

CAPITAL ADEQUACY AND RISK MANAGEMENT REPORT 2016

PILLAR 3

NIBC HOLDING N.V.



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Introduction

Goal and overview

NIBC's Capital Adequacy and Risk Management (Pillar 3) Report contains information that enables an assessment of the risk profile and capital adequacy of NIBC Holding N.V. This publication fulfils the requirements of the Basel III framework, as stipulated in the *Capital Requirements Regulation and Directive IV (CRR/CRD IV)*. The CRR/CRD IV is legally enforced by Dutch law by the Financial Supervision Act (**Wft, Wet Financieel Toezicht**).

The CRR/CRD IV contains three pillars:

- Pillar 1 defines the regulatory minimum capital requirements by providing rules and regulations for the measurement of credit risk, market risk and operational risk. These capital requirements need to be covered by regulatory own funds. NIBC received approval from the *Dutch central bank (DNB)* to use the *Advanced Internal Ratings-Based (AIRB)* approach for calculating solvency requirements regarding credit risk for its most important exposure classes, namely corporate, retail and institutions, and the *Internal Model Approach (IMA)* regarding market risk in the Trading book. Furthermore, NIBC uses the ratings-based approach for the securitisation exposure class and the simplified risk-weight approach for the equity exposure class. Solvency requirements for the remaining portfolios and for operational risk are calculated using the Standardised Approach (**SA**);
- Pillar 2 covers the Supervisory Review Process. This consists of the *Internal Capital Adequacy Assessment Process (ICAAP)*, the bank's own assessment of its capital adequacy in relation to all its risks, and the *Supervisory Review and Evaluation Process (SREP)*, the response of the Supervisor to the institution's ICAAP. Since 2011, DNB also analyses the *Internal Liquidity Adequacy Assessment Process (ILAAP)*; and
- Pillar 3 focuses on disclosure requirements, covering all relevant pieces of information for a market participant to assess the risk profile and capital adequacy of a credit institution. The risk disclosures are connected to Pillar 1 of the CRR/CRD IV framework, as information is provided regarding the underlying exposures, risk weighted assets and regulatory capital.

NIBC's Capital Adequacy and Risk Management Report is prepared to meet the requirements of Pillar 3, as well as the increased need for transparency in the financial market. The Capital Adequacy and Risk Management Report follows the structure below:

- Risk Management Strategy & Process
- Credit Risk
- Market Risk
- Operational Risk
- Liquidity Risk
- Securitisation Exposures
- Internal Capital Adequacy Assessment Process
- Capital Base Components
- Capital Adequacy
- Remuneration Policy

The scope of application in this report refers to NIBC Holding, henceforth referred to as NIBC. The main entity of NIBC Holding is NIBC Bank. Where necessary, a distinction between NIBC Holding and NIBC Bank is made

explicit. The starting point of the CRR/CRD IV prudential scope of application is the consolidation scope of NIBC, according to the *International Financial Reporting Standards (IFRS)*. In line with the requirements of the CRR/CRD IV, a prudential filter is applied for non-financial subsidiaries. These entities are excluded from the consolidation scope and are, instead, treated as investments in associates. Appendix I provides further details regarding the consolidation scope.

The credit exposures in this report are not directly comparable to the numbers in NIBC's 2016 Annual Report. The numbers in the Annual Report refer to book values and classifications in line with IFRS requirements. The numbers in this report refer to *exposure at default (EAD)*, which is a risk measure of the potential amount outstanding in the event of default. EAD is a different measure than drawn and undrawn amounts, and the method employed for its calculation differs per exposure class and among credit institutions. A more detailed explanation on EAD can be found in the *Credit Risk* chapter.

NIBC's Risk Management and Capital Adequacy (Pillar 3) report is produced and published annually on NIBC's website (www.nibc.com). The report may also be published more frequently if special market circumstances require so. Information regarding risk management and key data on capital adequacy is presented in NIBC's Annual Report as well.

Risk Management Strategy & Process

Our business of providing advice and debt, mezzanine and equity financing solutions for businesses and entrepreneurs, and straightforward, transparent products and services for enterprising retail customers, requires us to take well-judged risks. We mainly pursue credit and investment risk; lowering to an acceptable level our interest rate, currency, liquidity, and operational risks while ensuring our solid capital and liquidity positions. These are integral aspects of our business as a corporate and retail bank. Our risk appetite defines the scope and boundaries we are comfortable with while our risk management framework provides us with a structured approach for managing the various risks on a daily basis. It is indispensable that sound risk management is rooted in our culture, as it is the responsibility of all our people to service our clients over the long term in the way that they expect us to do, and in relationships based on trust, transparency and reliability.

We believe that effective risk management is at the core of our sustainable growth strategy, and is therefore fully integrated into our planning and control cycle and our day-to-day business activities. As risk management is not purely a sequential process, this also implies that choices must be made by people on a daily basis and that everyone understands the role they have to play in the value chain.

Our business actively supports mid-cap companies and new ventures at their most decisive moments, so it is vital that we have the room to be inventive in our approach. Although it is the nature of our business to allow for exceptions and try new structures in order to service our clients efficiently, we always benchmark potential transactions against our risk appetite framework.

As a medium-sized bank NIBC benefits from the close proximity and collaboration between colleagues and its client base. This provides a setting in which a quick and efficient multidisciplinary approach can be taken in areas of risk management. We therefore have the capacity to keep moving forward as a business as we comply with evolving regulatory requirements.

Highlights of 2016

The current economic climate, with its macroeconomic uncertainties, geopolitical changes and low-interest rate environment, is a challenging one for the financial services industry. Notwithstanding, NIBC has continued to take important steps in terms of its risk management and the execution of its strategy, which included the following key developments in 2016:

- **Ongoing attention to sector developments and portfolio management in certain sectors**
Headwinds in the Oil & Gas service and dry bulk shipping (sub)sectors included slower demand and currency effects. These continued trends led to additional portfolio management and risk management attention to proactively address the situation with our clients and, where necessary, take pre-emptive measures. These measures included a detailed review of all of our exposures and clients in the Oil & Gas and dry bulk shipping (sub)sectors. Taking a conservative approach, this exercise led to transferring more files totalling EUR 0.2 billion of exposure to our "watchlist". Both (sub) sectors displayed an increase in 2016 of non-performing

loans and impaired loans. As we actively seek to resolve the credit issues with these clients, the forbore exposures in these (sub)sectors also increased in 2016.

In 2016 we continued our efforts to restructure and/or transfer legacy exposures in the Commercial Real estate sector, which should lead to a further reduction of these exposures in 2017.

- **Risk profile**

NIBC's risk profile of the performing portfolio improved in 2016, displaying a decrease of the expected loss to 35 basis points. This development was mainly driven by healthy origination in good credit quality transactions. Excluding the Oil & Gas and dry bulk shipping (sub)sectors discussed above, most of the credit risk metrics (non-performing exposure, defaulted exposure and forbore exposure) of the corporate loan portfolio improved in 2016. In the second half of 2016, the Dutch Central Bank performed an asset quality review on our corporate loan portfolio. The outcome of this review, leading to additional impairment amount of EUR 20 million, is fully included in the 2016 results.

In line with a further improving Dutch housing market and economic recovery, the residential mortgage portfolio displayed an improved credit quality in 2016. During the year, both the amount in arrears, as well as the amount of realised losses, decreased compared to the previous year.

- **Risk Product development**

We require elements such as client interest, product knowledge, operational handling, compliance with our risk appetite and profitability to be successfully addressed before a new product can be implemented.

In 2016 we attracted our first originate to manage mandate to manage a portfolio of mainstream residential mortgages for an institutional investor.

Equipment leasing was added to our product pallet in 2016 via the establishment of the new venture BEEQUIP. This venture focuses on financing/leasing transactions for used equipment, mainly for small and medium enterprises in the sectors infrastructure, earth-moving, construction and logistics sectors.

In addition, the growth of new products in our Retail Banking business, such as is the case with our buy-to-let mortgage and the mortgage for self-employed, fits within our risk appetite.

- **Improving risk awareness and strengthening of risk management processes**

Risk awareness is a continuous focus at NIBC, with training and knowledge-sharing sessions during the year on the various aspects of risk management, such as risk appetite, credit skills, information security, data privacy, operational risk and legal and regulatory developments. We continued to strengthen NIBC's risk management practice, further embedding the risk appetite framework with an increased focus on operational, compliance, legal and integrity risks. The regulatory affairs function was upgraded, bringing more coordination in the attention for the regulatory environment. In Retail Banking, the risk management function was strengthened, in line with the growth of the buy-to-let portfolio and the roll-out of the originate-to-manage business. An additional focus area is the update of our economic capital framework, where we are improving the alignment to the minimum regulatory capital requirements from the annual Supervisory Review and Evaluation Process (SREP) by the regulator.

- **Improving Change management**

During 2016 an important focus area was facilitating change in the organisation. Steps were taken to integrate NIBC Markets into its new parent, including the integration of the risk function. This integration continues

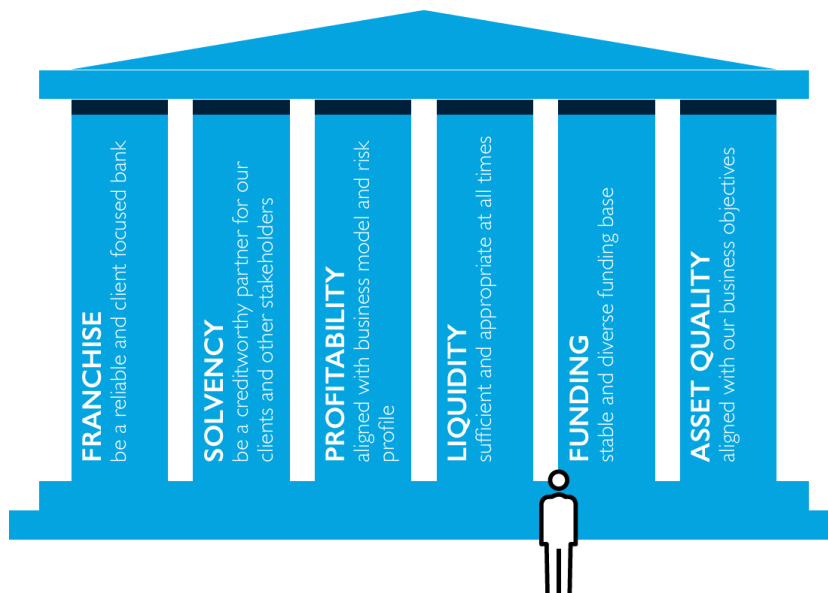
into 2017 and is expected to be finalised within the year. The new venture BEEQUIP also required embedding in our risk management framework and in other support functions. Ongoing projects relate to amongst others IFRS 9, MIFID II, Anacredit and the transition (outsourcing) of the IT infrastructure.

In line with previous years, NIBC had no sovereign debt exposure to Greece, Italy, Ireland, Spain and Portugal with only a small exposure in other regions. Most sovereign debt exposure in NIBC's portfolio consisted of cash placed at DNB, the Dutch State Treasury Agency and the Bundesbank. For 2017, our structured, disciplined and proactive approach to risk management supports us operating in an economic environment that remains fragile - although there are positive indicators of macroeconomic recovery in the coming years.

Risk appetite

Risk appetite defines the amount and type of risk an organisation is willing to accept in pursuit of its business objectives. In order to achieve our long-term objectives, including the attainment and retention of a target BBB credit rating, we have defined six pillars, which together form NIBC's risk appetite framework.

NIBC's Risk Appetite framework in 6 pillars



Our performance is measured across these pillars by means of quantitative and qualitative risk appetite statements. This framework helps us to implement and execute our strategy of sustainable growth, as it helps to steer us with regards to client interest, product suitability and compliance with laws and regulations.

NIBC's risk appetite framework is rolled out throughout the organisation and incorporated in our policies, procedures, limits and action plans. Key risk/performance indicators and early warning signals are used to monitor and control developments in these areas.

