted FOCUS! risk scoring. Core Colleges of Supervisors have been established in cases where cross-border insurers using an internal model met frequently in person or by teleconference. Joint on-site inspections have taken place for international active groups. The reporting on intragroup transactions under Solvency II will provide detailed and complete data as of 2017.

77. Under Solvency II, all EEA colleges should put in place a College Coordination Agreement. The agreement under Solvency II includes an emergency plan for the college of supervisors. This emergency plan is intended to support the management of an emerging crisis by the group supervisor and the college of supervisors. The plan should define the means for crisis handling of the group and, in case of an emergency situation, provide a common understanding of the division of tasks, such as communication to the public of measures taken. At the beginning of 2015, the DNB signed EIOPA Coordination Arrangements.

78. Going forward, the authorities are recommended to consider addressing the following weaknesses present in the group supervision:

- The powers to allow for group governance supervision should be enhanced. Working together with EU authorities, the Dutch authorities are recommended to enhance their powers to include group governance supervision for pension service providers that are companies with one or more subsidiaries that provide services to pension funds;
- The PW should require group supervision; and
- Given the detailed information on intragroup transaction that will be available as of 2017 for insurance groups, the monitoring of the contagion risk could benefit from an IT tool that maps the group structure together with all important intragroup transactions, like loans, reinsurance, and guarantees. The tool should allow for stressing the different transactions to gain an overview of the contagion risk within the group and the transmission channels.

F. Market Entry and Exit

Licensing and entry controls

79. The licensing of insurers, including the fit-and-proper assessments, remains strong and has been adapted to Solvency II. The 2011 FSAP found the licensing regime for insurers clear, transparent, and in line with EU Directives. With the introduction of Basic Solvency II, all insurers

[10] The final draft of EIOPA guidelines on the operational functioning of colleges was published February 2015. The recommendations include guidance on the organization of the exchange of information among college members, communication with management of the firms, and the voluntary sharing and delegation of tasks. The guidelines also include templates for coordination arrangements, emergency plans, and a suggested list of data to be exchanged within the college. Processes for joint decisions on group internal models under Article 231 can be found in Title II, Chapter II, Section 2, of the delegated acts.

except the very small insurance companies that insure maximum losses of €12,500 or less are now licensed. Under Solvency II, the thorough fit-and-proper process practiced by the DNB now applies to a wider range of persons who can influence the company.

80. Pension funds are not licensed, but within three months, operating must be supervised. Pension funds can start activities without a license, but need to be registered within three months of start-up. Once registered, all the requirements as described in the PW, such as fit-and-proper, governance, and risk management, apply. However, the absence of a license can create legal challenges for the supervisor when it determines that a registered pension fund is engaging in other activity than pension provision. Therefore, the authorities should introduce a license requirement for pension funds.

81. The EU's freedom of establishment and freedom to provide services allow EU-licensed insurers to operate in the Netherlands without an additional license. While the AFM has a limited market conduct responsibility for the branches of EEA-domiciled insurers (key elements of the conduct supervision reside with the home supervisor), the prudential supervision of the operation is the sole responsibility of the home supervisor. It is expected that sufficient prudential information will be available to the host supervisor when Solvency II reporting requirements are fully implemented.

82. The reliance on the home supervisor for FOS and cross-border branches requires vigorous collaboration among supervisors to avoid supervisory arbitrage. Notwithstanding, the maximum harmonization implementation of Solvency II, the complexity of Solvency II, and the onerous requirements that Solvency II imposes on the insurers could theoretically motivate the use of the freedom of establishment (cross-border branches) and the freedom to provide services in the EU to search for member states where the supervision uses a lighter version of Solvency II's two pillars. Monitoring and acting to prevent such a potential deterioration in supervision standards on a cross-border basis will be important. The authorities, working together with EIOPA, should continue supporting the coordination among supervisors of member states to minimize supervisory arbitrage. In this context, the continued involvement of the Netherlands in the peer reviews and the EIOPA Supervisory Oversight (SPOT) visits are relevant.

Market exit

83. Priority is given in legislation to policyholders under the winding up of an insurer and its exit from the market. A high legal priority is given to the protection of the rights and entitlements of policyholders. Insurance-related claims rank ahead of all unsecured debts, with the exception of (a) pension awards and wages due to employees and past employees; and (b) above-tax and social security liabilities. In accordance with the Solvency II transposition, the Wft determines the point at which it is no longer permissible for an insurer to continue its business.

84. Besides the voluntary market exit provision, the supervisor can initiate the winding up of insurers. The DNB has the following powers (and corresponding procedures) for the winding up of an insurer and its exit from the market:

- Apply the Early Intervention Arrangement Life Insurers Relief scheme (Article 3:149-3:158, Wft). Through this early intervention arrangement, the insurance portfolio of a troubled but still viable life insurer may be transferred to a designated special purpose vehicle, a licensed life assurance undertaking, set up and financed by the insurance industry. There are limitations on the funding of the "bridge" insurers. Furthermore, Solvency II requires the license withdrawal in the same cases where this power could be applied, and thus this power has become of limited use;

- Prepare a transfer plan to transfer assets or liabilities of the insurer or its shares to a transferee. The transfer plan of the DNB needs court approval (Article 3:159a-3:159ag, Wft);

- Request the court to apply the emergency regulations to the insurer or to declare the insurer bankrupt. If the emergency regulations are declared applicable, the court appoints a receiver, who is charged with transferring the insurance portfolio to another insurer (with a special authorization by the court that the insurance contracts can be amended in that respect to make a transfer possible and/or liquidate the insurer (Articles 3:160-3:163, Wft)); and

- In case of severe danger for the stability of the financial system, the Minister of Finance can start an expropriation procedure (Title 6 of the Wft), and an insurer may be nationalized by the transfer of its shares to an entity of the state.

85. Before the DNB can apply the powers as described in the assessment of Standard 12.1, it has to determine whether the financial situation of an insurer is at the point where it is no longer permissible for the insurer to continue its business.

86. The winding up of insurers can be a lengthy process that may require policyholders to wait several years before receiving recoveries. With the exception of the MTPL insurance and mandatory health insurance, there is no guarantee fund for insurance. Thus, MTPL-related losses and basic health care-related losses of failing insurers are protected and can be immediately compensated. On the other hand, the losses on all other classes of insurance or their policyholders need to wait for the liquidation process to conclude before they recover on their existing claims. Consequently, depending on the complexity of the business, the policyholder might need to wait for several years before receiving payments.

87. The authorities are recommended to introduce regulation that allows for fast advance payments on all insurance liabilities. Currently, the MoF and DNB are working on provisions to allow for an accelerated advance payment for existing insurance losses; however, the advantage of having a fast advance payment for all policyholders' liabilities, including unearned premium that a guarantee scheme provides, is not envisioned. The authorities are recommended to evaluate the introduction of a guarantee scheme for insurance as an important additional resolution tool.

88. The MoF and DNB are working on a new national law regarding recovery and resolution for the insurance industry, to be implemented in 2018. At this time, the MoF, in cooperation with the DNB, is developing a national recovery and resolution framework for insurers, partly in the spirit of the EU Bank Recovery and Resolution Directive (Directive 2014/59/EU—BRRD). The framework should take into account the special nature of insurers compared to banks. It is

anticipated that resolution plans will be proportionate to the size of the insurance companies and the systemic risk they are deemed to pose. The plans should, in any case, include the preferred resolution strategy, the point of entry of resolution, the resolution assessment, and any impediments to resolution that would need to be lifted. The authorities are recommended to introduce the planned resolution framework following a similar approach to the EU BRRD with due regard to the insurance business model.

89. The delegated supervision to the home supervisor under Solvency II requires an increased level of cooperation, and engagement within the colleges of supervisors. This level of cooperation goes beyond the current supervisory powers and should include compatible resolution schemes for failing insurers, and consistent cross-border resolution powers. The Netherlands, in conjunction with EU authorities, should consider whether the current arrangements in the case of a cross-border failure would ensure adequate coordination and flexibility among the various resolution tools and authorities.

90. The DNB's preparation for the resolution plan for the G-SII under its supervision is on target. Under Solvency II, all insurers must submit a recovery plan ex post within two months when the SCR has been breached. With respect to preventive (ex ante) recovery and resolution planning, the DNB has required recovery plans for the largest six groups since 2015. The group supervisors have evaluated and provided feedback on these plans. One improvement in 2015 was the inclusion of a dry run with the crisis management team of the insurance group. For the gone-concern situation, the DNB is currently setting up a resolution plan for AEGON as a recently nominated G-SII in the context of the FSB work on recovery and resolution planning for G-SIIs. The resolution plan is scheduled to meet the FSB deadlines. There are no business-as-usual requirements for insurers that are not G-SIIs to prepare resolution plans. However, the DNB intends to work on resolution plans for all six largest groups.

91. The DNB must approve any portfolio transfer, with the optional involvement of the AFM. In evaluating a request for the portfolio transfer of an insurer, the DNB assesses the prudential position of the transferor and the transferee after the transaction. The evaluation includes the impact of the transfer on the transferor and transferee firms' business models, capital position and fungibility, reinsurance arrangements, intragroup arrangements, and ongoing ability to meet threshold conditions. The involvement of the AFM is not automatic, and only the DNB reviews important aspects such as the transferee's ability to handle claims appropriately, as well as explicit statutory factors, to decide whether the policyholders of either the transferor or transferee will be in a worse position following the transfer. The supervisory mandate of the AFM is ex post and primarily concerns the degree to which participants are accurately informed about the consequences of a portfolio transfer.

92. Subject to DNB approval, pension funds can be authorized to transfer the pension value for groups of participants. Such a collective transfer is only permitted to another pension fund or to an insurance company. The two most important forms of a collective transfer of accrued benefits are defined here:

- Article 83 of the PW describes the *possibility* of a collective transfer of pension benefits on the request of the employer. This is possible if the scheme's active members, deferred members, and beneficiaries have not notified the pension institution[11] of any objections after being informed in writing of the intention to carry out the transfer; and

- Article 84 of the PW describes the *obligation* of collectively transferring the pension benefits in the event of a liquidation of the pension fund. The scheme's active members, deferred members, and beneficiaries do not have the individual right to object.

93. The DNB's evaluation of pension transfers is based on Article 105 of the PW (on balanced representation). The assessment of whether the DNB can approve the collective value transfer is based on the following main criterion: that the transfer may not impair the interests of a scheme's members and beneficiaries. The other, primary criteria checked are: (1) the difference in the financial position of both pension institutions and the way they resolve this difference; (2) the

purchase price should be based on the norms of the acquiring fund; and (3) communication to members and beneficiaries about the transfer must be transparent, informative, and complete. Here the involvement of the AFM is sometimes required.

94. During 2013–2015, the DNB reviewed and approved 97 notifications of collective transfers in total. The transferring pension institution has withdrawn about five notifications of collective transfers because the necessary information could not be delivered within the specified three months. For nearly all notifications, the DNB has requested further information or modifications. Furthermore, interviews have taken place. As a result of the informal suggestions, it has not been necessary to officially impose prohibitions on the transfers.

95. Important aspects related to customer interests that focus of the AFM supervision might not be sufficiently considered under portfolio transfers that require only DNB approval. The authorities are recommended to implement regulation that requires the approval of both supervisors for the portfolio transfers of insurance and pension funds except when resolution powers are applied.

G. Prudential Framework

Solvency II

96. The transposition of the Solvency II Directive into national law has been carried out without significant exceptions. Since 2016, the Solvency II framework has been applicable to insurers. The Commission on Delegated Regulation, ITSs and the Commission Delegated Decisions on Equivalence are directly applicable in the Netherlands. The Solvency II Directive has been transposed into the Wft and subsequent royal decrees, ministerial regulations, and supervisory rules.

[11] Note that the rules regarding collective transfers are applicable for all types of pension institutions, that is, both the pension funds and the insurance companies operating occupational pension schemes.

The EIOPA Guidelines have been implemented through the Beleidsregel toepassing richtsnoeren ESA's Wft (policy rule application guidelines ESA's). The act implementing the Solvency II Directive also provides further details of the new Solvency II basic regime for insurance companies that do not come under Solvency II. They account for less than 0.2 percent of the market in terms of assets.

97. The new regulatory framework for insurers has notably improved. Throughout the 2011 FSAP, as indicated in the report and also noted in the authorities' response, it was expected that several weaknesses and recommendations identified in the regulation would be addressed with the upcoming implementation of the European Solvency II framework. The implementation of Solvency II has made the capital adequacy standards more robust and risk-sensitive in line with the IAIS ICP 17. Also, the reporting requirements under Solvency II will provide the DNB with sufficient information for off-site supervision. In addition, Solvency II requirements on group supervision have strengthened the DNB's ability for group-wide supervision, including more stringent rules on intragroup transactions.

98. The delay in the implementation of the Solvency II Directive (2009) allowed the DNB and the sector longer preparation time. The implementation of Solvency II, originally due by October 31, 2012, was delayed by some three years as result of subsequent negotiations on a package for long-term guarantees. In the meantime, regulatory and supervisory practices did not stagnate. On the contrary, a number of European and national preparatory initiatives were taken:

- By 2013, EIOPA issued a number of Solvency II preparatory guidelines in the field of internal models application, reporting to supervisors, system of governance, and ORSA. The DNB complied with these guidelines;
- By 2014, the Netherlands government introduced a Solvency II principles-based capital adequacy test in addition to the Solvency I capital requirements, the so-called Theoretical Solvency Criterion. Also, insurers had to perform an ORSA-like Own Risk Assessment as part of their risk management and submit the results to the DNB; and
- In 2015, insurers had to submit additional 2014 prudential reports, by way of a parallel run, based on the EIOPA preparatory reporting guidelines.

99. The transition into the new reporting requirements has been addressed through a new data management system at the DNB. In preparation for the large amount of data to be received under Solvency II, the DNB upgraded its IT system and launched a data management system (CAESAR) project in 2011. CAESAR is fully implemented and has passed testing. Going forward, CAESAR will allow the DNB to exploit Solvency II data that includes off balance sheet information, relevant intragroup transactions, a detailed assets' information for supervisory purposes, including systemic risk and group supervision. During 2016, the DNB is recommended to consider the use of the data to further improve or develop new supervisory tools. This is an ongoing process within the DNB. Also, data that seems to provide limited value for supervision should be noted for possible revisions of the reporting requirements and EIOPA templates.

100. The Solvency II implementation has been carried out thoroughly. The internal Solvency II program consisted of 13 projects, each covering a subject such as legislation, processes, group supervision, governance, internal models, and balance sheet issues (including capital). Both elements of this program—the preparation of the internal organization and the preparation of the insurers and the insurance sector—have been internally audited, and no major issues were identified.

101. The DNB has identified areas where the Solvency II standard formula provides less-accurate information on the risk of insurers, and the internal model is economically not viable. For smaller insurers still falling under Solvency II (and not Basic Solvency II), the shocks used under Solvency II may not be appropriate. Using company-specific parameters is hardly possible currently given the requirements on the data credibility. Also, the development of a partial or a full internal model would not be economically viable for those insurers. The particular credit insurance model is also not capture under the SF. An evaluation of the methodology to allow for company-specific parameters for small companies and credit insurers falling under Solvency II is recommended. This should be done by the Netherlands in conjunction with the EU authorities by year 2018.

102. The matching adjustment (MA) is not currently used due to the nature of the products in the market. The MA gives insurers relief for holding certain long-term assets that match the cash flows of a designated portfolio of life or annuity insurance and reinsurance obligations. Firms with long-term, fixed, and fully predictable liabilities are able to match their obligations to policyholders with assets that have the same cash-flow characteristics. Given the existing products in the Netherlands, the MA is not used.

103. For Dutch insurers, the VA is important. In the Netherlands, most insurance companies make use of the VA. These are mainly either life companies or non-life companies that are part of a group that also encompasses life companies. Smaller non-life companies, which often offer short-tail products, generally do not use the VA. The volatility adjustment involves a number of simplifications, such as the use of a model portfolio that introduces important distortion to the market consistent approach to capital determination. The DNB does not require approval to make use of the volatility adjustment and allows the dynamic VA adjustment.

104. With the exception of the equity transitional arrangements, the Dutch insurers are applying the full Solvency II measures as of day one. Contrary to the majority of other member states, in the Netherlands, insurers are not using the allowed transitional measures for the technical provisions. The reason for this is that under the former enhanced Solvency I regime, as applied in the Netherlands, life insurers were already required to value their technical provisions according to Solvency II valuation principles.

105. The DNB guidance on the use of the Loss-Absorbing Capacity of Deferred Taxes (LAC DT) in the calculation of the SCR is detailed and prudent. Article 207 of the Delegated Regulation 2015/35/EU stipulates how insurance undertakings should determine LAC DT to lower insurers' SCR. The critical issue to apply LAC DT is for the insurer to demonstrate that there are

sufficient profits available to utilize the deferred taxes given their financial situation after a shock. The DNB requires insurers to at least include the following aspects in the description of their financial position post shock and the substantiation of future profits:

- The insurance undertaking determines whether after the occurrence of the shock loss, it still has sufficient eligible own funds at its disposal to continue complying with the SCR. Alternatively, it explains which measures it plans to take to ensure that it will once again meet the SCR within the time period required by Solvency II. If recapitalization is one of the measures, it should factor in that the recapitalization will likely decline as its solvency position decreases; and

- The impact on future profits of the changed balance sheet post shock loss as well as the impact of all measures taken to comply with the SCR post shock loss. Consideration should be made to the reduced profit potential post shock loss, the impact of possible risk-reducing measures on its earnings capability, and the increasing uncertainty in longer-term profit projections. Projections of the full balance sheet and aggregate future (taxable) profits, and not only of the potential profit sources, should be made, as there may be other balance sheet items that could have a negative impact on future profits post shock loss.

106. While the DNB's approach to the use of LAC DT is prudent, significant judgmental latitude remains and thus the uncertainty of the availability of future profits after a shock is high. Given that the size of the potential benefit of the use of LAC DT (up to a 25 percent reduction of the SCR) is relevant, working through EIOPA, the DNB is recommended to tighten the use of LAC DT.

107. The DNB has been working internally and with the industry on the approval of internal models. The industry has been engaged in the pre-application exercise since 2011. The required process for the approval of the internal model that follows the detailed Solvency II guidelines, together with the DNB expectations, has resulted in a significant reduction of the official applications and ultimate approved internal models. Currently three insurers apply partial internal models to determine their SCR. Going forward, the DNB is recommended to maintain its strong focus on internal model approval of material changes and on the identification and monitoring of model drift risk. At the same time, the DNB responses to model changes requests that are central to capital reporting should be provided without compromising on quality of the approval within the market reporting timeframe. This will require availability of sufficient resources and analytic tools.

Financial Assessment Framework

108. The Financial Assessment Framework (FTK) lays down the statutory financial requirements for pension funds. Similar to Solvency II, the Financial Assessment Framework (FTK) is built around the principles of market valuation, risk-based capital requirements, and transparency. The technical provisions are determined by discounting expected future cash flows against the current nominal term structure of interest rates provided by the DNB while using the latest available mortality information. The SCR is calculated with a confidence level of 97.5 percent over a one-year time horizon. On average, this leads to a capital requirement (total market value of the assets of the

pension funds as a percentage of their pension commitments) of approximately 125 percent (currently the requirement ranges for individual pension funds between 101 percent and 137 percent of liabilities). The minimum regulatory own funds requirement is derived from the implementation of the EU's Institutions for Occupational Retirement Provision (IORP) Directive. This requirement translates into a funding ratio of 104.3 percent at the minimum.

109. The PW and mainly the FTK were revised in January 2015. The main revisions to the FTK affect (1) the methodology of recovery plans and how to deal with possible reductions of benefits; (2) the way of granting indexation; (3) the way of cushioning the premiums; and (4) the way to analyze the financial framework of a pension fund in relation to the expected pension results and corresponding risks together with communication about this. Furthermore, the risk-based solvency requirements in the FTK have been recalibrated based on current data.

110. Under the nFTK, pension funds are obliged to be more explicit about the risks related to pension schemes. One aspect is clear communication about risks concerning (deferred) participants and pensioners; another aspect is the analysis of the implication of these risks in pension contracts in different situations. In addition, this analysis should shed light on the distribution of financial shortfalls or surpluses between (deferred) participants and pensioners over different generations. This analysis will allow improved assessment of the fiduciary duty of the trustees to look after the interest of all stakeholders. Also, pension funds need to include a crisis plan in their Actuarial and Technical Business Memorandum.

111. Allowed changes to recovery plans and potential benefit reductions reflect an increased tolerance of unfunded pension funds and a higher aversion to benefit cuts. The nFTK affects recovery plans and potential benefit cuts in three ways:

- Any supervisory triggers and policy decisions, including the need for and the decisions around setting up a recovery plan and around benefit reductions, will from that moment on be based on the so-called policy coverage ratio. While the coverage ratio before 2015 was simply the actual coverage ratio at any point in time, the policy coverage ratio is now equal to the average of the past 12 monthly (actual) coverage ratios. This change was intended to limit the dependency of spot date circumstances;

- Instead of two separate recovery plans, the nFTK requires only one recovery plan, in which the pension fund sets out how it intends to return to the capital requirement within 10 years. There is no longer a separate recovery plan in case of noncompliance with the minimum funding requirement. However, the requirement itself still exists: if the policy coverage ratio stays below the minimum funding requirement for five consecutive years, the pension fund will have to reduce benefits immediately[12] to return to the minimum funding requirement (this is called the backstop requirement); and

[12] Note that the benefit reduction may be smoothed over a period of no more than 10 years, see the next paragraph.

- Before 2015, any benefit reductions had to be applied fully at the time they became necessary (apart from a short waiting period). Under the nFTK, benefit reductions can be smoothed over a period of no more than 10 years. Furthermore, benefit reductions that are included in a regular recovery plan are conditional on the future financial situation; each year, the recovery plan is refreshed (again using a recovery period of 10 years), and the necessity of benefit reductions is thus reassessed. However, a benefit reduction that is needed as a result of the backstop requirement is unconditional, even though it can be smoothed over a period of no more than 10 years.

112. Under the nFTK, benefits are reduced later than under the old FTK; however, the nFTK also ensures that financial prosperity will be distributed later. The process of delaying distribution of financial prosperity is executed by imposing certain conditions on the indexation of the (accrued) pension rights and benefits. One of these conditions concerns a threshold for indexation. In case indexation is granted, the pension fund can only grant indexation to a level that could be sustained for the future, thereby taking into account younger generations. This sustainable indexation rule implies that the pension fund should have sufficient financial means that exceed the policy cover ratio of 110 percent. This is necessary for the pension fund to grant this level of indexation, thereby taking into account reasonable expectations for the future. Also, before a pension fund is allowed to repair earlier benefit reductions or partial indexations from previous years, the pension fund should have sufficient financial means in order to guarantee sustainable and full regular indexation in the future.

113. Elements distorting the market valuation of the pension funds economic position are present under the nFTK.

- In 2012, the UFR became part of the interest rate term structure that pension funds are obliged to use to discount (value) their pension liabilities. The introduction of the UFR for pension funds followed the developments in the insurance industry. With the introduction of the UFR at the fixed amount of 4.2 percent, the economic correlation between reduction of the coverage ratio in the pension funds with the low interest rate environment was significantly reduced. However, following the advice of an independent commission in July 2015, the DNB changed the method to derive the UFR, thus partially removing this market inconsistency in the nFTK due to a fixed and arbitrary UFR. The new UFR method aims to achieve a more realistic determination of the actuarial interest rate used by taking into account past experience;[13] and

- The nFTK states that contributions should be cost effective and actuarially sound. However, the determination methods are not market consistent. The contributions can be based on the moving average of the interest rates of the last years (with a maximum of 10 years). Or the

[13] The new UFR is calculated using the following rules: (i) a level of the UFR based on a moving average of 20-year forward swap rates over the previous 120 months; (ii) a starting point for the UFR method (the 'First Smoothing Point') at 20 years; and (iii) from the starting point, the rate grows towards the UFR level, but never reaches it. The extrapolation method includes market information, even after the starting point. The weight attached to these market observations gradually decreases over time.

contributions can be based on the expected return on the pension fund's assets, if certain conditions are met. The expected return is not an economic discounting rate, and the Ministry of Social Affairs and Employment (MoSA) sets the maximum allowed returns per asset class. To compensate for this effect, the nFTK simultaneously strengthened the conditions for cushioning the contributions based on the expected return on the pension fund's assets. For instance, the pension fund needs to include a mark-up to cover future-proof indexation by at least the projected rate for price inflation (or the fund's own inflation ambition if that is higher).

114. An important weakness in the financial assessment framework of pension funds has been introduced with the nFTK. Under the old FTK, pension funds that failed to meet the requirements for the minimum regulatory own funds had to charge a premium that would clearly contribute to the recovery of the financial position. That meant that the premium for new accruals should at least be equal to the value for which those new accruals would appear on the liabilities side of the balance sheet. When the nFTK was created, this criterion was cancelled. This implies that the current contributions do not have to be sufficient to cover the increase in technical provisions that results from the new accrual of benefits. An important part of the pension sector is affected by this situation. The authorities should reinstate the sound requirement to charge a pension contribution that should not increase the coverage deficit of a pension fund.

115. The prudent person principle remains at a high level. The new legislation continues to state that the prudent person principle is treated as an open norm. Although the rules are not fundamentally changed, the nFTK does provide a tighter description of the existing norm of the prudent person principle, but it is far less prescriptive when compared to the Solvency II equivalent definition. The authorities are recommended to tighten the prudent person regime closer to the Solvency II definition.

116. Since the introduction of the nFTK, in 2015, pension funds are obliged to carry out a feasibility test at least on a yearly basis. This feasibility test is based on a stochastic calculation along a set of 2,000 scenarios over the lifetime of the liabilities, with a maximum of 60 years.[14] The calculation incorporates the policy of the pension fund concerning the pension promise, the premiums, the indexation, and the investments. The key results from this feasibility test estimates the expected pension result (50th percentile) and the pension result in a negative scenario (5th percentile). The feasibility test provides the pension fund's board with sensitivity analysis on the financial set-up of the pension scheme, the expected pension results, the underlying expectations, and the corresponding risks. However, the time horizon of 60 years dilutes the informative power of this tool to steer the financial condition of the pension fund. An additional shorter projected period calculation would add clarity on the performance of pension funds. The authorities are recommended to introduce an additional test to the feasibility assessment of the pension funds with a projection period of about 10 years.

[14] The horizon of the calculation for a pension fund with a relatively old population is shorter than for a younger population.

117. The third pillar covers the provision of pensions through annuity products and retirement savings plans issued by insurers and banks. Income from these annuity products can supplement the income from the AOW and occupational pension schemes. There are several types of products in third-pillar schemes that are tailor made to the customer's needs and risk profile. The industry offers unit- linked products with profit policies, and products with minimum return guarantees. The payout of these products can be in the form of an annuity or in the form of a lump sum that must be used to purchase an annuity. The supervision of the third pillar is covered as part of the insurance supervision.

H. Market Conduct Supervision

118. Intermediaries must be licensed by the AFM. In recent years, additional legislation has been passed in order to improve the quality of intermediary services. As of January 1, 2014, knowledge and ability requirements were introduced for the insurance advisors. Financial institutions are responsible for monitoring compliance with the requirements among their employees (Section 4:9, Subsection 2, Wft, and Section 5, BGfo).

119. On January 1, 2013, a ban on inducements was introduced in the Netherlands. The ban forbids the payment of inducements to independent financial advisers and intermediaries for selling complex financial product (section 86c, Decree on Conduct of Business Supervision of Financial Institutions [BGfo]). Complex financial products include unit-linked insurances, payment (protection) insurance products, funeral insurance products, and capital insurance products. The ban does not apply to non-life insurance and simple life risk products. It does apply to product providers who sell their products directly to consumers (advising or execution only). For product providers who advise and sell to consumers directly, this implies that they have advisory fees and distributor fees separate from the premium paid by the consumer. The ban on inducements is intended to remove the financial incentives that may have been generated by them, and that have led to the mis-selling scandals involving unit-linked insurance and payment protection insurance policies.

120. The image of the insurance industry is recovering from the unit-link policies mis-selling. More than 7 million unit-linked policies were sold in the 1990s without proper disclosure. Only a few years later, when the market conditions deteriorated, hidden costs and other elements in the policy came to light that had not been properly disclosed. The selling arguments to have either planned retirement benefits or sufficient savings to pay off associated mortgages in a bullet payment were far from realistic, as the policies were underperforming according to the disclosed projections at sale. In 2010, insurers agreed to compensate policyholders (estimated cost of €3 billion). In 2011, under the influence of the MoF, insurers started to actively move their policyholders into new policies that corrected the identified issues. The AFM monitored the process and the MoF introduced in 2015 strict requirements in the form of legislation for the way the policyholders were to be approached and motivated for the change. By the end of 2017, all policyholders should have been approached following the AFM requirements. Insurers under Solvency II reported no reserves/capital for the risk

of additional mis-selling-related claims payments materializing, as the insurers view this risk as small or difficult to quantify. A recent insurer's IPO took place, indicating that the mis-selling costs might have been priced by the market already.

121. The development of retail financial products, including life insurance products with a savings or investments component, is regulated. The product development regulation (Section 32f, BGfo) requires that financial enterprises should, when developing new products, also take into account the interests of the customer. The financial product must demonstrably be a result of the balance of different interests:

- The product development process should: clearly define responsibilities, set boundaries for the target audience, analyze scenarios and compare products, link up with other processes in the product chain, and call for a timely evaluation of the product; and
- The following questions should be answered: Does the product deliver value for the money? Does the product fulfill a predefined need for a target group? What is the outcome of the product in different scenarios? Is the product needlessly complicated?

122. The AFM monitors compliance with this regulation by analyzing product data obtained from third-party providers, such as MoneyView. In 2015, 6,277 products in 50 groups were analyzed (not only insurance products).

123. Enforcement of national specific legislation in an FOS environment becomes a challenge. Given the reduced amount of information that the host supervisor foresees will be received from the home supervisor in an FOS environment, the supervision and enforcement of national specific regulations becomes difficult. The enforcement of prudential regulations appears less problematic given the harmonized reporting requirements at the EEA level. Market conduct legislation specific to the Netherlands, such as the ban on inducement regulation or the product development process legislation, on the other hand, faces challenges for the FOS operations—in particular because products offered by financial institutions without an office in the Netherlands are excluded from the regulation's scope. The AFM is recommended to consider the inclusion of the product regulation for all products offered in the Netherlands independently of the location of the provider and to establish mechanisms to credibly enforce national market conduct regulation for the FOS operations.

124. The PW's lenient requirements on market conduct have been complemented through the Pension Communication Act (PCA). The PW states the requirements of transparency and information for the participants, but provides no further guidance. On July 1, 2015, the PCA introduced a number of norms for clearer and more targeted communication to detailed provisions aimed at providing full information, which turned out to be too much and too difficult for consumers to absorb. The new law takes into account lessons from behavioral economics, thus improving communication on pension benefits and the inevitable uncertainty around these future pension outcomes.

125. Important obligations on transparency and communication for pension trustees have been introduced. Under the PCA, trustees are responsible for providing scheme members and pensioners access to information on the likelihood of the pension outcome. This information should be of such quality so as to activate scheme members to either decrease their expenditures or to otherwise prepare for a lower standard of living if applicable (Article 38, PW). In addition, the self-regulation introduced in collaboration with the MoSA, Pension 123,[15] with the explicit aim of making certain information comparable, takes a layered approach.

126. Compliance with the PCA is now supervised by a joint effort between the DNB and AFM. After a pilot investigation into the provision of information on the ambition of the pension schemes, both the DNB and AFM have started a larger, joint investigation into the extent to which pension funds provide information that is balanced, that is, realistic about the possibility of rights cuts and/or loss of purchasing power in the coming years, taking into account the financial solidity of the pension scheme. The DNB assesses the financial setup of the information, whereas the AFM assesses the degree to which information is balanced, correct, comprehensible, and suitable. The results of the investigation will feed into supervisory actions.

127. Both the DNB and AFM have advocated disclosure of costs of asset management and pension administration with positive results. The pension industry body, *(Pensioenfederatie),* has provided subsequent detailed guidance on cost disclosure. The level of underreporting has been exposed, the effects of benchmarking are starting to show, and trustees have become aware that costs do matter in terms of pension outcome, in relation to risk, returns, and pension outcomes. Several pension funds have renegotiated cost with their asset managers or administrators.