In determining risk appetite we pay close attention to the budget setting and capital planning process. NIBC's forward-looking risk profile, based on budgets and (stressed) scenario forecasts, is the basis of setting the risk appetite. We have designed a comprehensive set of selected stress scenarios (including externally provided inputs) in order to capture all significant risks contained in NIBC's positions.

Throughout 2016, the Managing Board and risk management engaged further in discussions with senior management and presented Risk Appetite to a wide range of employees. Consequently, it has become more tangible for everyone and a part of NIBC's overall Risk Governance. The current and projected risk profile is reported quarterly to the *Risk Management Committee (RMC)* and the *Risk Policy & Compliance Committee (RPCC)*. Periodically risk management reviews all scenarios used (hypothetical, historical and regulatory) to determine if they are still relevant and sufficiently comprehensive to capture all significant risks contained in NIBC's positions.

Risk strategy

NIBC has a clearly defined business model around Corporate Banking and Retail Banking. Next to the retail customers of Retail Banking, Corporate Banking focuses on mid-sized corporate clients mainly in the Netherlands and Germany, and is a meaningful player in a select number of asset classes. Indispensable to Corporate and Retail Banking and the entire business of NIBC are the Treasury, Risk Management and Corporate Center departments. Because of its focus and in-depth understanding of the business and its clients, NIBC has good understanding of the risks in this select number of markets.

The risk strategy of NIBC is aligned with this business model, resulting in the following markets and portfolios, where the risks are concentrated:

- Credit risk in the Corporate Loan portfolio in seven sectors (Commercial Real Estate; Infrastructure & Renewables; Shipping & Intermodal, Industries & Manufacturing; Oil & Gas Services; Food, Agri, Retail & Health; Telecom, Media, Technology & Services) and in the Residential Mortgage portfolio (consisting of mainly Dutch and a small portfolio of German residential mortgages), which contain seventeen diversified subsectors. Furthermore, credit risk exists also in the Investment Loan portfolio. Investment loans may contain equity characteristics such as attached warrants or conversion features. Examples of these exposures include mezzanine loans, convertible loans and shareholder loans. Finally, credit risk exists in our derivative, lease receivables, cash management and debt investments portfolios;
- Investment risk in equity investments; and
- Market risk in the Treasury portfolios mainly consisting of interest rate risk in the Money markets & Trading book, Mismatch and Banking books, and credit spread risk in trading book of NIBC Markets and the Debt Investments portfolio. The latter consists of the Securitisations portfolio and the portfolio of debt investments in institutions and corporate entities.

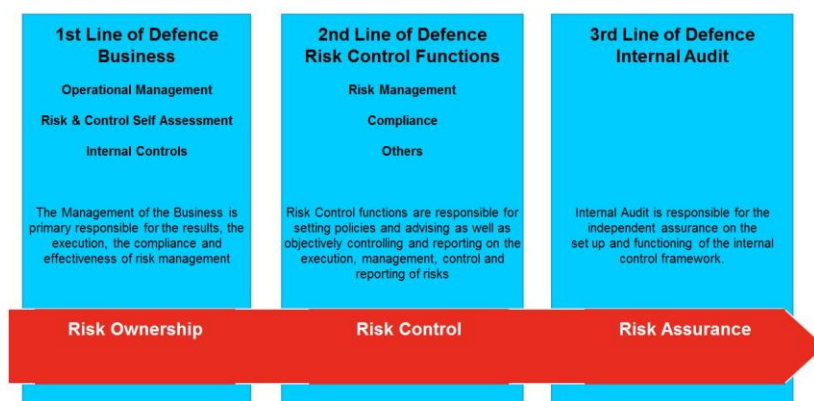
Among mentioned above risk categories, NIBC also distinguishes liquidity risk and operational risk. Pursuing two biggest risks and lowering to an acceptable level other risk types is in line with the business strategy. Risk appetite helps to achieve NIBC's targets in a sustainable and controlled way. One additional element being a key for enabling the business activities is to ensure the bank's capital adequacy.

The business model described above is also reflected in the Economic Capital framework, which is further described in the section *Internal Capital Adequacy Assessment Process (ICAAP)*. NIBC uses Economic Capital as a risk measure throughout the organisation. For each business activity, Economic Capital is allocated and reported monthly to the *Asset & Liability Committee (ALCO)*.

Risk governance and risk culture

NIBC uses the ‘three lines of defence’ governance model, which provides a structure to clearly assign the risk management activities and responsibilities throughout the organisation. This model supports risk awareness, and promotes dialogue across functions on goals, risks and controls. It is pivotal to this model that every member of the NIBC staff takes accountability for his or her actions as part of our sound risk culture.

Three lines of defence



This governance model supports risk awareness throughout the organisation, and promotes dialogue across functions on goals, risks and controls. Pivotal to this is that every member of the NIBC staff takes accountability for his or her actions as part of our sound risk culture.

In 2016, we focused on stimulating a sound risk culture throughout the entire organisation in order to make sure that all risks are transparent and a clear accountability is in place. Risk governance and risk culture is thoroughly presented in NIBC’s Annual Report.

Risk management organisation

The *Risk management, Legal, Compliance & Corporate Social Responsibility (RLCC)* strategic business unit, headed by the *Chief Risk Officer (CRO)*, includes all risk functions and consists of more than 80 people. Formal authority and decision-making is delegated by the Managing Board to the *Risk Management Committee (RMC)*, the *Transaction Committee (TC)*, the *Asset & Liability Committee (ALCO)*, the *Investment Committee (IC)* and the *Engagement Committee (EC)*. These committees ensure that assessment and acceptance of risks and exposures is made independently of the business originators within the operating segments. The members of these committees are representatives from risk management and from the business.

Risk responsibility areas

Committee	Risk area	Delegated authorities
Risk Management Committee (RMC)	Integral risk management Operational risk (incl. legal and compliance risk) Country Risk	<ul style="list-style-type: none"> - Approves risk policies and methodologies - Set portfolio, sub-portfolio and concentration limits - Govern model validation - Approves new product approval requests - Approves the Corporate Social Responsibility (CSR) policy
Asset & Liability Committee (ALCO)	Market risk Liquidity risk	<ul style="list-style-type: none"> - Set and monitor economic capital limits - Set and monitor market risk limits

	Interest rate risk	- Liquidity management - Manage Interest rate risks and currency risks of banking book
Transaction Committee (TC)	Credit risk Country risk	- Decision-making on senior debt transactions, impairments and write offs, lending and underwriting strategies
Investment Committee (IC)	Investment risk	- Decision-making on equity, mezzanine and subordinated debt transactions, impairments and revaluations
Engagement Committee (EC)	Reputational risk Integrity risk	- Decision-making with regard to client engagement and conflicts of interest

Overlap of committee membership among Managing Board members contributes to consistency in communication and decision-making.

The risk committees are supported by a robust risk management organisation, which focuses on the daily monitoring and management of the risks NIBC is exposed to. These departments are Credit Risk Management, Restructuring & Distressed Assets, Market Risk Management, Risk Analytics & Model Validation, Financial Markets Credit Risk, Credit Modelling & Portfolio Analysis and Operational Risk Management.

Credit Risk Management (CRM) is responsible for assessing, managing and advising on credit risk related to corporate counterparties and High Net-Worth Entrepreneurs. CRM develops and implements policies and procedures regarding credit risk, advises on credit proposals, reviews, waivers and amendments, and reviews impairments. Furthermore, CRM validates NIBC's internal counterparty credit ratings and loss given default ratings.

Restructuring & Distressed Assets Management (RDA) actively manages and restructures loans of financially distressed clients transferred from the various NIBC business units.

The *Market Risk Management* department (**MRM**) is responsible for monitoring the market risk of the Treasury activities, both inside and outside the trading book. MRM also monitors the bank-wide currency position.

The *Risk Analytics & Model Validation* department (**RA&MV**) is mainly responsible for the Economic Capital modelling and reporting, model validation and research projects.

Financial Markets Credit Risk (FMCR) is responsible for monitoring, assessing and advising on credit and counterparty risk on NIBC's Treasury activities, including monitoring and advice on counterparty credit limits and issuer limits. Next to that, FMCR develops, implements and maintains policies and methodologies regarding credit risk related to financial markets products, including methodologies for counterparty credit exposure, A-IRB estimates for bank counterparties and derivative valuation adjustments. Furthermore, FMCR is responsible for performing regulatory and internal stress tests, maintenance of NIBC's Risk Appetite framework and for implementing and managing country risk limits across NIBC.

The *Credit Modelling & Portfolio Analysis* department (**CM&PA**) monitors risk on portfolio level. CM&PA develops policies and methods for measuring risk, notably the credit rating system used to evaluate probability of default and loss given default in NIBC's credit portfolio. CM&PA is also responsible for the reporting of credit portfolio information to various users within and outside NIBC, for the development and reporting on Risk Appetite Framework, for the development and maintenance of (sub-) portfolio, industry sector and department

limits. It also includes credit risk management of the Investment loan portfolio, as well as the investment risk management of the private equity positions and structured transactions involving a pool of collateral. CM&PA is pivotal in NIBC's Basel III process and also performs parts of quantitative risk modelling.

Operational Risk Management (ORM) is responsible for monitoring and managing operational risk stemming from NIBC's business and operational practices. ORM co-ordinates the *New Product Approval Process (NPAP)* and the bank-wide process of new activities with respect to the assessment of operational risk management, compliance and reporting capabilities.

Compliance & CSR (C&C) is responsible for updating the overall compliance risk analysis for NIBC and all international offices on a yearly basis, translate and implement relevant external regulations into sound and clear internal policies and procedures, document and update compliance policies, inform and train staff members in order to broaden their compliance awareness, maintain proper Chinese walls and Restricted Lists and act as the co-ordinator for correspondence of the Dutch *Authority for Financial Markets (AFM)* and, via the Local Compliance Officers, for the relevant international supervisory bodies.

Internal risk reporting and management information ensures that risks are discussed and assessed properly. Furthermore, they enable the Supervisory Board, the Managing Board and the risk committees to assess whether the bank's risk profile remains within the predetermined risk appetite limits. All stakeholders are informed through annual reports, interim reports and the Pillar 3 report. Every quarter, comprehensive reporting is assessed by the Supervisory Board's RPCC on all risk aspects.

Credit Risk

NIBC defines credit risk as the current or potential threat to the company's earnings and capital as a result of counterparty's failure to make required debt or financial payments on time or to comply with other conditions of an obligation or agreement. The possibility of restrictions on or impediments to the transfer of international payments also fall under credit risk.

Many activities at NIBC are related to credit risk: credit risk is present in the Corporate Loan portfolio, the Investment Loan portfolio, the Residential Mortgage portfolio, the Lease Receivables portfolio, the Debt Investments portfolio (in corporate entities, institutions and securitisations), cash management and derivatives. It is the largest source of risk to which NIBC is exposed, representing approximately 92% of total *Risk Weighted Assets (RWA)* and of the company's capital requirements. Specifically for the Debt Investments portfolio, NIBC defines the credit risk as issuer risk, which is the credit risk of losing the principal amount on products such as bonds. The Pillar 3 disclosure requirements prescribe that a credit institution classifies its assets into a number of standard exposure classes. For a credit institution using the AIRB approach, these exposures are defined in the CRR/CRD IV. Table 1 presents the relationship between the classification in this report and the portfolios in NIBC's Annual Report:

Table 1 Comparison between Pillar 3 exposure classes and portfolios in NIBC's Annual report

Pillar 3 exposure classes	Portfolios in Annual Report
Sovereign	Debt investments in sovereign entities and cash at central banks
Institutions	Debt investments in institutions, deposits and derivative transactions with institutions
Corporate	Corporate loan portfolio, including guarantees, derivatives and debt investments in corporate entities, lease receivables (BEEQUIP) and Investment Loan portfolio
Retail	Dutch and German residential mortgage portfolios, German lease receivables, securitised RMBS portfolio
Equities	Equity investments and uncalled capital commitments
Securitisations	Securitisation portfolio, derivatives and retained notes of own securitisations
Other	Non-credit related exposures

Apart from the above mentioned differences in classification, differences can also be found between the numbers presented in this report and the numbers in the risk management paragraph and risk notes in NIBC's Annual Report. The main reasons that these numbers are not directly comparable are the following:

- For exposures treated under the AIRB approach, Pillar 3 numbers refer to Exposure At Default (EAD), a risk measure of the potential outstanding amount in the event of default. Counterparties typically tend to utilise their credit lines more intensively when approaching default, which implies that the amount outstanding at default is expected to be higher than the current outstanding amount. For undrawn parts of credit facilities, a credit conversion factor is applied to the numbers in the Pillar 3 report, which cannot be recognised on the balance sheet. This credit conversion factor is incorporated in the calculation of EAD;
- For derivative transactions, Pillar 3 figures refer to the marked-to-market value and add-on, including the effect of netting and collateral. The add-on reflects a potential future change in the marked-to-market value during the remaining lifetime of the derivative contract for uncollateralized derivatives and considering margin period of risk for collateralized derivatives; and
- The treatment of some securitised exposures differs due to differences in de-recognition requirements in IFRS and CRR/CRD IV.

Credit risk exposures

This section presents NIBC's credit risk exposures based on the definitions and approaches that are used in the calculation of capital requirements. NIBC received approval by the DNB to use the AIRB approach for calculating the capital requirements of the corporate, institutions and retail exposure classes. Furthermore, NIBC uses the ratings-based approach for the securitisation exposure class and the simplified risk-weight approach for the equity exposure class.

The AIRB approach is the most sophisticated approach within CRR/CRD IV for the calculation of capital requirements and it is based on NIBC's internal estimation of various risk parameters. The section *Calculation of Risk Weighted Assets* in this chapter provides more information on the methods NIBC uses for the estimation of these parameters.

The Standardised Approach applies to all other NIBC exposure classes containing credit risk.

Table 2 shows a breakdown of exposure, EAD, RWA and capital requirement per exposure class and calculation approach at 31 December 2016 and 2015.

Table 2 Breakdown of exposure, EAD, RWA and capital requirement for credit risk

IN EUR MILLIONS	2016				2015			
	Exposure	EAD	RWA	Capital requirement	Exposure	EAD	RWA	Capital requirement
AIRB APPROACH								
- of which corporate	10,660	10,169	5,775	462	10,339	9,713	5,478	438
- of which retail	8,350	8,350	883	71	8,491	8,491	957	77
- of which institutions	744	695	478	38	1,031	940	628	50
- of which securitisations	673	673	107	9	703	703	154	12
- of which equities	262	262	969	77	300	300	1,112	89
SUBTOTAL	20,689	20,150	8,211	657	20,866	20,147	8,329	666
STANDARDISED APPROACH								
- of which retail	1,195	779	319	26	750	473	248	20
- of which sovereign	1,016	1,016	0	0	864	864	-	-
- of which institutions	419	378	58	5	498	404	84	7
- of which corporate	244	244	238	19	235	225	219	17
- of which securitisations	-	-	-	-	-	-	-	-
- of which equities	-	-	-	-	-	-	-	-
- of which other	240	240	240	19	213	213	211	17
SUBTOTAL	3,114	2,657	854	68	2,561	2,179	761	61
TOTAL CREDIT RISK	23,803	22,806	9,065	725	23,426	22,327	9,090	727

Small differences are possible in the table due to rounding

The total RWA of NIBC slightly decreased by 2% between 2016 and 2015 as a result of the following factors:

- The RWA for the *Corporate* exposure class increased by 5% compared to 2015 due to origination of new assets in the Corporate Loan portfolio. Part of the portfolio treated under the Standardised Approach has also increased by 9% due to new venture BEEQUIP Lease portfolio;

- The total RWA's of the Retail portfolio remained relatively the same. However, the size of the German Residential Mortgages portfolio, which is treated under the Standardised Approach, decreased. The Lease Receivables portfolio of NIBC Deutschland AG and the buy-to-let residential mortgage portfolio are also treated under the Standardised Approach;
- The RWA consumption of the Securitisations exposure class decreased by 30% due to decreased exposure of legacy products in favour for liquidity;
- RWA for *Institutions* decreased by almost 23% due to fluctuations in the cash management.

Breakdown of credit risk exposures

Table 3 shows a breakdown of EAD between exposure classes and exposure types under both the AIRB and the Standardised approach at 31 December 2016.

Table 3 Breakdown of credit EAD types by exposure class, 31 December 2016

IN EUR MILLIONS				
Exposure Class	On-Balance	Off-Balance	Derivatives	Total
AIRB APPROACH				
- of which corporate	8,725	861	583	10,169
- of which retail	8,332	18	-	8,350
- of which institutions	520	-	175	695
- of which securitisations	648	-	25	673
- of which equities	242	20	-	262
SUBTOTAL	18,467	900	783	20,150
STANDARDISED APPROACH				
- of which retail	667	113	-	779
- of which sovereign	1,016	-	-	1,016
- of which institutions	268	-	110	378
- of which corporate	218	15	11	244
- of which securitisations	-	-	-	-
- of which equities	-	-	-	-
- of which other	240	-	-	240
SUBTOTAL	2,408	128	121	2,657
TOTAL	20,874	1,028	904	22,806

Small differences are possible in the table due to rounding

Table 4 shows an average breakdown of 2016, based on beginning and end of the year 2016.

Table 4 Breakdown of credit EAD types by exposure class, average 2016

IN EUR MILLIONS				
Exposure Class	On-Balance	Off-Balance	Derivatives	Total
AIRB APPROACH				
- of which corporate	8,476	850	615	9,941
- of which retail	8,393	28	-	8,421
- of which institutions	619	-	199	818
- of which securitisations	664	-	24	688
- of which equities	263	18	-	281
SUBTOTAL	18,415	895	838	20,148
STANDARDISED APPROACH				
- of which retail	529	98	-	626
- of which sovereign	940	-	-	940
- of which institutions	275	-	116	391
- of which corporate	199	20	15	234
- of which equities	-	-	-	-
- of which other	226	-	-	226
SUBTOTAL	2,169	118	131	2,418
NIBC TOTAL	20,584	1,013	969	22,566

Small differences are possible in the table due to rounding

Table 5 shows the breakdown of EAD between regions. The geographical distribution of NIBC's assets corresponds to the company's strategy to focus on North Western Europe, with the Netherlands, the United Kingdom and Germany accounting for 87% of the total EAD. This percentage increases to 94% when the rest of Europe is included. With respect to corporate exposures, the Asia/Pacific region mainly contains NIBC's exposures to the sectors shipping and oil & gas. Exposures to the oil & gas sector are also located in North America, as well as in the region Other.

Table 5 Breakdown of EAD per region, 31 December 2016

IN EUR MILLIONS								
Exposure Class	The Netherlands	United Kingdom	Germany	Rest of Europe	North America	Asia / Pacific	Other/Mixed	Total
AIRB APPROACH								
- of which corporate	4,033	2,005	1,827	1,160	498	376	271	10,169
- of which retail	8,350	-	-	-	-	-	-	8,350
- of which institutions	206	267	-	182	37	4	-	695
- of which securitisations	292	38	144	130	-	-	69	673
- of which equities	200	15	-	6	42	-	-	262
SUBTOTAL	13,081	2,324	1,970	1,477	577	379	341	20,150
STANDARDISED APPROACH								
- of which retail	572	-	208	-	-	-	-	779
- of which sovereign	974	18	-	-	24	-	-	1,016
- of which institutions	203	87	3	73	12	-	-	378
- of which corporate	212	24	8	-	-	-	-	244
- of which equities	-	-	-	-	-	-	-	-
- of which other	-	-	-	240	-	-	-	240
SUBTOTAL	1,961	129	218	313	35	-	-	2,657
TOTAL	15,042	2,453	2,189	1,790	612	379	341	22,806
TOTAL (in %)	66%	11%	10%	8%	3%	2%	1%	100%

Small differences are possible in the table due to rounding

Table 6 shows the breakdown of EAD between industry sectors. Note that this table is split into two parts for visibility purposes and should be read as a continuation from upper table to a lower table.

Table 6 Breakdown of EAD per industry sector, 31 December 2016

IN EUR MILLIONS		Industry sectors Part I						
Exposure Class	Retail Markets	Infrastructure & Renewables	Financial Services	Commercial Real Estate	Shipping	Oil & Gas	Government/ Central Bank	Manufacturing
AIRB APPROACH								
- of w hich corporate	-	2,094	930	1,706	1,524	1,181	-	710
- of w hich retail	8,350	-	-	-	-	-	-	-
- of w hich institutions	-	-	695	-	-	-	-	-
- of w hich securitisations	571	-	-	36	-	-	-	-
- of w hich equities	-	114	113	19	-	2	-	12
SUBTOTAL	8,922	2,208	1,738	1,761	1,524	1,183	-	722
STANDARDISED APPROACH								
- of w hich retail	656	-	-	-	-	-	-	-
- of w hich sovereign	-	-	-	-	-	-	974	-
- of w hich institutions	-	-	378	-	-	-	-	-
- of w hich corporate	-	-	22	11	-	-	-	-
- of w hich equities	-	-	-	-	-	-	-	-
- of w hich other	-	-	-	240	-	-	-	-
SUBTOTAL	656	-	400	251	-	-	974	-
TOTAL	9,578	2,208	2,138	2,012	1,524	1,183	974	722
TOTAL (in %)	42%	10%	9%	9%	7%	5%	4%	3%

Small differences are possible in the table due to rounding

IN EUR MILLIONS		Industry sectors Part II							Total
Exposure Class	Services	Wholesale/Retail/Leisure	Agriculture & Food	TMT	Other	Lease Receivables	Financial Markets		
AIRB APPROACH									
- of w hich corporate	664	571	467	302	19	-	-	10,169	
- of w hich retail	-	-	-	-	-	-	-	8,350	
- of w hich institutions	-	-	-	-	-	-	-	695	
- of w hich securitisations	-	-	-	-	7	-	59	673	
- of w hich equities	2	-	-	-	-	-	-	262	
SUBTOTAL	666	571	467	302	26	-	59	20,150	
STANDARDISED APPROACH									
- of w hich retail	-	-	-	-	-	123	-	779	
- of w hich sovereign	-	-	-	-	41	-	-	1,016	
- of w hich institutions	-	-	-	-	-	-	-	378	
- of w hich corporate	5	3	-	-	90	112	-	244	
- of w hich equities	-	-	-	-	-	-	-	-	
- of w hich other	-	-	-	-	-	-	-	240	
SUBTOTAL	5	3	-	-	131	236	-	2,657	
TOTAL	672	574	467	302	157	236	59	22,806	
TOTAL (in %)	3%	3%	2%	1%	1%	1%	0%	100%	

Small differences are possible in the table due to rounding

Table 7 shows the breakdown of RWA between industry sectors. Note that similar to previous table, this table is split into two parts for visibility purposes and should be read as a continuation from upper table to a lower table. It can be noticed that Commercial Real Estate sector has the highest RWA

Table 7 Breakdown of RWA per industry sector, 31 December 2016

IN EUR MILLIONS		Industry sectors RWA Part I						
Exposure Class	Commercial Real Estate	Financial Services	Infrastructure	Retail Markets	Oil & Gas	Manufacturing	Shipping	Services
AIRB APPROACH								
- of which corporate	1,649	371	811	-	666	532	423	463
- of which retail	-	-	-	883	-	-	-	-
- of which institutions	-	478	-	-	-	-	-	-
- of which securitisations	27	-	-	48	-	-	-	-
- of which equities	69	419	422	-	8	43	-	8
SUBTOTAL	1,744	1,268	1,233	931	674	574	423	471
STANDARDISED APPROACH								
- of which retail	-	-	-	237	-	-	-	-
- of which sovereign	-	-	-	-	-	-	-	-
- of which institutions	-	58	-	-	-	-	-	-
- of which corporate	11	22	-	-	-	-	-	5
- of which equities	-	-	-	-	-	-	-	-
- of which other	240	-	-	-	-	-	-	-
SUBTOTAL	251	79	-	237	-	-	-	5
TOTAL	1,995	1,347	1,233	1,168	674	574	423	476
TOTAL (in %)	22%	15%	14%	13%	7%	6%	5%	5%