128. While more transparency and better information to pension participants is now available, important challenges remain. Given the recent introduction of a ban on inducements in the Netherlands after the mis-selling of unit-linked insurance to pension participants, the question was raised whether access to advice could have become more difficult. The AFM is currently running a project to assess possible implications of the ban on inducement to the accessibility of financial advice. Other countries[16] that have introduced the ban on inducement for financial advice, such as the United Kingdom, are considering mechanisms to secure access to financial advice for that segment of the population that needs most but is unwilling to explicitly pay for that service. The idea of a financial checkup for an accessible cost is one consideration. The authorities are recommended to introduce mechanisms to secure the financial advice that has become of critical importance when pension fund benefits are under-delivering on the expectations[17] and old age income risks are being shifting to the individuals.

[15] http://pensioen123.nl/

[16] For instance, the United Kingdom and several Scandinavian countries have introduced the ban on inducements.

[17] The AFM has published a report on consumer behavior with regard to pensions in 2015, which concludes that one in three people face a pension that is less than they consider necessary.

129. The pension sector is in transition and a new model is in discussion. Discussions are under way to determine a new structure for the pension system, which may include shifting risks to the participants. The new system should address the main issues of the current system: lack of trust created by the uncertainty of the level of benefits or absence of a guarantee and the deficient portability of the pensions that becomes necessary due to the new labor environment with higher self-employment and more frequent job shifting. The forthcoming discussions to determine the new structure of the pension system when including risk-shifting to the participants should introduce awareness mechanisms to make sure that participants can objectively judge the risks that they might be assuming in longevity and investments. In this context, the advice given to second-pillar pension participants employers needs stronger regulations. The advice provided by a pension fund is regulated under the PW is lenient when compared to the requirement for advice provided under the Wft. Also, no rules on the amount of costs or the suitability of the product are incorporated into the PW. The authorities are recommended to harmonized the Wft and the PW with respect to the regulations on the quality of advice and suitability of product. This will be more relevant when more choices become available for pension participants.

STABILITY OF THE INSURANCE SECTOR

A. Market Structure and Performance

130. The Netherlands has a high level of insurance penetration and insurance density. With an insurance premium of 11 percent of GDP, the insurance penetration is one of the highest in Europe. The non-life or general insurance penetration of 8.5 percent of GDP appears very high when compared with the average in Europe of 3.34 percent. This is the result of health insurance being included in non-life statistics, contrary to most countries. Health insurance in the Netherlands is a mandatory social insurance, which is supplied by the private sector. Over 80 percent of the non-life premium corresponds to health insurance. The insurance density or premium per capita is also high due to the inclusion of the health insurance expenditure. Otherwise, it is in line with the advance markets' insurance density average of just over US$3,000. On the other hand, life insurance penetration appears to be relatively low. This is a result of the fact that the mandatory second pillar pensions are provided by pension funds, and only a small portion of pensions are provided by insurers. Insurers manage the assets of several pension funds. However, this only accounts for €80 billion out of a total of €1.2 trillion in mandatory pension savings (Tables 2 and 3).

131. The insurance sector is an important contributor to the financial sector. In terms of assets, the insurance sector accounts for about 17 percent of the sector's assets, with assets just over 140 percent of GDP. About 50 percent of those assets are related to international activities (Table 4). Notwithstanding a constant decline in the number of insurers in the past two decades, from 450 insurers in 1998, a large number of insurers remain active in the market with just under 200 insurers

domiciled in the Netherlands.[18] Of those, 117 are writing non-life business (down from 172 in 2011 through mergers and acquisitions) and 39 are life insurers (Table 5). Also, the number of employment in the sector is important but has come down from 65,000 in 2004 to 50,000 in 2014 (Figure 1).

Table 2. Netherlands: Global Share in Insurance Premium, Penetration, and Density, 2014 1/ 2/

	Jurisdictions	***Gross premiums***		***Penetration***	***Density***
		In millions of U.S. dollars	% share	As % of GDP	USD per capita
Life	*NLD*	*21,370*	*0.81*	*2.63*	*1,257*
	EU	*944,311*	*35.57*	*5.13*	*1,878*
	Advanced markets	*2,232,490*	*84.10*	*4.81*	*2,162*
	World	*2,654,549*	*100.00*		
Non-life	*NLD*	*56,301*	*2.65*	*8.50*	*4,068*
	EU	*616,028*	*29.01*	*3.34*	*1,225*
	Advanced markets	*1,706,373*	*80.35*	*3.68*	*1,653*
	World	*2,123,699*	*100.00*		
Total	*NLD*	*73,706*	*1.58*	*11.12*	*5,325*
	EU	*1,560,339*	*33.35*	*8.47*	*3,103*
	Advanced markets	*3,938,863*	*84.20*	*8.48*	*3,815*
	World	*4,678,248*	*100.00*		

Source: Dutch authorities. Based on Swiss Re Sigma 4/2015 (adjusted).

1/ Advanced markets include Canada, Israel, Japan, Oceania, the United States, Western Europe, and the other advanced Asian economies (Hong Kong, Singapore, South Korea and Taiwan).
2/ EU figures exclude Lithuania and Latvia, as these countries are not included in the Swiss Re Sigma report.

[18] Only the smallest mutual insurers with a premium volume of less than €1 million, technical reserves below €5 million and a maximum coverage per policy of €10,000 are exempted from prudential supervision.

Table 3. Netherlands: Insurance Density, 2014
(Premium in €1,000, Insurance Density in euros)

Premiums	2014	Insurance density
Life	17,405,000	1,034
Non-life excl. Health	11,253,000	669
Health	45,048,000	2,677
Reinsurance	1,236,000	73
Natura	114,000	7
Total	**75,056,000**	**4,460**
Population of the Netherlands	16,829,289	

Source: Dutch authorities.

Table 4. Netherlands: Importance of the Insurance and Pension Sectors to the Financial Sector, 2014

Netherlands	2014	2014	Market share as a percentage of financial sector (consolidated)
Based on total assets	In millions of euros	Percentage of GDP	
Insurers (national activities)	520,753	78.57	9.69
Insurers (consolidated)	928,358	140.07	17.28
Pension Funds (2nd pillar)	1,133,424	170.93	20.76
Financial sector (national activities)	4,885,947	737.20	
Financial sector (consolidated)	5,373,759	810.80	

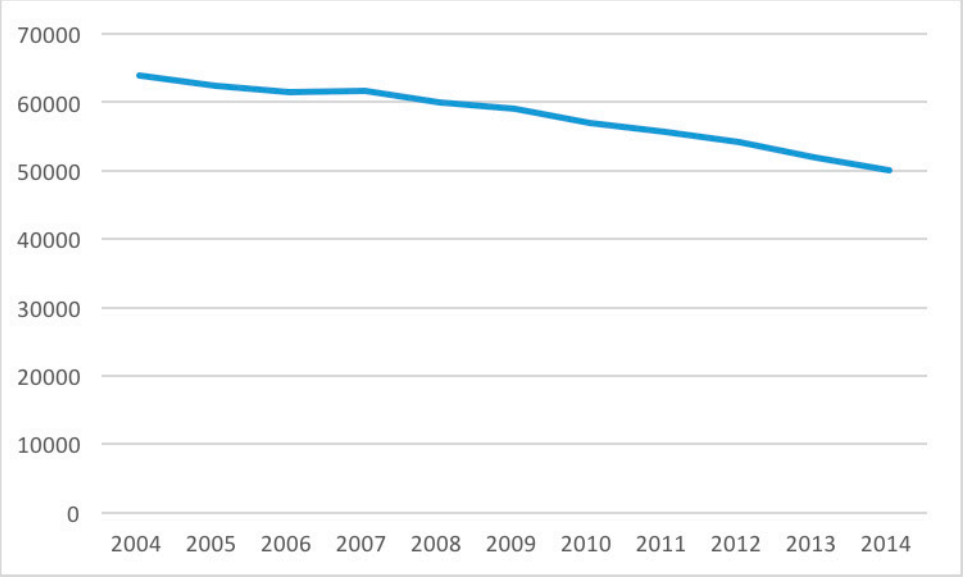
Source: Dutch authorities.

Table 5. Netherlands: Number of Insurers and Insurance Intermediaries, 2011–15

	2011	2012	2013	2014	2015
Domestic insurers					
Life (long-term)	44	43	40	39	39
Non-life (general)	172	158	140	123	117
Reinsurance	8	4	5	5	7
Captive	14	14	13	11	8
Others* (funeral insurers)	29	28	28	26	26
	267	247	226	204	197
Insurance intermediaries					
Agents	NA	NA	NA	45	58
Brokers	8,425	8,158	7,932	7,665	7,468
Supplementary information					
Foreign branches	76	74	64	66	50
Local insurers' branches abroad	12	11	11	13	13
Insurance groups	67	67	67	65	NA

Source: Dutch authorities.

Figure 1. Netherlands: Employment in the Insurance Sector, 2004–14



Source: Association of Insurers.

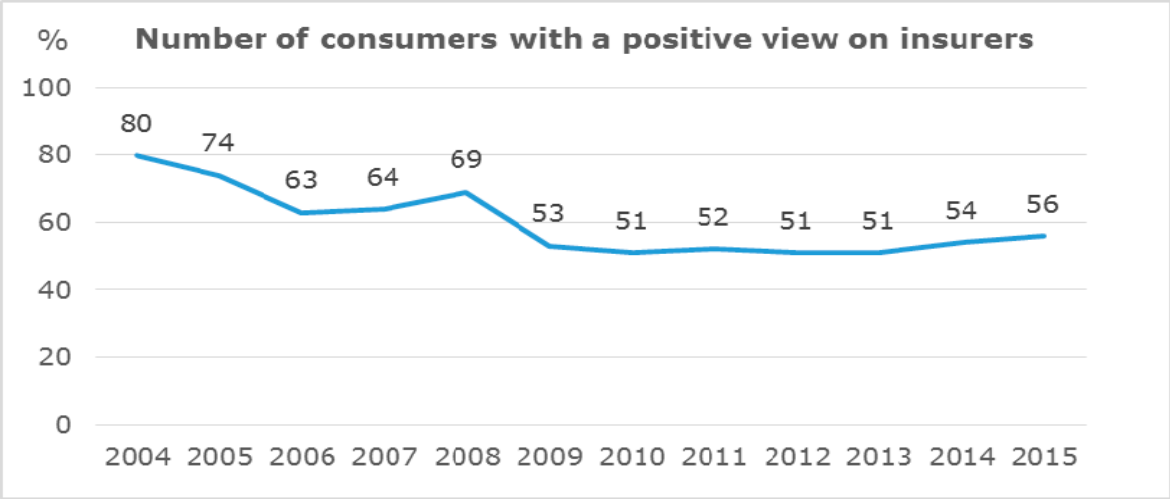
132. The insurance sector is significant with assets of about €495 billion and a premium of €72 billion in 2015 but the sector is not growing. The life sector, accounting for €14.5 billion in premium in 2015, has been experiencing a reduction trend in premiums between 2011–15 of 33 percent (Table 6). This negative trend is expected to continue in 2016. The decline in premium has been attributed to a general loss in image of the sector after the mis-selling of unit-linked policies, which continues to bring political, public, and supervisory attention (Figure 2). Also, the banking sector, having similar saving products with the same fiscal benefits since 2008, has replaced an important share of the life products with their savings products. Finally, the low interest environment has reduced the attractiveness of life policies. On the other hand, the assets of life insurers have grown from €365 billion in 2011 to €422 billion in 2015, a 16 percent growth. This is mainly the result of a strong capitalization in preparation for the Solvency II compliance during 2014 and the low interest rate environment, which increased the market value of existing bonds. The amount of non-life premium of €57 billion (including health insurance) has basically not changed since 2011. The health sector has been continuously growing and thus has offset the losses in premium of the other non-life lines of business that have resulted mainly due to a change in the legal structure of a large insurer from a subsidiary to a branch operation (Figure 3).

Table 6. Netherlands: Insurance Premium and Assets, 2011–15
(In millions of euros)

	2011	2012	2013	2014	2015
life					
Gross premiums	22,020	19,102	18,384	17,694	14,796
Net premiums	20,176	18,124	17,519	15,851	13,889
Total assets	365,202	398,829	375,398	432,096	422,017
Nonlife					
Gross premiums	56,734	55,898	56,938	56,054	57,438
Net premiums	51,493	52,447	53,689	53,051	55,357
Total assets	68,580	75,104	72,956	73,980	72,917

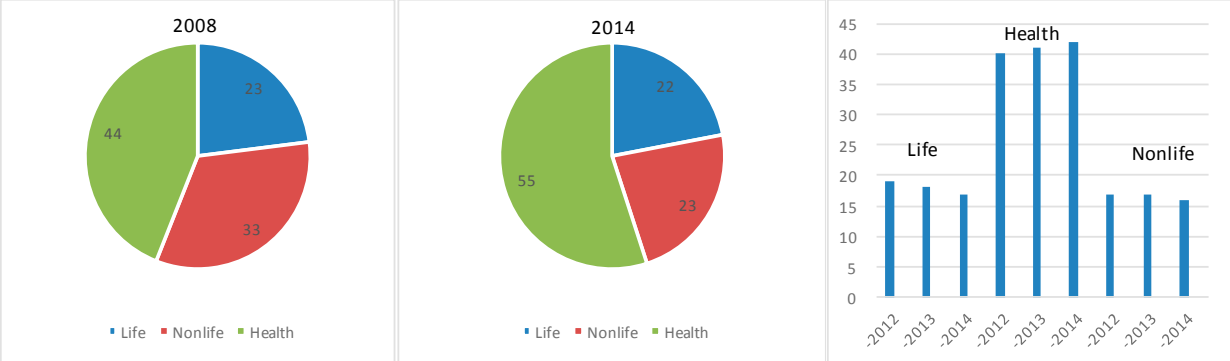
Source: Dutch authorities.

Figure 2. Netherlands: Image Assessment of the Insurance Sector, 2004–15



Source: Association of Insurers.

Figure 3. Netherlands: Insurance Premium Split Development, 2008–2014
(In percent)



Source: Dutch authorities; and the Association of Insurers.

133. Health insurance that is offered as part of the social security program is not analyzed in this technical note. Health insurance is mandatory and is offered as part of the social security program by private insurers with the same standard coverage, no underwriting, and the same premium, regardless of age or state of health. To compensate insurers for the different risk profiles

assumed, a risk equalization is in place. Due to its limited impact on the stability of the financial sector, given that the premium is adjusted according to the claims costs, the health insurance sector is not covered in this technical note.[19]

134. Most of the foreign large global insurers operate in the market with an important share in the non-life business. Life insurance is largely provided by national insurers with only 5.4 percent of foreign insurers' participation, of which the majority use a subsidiary presence (4.5 percent). In the non-life sector, the foreign insurers account for over 50 percent of the premium. The three legal forms used by insurers are equally important: subsidiaries (22 percent); branches (18 percent); and cross-border insurers under the FOS provision (14 percent) (Table 7).

Table 7. Netherlands: Foreign Insurers' Market Participation in Percentage of the Total Premium, 2014
(In millions of euros)

	Life	Non-life	Total
Total Premium	17,578	11,250	28,828
Branch offices	0.39	17.54	7.08
Free provision of services	0.48	13.87	5.71
Subsidiaries	4.49	21.96	11.31
Total foreign insurers	5.36	53.37	24.10

Source: Dutch authorities.

Note: Non-life insurance does not include health insurance.

135. The insurance sector is dominated by eight insurance groups, two of them focus on health insurance and another is a designated G-SII. Eight insurance groups account for 80 percent of the insurance market. Excluding two groups that are solely providing health insurance, the insurance market is covered by six groups. Of the 10 insurance groups in Table 8, with 2 exceptions, all business is domestic (one of the groups has less than 6 percent of its premium is from outside the Netherlands). The two groups that are globally active have 48 percent and 24.5 percent of their premium related to domestic business. The latter has recently been designed a G-SII.

[19] Gross health premiums represent all payments to cover total health costs stemming from the Dutch Zorgverzekeringswet (Zvw, Health Insurance Law). These costs are financed through an income dependent contribution centrally levied by the government as part of income tax (52 percent in 2014), the nominal premium (34 percent in 2014), the governmental contribution for children (6 percent in 2014) and own payments (7 percent in 2014). The Zvw determines that the income dependent contribution should be equal to the nominal premium, governmental contribution for children and the own payments combined (50/50 division). If in a given year this condition is not met, corrections are applied in the following years.