Small differences are possible in the table due to rounding

IN EUR MILLIONS		Industry sectors RWA Part II							Total
Exposure Class	Wholesale/Retail/Leisure	Agriculture & Food	TMT	Lease Receivables	Other	Financial Markets	Government / Central Banks		
AIRB APPROACH									
- of which corporate	346	291	218	-	4	-	-	5,775	
- of which retail	-	-	-	-	-	-	-	883	
- of which institutions	-	-	-	-	-	-	-	478	
- of which securitisations	-	-	-	-	-	32	-	107	
- of which equities	-	-	-	-	-	-	-	969	
SUBTOTAL	346	291	218	-	5	32	-	8,211	
STANDARDISED APPROACH									
- of which retail	-	-	-	82	-	-	-	319	
- of which sovereign	-	-	-	-	-	-	-	-	
- of which institutions	-	-	-	-	-	-	-	58	
- of which corporate	3	-	-	112	84	-	-	238	
- of which equities	-	-	-	-	-	-	-	-	
- of which other	-	-	-	-	-	-	-	240	
SUBTOTAL	3	-	-	194	84	-	-	854	
TOTAL	349	291	218	194	89	32	-	9,065	
TOTAL (in %)	4%	3%	2%	2%	1%	0%	0%	100%	

Small differences are possible in the table due to rounding

Retail Banking

The industry sector with the highest EAD is Retail Banking (42% of total EAD), which consists of NIBC's Residential Mortgage portfolios in the Netherlands (EUR 8,730 million) and Germany (EUR 85 million). The total EAD of the portfolio increased significantly by EUR 207 million mainly due to the further increase of the NIBC Direct mortgage book and our Buy-To-Let (Vastgoed Investerings hypotheek) portfolio. The NIBC Direct mortgage programme grew further to approximately 3 billion end of 2016. Retail Banking consumes 13% of the total RWA. For more information about these exposures we refer to the various *Retail* sections in this report for the Residential Mortgage portfolio and to the chapter on *Securitisations* for the RMBS.

Infrastructure & Renewables

The total EAD of the industry sector Infrastructure & Renewables amounted EUR 2,208 million at 31 December 2016. The EAD relates almost exclusively to corporate loan and derivative exposures with the remaining related to equity exposure. In terms of geographical distribution, 69% of the portfolio's EAD is located in the United Kingdom, 16% in Germany, 11% in the Netherlands and 4% in the rest of Europe. The portfolio spans across various industry sub-sectors of which education (25%), healthcare (23%), renewable energy (17%), other infrastructure (14%), roads & railways (12%), and water supply, waste and sewerage (5%) are the most important ones.

NIBC adapted its market focus to different types of transactions, e.g. decreasing focus on PPP Infrastructure transactions while increasing focus to renewables (both wind, solar and biomass) and other infrastructure transactions, such as datacenters and glassfiber. The strategy for the coming year is a multiproduct offering supported by sector expertise in the core markets being the UK and Benelux, and selectively on existing clients in Germany.

In 2016, the weighted average CCR slightly upgraded to 5 (BB) and the weighted average LGD rating remained at B-1 (12.5%).

With respect to risks in the Infrastructure & Renewables portfolio, a significant distinction can be made between assets in construction (approximately 5% of the portfolio) and in operational phase (approximately 95% of the portfolio). The risk profile of the construction phase is strongly related to the risk profile of the construction company involved. At the same time, the construction phase is characterised by substantial security packages, including performance bonds and letters of credit of reputable banks. The existence of such security packages results in a better-than-average risk profile, despite the current increased risk profile of individual construction companies. Through-out the portfolio, only the established Western European construction companies are involved in the infrastructure projects.

Financial Services

The next largest industry sector is Financial Services with a total EAD of EUR 2,138 million at 31 December 2016 (9% of total EAD). Within Financial Services, institutions and corporates are the largest exposure classes. Institutions relate to the Treasury function. Financial Services corporates exposures contain mainly structured receivables financing for corporate clients (including factoring companies and exposures to private equity funds) and financing of leasing companies. At 31 December 2016, the weighted average CCR of all corporate exposures in this sector was 5- (BB-) and the weighted average LGD rating remained at B-1 (12.5%). In terms of geographical distribution, 50% of the EAD in the financial services sector is located in the Netherlands, 33% Germany, 3% in the United Kingdom, 7% in the rest of Europe and the remainder in region Other.

Commercial Real Estate

The EAD size of the Commercial Real Estate sector amounted to EUR 2,012 million at 31 December 2016, which contains NIBC's commercial real estate corporate loans including EUR 474 million exposure transferred to third parties, however included in regulatory exposure at default and several equity positions. The portfolio has a slight growth in 2016 due to a strong origination (of good quality exposures) and general market growth. CRE sector has the highest RWA of the bank (22%).

At 31 December 2016, the weighted average CCR of the portfolio remained at 6+ (B+) and the weighted average LGD rating improved to A-2 (7.5%). In general, the sector was driven by a low interest rate environment, which resulted in increased deal flow driven by foreign investors. Nevertheless, we focused on high

credit quality origination and active portfolio management with the sale and restructuring of selective pre-crisis exposures, frequent screenings of key clients and semi-annual reviews.

Commercial Real Estate remains a well-diversified portfolio across various commercial real estate classes. The properties are located in the Netherlands (91%), Germany (8%) and United Kingdom (1%). Mixed-use property accounts for 38% of the portfolio due to a change in regulatory capital treatment of a specific exposure.

Residential commercial property financing accounts for 17% of the portfolio, which significantly reduces the concentration risk in the underlying collateral pool given the large number of tenants. The majority of NIBC's residential properties are located in the Netherlands (58%) and in Germany (39%). Other prominent segments relate to offices (22%) and hotels (5%).

Shipping

The EAD of all shipping exposures increased to EUR 1,524 million at 31 December 2016. Portfolio growth in EUR is fully attributed to FX effect of USD versus EUR. S&I portfolio is skewed towards mid-sized vessels for ship owners and maritime investors in the deep sea segment, mostly dry bulk and wet bulk areas. Tankers represented 42% of the Shipping portfolio, bulk carriers 26%, specialised vessels 22%, container vessels 5% and container boxes (intermodal) 4%. Geographically borrowers are mainly active in Europe (61%), North America (22%) and Asia/Pacific (11%).

In 2016 the weighted average CCR of the portfolio remained stable 6 (B) and the weighted average LGD rating remained A-2 (7.5%) due to a high quality new origination.

The industry sector Shipping is exclusively comprised by exposures in the corporate exposure class, containing NIBC's Shipping & Intermodal (container box) portfolio. The shipping sector and, more specifically, deep-sea shipping, is a long-established activity within NIBC.

Total origination in 2016 was modest to keep a good balance between new origination and sector concentration. Shipping portfolio remained well diversified portfolio in relation to geographies, assets and debtors. In 2016 sector experienced favourable market circumstances for the wet bulk market segments, adverse circumstances for the dry bulk and containership market segments, while intermodal segment remained stable. Active portfolio management continued to be a high priority and resulted in stable credit quality in line with the cyclical market dynamics. Emphasis on quality of the asset, the owner of the asset and access to cargo, all of which are required for healthy cash flow generation, continued.

Oil & Gas

Oil & Gas portfolio EAD slightly increased in 2016 to EUR 1,183 million. Since February 2016 oil price recovery has provided some headroom but the market was still very challenging. Nevertheless, the sector managed to further diversify its client base, while maintaining stable credit quality and high quality origination deals through an increased focus on portfolio management. The sector mostly contains corporate exposures. The total EAD in this portfolio is mainly split over six subsectors of which drilling (31%), offshore support vessels (29%) and production (29%) are the most prominent subsectors. In terms of geographical focus, the sector is balanced across Europe (61%), Asia/Pacific (16%) and North America (13%) and the assets are located all over the world in key oil and gas areas.

Throughout 2016 the credit rating of the oil & gas portfolio slightly deteriorated with the weighted average CCR was 6 (B) and the weighted average LGD remained the same at B-1 (12.5%).

All Oil & Gas Services lending exposure relates to secured transactions. Security consists among others of the underlying assets as well as, in nearly all cases, a corporate guarantee. Drilling exposure relates to corporate

transactions secured by the drilling assets, which are in turn contracted to oil companies, typically on medium term contracts. The offshore support sector incorporate transactions for clients that have assets supporting the drilling and production companies. These assets range from platform supply vessels, anchor handlers to subsea construction vessels. Assets in the offshore support segment are normally contracted on short to medium term contracts, but always secured by corporate guarantees. Transactions in the production segment concern floating production, storage and offloading assets. These assets are tailor made for a specific oil field and are generally contracted on a long-term basis to oil companies. Floating production, storage and offloading assets are critical for enabling production on their specific oil fields and thereby less impacted by short term oil price fluctuations.

Manufacturing

The exposure of the industry sector grew to EUR 722 million in 2016. In a liquid credit market and sometimes cheaper alternatives to bank funding, the sector successfully serves its clients in the Benelux and Germany in arranging amongst others custom-made and high value added solutions. Most of the clients are located in the Netherlands (48%) followed by Germany (36%) and the rest of Europe (11%). Overall, clients benefit from the improving economic climate, however Event risk (e.g. Brexit) gets increased attention. In all regions served by the team, business proved to be linked more closely to the global economy than to local dynamics and has shown improved performance.

The credit quality of the portfolio remained good as a result of proper portfolio management and new clients. Although the demand for industrial products tends to be cyclical, the sector focused on more stable industry sectors and subsectors, in which it has client and market expertise. We continue to benefit from our solid sector knowledge and tailor made client solutions. The portfolio is well-balanced and split across various industry sectors: industrial products (57%), chemicals (17%), consumer products (9%), manufacturing of automotive and land vehicles (9%) and electronics (3%).

Wholesale/Retail/Leisure

The portfolio increased in the course of 2016 to a total of EUR 574 million and contains corporate exposures which can be subdivided in the sub sectors wholesale (48%), retail (40%) and leisure (12%). The clients of the portfolio are located in the Netherlands (58%), Germany (40%), North America and United Kingdom (5%). The credit quality remained stable as a result of the continuous emphasis on a diversified credit selection, avoiding more aggressive deals and focusing on mid-market companies and relationships with financial sponsors. At 31 December 2016, the weighted average CCR upgraded to 5 (BB) and the weighted average LGD rating remained at B-2 (18%).

Government/Central Banks

The sector Government/Central Banks (EUR 974 million or 4% of total EAD) is made up exclusively of NIBC's sovereign exposures. Most of sovereign exposures are related to cash placed with DNB, the Dutch State Treasury Agency and the German Bundesbank. The increase in the total EAD in this sector is the result of issuing of a senior unsecured bond. In 2016, NIBC has zero sovereign debt exposure to Greece, Italy, Ireland, Spain and Portugal.

Other sectors

The remaining sectors in NIBC's portfolio together account for 9% of the total EAD. With the exception of a few exposures in the equities and securitisations exposure classes, the vast majority are corporate exposures. More specifically, the sector Services consists of non-financial service providers such as transport, storage, healthcare and education. The majority of the counterparties in these sectors are medium-sized to large-sized companies in the Netherlands, Germany and the United Kingdom, which account for around 93% of the corporate EAD.

As in 2015, NIBC strengthened its sector focus in 2016 by further concentrating on industries, where it possesses strong expertise and knowledge and where it can best assist its clients to achieve their strategic ambitions. By the acquisition of Gallinat-Bank AG in 2014, NIBC obtained a Lease Receivables portfolio which amounted EUR 123 million at 31 December 2016. Strict criteria are in place to determine the eligibility of lease contracts for this programme and they entered into with German lessees to finance moveable objects such as trucks and trailers. The contracts are to commercial clients in the German SME market and consist of hire purchase contracts, partially amortising lease contracts and fully amortising lease contracts. The servicing of this portfolio remains with the leasing company.

Equipment leasing was added to our product pallet in 2016 via the establishment of the new venture BEEQUIP. This venture primarily focuses on financing/leasing transactions for used equipment, mainly for small and medium enterprises in the sectors infrastructure, earth-moving, construction and logistics sectors. At the end of December 2016, the BEEQUIP drawn portfolio amounted EUR 113 million.