Table 8. Netherlands: Insurance Groups Active in the Netherlands, 2014

	Assets			Premiums		
	Consolidated	Domestic Operations	Domestic Operations	Consolidated	Domestic Operations	Domestic Operations
	(In millions of euros)		(In percent)	(In millions of euros)		(In percent)
1 NN Group N.V.	165,000	146,000	88.48	9,340	4,500	48.18
2 Aegon N.V.	424,902	106,031	24.95	19,864	4,864	24.49
3 Achmea B.V.	93,205	85,942	92.21	20,002	18,893	94.46
4 VIVAT N.V.	60,525	60,525	100.00	3,105	3,105	100.00
5 ASR Nederland N.V.	51,137	51,137	100.00	3,953	3,953	100.00
6 Delta Lloyd N.V.	63,883	52,641	82.40	3,964	3,172	80.02
7 Coöperative VGZ U.A.	7,709	7,709	100.00	10,514	10,514	100.00
8 CZ Groep Zorgverzekeringen	6,314	6,314	100.00	8,322	8,322	100.00
9 Generali Verzekeringsgroep N.V. 1/	5,934	5,934	100.00	383	383	100.00
10 ABN AMRO Verzekeringen B.V.	5,882	5,882	100.00	583	583	100.00
Total	884,491	528,115	59.71	80,030	58,289	72.83

Source: Dutch authorities.

1/ Generali includes only the Dutch business.

136. The top six life insurers accounted for 87 percent, and the top six non-life insurers for 50 percent of the gross premium in 2015. The largest six life insurers have all above 10 percent market share, while the next insurers have market shares of 2 percent or less. The non-life sector (excluding health) is less concentrated. With the exception of the largest insurer having a 21 percent market share, the next nine insurers accounted for 50 percent of the market in terms of gross premium in 2015 (Table 9).

137. The premium split is characteristic of a mature market with a balanced business mix. At end 2015, the life business consisted of 70 percent annual premium and 30 percent single premium. The participating policies account for 40 percent of the business, while 60 percent of the premium is related to nonparticipating policies. The non-life premium in dominated by motor and property business, each accounting for about 35 percent and 33 percent, respectively, of the non-life business excluding health insurance. Other lines of business are general liability and financial guarantees, each accounting for about 10 percent of the premium. Health insurance is over four times higher than all other non-life business (Table 10).

Table 9. Netherlands: Market Share of the Top 10 Individual Insurers, 2015
(In percent)

Life sector - as percentage of total assets	% of industry
Nationale-Nederlanden Levensverzekering Maatschappij N.V.	21
Aegon Levensverzekering N.V.	21
SRLEV N.V.	13
Achmea Pensioen- en Levensverzekeringen N.V.	12
Delta Lloyd Levensverzekering N.V.	10
ASR Levensverzekering N.V.	10
Optas Pensioenen N.V.	2
Generali levensverzekering maatschappij N.V.	1
ABN AMRO Levensverzekering N.V.	1
Allianz Nederland Levensverzekering N.V.	1

Non-life sector - as percentage of total gross premium	% of industry
Achmea Schadeverzekeringen N.V.	21
Nationale-Nederlanden Schadeverzekering Maatschappij N.V.	9
Delta Lloyd Schadeverzekering N.V.	7
ASR Schadeverzekering N.V.	7
Atradius Credit Insurance N.V.	6
REAAL Schadeverzekeringen N.V.	5
Aegon Schadeverzekering N.V.	5
Amersfoortse Algemene Verzekering Maatschappij, N.V.	4
Amlin Europe N.V.	4
Univé Schade, N.V.	3

Source: Dutch authorities.

Table 10. Netherlands: Insurance Gross Premium by Line of Business, 2013–15
(In billions of euros)

Life	2013	2014	2015
Regular premiums			
Non-participating	7.35	6.99	6.64
Participating	4.87	4.21	3.60
Single premiums			
Non-participating	3.56	3.41	2.11
Participating	2.49	2.96	2.34
Indirect business	-0.0	5.4	6.8
	18.27	17.58	14.70
Non-life			
Motor	4.38	3.93	3.88
Property	4.02	3.73	3.72
General Liability	1.12	1.06	1.03
Financial Guarantee	1.15	1.17	1.22
Accident & health	45.11	45.05	46.54
Other	1.40	1.36	1.30
	57.19	56.30	57.70

Source: Dutch authorities.

138. The insurance sector investments are well diversified and consistent with the type of assumed liabilities. The unit-linked business, where the investment risk is borne by the policyholders, accounted for 28 percent of the investments in 2014 and 26 percent in 2015. Life insurers' liabilities, where the investment risk is retained, are traditionally matched by fixed income investments. As such, the life insurers' investment assets are mainly fixed income securities with over 55 percent of the investments held in bonds. Loans (mainly mortgages) that also produce fixed income account for about 25 percent of the investments. Only about 5 percent of the investments are held in variable income including the collective investments, and less than 5 percent is held in cash (Table 11). Non-life insurers having shorter-term liabilities generally need more liquid assets, and this is reflected partly in their investments. Non-life insurers invest in cash and deposits at about 10 percent of the assets, about 17 percent of which is in collective investments. Fixed income investments are dominant and account for 77 percent of the investments in 2015 (68 percent in 2014). Equity investments correspond to 6 percent of the investments (Table 12).

Table 11. Netherlands: Life Insurance Investments, 2011–14
(In millions of euros)

	12/31/14	*12/31/15*
Intangible assets	35.83	-
Deferred tax assets	4,744	5,492
Property held for own use	233	251
Property	5,542	4,615
Holdings and participations	8,133	14,370
Equities - listed	6,677	6,580
Equities unlisted	1,497	871
Government bonds	118,036	112,959
Corporate bonds	33,278	34,505
Structured bonds	209	59
Collateralised securities	11,699	8,318
Collective Investment Undertakings	6,429	9,295
Derivatives assets	19,376	18,288
Deposits other than cash equivalents	4,529	1,785
Assets held for index-linked and unit-linked contracts	116,178	104,802
Loans on policies	51	289
Loans and mortgages to individuals	48,359	51,824
Other loans and mortgages	19,778	26,781
Reinsurance recoverables	7,701	4,666
Insurance and intermediaries receivables	1,477	1,056
Cash and cash equivalents	8,330	8,585
Other assets	9,805	6,624
Total assets	432,096	422,017
Total liabilities	401,661	389,064
Excess of assets over liabilities	30,434	32,954

Source: Dutch authorities.

Table 12. Netherlands: Non-life Insurance Investments, 2011–14
(In millions of euros)

	12/31/14	*12/31/15*
Intangible assets	3	1
Deferred tax assets	243	201
Property held for own use	190	191
Property	171	93
Holdings and participations	5,070	5,482
Equities - listed	2,415	2,059
Equities unlisted	526	137
Government bonds	18,914	17,721
Corporate bonds	13,590	11,360
Structured bonds	5	16
Collateralised securities	830	982
Collective Investment Undertakings	7,896	7,846
Derivatives assets	179	185
Deposits other than cash equivalents	1,503	864
Assets held for index-linked and unit-linked contracts	24	19
Loans and mortgages to individuals	775	1,002
Other loans and mortgages	633	928
Reinsurance recoverables	2,382	2,273
Insurance and intermediaries receivables	9,416	11,096
Cash and cash equivalents	3,382	3,322
Other assets	5,831	7,136
Total assets	73,980	72,917
Total liabilities	48,947	47,418
Excess of assets over liabilities	25,033	25,499

Source: Dutch authorities.

139. The quality of the fixed income investments is higher in the life sector. The exposure to governments correspond to 77 percent (2015) of the life fixed income investments and 58 percent of the non-life fixed income investments. The rest corresponds to corporate bonds. The exposure to highly rated countries in the life sector corresponds to 69 percent of the fixed income investments, while it constitutes 59 percent for the non-life fixed income investments (Table 13). This could be an indication of the search for yield in the non-life sector to compensate for poor technical results that materialize much faster than in the life sector.

Table 13. Netherlands: Country Exposure of the Insurance Investments, 2014–Q3-2015
(In millions of euros)

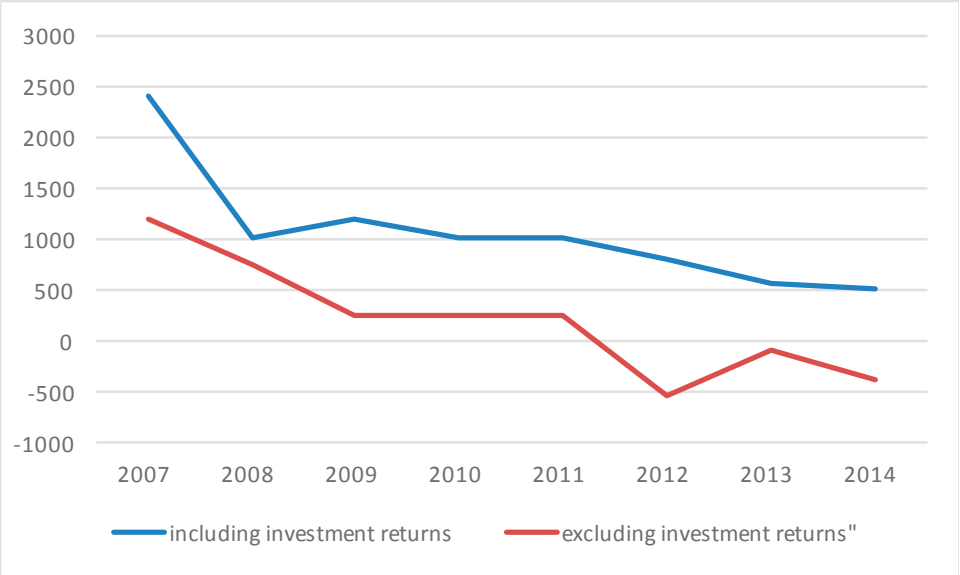
	Economic Value			
	2014		Q3-2015	
	Amount	% of class	Amount	% of class
Life				
By type of issuer				
Corporate securities	33,438	22	34,063	23
Government	118,124	78	116,211	77
By Country				
GERMANY			40,106,444	27
NETHERLANDS			37,994,744	25
FRANCE	NA		17,134,155	11
AUSTRIA			8,846,588	6
Other			46,192,795	31
Non-Life				
By type of issuer				
Corporate securities	13,825	42	12,593	42
Government	19,146	58	17,578	58
By Country				
NETHERLANDS			9,033	30
GERMANY			3,919	13
FRANCE	NA		3,186	11
UNITED STATES			1,731	6
Other			12,302	41

Source: Dutch authorities.

140. The highly competitive non-life sector is not growing and profitability remains a challenge. The lack of growth in the non-life market (see Table 6 and Figure 3) is a sign of a saturated market where competition is not only at national level but at European level, with foreign insurers accounting for over 50 percent of the business (excluding health) (see Table 7). The EU single market makes it even more difficult to adjust prices for domestic insurers to return to

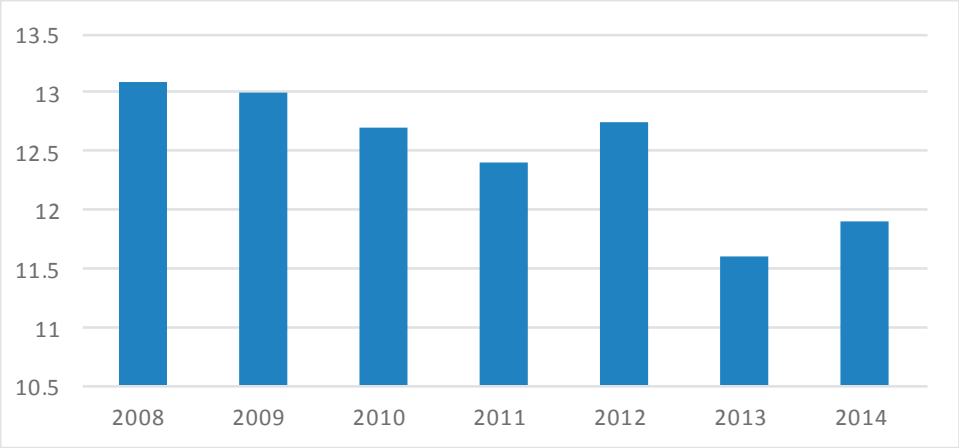
profitability. The market's openness might be a possible explanation for the long-lasting negative results of the sector when excluding investments return (Figure 4) and the efforts of insurers to lower costs rather than increase the premium (Figure 5).

Figure 4. Netherlands: Non-life (Excluding Health) Underwriting Performance, 2007–14



Source: Dutch authorities.

Figure 5. Netherlands: Non-life Sector (Excluding Health) Cost Ratio including Acquisition Costs, 2008–14
(As a percentage of premium)



Source: Dutch authorities.

141. The low interest rate environment poses a serious threat to the stability of life insurers. Based on reported information from EIOPA, Moody's Investors Service, and Standard & Poor's Ratings Services (May 2014), about 40 percent of the life business has a guaranteed investment return rate (Table 14). The average guaranteed rate of 3.6 percent is one of the highest in the EU. The reported investments spread remains positive, albeit very small at about 0.2 percent. In addition, the duration gap between assets and liabilities of 5.5 years indicates an important level of duration mismatch that could reduce the investments spread or turn it negative as a result of the reinvestment risk in the current low interest rate environment. In addition, life products, as seen by the reduction in premium production, have lost attractiveness exacerbating the concerns on the stability of the sector.

142. Considering that traditional business models in the insurance sector are under pressure, insurance companies should adapt their business models. Without sustainable business models, financial soundness of insurers will be undermined. In the longer run, they may be in danger of not meeting their obligations towards policyholders. The DNB is therefore rightly raising awareness among insurance companies to make their business models future proof, including by lowering costs, and by exploring new innovative business propositions in a risk-controlled environment.

Table 14. Netherlands: Selected EU Countries: Life Sector Duration Spread Exposure, 2014

	duration gap	Share of products with guaranteed rate (%)	Average guaranteed rate	Investment spread (%)
Germany	gt 10 years	75	3.1	-0.4
Sweden	gt 10 years	70	3.3	-0.5
Austria	gt 10 years	58	3	0.9
The Netherlands	5.5 year	40	3.6	0.2
France	4.75 years	na	0.5	-0.6
Denmark	4.75 years	75	2.6	0.1
Spain	lt 1 year	na	3.8	1.1
Italy	lt 1 year	na	2.5	0.6
Ireland	lt 0 year	na	1.5	1.3
UK	lt 0 year	19	0.5	-0.1

Sources: European Insurance and Occupational Pensions Authority; Moody's Investors Service; and Standard & Poor's Ratings Services (May 2014).

Notes:
- gt= greater than, lt= less than, na= not available.
- Investment spread is the difference between the internal rate of return on assets and the internal rate of return on liabilities.
- Duration gap is the difference between the average duration of liabilities and assets.

B. The Solvency Position of the Insurance Sector

143. The high solvency ratios under Solvency I have significantly declined under Solvency II, but, on average, the market remains solvent under the new solvency regime. The preliminary 2014 solvency ratios under Solvency II based on the parallel run of Solvency II reporting showed a solvent market, but with significantly lower solvency ratios (Table 15). This parallel reporting in 2014 was a good indication of the expected effect of Solvency II as confirmed by the reported numbers at the end of Q4-2015. The excess of capital over the required minimum capital and over the prescribed capital required has also suffered a significant reduction under the new solvency regime. When compared with the 2015 numbers under Solvency I, the reported numbers for Q4-2015 show the maximum reduction in the available capital resources over the prescribed capital of 69 percent for reinsurers and the minimum reduction for non-life insurers of 32 percent (Table 16). These ratios are preliminary as the first reporting ratios under Solvency II will only be available in 2017. However, an EU-wide comparison of Solvency II ratios will still not be possible given that Dutch insurers are not using the transitional technical provisions like insurers in other countries do.

144. However, the impact of the UFR extrapolation and the VA are significant for the Dutch market in terms of own funds. Taking advantage of the detailed information provided by the insurers on their cash flows in the 2016 EIOPA stress test, the DNB has estimated the effect of the UFR extrapolation and the VA on the solvency position of the top six life insurers. To determine the impact of the UFR extrapolation, the DNB uses the risk-free yield curve based on the Euro swap curve by means of the par swap curve (fixed rates that are exchanged against six-month Euribor) for which rates are available up to a maturity of 50 years.[20] The effect of the VA is adjusted by a parallel shift of the risk-free curve for durations up to 20 years by the corresponding value (18 basis points in 2Q-2016) and then the risk-free yield curve is extrapolated to the UFR (Figure 6). The DBN estimations[21] show that correcting for the UFR effect corresponds to a very material increment in the liabilities. The effect of the VA alleviation is important but lower than the UFR removal effect.