The overall credit quality remained relatively stable compared to 2015 and ranged in the 5 (BB) to 6- (B-) categories in terms of weighted average CCR, whereas the weighted average LGD was between 12.5% to 25% (B-1 to B-3 categories).

Table 8 provides a breakdown of credit EAD per legal maturity. About 52% of all of NIBC's credit risk exposures will mature within the next five years.

Table 8 Breakdown of credit risk EAD per maturity, 31 December 2016

IN EUR MILLIONS					
Exposure Class	≤ 1 year	> 1 year ≤ 2 years	> 2 years ≤ 5 years	> 5 years	Total
AIRB APPROACH					
- of w hich corporate	3,068	983	4,272	1,846	10,169
- of w hich retail	-	-	-	8,350	8,350
- of w hich institutions	571	33	6	86	695
- of w hich securitisations	673	-	-	-	673
- of w hich equities	262	-	-	-	262
SUBTOTAL	4,573	1,016	4,278	10,282	20,150
STANDARDISED APPROACH					
- of w hich retail	123	-	-	656	779
- of w hich sovereign	1,016	-	-	-	1,016
- of w hich institutions	258	0	94	26	378
- of w hich corporate	111	116	5	11	244
- of w hich equities	-	-	-	-	-
- of w hich others	-	240	-	-	240
SUBTOTAL	1,508	356	99	694	2,657
TOTAL EAD	6,081	1,372	4,377	10,976	22,806

Small differences are possible in the table due to rounding

Calculation of Risk Weighted Assets

AIRB approach

Ratings and rating process in the AIRB approach

The AIRB approach for the corporate, retail and institutions exposure classes has been implemented by NIBC after the approval by DNB. The ratings framework consists of the calculation of three main parameters: *probability of default (PD)*, *loss given default (LGD)* and *exposure at default (EAD)*.

The PD, LGD and EAD that are calculated through NIBC's internal models are used for the calculation of *expected loss (EL)* and Pillar-1 *regulatory capital (RC)*. Internal ratings enable an objective comparison of the credit risk of different types of assets, making them an essential tool for the commercial and risk management departments to determine whether a transaction fits NIBC's strategy and portfolio, as well as to determine the appropriate pricing. *Economic capital (EC)*, *risk-adjusted return on capital (RAROC)* and stress testing are areas within Pillar 2, which make use of the above-mentioned parameters, although the methodologies for both EC and stress testing differ from those employed in Pillar 1. In particular, a market risk instead of a credit risk approach is used for a number of portfolios in Pillar 2. NIBC has developed a variety of stress test scenarios, both on total portfolio and sub-portfolio level, to evaluate the impact of the scenarios on its RWA levels and Tier-1 ratio. For more information on the differences between NIBC's calculations under Pillar 1 and Pillar 2, we refer to the *ICAAP* chapter.

NIBC enforces strict separation of responsibilities with respect to its internal rating methodologies and rating process, model development, model validation and internal audit. The roles and responsibilities of each involved unit are explicitly set out in internal policies and manuals, also in conformity with the stipulations of CRR/CRD IV with respect to model governance.

In addition to these three internally calculated parameters, a fourth parameter which influences the calculation of the Pillar-1 RC is the maturity.

This section explains how the PD, LGD and EAD are applied within the AIRB corporate and retail framework of NIBC.

Corporate

NIBC applies its internally-developed credit rating methodology since 2007. This methodology consists of two elements: a counterparty credit rating that reflects the probability of default of the borrower and an anticipated loss element that expresses the potential loss on the facility in the event of default of the borrower. All counterparties are reviewed at least once a year.

The basis for both the PD and the LGD methodologies is the application of constrained expert judgement within rating indicators. From a risk perspective, corporate exposures fall within four financing types (corporate lending, asset finance, leveraged finance and project finance) and for each of these financing types the relevant credit drivers and parameters are captured in the rating models.

Counterparty credit ratings and probability of default

The *counterparty credit rating (CCR)* reflects the counterparty's capacity to meet its financial obligations in full and in time. CCRs do not incorporate any recovery prospects, as these are captured by the internal LGD estimates.

NIBC's uses a through-the-cycle CCR rating scale, which consists of 10 grades (1-10). Most of these grades are further divided in notches, by the addition of a plus or minus sign to show the relative standing within the rating grade. NIBC uses a total of 22 notches, each of which is mapped to the rating scale of the main international rating agencies. Each notch carries a PD percentage, which quantifies the likelihood that the counterparty will go into default in the next one year. The CCRs 9 and 10 are assigned to counterparties that have already defaulted and therefore carry a PD of 100%. Furthermore, CCRs are assigned a rating outlook. This assesses the potential direction of the CCR over the medium term. In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions.

The general methodology for determining a CCR is based on several qualitative and quantitative rating indicators, such as the analysis of the business and financial profile of the counterparty, a cash flow analysis, a sovereign risk analysis and a peer-group analysis. Expert judgement is applied at the end of the rating process and determines what the final rating of the counterparty will be taking into account the rating indicators of the various models.

The performance of the CCR methodology is back-tested annually in order to ensure that consistency is kept throughout the portfolio and to measure the discriminatory power and the ranking ability of the CCRs. Furthermore, NIBC regularly benchmarks its CCRs with external parties. In 2016, the back-test of NIBC's CCRs provided satisfactory results.

Loss given default

Whereas CCRs are assigned on a counterparty level, LGD ratings are facility-specific. The LGD ratings reflect the loss that can be expected on a facility in a downturn scenario, given a counterparty defaults. NIBC's internal LGD scale consists of 7 grades (A-F) and 10 notches, each of which represents a different degree of recovery prospects and loss expectations.

NIBC's LGD philosophy is similar to the approach for CCRs. The LGD methodology is also based on a combination of qualitative and quantitative rating indicators that include, among others, the assessment of the available collateral and/or guarantees, the seniority of the loan, the applicable jurisdiction, and the quality of the counterparty's assets. Once the various LGD drivers have been assessed, the final LGD rating is based upon expert judgement.

As is the case for CCRs, the maintenance of NIBC's LGD models involves benchmarking and back-testing. NIBC is a founding member of the *Global Credit Data (GCD)*, the largest international loan loss data pooling entity. This enables NIBC to exchange anonymous loss data with other large international banks for the purposes of enhancing LGD modelling capabilities, sharing of best practices, LGD calibration and benchmarking.

Exposure at default and credit conversion factor

A third element of the AIRB approach is the calculation of the EAD. It is defined as the amount that is expected to be outstanding at the moment a counterparty defaults. Counterparties typically tend to utilise their credit lines more intensively when approaching default, which implies that the amount outstanding at default is expected to be higher than the current outstanding amount.

In order to quantify the additional expected utilisation, NIBC applies a *credit conversion factor (CCF)* on the undrawn portion of every credit facility. The main driver for the value of the CCF is the type of the credit facility (e.g. term loan, working capital facility, guarantee). NIBC produces its own internal estimates of CCF, based on the utilisation of defaulted credit facilities at the time of default and one year prior to default, which are a combination of internal defaulted facilities and defaulted facilities from the GCD data pool. These internal estimates are then benchmarked anonymously to external estimates from other GCD member banks.

Overview of AIRB corporate exposures

Table 9 provides an overview of corporate AIRB EAD types, broken down by NIBC rating grade (equivalent ratings of external rating agencies are provided in parentheses). The table also provides the average PD and LGD, weighted against EAD. As assets with a rating of 9/10 have already defaulted, the notion of LGD as used for non-defaulted assets is no longer applicable. Losses are therefore estimated through a separate impairment model, in order to determine the impairment amounts.

The fact that these exposures are in default does not necessarily mean that all the counterparties carry an impairment amount. Reasons for not always taking an impairment amount for a defaulted counterparty may be e.g. over-collateralisation or NIBC's expectation of the company future cash-flow generation. The section on defaulted, non-performing, impaired and forbore exposures contains more information.

Since 2010, NIBC has been using an internally developed methodology for calculating RWAs for the defaulted counterparties. Whereas RWA and Regulatory Capital (RC) for the non-defaulted corporate exposures are calculated based on the CRR/CRD IV AIRB formula, the RWA and RC for the defaulted corporate exposures are a function of the impairment amount, if present, and the proportion of the impairment amount to the defaulted EAD. This methodology results in additional RWA and RC for the corporate exposure class, in line with NIBC's wish for more prudent capital calculations on its defaulted exposures in times of an economic downturn.

In 2016 the weighted average PD of the total corporate exposure class improved to 2.1%. The average weighted CCR in the corporate exposure class (excluding defaulted assets) was 6+ on NIBC's rating scale (B+ in the rating scales of rating agencies) at 31 December 2016. The weighted-average LGD increased slightly to 16.7% at 31 December 2016 from 15.6% at 31 December 2015. The improved CCRs and slightly increased LGDs under difficult economic circumstances reveal NIBC's focus on active portfolio management and selective high quality new origination.

Table 9 Breakdown of corporate AIRB EAD by weighted average PD, weighted average LGD and EAD type, 31 December 2016

IN EUR MILLIONS						
Rating Scale	WA PD	WA LGD	On-balance	Off-balance	Derivatives	Total
1/2 (AAA/AA)	0.10%	7.50%	66	-	-	66
3 (A)	0.26%	7.16%	45	45	7	97
4 (BBB)	0.27%	14.32%	1,303	106	375	1,784
5 (BB)	0.64%	15.03%	2,547	345	50	2,942
6 (B)	1.69%	19.38%	3,263	314	59	3,636
7 (CCC)	6.08%	18.59%	441	44	78	563
8 (CC/C)	39.75%	23.01%	14	7	-	21
9/10 (D)	100.28%	26.06%	1,045	-	14	1,060
TOTAL	1.4%	16.7%	8,724	861	583	10,169

Retail

The AIRB approach applies to NIBC's Dutch Residential Mortgage portfolio excluding Buy-To-Let for which the Standardised Approach applies. The calculation of PD, LGD and EAD is performed by an internally developed AIRB model, which has been in use since 2006. The PD estimates are dependent on a variety of factors, of which the key factors are the delinquency status, debt-to-income and loan-to-value ratios. Minor factors that play a role in the PD estimates are several other mortgage loan characteristics and borrower characteristics. The PD scale is based on a continuous scale ranging from 0 - 100%.

The LGD estimates are based on a downturn scenario comparable to the downturn in the Dutch mortgage market in the 1980s. In this case, the indexed collateral value is stressed in order to simulate the proceeds of a (forced) sale of the collateral. The stress is dependent on the location of the collateral and its value. Together with assumptions about costs and time to foreclosure, an LGD is derived. The LGD estimate also takes into account whether a mortgage loan has a *Dutch government guarantee (NHG guarantee)* for which the LGD estimate is lower in comparison to a mortgage loan without the NHG guarantee. The LGD estimate is also based on a continuous scale.

The EAD is set equal to the net exposure (outstanding balance minus built-up savings value) for all mortgage loans, except for non-amortising (in this case, interest-only loans). For the non-amortising loans, 3 months of accrued interest is added to the EAD.

The validation of these estimates is performed on historical data and is carried out on a yearly basis. For the PD and LGD, the estimates are back tested against realised defaults and realised losses. In this way, it is ensured that the model still functions correctly in a changing economic environment.

Due to the improving economic environment, which is reflected in the Dutch housing market, arrears, defaults and losses decreased in 2015 and this trend continued in 2016. In addition, actual credit losses in the Dutch and German portfolios have remained low in the past years. The quality of NIBC's securitised mortgage portfolio is good compared to other Dutch RMBS issuers, as evidenced by limited arrears and realised losses.

Overview of AIRB retail exposures

Table 10 provides an overview of retail AIRB EAD types, broken down by PD buckets. The table also provides the average PD and LGD, weighted against EAD. Note that the numbers in this table refer to NIBC's Dutch Residential Mortgage portfolio and the underlying portfolio of RMBS securitisations and excluding Buy-To-Let as this is on the Standardised Approach. At 31 December 2016, the WA PD and LGD were 1.50% and 14.71% respectively.