145. The substantial impact of the UFR extrapolation under Solvency II will decline gradually. The shape of the UFR extrapolation after 20 years results in an accelerated reduction of its impact. A closed block of business will lose approximately 30 percent of the UFR benefit after 5 years and over 50 percent after 10 years. Accordingly, the insurers will have to increase their own funds by

[20] The curve excluding UFR and VA is constructed using par swap curve (fixed rates that are exchanged against six-month Euribor). These par swap rates are available up to a maturity of 50 years. From this curve the CRA (Credit Risk Adjustment from Solvency II) is subtracted. This curve is subsequently bootstrapped into zero-coupon rates, that in turn are decomposed into forward one-year rates. The forward rates are kept constant when interpolating for years where no par swap rate is available. For instance, knowing the 20-year and the 30-year zero-coupon rate, one can calculate the 10-year zero-coupon rate 20 years forward. The forward 1-year rates between 20 and 30 years are then set equal to the 10-year zero-coupon rate 20 years forward. Based on the 40-year and the 50-year zero-coupon rates, we calculate the intermittent forward 1-year rates in the same manner. This forward rate (equal to the 10-year zero-coupon rate 40 years forward) is then also extrapolated constantly for the forward rates for the years beyond 50 years. Knowing all these forward rates, the corresponding zero-coupon curve can then be constructed.

[21] The used approach by the DNB is an estimation that does not take account of the decrease of SCR and the falling free of the risk margin.

20 percent every five years to maintain their existing own funds.[22] Given that the additional own funds required in the coming years are not expected to drive the solvency ratio below intervention points, the needed additional capital will be left to the insurers' management discretion. In the long term, de-risking or substantial capitalization will be required.

Table 15. Netherlands: Preliminary Assessment of the Effect of Solvency II on the Solvency I Ratios, 2014
(In percent of required capital)

	Solvency ratio	
	Solvency I	**Solvency II**
Life	244	146
Non-life	315	167
Reinsurer	692	282

Source: Dutch authorities.

Note: Solvency II ratios are preliminary and based on the parallel run of Solvency II reporting for 2014.

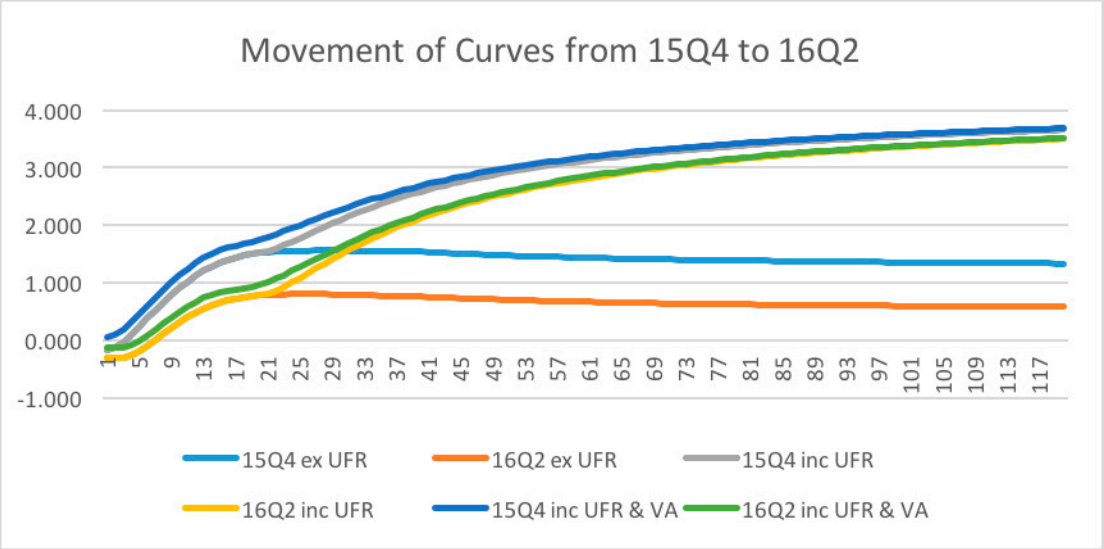
Table 16. Netherlands: Preliminary Assessment of the Effect of Solvency II on the Excess Capital Resources under Solvency I
(In percent of required capital)

	Solvency I	Solvency II
	2015	Q4-2015
Available capital resources over Minimum Capital Requirment		
Life (long-term)	775	408
Non-life (general)	966	502
Reinsurance	1,915	789
Available capital resources over Prescribed Capital Requirement		
Life (long-term)	259	171
Non-life (general)	282	191
Reinsurance	671	209

[22] These numbers follow under the assumption of constant SCRs; however, given the low amounts of new business, the SCR of Dutch life insurers would typically decrease (apart of some possible LAC DT effects).

Source: Dutch authorities.

Figure 6. Netherlands: Risk Free Yield Curves Under Solvency II Including VA and those that Exclude UFR, December 2015 and June 2016



Source: Dutch authorities.

146. Without an adjustment of the UFR, Solvency II does not reflect well the economic conditions of insurers in the current low yield environment. The impact of the UFR extrapolation on the solvency position of the insurers, in a manner that allows them to maintain adequate solvency ratios, are not economically substantiated given that the yield of risk-free available investments with long duration are far below the EIOPA risk-free yield curve. Thus, a shock would trigger intervention by the supervisor, a subsequent transfer of liabilities to another entity would reveal a gap in the coverage of assets over the value of the liabilities calculated without the UFR. This is because the amount of assets that the acquiring entity would need when assuming the liabilities would arguably be close to the value of liabilities calculated without UFR. Hence, in such a case a successful transfer of liabilities would only be possible after a reduction of benefits of policyholders. The DNB is recommended to maintain its forceful discussions with the sector to remove the fragility of the insurers, supported by the second pillar requirements of sound risk management, including the imposition of recovery and resolution plans with credible managerial actions.

147. The DNB should closely monitor the transition into Solvency II. Without taking away the merits of Solvency II, which represents a substantial improvement in the prudential framework, its effectiveness remains untested. In particular, the DNB should use its position in EIOPA to have the following aspects reviewed: the UFR extrapolation methodology as part of the review of the long-term guarantees (LTG) measures scheduled in 2020, the LAC DT in the SCR review scheduled in 2018, and the VA in the review of the LTG measures in 2020. The DNB has already taken several actions towards these goals, such as public statements about the UFR, taking the lead on LAC DT in EIOPA's SCR review project group, and an internal theme note on the consequences of the VA. The DNB is

recommended that elements that limit the economic valuation of the liabilities should be closely monitored and, using Pillar 2 powers, a series of well-defined actions, such as dividend payout restrictions and capital add-ons, should be considered based on the degrees of impact that VA and UFR adjustments have on the solvency positions of insurers.

C. Risk Management

148. The DNB introduced in 2014 an annual submission of the own risk assessment for insurers. This document has evolved into the ORSA submission as required under Solvency II. In 2014, the authorities introduced a Solvency II principles-based capital adequacy test in addition to the Solvency I capital requirements, the so-called Theoretical Solvency Criterion (Theoretisch Solvabiliteitscriterium). In that context, insurers had to perform, as part of their risk management, an ORSA-like Own Risk Assessment (Eigen Risicobeoordeling) and submit the results to the DNB.

149. Working together with the insurers, the ORSAs have been implemented based on the extensive Solvency II requirements. The ORSA submission is annual, and the DNB has already received the third set of ORSAs. The DNB's review of the ORSAs and the corresponding feedback transmitted to the insurers has completed compliance with the Solvency II Directive (Article 45) and pertinent EIOPA Guidelines (7, 8, 10, 11, 13, 17, and 18). In the run-up to the implementation of Solvency II, the DNB actively engaged with insurers to prepare for ORSA reporting. Through a pilot program and extensive round table sessions, insurers were motivated to voluntarily send ORSA reports. These reports were evaluated and benchmarked. Feedback was given on the individual and industry levels. In 2015, the DNB received ORSA reports from almost all insurers. For 2016, the reporting obligation is incorporated in the standard reporting system. The quality and content of the ORSAs are evaluated to ensure compliance with the Solvency II requirements, and, if necessary, supervisory actions are taken.

150. The timely preparation for the submission of the ORSA has benefited the insurers' risk management systems. The DNB has already received the third set of ORSAs. The 2016 ORSAs of the top six insurers have evolved into an internal management tool which includes a range of processes and procedures to identify, assess, monitor, manage, and report both current and forward looking risk and capital positions. The ORSAs include emerging risk analysis, strategic scenarios, top risks management, reverse stress testing, and sensitivity analysis to determine the ability of the company to maintain operations in the coming three years. Both the sufficiency of the capital resources as well as the liquidity are tested.

151. The ORSAs are guided by the risk appetite and risks are managed accordingly. Where significant risks have been identified, action is being taken to either eliminate the risks or tighten the monitoring process. The monitoring process is linked to the required recovery plan, which establishes guidelines on contingency actions the insurers can take. Early warning indicators and triggers are put in place and monitored to determine the recovery measures that need to be taken. All companies have taken managerial actions to improve their past ORSA results.

152. The main risks to which the top six insurers are exposed include credit risk, interest rate risk, policyholder behavior, equity risk, and longevity risk. Most capital is held to protect the company against adverse developments impacting the risks mentioned above. Each of these main risks are closely monitored and ranges are determined where assuming further risk is possible, where the targeted risk profile is met, where the risk exposure is within a warning area and where the violation of the risk tolerance is reached. The ranges are set following board approval of the risk appetite and available capital.

153. Notwithstanding the existing quality of the ORSAs, further improvement to effectively complement the Solvency II first pillar is necessary:

- The diversification benefit is a key quantity for the solvency determination. The discussion of those quantities in the ORSAs should be encouraged. The diversification benefit varies among the top insurers, from 23 percent to over 55 percent of the gross SCR. As a percentage of the market risk, it can be as high as 69 percent. With such a relevance for the net SCR determination, sensitivity on the diversification benefit as well as a discussion on scenarios or combination of scenarios affecting the diversification component should be included in the ORSA discussion;

- The LAC DT impact on the SCR calculation is lower than the diversification benefit, but it shows a wide variation from almost zero to 25 percent of the gross SCR. Commenting on scenarios affecting the LAC DT will also be recommended as part of the ORSA, in particular when the amount is relevant for the SCR calculation;

- Where necessary, additional scenarios that could involve the internal models' assumptions breaking down should be included;

- The feasibility of management actions, in particular in a crisis mode, should be discussed in detail; and

- The quality of the reverse stress tests needs to be improved to include a detailed description of the pertinent scenarios rather than a series of sensitivities.

D. Stress Testing

154. The DNB relies on the EIOPA stress test for systemic risk and macroprudential supervision, and its involvement is significant. The DNB is a member of the EIOPA task force and is involved heavily in designing, validating, and ultimately drafting the stress tests and providing input according to the risks viewed to be important for the insurance sector in the Netherlands. Given that the life sector is concentrated in six players of significant size, the risks identified for them are in line with the EU-wide macroeconomic risks that affect the whole region: persistent low risk free rates and increased asset price volatility, making market risk the main source of concern for the life insurance industry's stability.

155. The DNB does not perform market-wide stress tests but, as part of the ORSA reporting, insurers are requested to carry out stress tests and sensitivity analysis. As mentioned in the section on risk management, the ORSAs have evolved well and all of them include stress tests that are relevant to each company. This is an important microprudential tool, and can also be used to assess possible systemic risk in the market. By comparing the different stress tests that the sector has implemented, the DNB might want to have the picture for the whole market under some of those scenarios. While there is the temptation to require the ORSA's to include the risks/scenarios that other insurers have considered, the application of such scenarios will not be consistent with the DNB's view of the risk as the ORSA should reflect the company's view of risk. For this reason, a market-wide stress test is the best way to gain the consistent application of a specific scenario for the whole market.

156. The DNB is recommended to carry out country-specific stress tests in addition to the EIOPA stress testing (Article 34 (4) of the Solvency II Directive).[23] While the EIOPA 2016 stress test scenarios correspond to the main risks also seen in the Dutch market, this might not always be the case and important specific domestic scenarios might not necessarily be covered by the EU-wide stress test. For instance, the non-life insurers have not been stressed under the EIOPA exercise. The DNB should define its specific stress scenarios and introduce annual market-wide stress test that should complement the EU-wide stress test.

157. The 2016 EIOPA stress test was highly representative of the industry, and involved strong guidance from the DNB. The six largest life insurers participated in the 2016 EIOPA stress test, accounting for almost 90 percent market share. The DNB's involvement in guiding the insurers' submission resulted in resubmission(s) in all cases, sometime multiple times. Several checks were carried out, including the consistency of the Day One submission with the baseline balance sheet.

158. The 2016 EIOPA stress test exercise consisted of two scenarios, one devoted to a prolonged low yield environment and the other is a combination of low interest rate and market shocks. Scenario 1 LY (S-LY) assumes lower risk free rates used to value assets and liabilities. In particular, it assumes low swap rates as well as lower UFR as one of the possible consequences if yields were to remain low for a considerable amount of time. EIOPA's stress scenario 2 DH (S-DH) consists of a set of price shocks for a large spectrum of assets triggered by two simultaneous events: a shock in asset prices and a drop in the risk-free rate curve as calibrated by the European Central Bank's (ECB) financial shock simulator. This scenario is accompanied by a qualitative questionnaire, which investigates the second-round effects.[24] The stress tests package was published on EIOPA's

[23] Article 34 (4) of the Solvency II Directive states that—in addition to the calculation of the SCR, and where appropriate—supervisory authorities have the power to develop the necessary quantitative tools under the supervisory review process to assess the ability of the insurance or reinsurance undertakings to cope with possible events or future changes in economic conditions that could have unfavorable effects on their overall financial standing. The supervisory authorities shall have the power to require that corresponding tests are performed by the undertakings.

[24] For more details on the 2016 EIOPA stress test scenarios see https://goo.gl/OXCSxr.

webpage in May 2016, with a July 2016 deadline for submissions by participants to their corresponding NCAs.

159. The results reaffirm the importance of the VA for the Dutch market. Namely, in some cases, there is a controversial positive impact on own funds under the S-DH exercise. The participating insurers' benefit from the VA is in some cases stronger than the loss in value afflicting their portfolios due to the holding of high quality assets. In general, the spread increase for the assets in Dutch insurers' portfolios is smaller than the increase of spreads for the assets that are used to fix the VA that considers assets of lower rating. In addition, the duration of the liabilities in the Netherlands is relatively long, and, therefore, the effect of the VA on the liabilities is relatively high.

160. The VA methodology generates disturbing incentives to move to the average portfolio of the EU insurers in order to stabilize the solvency ratios. The VA is based on a currency-specific reference portfolio that is representative for the EU insurers' portfolio. The VA allows for 65 percent of the risk-adjusted spread to be used in discounting the technical provisions. The stated original intention of the VA is to account for the illiquidity of the insurer's liabilities by applying (in an incomplete manner) elements of the replicating portfolio valuation technique. The use of the reference portfolio for the determination of the VA creates worrying incentives when the actual insurer's investment portfolio has a better credit rating. To protect against the effect of variations in the level of the VA on the Solvency II value of liabilities, insurers would have to align the composition of their investment portfolios with that of the reference portfolio. At first glance, the application factor of 65 percent seems to dampen this incentive as it results in only 65 percent of the variability of the spread on the reference portfolio being translated into variability in the level of the VA.[25] However, due to the relatively high duration of Dutch life insurers' liabilities as compared to the duration of the reference portfolio, the sensitivity of the liability value to changes in the VA is relatively high. Therefore, to protect Solvency II own funds against movements in the VA, the investment portfolio has to be highly geared toward the reference portfolio, both in terms of size and composition.

161. The widespread use of the VA can be a source of systemic liquidity risk in the Dutch insurance market. The VA benefit is linked to a reference portfolio that is common to all market participants. From a managerial point of view, hedging that portfolio would stabilize the solvency ratio. Given that reducing the volatility of the solvency ratio is a strong incentive, a large part of the market might end up hedging the reference portfolio, possibly with levered positions in the reference portfolio through the use of derivatives. If this is the case, margin calls could affect the liquidity of a large part of the insurance sector in a stress scenario, and the liquidity plans of insurers should include this risk. The DNB is recommended to monitor the hedging strategy that might be in place to minimize the effect of VA fluctuations for possible liquidity shocks.

[25] The risk correction is fairly static as it is calculated based on historic losses due to default and downgrade on the reference portfolio over a long period of time.