Table 10 Breakdown of retail AIRB EAD by weighted average PD, weighted average LGD and EAD type, 31 December 2016

IN EUR MILLIONS					
PD Bucket	WA PD	WA LGD	On-balance	Off-balance	Total
<=0.1%	0.06%	7.87%	1,189	0	1,189
0.1% - 0.2%	0.15%	9.93%	1,640	2	1,642
0.2% - 0.3%	0.25%	11.85%	1,824	5	1,829
0.3% - 0.4%	0.35%	16.82%	1,279	5	1,284
0.4% - 0.5%	0.45%	18.70%	999	4	1,003
0.5% - 1%	0.62%	26.11%	1,162	3	1,165
1% - 2%	1.26%	28.44%	29	0	29
2% - 5%	3.70%	12.84%	15	0	15
5% - 99%	23.72%	17.54%	124	0	124
100%	100.00%	21.51%	71	0	71
TOTAL	1.50%	14.71%	8,332	18	8,350

Institutions

NIBC also uses an AIRB PD and LGD models for rating bank counterparties. These models have been approved by the DNB and implemented in July 2014. The AIRB framework for bank counterparties consists of an externally developed credit rating model that estimates the probability of default of the borrower and an internally developed model that estimates the loss in the event of default. The bank rating scales are in line with the rating scales used for corporate exposures. All counterparties are reviewed at least once a year. The non-bank institutions are treated under the standardized approach.

Equities

NIBC uses the simple risk weight approach for equity investments. Under this approach, the RWA is calculated by multiplying the exposure amount by 370%. The total EAD for equities amounts to EUR 262 million.

Securitisations

NIBC uses the IRB approach for securitisation exposures, both for purchased securitisations as well as for retained notes of own securitisations. Under the IRB approach, the RWA is calculated by multiplying the exposure amount by the appropriate risk weight. The risk weight depends upon the external rating, the granularity and seniority of the pool and on whether the transaction is a resecuritisation. Alternatively, for retained notes of own securitisations, NIBC uses the IRB capital charge had the underlying exposures not been securitised (KIRB approach).

This approach is applicable when the capital requirement under the KIRB approach is lower than the capital requirement under the IRB approach for the securitisation exposure class. More detailed risk information about NIBC's securitisation exposures can be found in the *Securitisations* section.

Table 11 Risk weights of securitisation EAD, 31 December 2016

IN EUR MILLIONS								
Risk weight	< 10%	10% - 20%	25% - 50%	50% - 150%	250% - 425%	500% - 650%	1250% or deducted	Total
Retained	-	2	-	-	-	-	9	11
Purchased	524	52	29	28	-	4	26	661
TOTAL	524	54	29	28	-	4	35	673

Small differences are possible in the table due to rounding

Standardised Approach

For the calculation of RWA under the Standardised approach, drawn exposure is multiplied by a risk weight, depending on the exposure type and the external rating. The undrawn exposures are multiplied by both a risk weight and a credit conversion factor. The risk weights are prescribed in the CRR/CRD IV:

- NIBC's sovereign exposures are exposures with a zero risk weight and vast majority is related to cash placed with DNB and the Dutch State Treasury Agency. NIBC has zero sovereign debt exposure to Greece, Italy, Ireland, Spain and Portugal;
- The risk weight for institutions is mostly either 20% (all short-term investment-grade exposures and long-term exposures with a rating equal to or higher than AA-), 50% (long-term exposures with a rating between BBB- and A+) or 2% for centrally-cleared exposures;
- The corporate exposure class carries a risk weight of 100%. It mainly contains BEEQUIP portfolio, non-rateable exposures and derivatives to corporate counterparties; and
- The retail exposure consists of the German Residential Mortgage portfolio and German lease receivables portfolio. Part of the exposure which is fully secured by residential property receives a 35% risk weight and the other part receives a 75% risk weight. For defaulted retail exposures 100% and 150% risk weights are applicable.

Overview of Standardised portfolios

Tables 12 and 13 provide a breakdown of EAD and RWA by exposure class together with the applicable risk weight.

Table 12 Standardised EAD per risk weight, 31 December 2016

IN EUR MILLIONS									
Exposure Class	0%	2%	20%	35%	50%	75%	100%	150%	Total
Retail	-	-	-	640	59	77	2	1	779
Sovereign	1,016	-	-	-	-	-	-	-	1,016
Institutions	-	109	264	-	6	-	-	-	378
Corporate	-	-	8	-	-	-	236	-	244
Securizations	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	240	-	240
TOTAL	1,016	109	271	640	65	77	478	-	2,657

Small differences are possible in the table due to rounding

Table 13 Standardised RWA per risk weight, 31 December 2016

IN EUR MILLIONS									
Exposure Class	0%	2%	20%	35%	50%	75%	100%	150%	Total
Retail	-	-	-	224	34	58	2	1	318
Sovereign	-	-	-	-	-	-	-	-	-
Institutions	-	2	53	-	3	-	-	-	58
Corporate	-	-	2	-	-	-	236	-	238
Securizations	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	240	-	240
TOTAL	-	2	54	224	37	58	478	-	854

Small differences are possible in the table due to rounding

Credit risk mitigation

Institutions

The exposures to financial institutions are either related to *over-the-counter* (OTC) derivative transactions, or to debt investments (in tradable securities) or to cash management activities (money-market and repo transactions). Details about credit risk management for OTC derivative transactions can be found in the *Counterparty Credit Risk* section. NIBC only enters into repo transactions if they are secured by highly-rated bonds. Some debt investments of financial institutions are secured by collateral (covered bonds).

Corporate

An important element in NIBC's credit approval process is the assessment of collateral. Almost all exposures in the corporate exposure class have some form of collateralisation, with the main exception of Investment loan exposures. Investment loans may contain equity characteristics such as attached warrants or conversion features; examples of this exposure include mezzanine loans, convertible loans and shareholder loans, which are in many instances unsecured instruments.

In general, NIBC requests collateral to protect its interests. NIBC ascribes value to the collateral it accepts provided that the collateral is sufficiently liquid, that documentation is effective and that enforcing NIBC's legal rights to the collateral will be successful. The type and quantity of the collateral depends on the type of transaction, the counterparty and the risks involved. The most significant types of collateral securing the corporate exposure class are tangible assets, such as real estate, vessels and rigs.

NIBC initially values collateral based on fair market value when structuring a transaction and typically also seeks confirmation from independent third-party experts that its interests are legally enforceable. Furthermore, NIBC evaluates internally the collateral and its value (semi-) annually during the lifetime of the exposure. Exposures in the shipping and oil & gas sectors are secured by assets such as ships and drilling vessels. The commercial real estate portfolio is primarily collateralised by mortgages on financed properties. Collateral value is estimated using third-party appraisers, whenever possible, or valuation techniques based on common market practice. Other corporate exposures are, to a large extent, collateralised by assets such as inventory, debtors, and third-party credit protection (e.g. guarantees). The value of these types of collateral can be more difficult to determine, therefore such collateral is assessed on individual basis.

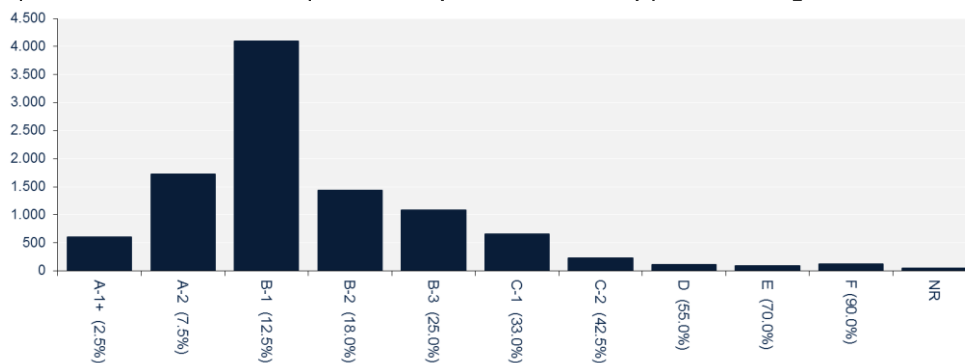
Graph I shows the distribution of corporate EAD per internal LGD rating. Note that the corporate exposures of the graph refer to non-defaulted exposures, given that the LGD is a measure of anticipated loss from the facilities of a non-defaulted counterparty. When counterparty defaults, the impairment amount is a more meaningful measure of the loss. More information on impairment amounts can be found in the next section.

The letters on the horizontal axis of the table refer to NIBC's LGD grades and notches, whereas the numbers inside the parentheses refer to the loss percentage assigned to each LGD rating. **NR** stands for *not rateable*. NR is assigned to entities to which NIBC's corporate rating tools were not applicable at the time of rating. Exposures in the NR category fall under the Standardised Approach.

The LGD methodology is based on a combination of qualitative and quantitative rating indicators that include, among others, the assessment of the realisable collateral value, guarantees, the seniority of the exposure, the applicable jurisdiction, and the quality of the counterparty's assets. Once the various LGD drivers have been assessed, the final LGD rating is based upon expert judgement. The assessment of the available collateral is the basis for NIBC's LGD analysis. In determining the realisable collateral value, which is based upon recent appraisals, NIBC applies a number of haircuts on the collateral's fair market value. These haircuts are mainly driven by the type of collateral, the liquidity, the business cycle of the industry, the costs for forced collateral sales and other work-out expenses.

NIBC's weighted average LGD for the corporate exposure class at 31 December 2016 was 16.7% and increased slightly in comparison to 2015 (15.6%).

Graph I Breakdown of AIRB corporate EAD (EUR 10,208 million) per LGD rating, 31 December 2016



Retail

Dutch residential mortgage portfolio

Credit losses are mitigated in a number of different ways:

- The underlying property is pledged as collateral;
- Under Dutch law, NIBC has full recourse to the borrower;
- 39% of the Dutch Own Book portfolio (and 2% of the Dutch Securitised portfolio) is covered by the NHG programme; and
- Approximately 17% of the Dutch portfolio has been securitised (based on a credit risk view).

For the portfolio not covered by the NHG programme, the underlying property is the primary collateral for any mortgage loan granted, though savings and investment deposits may also serve as additional collateral.

A measurement for potential losses, taking into account indexation of house prices and seasoning, is achieved by calculating the *loan-to-indexed-market-value (LtiMV)*. The indexation is made by using the index of the Dutch Land Registry Office (Kadaster), which is based on market observables. For the total portfolio 9% has an LtiMV above 100%. For the remainder of the portfolio, there is either coverage by the NHG programme or the indexed collateral value is sufficient to cover the entire loan balance outstanding.

German residential mortgage portfolio

As is the case in the Netherlands, the underlying property is the primary collateral for any mortgage loan granted. In contrast to the Dutch market, most of the mortgage loans contain an annuity repayment, leading to a lower outstanding loan balance during the lifetime of the loan.

Defaulted, non-performing, impaired and forborne exposure

Sovereign and Institutions

In 2016, NIBC did not take any impairments on these exposure classes.

Corporate

Portfolio managers within the commercial teams and risk managers at the CRM, FMCR and CM&PA departments monitor the quality of (corporate) counterparties on a regular basis. On a quarterly basis, all corporate exposures are assessed for impairment and all existing impairments are reviewed.

NIBC calculates an impairment amount by taking certain factors into account, particularly the available collateral securing the loan and, if present, the corporate derivative exposure. The amount of loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future losses that have not been incurred). If collateral is present, then the present value of the future cash flows includes the foreclosure value of collateral.

Table 9 in the section *Calculation of Risk Weighted Assets* presented a breakdown of the corporate exposure class in NIBC's internal rating scale. Counterparties with a default rating (9/10) represent a total EAD of EUR 1,060 million (31 December 2015: EUR 1,027 million), but this does not mean that all these counterparties carry an impairment amount. Reasons for not always taking an impairment amount for a defaulted counterparty may be e.g. over-collateralisation or NIBC's expectation of future cash-flow generation.

When a default occurs (in line with the CRR/CRD IV definition¹), then the entire EAD of the borrower is classified as defaulted. On the contrary, if an impairment amount is taken against a facility, only the EAD of that particular facility is classified as impaired.

Tables 14 and 15 show a breakdown of the defaulted, non-performing, impaired and forbore exposure of the corporate exposure class per region and industry sector. Graph 2 provides the numerical overview of the relationship between these measures for the Corporate Loan portfolio, while tables 14 and 15 give a comprehensive overview. For comparability reasons, graphs and tables for year 2015 are also included.

The column labelled *Defaulted EAD Corporate* shows the total EAD of counterparties carrying an internal default rating 9 or 10 (EUR 1,060 million, 31 December 2016).

Non-performing EAD Corporate shows the EAD of clients considered to be non-performing. A client is non-performing if that client is in default, or if a performing forbore facility under probation is extended additional forbearance measures or becomes more than 30 days past due (EUR 1,060 million, 31 December 2016). Note that according to definitions Non-Performing portfolio contains the defaulted portfolio and also exposures that are second time foreborn. From the Graph 2a it can be noticed that Non-Performing portfolio in 2016 is equal to defaulted portfolio, while this was not the case in 2015.

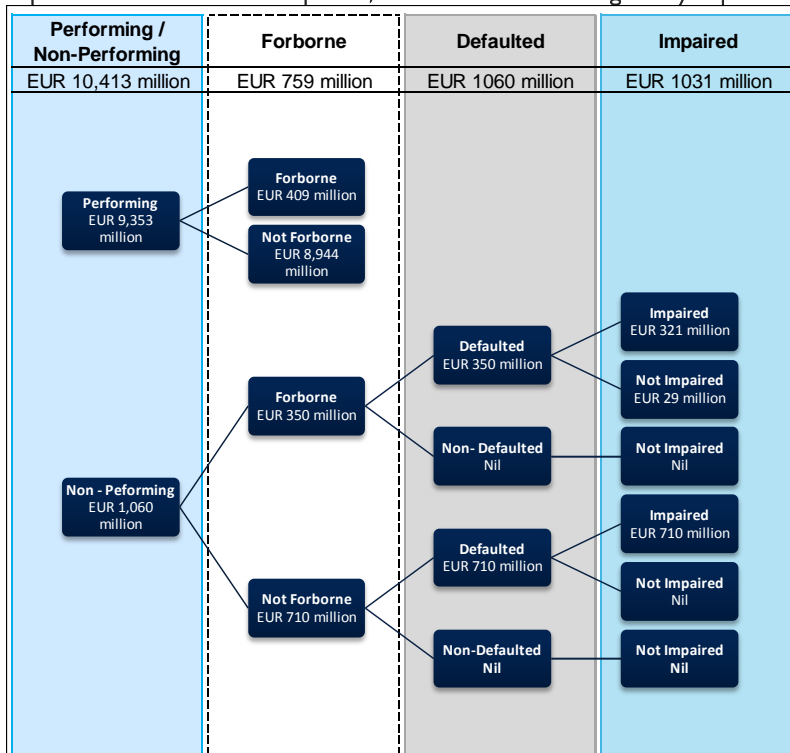
Impaired EAD Corporate shows the EAD of those facilities carrying an impairment amount (EUR 1,031 million, 31 December 2016). The difference between the impaired EAD on facility level and the impairment amount can be explained by the presence of collateral or NIBC's expectation of future cash-flow generation. Note that the EAD amount under the column labelled *Impaired EAD Corporate* includes the impairment amount.

Forborne EAD Corporate shows the total EAD of counterparties facing financial difficulties and to whom a concession is granted by NIBC (EUR 759 million, 31 December 2016). Our business model, with a focus on sub-investment grade clients and well secured facilities, can lead to situations that temporary financial concessions are needed which would result in a higher total forbore exposure. Our forbore exposure has a large overlap with our defaulted exposure. This shows that even during difficult periods we stay committed to our clients.

The impact of the economic crisis on the corporate exposure class was still felt in 2016. Some of a new impairment amounts had to be provisioned due to challenges in certain markets we are active in, especially Oil & Gas and dry bulk shipping.

¹ According to the CRR/CRD IV definition, a default is determined on borrower level. A default is indicated by using a 9 or 10 rating in NIBC's internal rating scale. A default is considered to have occurred with respect to a particular obligor if either of the two following events have taken place: i) the bank considers that the obligor is unlikely to pay its credit obligations to the banking group in full, without recourse by the bank to actions such as realising security (if held). ii) the obligor is past due more than 90 days on any material credit obligation to the banking group.

Graph 2a Overview of credit quality measures Corporate Loan portfolio (EAD based, including 474 million default exposure transferred to third parties, however included in regulatory exposure at default), 31 December 2016



Graph 2b Overview of credit quality measures Corporate Loan portfolio (EAD based, including 474 million default exposure transferred to third parties, however included in regulatory exposure at default), 31 December 2015

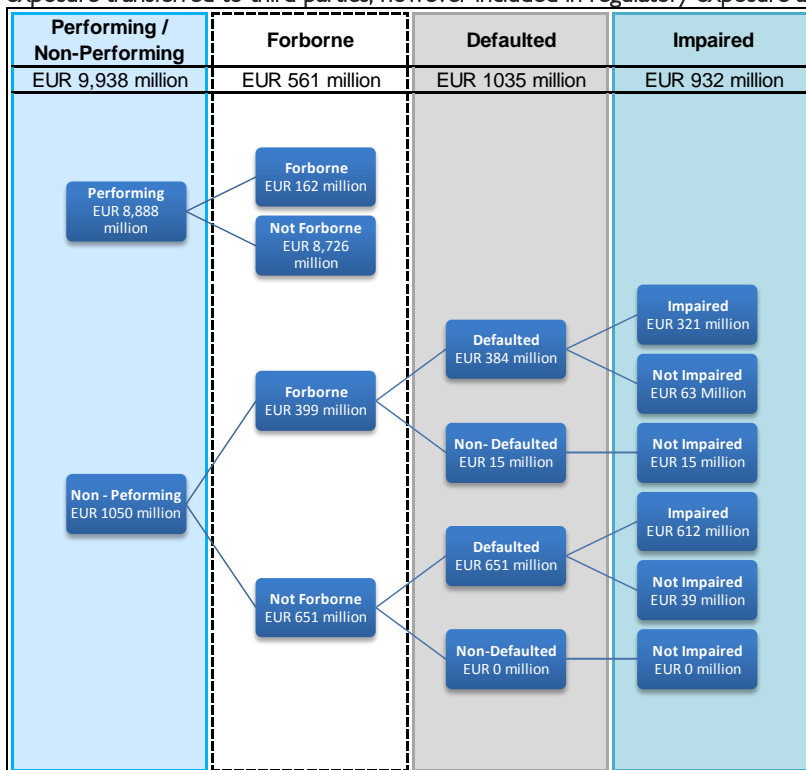


Table 14a Breakdown of defaulted, non-performing, impaired and forborne exposure in corporate exposure class per region, 31 December 2016

IN EUR MILLIONS						
Region	Total EAD Corporate	Defaulted EAD Corporate	Non-performing EAD Corporate	Impaired EAD Corporate	Forborne EAD Corporate	Impairment
The Netherlands*	4,245	657	657	654	123	21
United Kingdom	2,029	65	65	65	106	27
Germany	1,834	229	229	229	233	68
Rest of Europe	1,160	17	17	17	142	4
North America	498	19	19	19	70	2
Asia / Pacific	376	47	47	47	57	27
Other	271	26	26	-	26	-
IBNR	-	-	-	-	-	17
TOTAL	10,413	1,060	1,060	1,031	759	166
IN % TOTAL EAD		10.2%	10.2%	9.9%	7.3%	

* Inclusion of 474 million default exposure in the Netherlands transferred to third parties, however included in regulatory exposure at default

Small differences are possible in the table due to rounding

Table 14b Breakdown of defaulted, non-performing, impaired and forborne exposure in corporate exposure class per region, 31 December 2015

IN EUR MILLIONS						
Region	Total EAD Corporate	Defaulted EAD Corporate	Non-performing EAD Corporate	Impaired EAD Corporate	Forborne EAD Corporate	Impairment
The Netherlands	3,177	209	210	163	119	37
United Kingdom	2,089	34	34	28	31	19
Germany	1,617	260	260	222	296	72
Rest of Europe	1,281	14	29	14	29	8
North America	441	-	-	-	-	-
Asia / Pacific	591	43	43	31	58	6
Other	267	-	-	-	27	-
IBNR	-	-	-	-	-	9
TOTAL	9,464	561	576	458	561	150
IN % TOTAL EAD		5.9%	6.1%	4.8%	5.9%	
The Netherlands*	474	474	474	474	-	-
TOTAL*	9,938	1,035	1,050	932	561	150

* Inclusion of default exposure in the Netherlands transferred to third parties, however included in regulatory exposure at default

Small differences are possible in the table due to rounding

IBNR stands for *incurred but not reported*.

Table 15a Breakdown of defaulted, non-performing, impaired and forbome exposure in corporate exposure class per industry sector, 31 December 2016

IN EUR MILLIONS						
Industry sector	Total EAD Corporate	Defaulted EAD Corporate	Non-performing EAD Corporate	Impaired EAD Corporate	Forborne EAD Corporate	Impairment
Infrastructure	2,094	64	64	64	82	15
Commercial Real Estate *	1,718	754	754	754	158	51
Shipping	1,524	58	58	58	258	28
Oil & Gas	1,181	112	112	85	192	31
Financial Services	951	5	5	5	8	1
Manufacturing	711	26	26	26	14	13
Services	669	12	12	9	40	6
Wholesale/Retail/Leisure	574	30	30	30	7	4
Agriculture & Food	467	-	-	-	-	-
TMT	302	-	-	-	-	-
Lease Receivables	112	-	-	-	-	-
Other	109	-	-	-	-	-
IBNR	-	-	-	-	-	17
TOTAL	10,413	1,060	1,060	1,031	759	166
IN % TOTAL EAD		10.2%	10.2%	9.9%	7.3%	

* Inclusion of 474 million default exposure in Commercial Real Estate transferred to third parties, however included in regulatory exposure at default

Small differences are possible in the table due to rounding

Table 15b Breakdown of defaulted, non-performing, impaired and forbome exposure in corporate exposure class per industry sector, 31 December 2015

IN EUR MILLIONS						
Industry sector	Total EAD Corporate	Defaulted EAD Corporate	Non-performing EAD Corporate	Impaired EAD Corporate	Forborne EAD Corporate	Impairment
Infrastructure	2,407	85	85	59	121	18
Commercial Real Estate	1,238	338	338	290	175	70
Shipping	1,497	22	36	10	36	2
Oil & Gas	1,168	46	46	46	93	23
Financial Services	891	7	7	7	9	1
Manufacturing	665	12	12	12	36	7
Services	506	27	27	23	73	14
Wholesale/Retail/Leisure	456	11	11	11	11	7
Agriculture & Food	340	-	-	-	-	-
TMT	240	13	13	-	6	-
Other	56	-	-	-	-	-
IBNR	-	-	-	-	-	9
TOTAL	9,464	561	576	458	561	150
IN % TOTAL EAD		5.9%	6.1%	4.8%	5.9%	
Commercial Real Estate *	474	474	474	474	-	-
TOTAL*	9,938	1,035	1,050	932	561	150

* Inclusion of default exposure in Commercial Real Estate transferred to third parties, however included in regulatory exposure at default

Small differences are possible in the table due to rounding

Table 16 presents the corporate EADs with an amount in arrear. The amounts between 1 and 5 days may be caused by various operational reasons. The vast majority of the EAD of EUR 88 million having an amount in arrear for above 90 days is collateralised by commercial real estate and vessels. Payments might be overdue because of various reasons. However, late payments that are not yet received are not automatically assumed to be uncollectible.