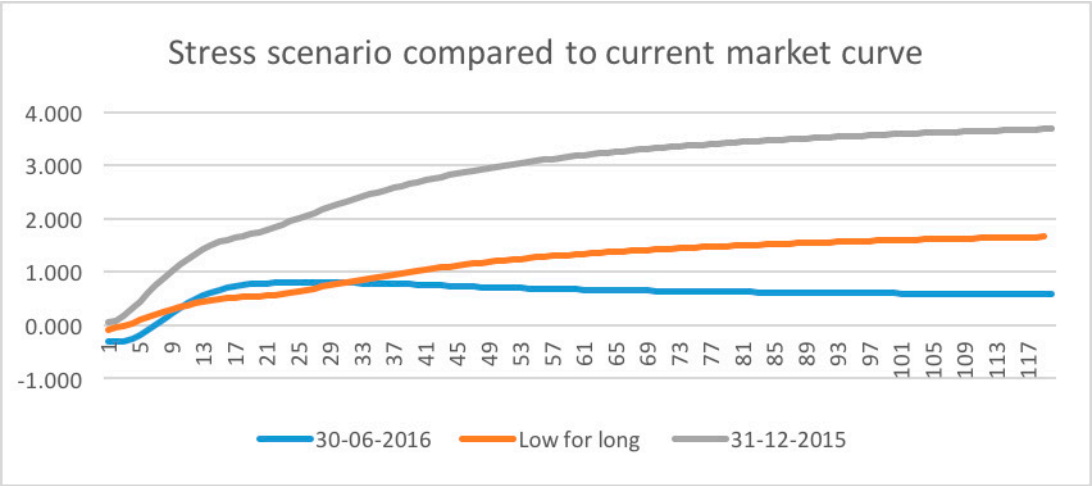
162. The long duration of the insurers' liabilities creates significant vulnerability under EIOPA's stress scenario 1 LY (S-LY) that includes the lowering of the current UFR:

- Notwithstanding the use of interest rate hedging instruments, the effect of the S-LY is substantial, reducing own funds substantially for several insurers. It is to be noted that the existing hedging does not work well in the stress scenario given that the UFR changes that are outside the Solvency II framework are usually not hedged; and

- The application of the LAC DT in the stress scenario becomes important but needs stronger guidance for a consistent application by the insurers. In particular, the calculation of the LAC DT in the derivatives module after the stress varies significantly among the insurers.

163. Notwithstanding the required change in the Solvency II framework to realize the S-LY with a lower UFR, this stress scenario is to be taken seriously. The macroeconomic environment as of June 2016 presents an even more severe scenario than the S-LY. Figure 7 shows the risk-free yield curve that has no UFR but an economic extrapolation beyond the last liquid point that is lower than the yield curve used to discount the liabilities under the S-LY. Thus, the valuation of the liabilities under the June 2016 market conditions without extrapolating to the UFR would lead to even lower solvency positions than those found under the S-LY.

Figure 7. Netherlands: EIOPA's Risk Free Yield Curve in the S-LY Compared with the June 2016 Market Curve without UFR Extrapolation



Source: Dutch authorities.

E. Interlinkages with the Financial Sector

164. Large insurers are connected to the financial system through their use of financial instruments, in particular derivatives. Liabilities with long duration that entail return guarantees are important for the Dutch market. To manage the interest rate risk, insurers enter into interest swap contracts. The net duration on net cash flows is significant for the six largest life insurers, in the order of 50 percent of the aggregated SCR. The duration is even larger under the S-LY (63 percent of the aggregated SCR). Thus, under the current low yield environment, the solvency of insurers depends highly on the issuers of the swaps, and the DNB should monitor the main counterparties.

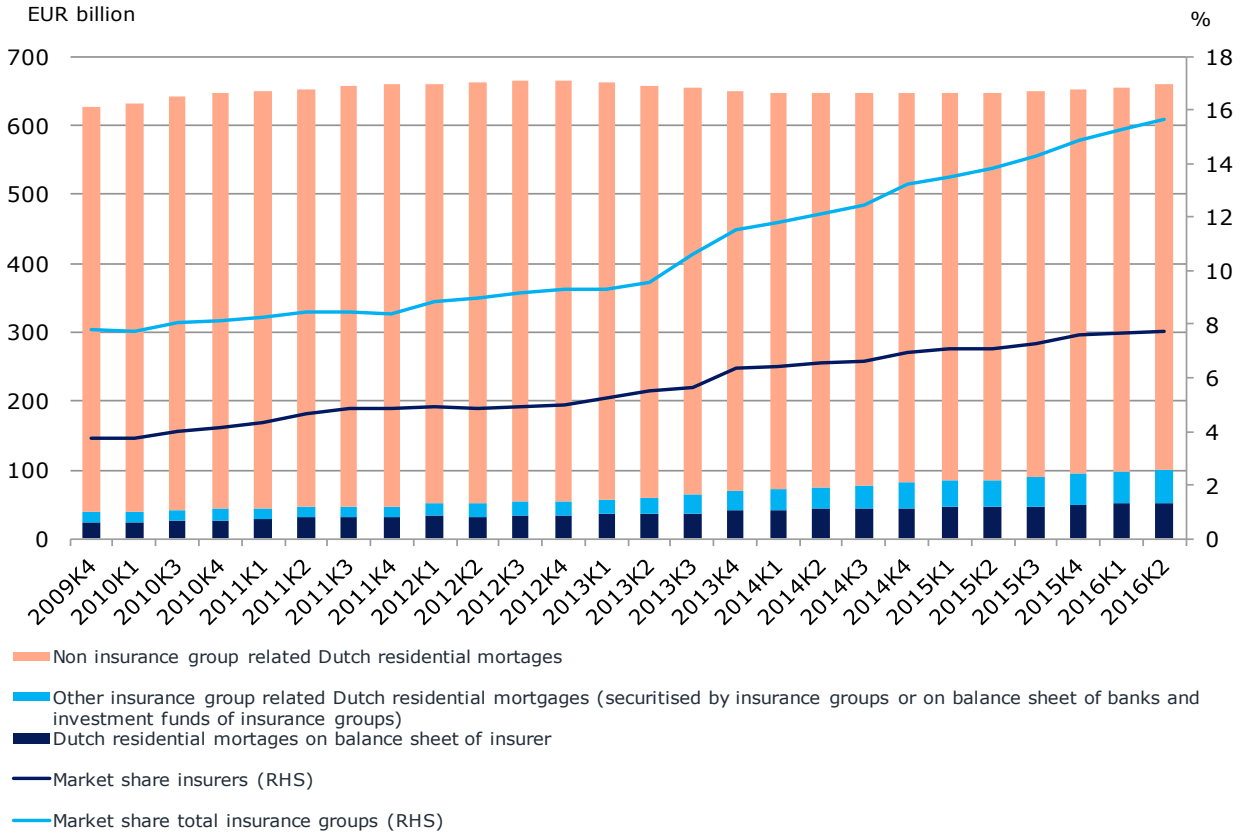
165. The search for yield could lead to financial engineering, with new activities potentially creating important linkage with the financial sector. Although there is limited evidence so far, the current market conditions entail the risk of search for yield by insurance companies. To match their long duration liabilities with a low risk capital, life insurers heavily invest in government securities with low yield. To increase their yield insurers could switch to more risky asset classes or increase the yield of those government securities through securities lending or the transformation of the government bonds to corporate paper by selling CDS of the corresponding corporate entities. Both practices lead to interconnectedness with the financial sector. If in addition the insurer is holding long duration liabilities that can be called-on without major delays or penalties, the liquidity risk is high. The DNB is recommended to closely monitor search for yield activities in the sector.

166. Insurers are directly interconnected with the financial sector though their nontraditional noninsurance (NTNI) activity that can lead to accelerated asset liquidation. NTNI captures a range of activities that can involve maturity transformation, liquidity mismatch, or leverage. Examples include products involving liquid liabilities, where insurers engage in derivatives or securities lending for efficient portfolio management or yield enhancement, and where they undertake complex hedging. Such activities may increase insurers' fragility and inter-connectedness.

167. NTNI activities are one of the most import factors (with a weight of 45 percent for the total G-SII score) that determine the G-SII score, and thereby the G-SII classification. Other factors are (with their relative score weights in brackets): size (5 percent), cross-jurisdictional activities (5 percent), interconnectedness (40 percent), and substitutability (5 percent). Currently, one insurer in the Netherlands has been designated G-SII.

168. Mortgages investments have been rising. Mortgages have gained attraction for the insurers as investments to match their long-term liabilities with instruments that are providing returns that are about 2 to 2.5 percent above swap with historical low default experience of a maximum of 20 basis points in a given year in the last 30 years. Banks remain the main issuers but have reduced their activity and the share of the insurers in this investment has rapidly grown, from 3 percent in 2009 to 8 percent in 2016. Mortgages held by insurance groups (that include banks and other mortgage originating entities) comprise 14 percent of mortgages as of 2016Q1 (Figure 8).

Figure 8. Netherlands: Insurance Groups Participation in the Mortgage Market, Q4-2009–Q1-2016



Source: Dutch authorities.

169. The mortgage exposure is closely monitored by the DNB. Life insurers have increased their exposure to mortgages from 21.6 percent of the assets held on own account at the end of 2014 to 24.9 percent at the end of Q1-2016. This growing trend has stopped in the second quarter of 2016. For some insurers, the percentage of mortgages and related loans are as high as 40 percent of their portfolios. Notwithstanding the positive past performance of mortgages with respect to defaults, because of the fast increment in the insurers portfolio, the DNB has started an analysis on the underwriting quality of the mortgages as well as on the cost of capital when the mortgage is issued by a bank or other financial institution to determine and correct any regulatory arbitrage that may be underestimating risk. Also, a reduction of the concentration risk in mortgages has been imposed where deemed excessive and a downward correction in mortgage valuation for solvency II balance sheet assessment was carried out in 2015.

170. Under the new Solvency framework, insurance companies are exploring new capital management instruments like longevity swaps or mass lapse reinsurance. The DNB is very aware of these developments and engages in an active dialogue with all parties involved, including the sellers of such instruments. The DNB should continue to do so and take proper action in case these instruments lead to an improvement of the solvency position that is not in line with the actual change of the risk profile.

STABILITY OF THE PENSION SECTOR

A. Market Structure and Performance

171. The Dutch pension system consists of three pillars: the AOW, the supplementary occupational pensions and the individual pension products. The AOW is the only statutory pension scheme in the Netherlands. This pension layer is financed on a pay-as-you-go basis by the government and provides basic old age income to all citizens. The flat-rate pension benefit in principle guarantees 70 percent of the statutory minimum wage. About 3.4 million people received €35.7 billion in 2015. The second pillar is provided through occupational pensions that are primarily financed by means of contributions paid by employer and employees. It is a fully funded system and, for most employees, participation in a pension plan is automatically linked to their contract of employment, resulting in 90 percent coverage of the working population. The third pillar consists of private savings for retirement. These products are offered by insurers and banks and are usually incentivized by favorable tax treatment. This TN covers in detail the second pillar. The first pillar is discussed briefly as it mainly has fiscal implications, and the third pillar is covered as part of the insurance sector.

172. The governance of the AOW is well defined. The AOW is administered by the Social Insurance Bank (SVB), which operates independently from the government. The board manages the SVB in consultation with an advisory board. The Ministry of Social Affairs and Employment (SZW) appoints the members of the board and the advisory board, and approves its annual plan and budget. The SVB is also monitored by the Inspection on Social Affairs and Employment, a section of the Ministry that supervises the administration of statutory employees' insurance schemes carried out by a number of organizations.

173. Several measures have been taken to reduce the budget cost of the AOW. The AOW is an integral part of government finances, as it is financed on a pay-as-you-go basis. The AOW is financed by a premium that is collected through the income tax. The (negative) balance (of the expenses and income) of the AOW is consolidated within the national fiscal balance and debt.

- Since 2011, the income tax has been gradually adjusted to increase the taxation basis for financing the AOW. Currently the income tax is set at the legal maximum of 17.9 percent of taxable income (subject to a maximum income level);
- In 2015, the AOW supplement for non-working partners younger than 65 was abolished;

- Since 2013 the retirement age for the AOW-benefit has been gradually increasing, from 65 in 2012 (and before) to 67 in 2021. A possible further increase of this age depends on the future life expectancy. This will be determined annually, for the first time before 2017, with an implementation of a necessary increase of the retirement age that will be five years after the date of determination (i.e., if the determination at the end of this year concludes that the retirement age must be increased, the actual increase will take place on 2022); and

- The age of the start of counting the years of residence relevant to accrue benefits under the AOW will be gradually increased from 15 in 2012 (and before) to 17 in 2021.

174. The changes to the AOW have improved the system's fiscal cost vulnerability, but it remains high. The Global Aging Preparedness Index (GAP Index) published in October 2010 ranked the Netherlands in the first place with respect to resilience against the income adequacy risk, while it was ranked in the 19th position (out of 20 analyzed countries) with respect to the fiscal cost vulnerability. The 2013 second edition and most current published GAP index confirmed the Netherlands' first ranking with respect to the income adequacy risk and improved its ranking to the 17th position with respect to the fiscal cost vulnerability. It is expected that the additional changes (of which the effects were not seen by 2013, or that had not yet been implemented) will further improve this position. Currently, about one third of the expenses are covered by the government contributions (Table 17).

Table 17. Netherlands: Key Financial Indicators for the First Pillar Pensions, 2011–15

AOW Finances	2011	2012	2013	2014	2015
Premiums (EUR mln)	20,759	22,567	24,181	23,408	24,100
Government Contribution	9,236	8,848	8,538	10,711	11,600
Expenses (EUR mln)	29,995	31,415	32,719	34,119	35,700

Source: Dutch authorities.

Note: Expenses in the first pillar include benefit payouts.

175. The third pillar covers the provision of pensions through annuity products and retirement saving plans issued by insurers and banks. Compared to the second pillar, total assets under such annuity contracts are relatively small as can be seen by the life insurance numbers. Although anyone can enter into a private pension arrangement with an insurer, participants in the third pillar are mainly self-employed workers and higher-income workers. There are several types of products in third pillar schemes that are tailor-made to the customers' needs and risk profile. The industry offers unit-linked products, with-profit policies, and products with minimum return guarantees. The pay out of these products can be directly in the form of an annuity or in the form of a lump sum that must be used to purchase an annuity.

176. The second pillar pension market is the largest globally as a share of the country's GDP. At end-2015, the second pillar pension system of the Netherlands was the sixth largest pension market globally in terms of assets. However, in relation to its GDP, the occupational pension assets in the Netherlands ranked first (Table 18). There is a continuous global trend towards defined contribution schemes (DC) and in some countries like Australia over 85 percent of pension assets is held by DC schemes. However, together with Japan and Canada, the Netherlands maintains defined benefits schemes (DB), accounting for over 95 percent of the pension assets.

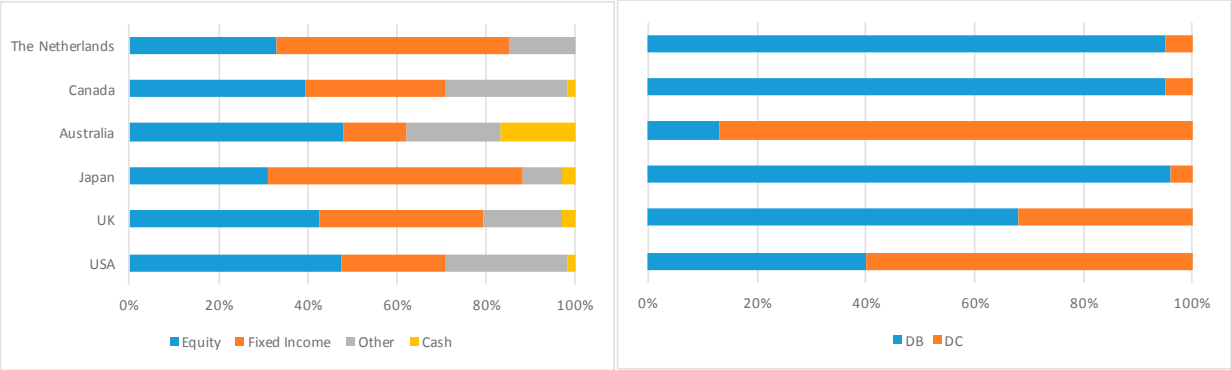
Table 18. Netherlands: Globally: The Largest Pension Markets, 2014

Country	Total Assets 2015 (USD billion)	As a percentage of GDP
USA	21,779	121.2
UK	3,204	111.9
Japan	2,746	66.7
Australia	1,484	119.6
Canada	1,525	97
The Netherlands	1,378	183.6

Source: Global Pension Assets Study 2016, Willis Towers Watson.

177. Together with Japan, the Netherlands has the highest share of fixed income investments. Both pension systems are almost exclusively DB, with less than 5 percent of the assets related to a DC scheme. The fixed income proportion of the investments in both cases are over 50 percent, with a third of the investments in equities. Generally, DC schemes invest a higher percentage in equities (in Australia, which is 87 percent DC schemes, up to 48 percent of assets are invested in equities), while DB schemes have a higher share of investment in fixed income (Figure 9).

Figure 9. Netherlands: Globally: Asset Allocation and DB/DC Split, 2015



Source: Global Pension Assets Study 2016, Willis Towers Watson.

178. Occupational pension schemes are an important complement to the AOW benefits. The total expenses of the second pillar, which amounted to €27 billion in 2015, are about 80 percent of the first pillar AOW (€36 billion in 2015, Table 17). More than 90 percent of employees are active members of these schemes, which are established in accordance with labor agreements. As such, their terms are subject to free negotiations between employers and employees (social partners). Currently, about 90 percent of all active members participate in a career-average salary defined benefit scheme. Occupational pensions are usually indexed to wage growth or price inflation. This indexation is not guaranteed, and will depend on the financial situation of the fund. Some pension funds operate as 'collective defined contribution' plans. Despite their name, such plans are usually defined benefit schemes in nature. However, as these plans combine a career-average salary scheme with a fixed contribution rate for a number of years, the accrual of pension benefits may have to be reduced in any year if the (fixed) contributions are not sufficient to fund the full accrual for that year. Fully individual defined contributions schemes are less popular.

179. All pension funds are organized in the Dutch legal form of a foundation (Stichting). A pension fund can be established by a company, an industrial sector (branch), or a professional group. Company pension funds are legally independent from their respective companies and employers do not face a general statutory obligation to make pension commitments to their employees. However, once the commitment is made, the PW (Pensioenwet) safeguards the rights of members and beneficiaries. If an employers' organization and a trade union in an industrial branch wish to establish an industry-wide pension fund, they may jointly request the government to declare that the pension agreement will be binding for all employers and employees in the branch, under the Mandatory Membership of an Industry-wide Pension Fund Act of 2000. By making the "collective" pension agreement binding, the law aims to avoid excessive competition between companies in the same

branch on terms and conditions of pensions. Furthermore, it stimulates the accrual of pension benefits and prevents that employees in parts of industrial branches stay without any kind of pension in the second pillar.

180. Notwithstanding a continuous consolidation in the pension sector, over 320 pension funds remain present. From the 1,000 pension funds that existed in 1997, 320 pension funds are left in 2015. The consolidation continues and between 2011 and 2015, the number of pension funds declined by 30 percent (Table 19). The fact that the 10 largest pension funds currently account for 70 percent of the total market in terms of assets hints at further consolidation (Table 20).

Table 19. Netherlands: Key Numbers of the Occupational Pension Sector, 2011–15

Occupational Pension Plans 2nd pillar	2011	2012	2013	2014	2015
Total number of pension funds	454	414	382	365	320
Industry-wide pension funds	77	74	72	69	67
Company pension funds	359	323	292	279	236
Professional pension funds including others	18	17	18	17	17
Assets under management (EUR bln)	804	918	953	1,132	1,146
Technical provisions (EUR bln)	819	900	867	1,051	1,122
Average cover ratio in percent	98	102	110	108	102

Source: Dutch authorities.

Table 20. Netherlands: The 10 Largest Pension Funds in Terms of Assets, March 2016
(In millions of euros)

ABP	357,632
Zorg en Welzijn	171,529
Metaal en Techniek	64,280
Bouwnijverheld	51,196
Metalektro, bedrijfstakpensioenfonds	42,500
ING	26,987
Shell	26,066
ABN AMRO Bank	25,392
Rabobankorganisatie	23,822
PGB	22,273

Source: Dutch authorities.

181. The administrative expenses vary considerably with the size of the pension fund. The top five pension funds, accounting for 60 percent of the sector, have managed to drive administrative expenses down to on average 2.66 percent of the contributions in 2015. The administrative expenses of the whole sector are over 7 percent of the contributions, a factor of 2.67 higher than those of the five largest pension funds (Table 21). The average administrative expenses of the pension funds excluding the top five pension funds are about 13 percent of the contributions in 2015 or about five times higher than those of the top five pension funds. This important difference in administrative expenses is probably another factor driving consolidation.

Table 21. Netherlands: Expenses of the Top Pension Funds and of the Whole Sector, 2011–14

Pension Fund Costs ratios	2011	2012	2013	2014	2015
Top 5 Expenses in % of total assets	0.10	0.10	0.09	0.08	0.07
Total Expenses in % of total assets	0.21	0.17	0.16	0.17	0.17
Top 5 Expenses in % of investments	0.10	0.10	0.09	0.08	0.07
Total Expenses in % of investments	0.22	0.17	0.16	0.18	0.18
Top 5 Expenses in % of contributions	2.70	2.76	2.52	2.77	2.66
Total Expenses in % of contributions	5.78	4.90	4.51	6.48	7.11

Source: Dutch authorities.

182. On average, the benefits paid continue to be lower than the contributions, however this situation is expected to reverse in the coming years. The total contributions paid in 2015 amounted to almost €29 billion, of which nearly 70 percent was paid by the employer. The benefits paid in 2015 totaled €27 billion or 98 percent of the contributions. In 2011 the benefits amounted only to 82 percent of the contributions. Two external factors have lowered premiums in 2014 and 2015. In 2014, there was a change in the fiscal maximum accrual, and in 2015 the introduction of nFTK allowed for a lower premium. In addition, while the number of contributors decreased between 2011 and 2015 by 6 percent, the number of beneficiaries increased by 11 percent (Table 22). This trend indicates that in a few years the outflows will be higher than the contributions putting additional pressure on the sufficiency of the investment returns for the long-term sustainability of the current system.

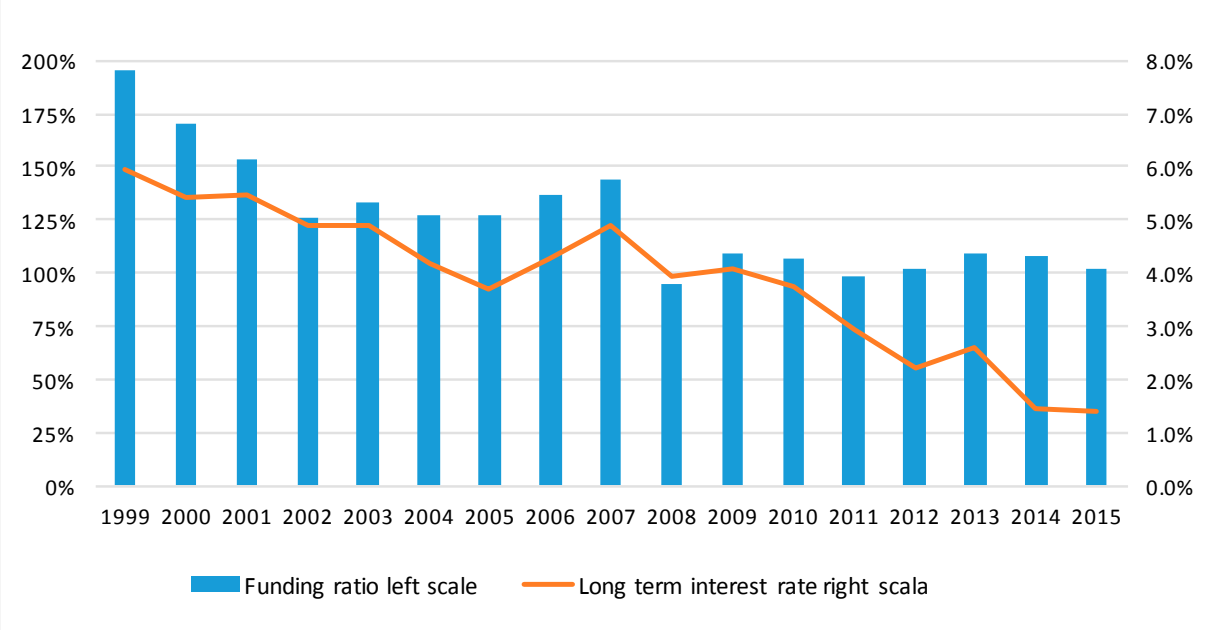
183. The coverage, which has a strong correlation with the investment returns, is declining. The coverage ratio of almost 200 percent (total market value of the assets of the pension funds as a percentage of their pension commitments) that existed in 1999 has been on a declining trend and has reached a low of 102 percent on in 2015, which is below the minimum regulatory requirement of 105 percent. The long-term interest rate has also fallen from6 percent in 1999 to just over 1 percent in 2015. This correlation between the coverage ratio and the long-term interest rate is expected to continue given the large amount of fixed income investments of long duration necessary to match the typical long-term pension liabilities (Figure 10).

Table 22. Netherlands: Contributions and Benefits Paid by the Pension Sector, 2011–15

Total pension funds (Pillar 2)	2011	2012	2013	2014	2015
Number of active participants (in thousand)	5,823	5,699	5,577	5,499	5,480
Number of beneficiaries (in thousand)	2,875	3,009	3,057	3,125	3,191
Contributions from employers (EUR mln)	20,977	22,158	23,761	21,595	19,350
Contributions from employees (EUR mln)	9,642	10,166	10,561	10,107	9,269
Total contributions (EUR mln)	30,619	32,324	34,322	31,702	28619
Benefits (EUR mln)					
Retirement pension (temporary, lifelong)	18,831	19,761	20,457	21,299	22,144
Dependants' pension	4,554	4,636	4,710	4,787	4,880
Disability	566	516	488	469	457
Other	1,141	1,022	851	596	455
Total benefits	25,092	25,935	26,506	27,151	27936

Source: Dutch authorities.

Figure 10. Netherlands: Correlation Between the Coverage Ratio and the Long-Term Interest Rate, 1999–15



Source: Dutch authorities

Note: The long-term interest rate is that of the 30-year nominal risk-free rate.

184. The investments are well diversified. Fixed income investments are over 50 percent of the assets. The equity position is also important with a third of the investments. Real estate-related investments and alternative investments make up the other relevant classes of assets with 8.5 percent and 4.5 percent, respectively (Table 23).

185. The ratings of the fixed income securities remain high, although ratings overall have declined slightly. The percentage of fixed income securities having investment grade dropped from 90 percent to 85 percent in 2015. Nevertheless, over 60 percent of the securities are AAA or AA rated. However, there is an important increment in the non-rated securities that, while still small, has doubled to 7.2 percent at the end of 2015 (Table 24).

186. Pension fund mortgage exposure is growing but remains very low. Pension fund mortgage investments have grown from 2.1 percent in Q1-2015 to 3.1 percent (Q1-2016). Pension funds with more than 10 percent of their assets invested in mortgages account for 2 percent of total pension fund assets. This trend is expected to continue given the current attractiveness of the sector's risk return assessment. The quality of the mortgage investments as of Q1-2016 is high with 86 percent of the mortgages with a rating A or higher, 3 percent rated BBB or lower, and 11 percent without any rating (Table 25).

Table 23. Netherlands: Asset Classes of the Pension Funds' Investments, 2014-15

(In millions of euros, unless indicated otherwise)

	2014Q4		share	2015Q4		share
	Excl. derivatives	Incl. derivatives	in percent	Excl. derivatives	Incl. derivatives	in percent
Real estate investments						
Direct investments in real estate	12,915	12,915	1.14	13,143	13,143	1.14
Indirect investments in real estate	83,649	83,650	7.38			
O/w quoted real estate	44,756	44,757	3.95	50,261	50,262	4.38
O/w unquoted real estate	38,893	38,893	3.43	42,825	42,825	3.73
Total real estate investments	96,564	96,565	8.52	106,228	106,229	9.25
Equities						
Mature markets	298,347	299,081	26.39	288,615	289,485	25.21
Emerging markets	65,326	65,347	5.77	56,854	56,927	4.96
Investment funds						
Total equities	363,673	364,428	32.15	345,469	346,412	30.17
Alternative investments						
Private equity	51,144	51,144	4.51	42,713	42,713	3.72
Infrastructure				16,465	16,465	
Microfinancing				222	222	
Total alternative investments	51,144	51,144	4.51	59,400	59,400	5.17
Fixed yield securities						
Government bonds, Non index-linked	283,528	361,381	31.88	295,850	341,812	29.77
Index-linked bonds	50,887	43,514	3.84	56,948	50,574	4.40
Mortgage loans	33,746	33,771	2.98	33,166	33,166	2.89
Credits	139,862	139,918	12.34	157,642	157,579	13.72
Short term claims on banks	46,618	46,618	4.11	37,129	37,129	3.23
Investment funds						
Total fixed yield securities	554,641	625,201	55.16	580,734	620,260	54.02
Hedge funds	27,423	27,423	2.42	27,938	27,938	2.43
Commodities	652	-1,404	-0.12	2,667	1,576	0.14
Other investments						
Securities lending and repo	-13,498	-13,498	-1.19	-17,502	-17,504	-1.52
Re-investment from securities lending	12,286	12,286	1.08	12,768	12,768	1.11
Liquid assets	15,306	15,306	1.35	20,504	20,501	1.79
Structured notes				-4	-4	
Total return swaps					186	
Other	-33,864	-33,716	-2.97	-30,120	-29,999	-2.61
Investments funds						
Total other investments	-19,770	-19,622	-1.73	-14,354	-14,052	-1.22
Currency overlay		-10,310	-0.91		393	0.03
Total investments at funds' risk	1,074,326	1,133,424	100.00	1,108,082	1,148,156	100.00

Source: Dutch authorities.

Table 24. Netherlands: Rating of the Fixed Income Securities, 2014–15

Fixed yield securities by rating	Q4-2014		Q4-2015	
	EUR mln	%	EUR mln	%
AAA	219,372	*39.55*	224,013	*38.57*
AA	136,394	*24.59*	128,718	*22.16*
A	49,798	*8.98*	53,356	*9.19*
BBB	88,143	*15.89*	87,317	*15.04*
Lower then BBB	40,549	*7.31*	45,757	*7.88*
No rating	20,384	*3.68*	41,574	*7.16*
Total fixed yield securities	554,641		580,734	

Source: Dutch authorities.

Table 25. Netherlands: Pension Fund Exposure to Mortgages, Q1-2016

Total pension fund assets (million euros)	1,999,075
Mortgage exposures of pension funds (million euros)	37,085
Of which:	
AAA	21,477
AA	9,277
A	1,007
BBB	584
Lower than BBB	467
No rating	4,273
Share of mortgage exposure Q1 2015 (as % of total assets)	2.17
Share of mortgage exposure Q1 2016 (as % of total assets)	3.09

Source: Dutch authorities.

B. EIOPA Stress Testing on Occupational Pensions

187. The EIOPA stress test for pension funds was run for the first time during 2015. For DB schemes, two adverse macroeconomic scenarios and one longevity scenario were tested. The first scenario comprised lower interest rates, increasing spreads and declines in asset prices. In the second scenario, the interest rate decline was larger, but the fall in certain asset class prices was lower. Regarding the DB stress test, pension funds had to calculate the impact of the scenarios on the basis

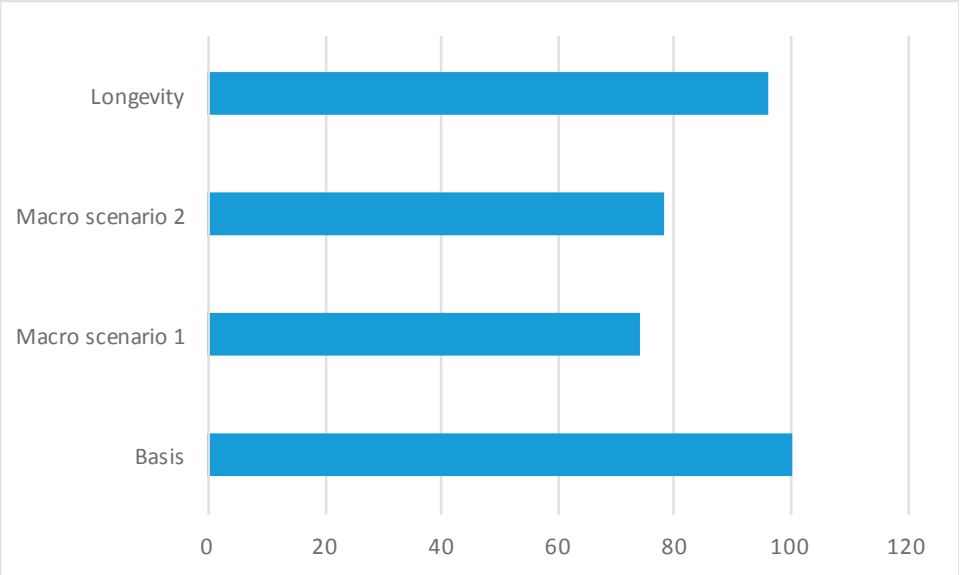
of their national balance sheet as well as on a common methodology.[26] For DC schemes, the impact of two asset price shock scenarios, two low return scenarios, and a longevity scenario on the future retirement income of three representative plan members was tested. Five Dutch pension funds participated in the DB stress test and two Dutch pension funds in the DC satellite module. Together they represented over 50 percent of the pension market in terms of technical provisions.

188. The test for DB pension funds was applied both on the basis of national balance sheets and a common methodology to allow for comparability among member states. The stress test based on the common methodology used market-consistent valuation for all assets and liabilities, and included not only unconditional liabilities, but also all security and benefit adjustment mechanisms (such as conditional indexation and benefit reductions). While the common methodology stress test allowed for comparability across member states, the common methodology is not used in any of the participating states and the exercise was seen to be of theoretical nature by the participants. The usefulness of the EIOPA stress test for the Dutch pensions sector can be enhanced by running it in conjunction with country-specific shocks, while using the common methodology only to look at financial stability from a European perspective.

189. Dutch DB pension funds were especially vulnerable to the first adverse macroeconomic scenario. In terms of national balance sheet, the weighted average assets over liabilities decreased from 100 percent to 74 percent (see Figure 11) in this scenario. The main impact came from the prescribed shocks to equity and property (price decrease more than 40 percent). Dutch pension funds invest a relatively large amount in non-fixed income (i.e., equity and property), especially when compared internationally (see Table 23 and Figure 9). Hence, the impact of such a stress scenario was more severe for Dutch pension funds than for pension funds in other member states. The decreasing interest rates (that were predominant in the second adverse macroeconomic scenario) also had a negative impact on Dutch pension funds, but to a lesser extent. Using the common methodology, the excess of assets over liabilities of Dutch pension funds increased under stress. For Dutch pension funds, the deterioration of the value of assets over unconditional liabilities led to an increase in the value of benefit reductions and a decrease in the value of future indexations. Thereby positively impacting the financial position of the pension funds by up to 20 percent of the assets.

[26] For more information on this stress test and the scenarios tested please refer to https://eiopa.europa.eu/financial-stability-crisis-prevention/financial-stability/occupational-pensions-stress-test for the EIOPA stress test report and scenario description and to http://www.dnb.nl/en/news/news-and-archive/dnbulletin-2016/dnb336704.jsp for a DNB news message on the stress test.

Figure 11. Netherlands: Assets over Liabilities in the Stress Scenarios
(In percent)



Source: Dutch authorities.

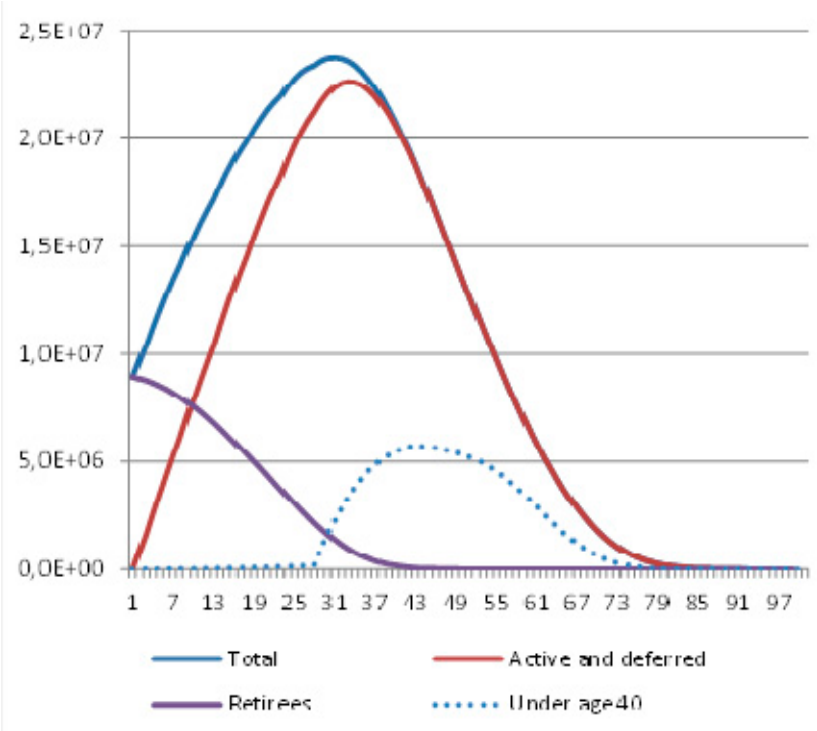
190. The satellite module for DC schemes assessed the resilience of future retirement income of three representative plan members. Two asset price shock scenarios, a longevity scenario, and two low return scenarios were applied. This is because the replacement rates of younger plan members are expected to be more exposed to low return scenarios (long-term shocks). In the two asset price shock scenarios, the replacement rates for Dutch plan members fell on average by about 6–7 percent under the first scenario and 9 percent under the second scenario. For the low return scenarios, the impact was as high as 14 percent.

C. Mortality Sensitivity Analysis

191. Mortality risk is smoothly captured by pension funds, thus avoiding unexpected increments in the liabilities. Every two years the Dutch Actuarial Association publishes mortality tables that are used after individual adjustments by pension funds to determine the value of their pension liabilities. The tables include a longevity improvement trend. The most recent update of the mortality table was published in September 2016. The regular publication and use of the most current mortality tables by the pension funds has reduced the probability of requiring larger increments in the liabilities as happened in the past when the mortality tables were revised only after several years. The latest mortality table adjustment is expected to require an increment of 0.3–0.7 percent of the liabilities, as estimated by the Actuarial Association.

192. A longevity shock of increasing expected life by 5 and 10 years on younger participants (age below 40 years) would be well manageable by the pension funds. The sensitivity calculations are based on the mortality table published in 2014, without adjustments. For the exercise, a participant from a young pension fund is selected (whole duration 24, duration of active participants 28). The corresponding cash flows are depicted in Figure 12. The liabilities of this group represent only 14 percent of the total liabilities of the fund. The shock is then applied to the younger participants, resulting in a minor impact on the whole pension fund liabilities of 1.8 percent for 5 years mortality improvements and 3.3 percent for the 10 years mortality improvement. However, if the life expectancy improvement is applied to all participants in the pension fund, the liabilities increase by 20.6 percent for five years mortality improvement and 40.1 percent in the case of a 20 years mortality improvement.

Figure 12. Netherlands: Cash Flow of the Selected Pension Fund



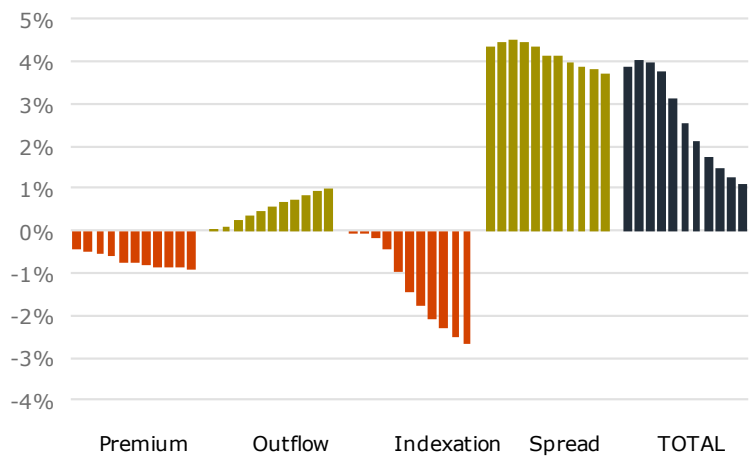
Source: Dutch authorities.

D. Recovery Plans and Benefit Cuts

193. Over 90 percent of the pension funds were in a recovery plan as of Q2-2016. The recovery plans are viable when the regulatory yield curves for the asset valuation are used. Regulation allows for up to 7 percent return for equity investments, but those returns appear extremely optimistic. Figure 13 shows the coverage ratio contributors for the total of the recovery plans submitted to the DNB, and shows that the excess investment returns over the risk-free interest rate that are included in the plans are of decisive importance to the viability of the plans. Also, the

premium has a negative effect on recovery in a large proportion of the funds because of the use of "premium cushioning." At end-2015, about 84 percent of all pension funds not fully reinsured or in the liquidation phase, as they would not have a recovery plan by definition, were subject to a recovery plan (Figure 14). At end Q1-2016, the average policy coverage of all pension funds had dropped to 102 percent. This decrease in the coverage ratio is due to a further decline in interest rates (which did result in a positive return on fixed income), a negative return on equity (contrary to the regulatory allowed return), and a lower premium than required for new pension accruals.

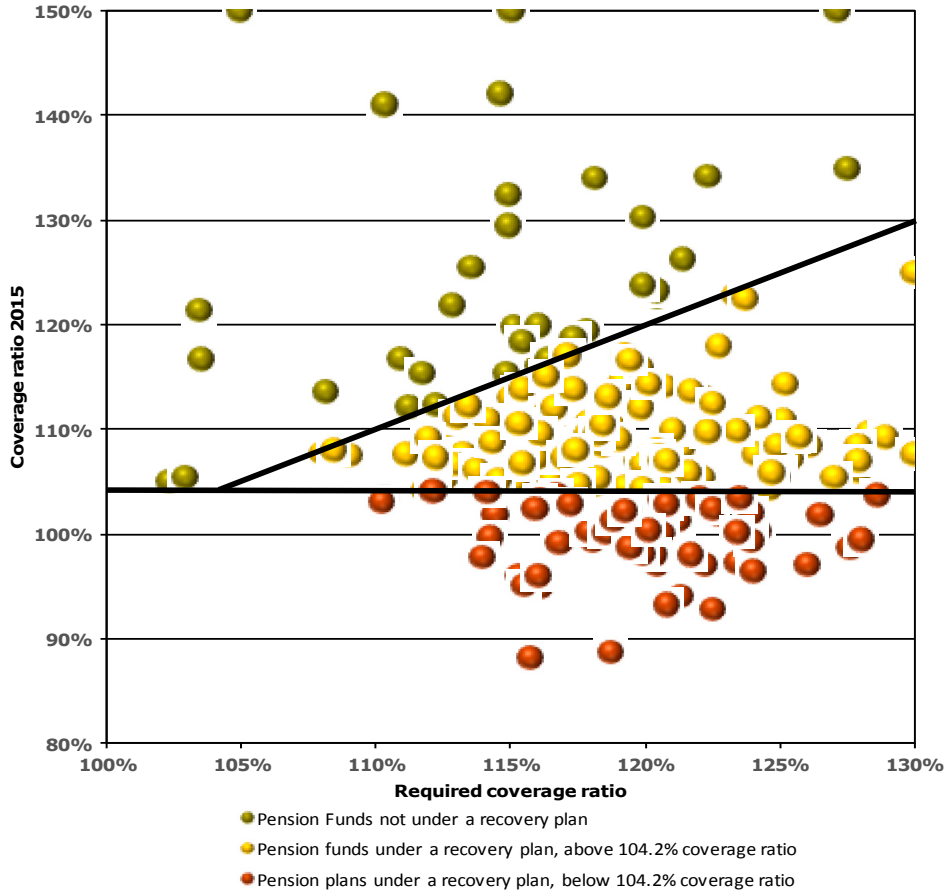
Figure 13. Netherlands: Average Coverage Ratio Contributors of the Total of Pension Funds under a Recovery Plan



Source: Dutch authorities

194. The excess investment returns as well as the sufficiency of the premium are critical for the stability of the pension funds. To assess the effect of the excess investment returns and of the sufficiency of the contributions to the coverage ratio, a pension fund representative for the Dutch pension funds is modeled. The pension fund is rolled forward for 20 years. The results show that for a positive excess investment return of 250 basis points over the risk-free rate and the full technical premium charged, the starting coverage ratio of 90 percent remains below the minimum required coverage ratio of 104 percent for seven years. This would lead to substantial benefit cuts to return to the minimum required coverage ratio, given that the law does not allow pension funds to stay below that level for more than five years. To avoid the substantial benefits cut, the excess investment returns needed, with the full premium charged, is in the order of 400 basis points. If only 90 percent of the technical premium would be charged, the necessary excess investment returns would increase to 450 basis points. These levels of excess investment returns are not deemed to be probable given the current low yield environment and the limited financial space to increase risk appetite for taking more market risk (Table 26). This result is a confirmation of the needed reform of the pension.

Figure 14. Netherlands: Pension Funds Subject to a Recovery Plan, as of December 2015



Source: Dutch authorities.

195. The latest DNB report to parliament on the pension sector also points out to benefit cuts affecting a large segment of the population in the coming years. In May 2016, the DNB report of the pension sector situation was presented to parliament by the MoSA. On the basis of the figures for the end of the first quarter of 2016, an analysis of possible benefit reductions in 2017 is reported in this report. Assuming that the other circumstances, such as the yield curve, do not change compared to the first quarter of 2016, about 27 funds would be expected to make (unconditional) benefit reductions in 2017 on about 1.8 million participants. The amount of the reductions would be on average 0.5 percent per annum. This is one tenth of the total projected deficit at the end of the recovery period (approximately 5 percent), because funds may smooth reductions over the recovery period of 10 years. Only the reduction for the first year is unconditional, upon recovery later reductions may be skipped. Sensitivity analysis further shows that an interest rate drop of 50 basis points would result in benefit reductions of 4 percent (which may be smoothened over 10 years) for 10.3 million participants. An increase in the risk-free interest rates of 50 basis points would reduce the number of affected participants to 0.9 million.

Table 26. Netherlands: Coverage Ratio of a Representative Pension Fund

Year	100% technical premium spread 2.5%	100% technical premium spread 4%	90% technical premium spread 4.5%
1	90.0	90.0	90.0
2	92.1	93.4	93.7
3	94.3	97.0	97.5
4	96.5	100.8	101.6
5	98.9	104.8	105.9
6	101.3	108.9	110.4
7	103.8	113.3	115.1
8	106.4	117.2	119.2
9	109.0	120.6	122.6
10	111.8	123.5	125.6
11	114.3	125.8	128.0
12	116.4	127.8	130.0
13	118.2	129.4	131.7
14	119.7	130.8	133.2
15	120.9	132.0	134.4
16	121.9	132.9	135.4
17	122.8	133.7	136.3
18	123.4	134.4	137.0
19	124.0	135.0	137.7
20	124.5	135.5	138.2

Sources: Dutch authorities model; and IMF staff calculations.

196. When designing the new pension system, the qualities that existed in the system should be reinstated, while adding portability. For years, the Dutch pension system has been delivering guaranteed defined benefits even though the guarantee was not fully binding. Lowering the annual benefit accrual, while 'freezing' premiums, may allow funds to provide such a guarantee without any conditionality. In addition, individual accounts could be created to be used as buffers for maintaining the guaranteed benefits in downturns of the economy or provide additional income in prosper years. To maintain a high level of the fiduciary duty of the pension funds, they would have to explain and justify the reasons for any reduction in the individual accounts. This system would complement the AOW benefits without government taking up additional fiscal liabilities. Also, portability will be positively addressed in this structure, as the DB fund will always be fully funded with the corresponding adjustment of the individual account if necessary.

E. Liquidity Risk in Pension Funds

197. In the beginning of 2016, the DNB conducted an EMIR liquidity impact study for both pension funds and insurance companies. This study was initiated as the derivatives market converges towards cash only CSAs as a result of CRDIV and EMIR regulations. Results of the impact study showed that especially pension funds might have issues with providing cash collateral for both interest rate swaps and FX derivatives in case of market stress.[27] Pension funds holding bonds may have to hold more cash, resulting in less income or increased liquidity risk. The DNB will start a project in early 2017 to identify the liquidity policy and control measures pension funds have in place to mitigate their increased liquidity risk. Furthermore, the DNB is considering to start using the TR data that is available to analyze the (sensitivities of) derivatives positions of the pension funds.

[27] Based on the portfolio of pension funds a DNB study has quantified the impact as follows. For an interest rate shock of 100 basis points the impact would be €44 billion and for an exchange rate shock of 12.5 percent the impact would be €42 billion. The assessed impact on retirement income would be 3.1 percent over a 40-year time horizon on the basis of the 2015 Commission study: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0039.