Table 16 EAD with an amount in arrear corporate exposure class, 31 December 2016

IN EUR MILLIONS	Corporate EAD	Amount in arrear
1 - 5 days	166	11
6 - 30 days	36	-
31 - 60 days	44	-
61 - 90 days	6	-
SUBTOTAL LESS THAN 90 DAYS	253	11
Over 90 days	710	88
No payment arrear	9,450	-
TOTAL	10,413	99

Small differences are possible in the table due to rounding

Retail

As part of the residential mortgage portfolios in the Netherlands and Germany are on accounting classification fair value through profit or loss, the notion of impairments is not applicable for part of NIBC's retail exposure class. Newly originated mortgage loans since 2013 are classified as amortised cost and subsequently an impairment procedure is in place. The last year showed a further decrease in losses, due to improving market circumstances. Actual credit losses in the Dutch and German portfolios have, nevertheless, been low in the past years. The performance of NIBC's securitised mortgage portfolio is good compared to other Dutch RMBS issuers as evidenced by arrears levels and realised loss levels.

NIBC has an in-house arrears management department, actively managing arrears, foreclosures, client retention and residual debts of the Dutch Residential Mortgage portfolio. Table 17 shows an overview of the retail EAD with an amount in arrear at 31 December 2016. The table also shows those EADs with technical past-due amounts. These amounts contain those borrowers with an amount in arrear below EUR 250. At 31 December 2016, the total amount in arrear was EUR 2.4 million (0.03% of the portfolio EAD).

Table 17 EAD with an amount in arrear, retail exposure class, 31 December 2016

IN EUR MILLIONS	Retail EAD	Amount in arrear
Technical past-due amounts	23	0.0
1 - 30 days	93	0.3
31 - 60 days	37	0.2
61 - 90 days	18	0.2
SUBTOTAL LESS THAN 90 DAYS		
Over 90 days	52	1.7
No payment arrear	8,508	0.0
TOTAL	8,730	2.4

Forbearance Dutch Residential Mortgages

NIBC has developed a forbearance policy for mortgage clients experiencing financial difficulties and who consequently are unable to meet the original terms and conditions of the contract. The forbearance policy is defined, formalized and implemented in the standard working routines and processes and is similar to the policy applied for the corporate loan portfolio.

NIBC has been providing a forbearance program to its mortgagors who are experiencing financial difficulties since May 2013. The Client Retention team of Special Servicing department has the responsibility of assessing the nature and the expected duration of a client's financial distress, and will determine necessity of providing forbearance measures to that client and the conditions that should apply. The team considers forbearance solutions for clients who do not fully meet their financial obligations to NIBC. Forbearance solutions are also submitted to the Arrears Management Committee for further approval. In 31 December 2015, EUR 27 million was forbome of which EUR 21 million was performing and EUR 6 million non-performing. At 31 December 2016, EUR 38 million is forbome of which EUR 23 million is performing and EUR 15 million non-performing.

Equities

NIBC determines an impairment on the equity investments available for sale held in NIBC's Equity Investments portfolio if there has been a significant or prolonged decline in the fair value below the original cost (including previous impairment losses). NIBC uses expert judgement in determining what is 'significant' or 'prolonged' by evaluating, among other factors, whether the decline is outside the normal range of volatility in the asset's price. In addition, impairment may be appropriate when there is evidence of deterioration in the financial health of the company of which the securities NIBC holds, a decline in industry or sector performance, adverse changes in technology, operational problems or insufficient cash flows.

Tables 18 and 19 present an overview of impairments on equity exposures per industry sector and region respectively. The columns labelled *Impaired EAD Equity* present the remaining EAD after the impairment has been taken. This remainder EAD can, therefore, be smaller than the impairment amount. The impairment amount of EUR 71 million in Tables 18 and 19 relates mainly to NIBC's equity participations in a German financial institution and a fund investment in North America; these impairments were taken in previous years.

Table 18 Breakdown of impairments on equity exposure class per industry sector, 31 December 2016

IN EUR MILLIONS

<u>Industry Sector</u>	<u>Equity</u>	<u>Impaired EAD Equity</u>	<u>Impairment</u>
Financial Services	113	7	71
Commercial Real Estate	19	-	-
Manufacturing	12	-	-
Infrastructure	114	-	-
Services	2	-	-
Oil & Gas	2	-	-
Other	0	-	-
Wholesale/Retail/Leisure	0	-	-
Shipping	0	-	-
TOTAL	262	7	71

Table 19 Breakdown of impairments on equity exposure class per region, 31 December 2016

IN EUR MILLIONS

<u>Region</u>	<u>Equity</u>	<u>Impaired EAD Equity</u>	<u>Impairment</u>
The Netherlands	200	-	-
North America	42	2	50
United Kingdom	15	-	-
Germany	0	-	20
Asia / Pacific	0	-	-
Rest of Europe	6	5	2
TOTAL	262	7	71

Small differences are possible in the table due to rounding

Securitisations

NIBC classified all its securitisation exposures at amortised cost, with the exception of synthetics and equity tranches. Synthetics are classified at fair value through profit or loss, while equity tranches are classified as available for sale (fair value through equity). Impairments for the securitisation exposures only refer to the period after 30 June 2008 and only for the portion that is on accounting classification at amortised cost. The impairment amount takes the carrying value as reference. This carrying value is the market value as at 30 June 2008, adjusted for 'pull-to-par' effects. For the 'first loss' notes, the impairment amount is equal to the difference between the carrying value prior to the impairment and the current market value. For the other tranches, the impairment amount is equal to the difference between the carrying value and the expected cash flows, discounted by the original effective yield, if positive.

Table 20 shows a breakdown of (stand-alone) impairments on securitisations per collateral type. The column labelled *Impaired EAD Securitisation* presents the remaining EAD after the impairment has been taken.

Table 20 Breakdown of impairments on securitisation exposure class per collateral type, 31 December 2016

	Total EAD Securitisation after impairment	Impaired EAD Securitisation after impairment	Impairment
ABS	1	-	1
CDO/CLO	59	1	11
CMBS	11	2	23
RMBS	64	-	-
TOTAL WESTERN EUROPEAN SECURITISATIONS	134	3	35
NL - RMBS AAA Liquidity portfolio	356	-	-
EU - ABS AAA Liquidity portfolio	162	-	-
TOTAL SECURITISATION EXPOSURE	652	3	35

Expected loss and Realised loss

NIBC regularly reviews the methodology and assumptions used for estimating both the amount and timing of future cash flows, to reduce any differences between loss estimates (*Expected Loss, EL*) and actual loss (*Realised Loss, RL*) experience.

The EL is a statistical measure that is based on the calculated PD, LGD and EAD, and it represents the average loss that NIBC expects to incur. Table 21 shows the expected losses of the non-defaulted portfolio in basis points in 2016 and 2015 for NIBC's corporate and retail exposure classes. Knowing that expected loss gives a one year forward looking expectation on losses, the EL values corresponding to January 2016 and January 2015 are presented in the table.

Table 21 Expected Loss (EL) in basis points of EAD for corporate and retail exposure classes

1 January 2016	1 January 2015
EL (in bps)	EL (in bps)
27	25

The RL is the actual loss that NIBC has experienced over the course of a given year. For the corporate exposure class, realised loss refers to the impairment movements and write-offs that took place in each year. For the retail exposure class, realised losses refer to the actual losses that were incurred in each year. Table 22 shows the realised losses in basis points from December 2016 and December 2015 for NIBC's corporate and retail exposure classes.

Table 22 Realised Loss (RL) in basis points of EAD for corporate and retail exposure classes

31 December 2016	31 December 2015
RL (in bps)	RL (in bps)
49	38

It can be noticed that 2016 ended with higher realised losses for NIBC (49 basis points) compared to 2015 (38 basis points) due to additional impairments in challenging sectors. This can be explained by the fact that during 2016 in addition to some challenging sectors several unforeseen aspects played a role, such as additional impact of the AQR and full resolution of one pre-crisis client.

In 2016, new impairments were mainly taken for Oil & Gas and Shipping, while other parts of the corporate exposures carried either no impairments (e.g. agriculture, TMT) or small amounts (e.g. manufacturing, wholesale/retail/leisure, services and financial services). Write-offs of previously impaired exposures were taken for certain exposures in the industry sectors infrastructure, TMT and services, CRE and agriculture.

With respect to retail exposures, a decrease in defaults and losses was observed in the last year due to the further improving housing market and economic recovery. In 2016, the amount of losses arising from these defaults further decreased compared to 2015. The performance of NIBC's securitised mortgage portfolio is good compared to other Dutch RMBS issuers in the market as evidenced by arrears levels and realised loss levels. The relatively low loss levels together with the relatively high seasoning of the portfolio gives us comfort about the credit risk in our mortgage portfolio.

Note that expected losses are related to the non-defaulted portfolio (beginning of the year) with a one year forward looking expectation, while realised losses contain movements in impairments for entire portfolio (both non-defaulted and defaulted) at one point in time (end of the year). Hence, these two metrics are not directly comparable to each other.

Counterparty Credit Risk

NIBC defines counterparty credit risk as the credit risk resulting from OTC derivative transactions, where there is none or limited initial investment, such as *interest rate swaps (IRS)*, *credit default swaps (CDS)* and *foreign exchange (FX)* transactions.

NIBC is exposed to counterparty credit risk from derivative transactions both with corporate clients as well as with Institutions. For both types of counterparties, counterparty credit risk is measured similarly, being the sum of the positive replacement value and the add-on. The add-on reflects the potential future change in the marked-to-market value during the remaining lifetime of the derivative contract. All derivative transactions are legally covered by *International Swaps and Derivatives Association (ISDA)* agreements. Derivative transactions with corporate clients are concluded as part of the relationship with the client. Capital and credit limits for corporate clients are allocated on a one-obligor basis. The credit risk resulting from counterparty credit risk is monitored in combination with other exposures (e.g. loans) to these clients, and in the majority of cases, the security of the loan is also applicable to the derivative exposure.

For nearly all of its financial counterparties, NIBC has mitigated the counterparty credit risk by using a *Credit Support Annex (CSA)*. Under this annex, the credit exposures after netting are mitigated by the posting of (cash) collateral. Limits for financial counterparties cover money-market, repo and derivative exposures and are based

upon a combination of external ratings, market developments like CDS spreads, and expert judgement. NIBC has started clearing eligible OTC derivatives in order to mitigate counterparty credit risk and to comply with EMIR-regulation. Existing portfolios are selectively back loaded to the clearing house. Over 70% of the outstanding derivative notional amount is cleared centrally.

In line with market practice, IFRS *credit value adjustments (CVA)* and *debt value adjustments (DVA)* are incorporated into the derivative valuations to reflect the risk of default of the counterparty as well as the own default risk of NIBC. The adjustments are applied to all OTC derivative contracts, except for those that benefit from a strong collateral agreement where cash collateral is regularly exchanged, mitigating the credit risk.

As of 2014, the European-wide CRR/CRD IV introduces a capital charge for CVA risk for all derivatives excluding those with sovereigns, pension funds and non-financial counterparties. The exemption of derivatives with non-financial counterparties implies limited impact of the introduction of the CVA capital charge on the NIBC's Tier I capital ratio.

Table 23 shows the breakdown of EAD, RWA and capital requirement for derivatives at 31 December 2016.

Table 23 Breakdown of EAD, RWA and capital requirement for derivatives, 31 December 2016

IN EUR MILLIONS	EAD	RWA	Capital requirement
AIRB APPROACH			
- of w hich corporate	583	332	27
- of w hich institutions	242	109	9
- of w hich securitisations	58	59	5
STANDARDISED APPROACH			
- of w hich corporate	11	11	1
- of w hich institutions	11	1	-
TOTAL DERIVATIVES	904	512	41

Small differences are possible in the table due to rounding

As discussed above, the EAD for derivatives is based on the sum of the positive replacement value (marked-to-market value) and the applicable add-on. Under the AIRB approach, the PD is derived from the CCR of the counterparty and the LGD is set equal to the facility weighted-average LGD. Since 2014, NIBC is also using internal ratings to assess the creditworthiness of an institution (next to corporate exposures, which have been internal rated since 2008).

Table 24 Gross and net fair value exposure from derivative contracts

IN EUR MILLIONS	2016
Gross exposure	1.812
Netting benefits	(1.076)
Reduction from collateral	(90)
Net current exposure	647

NIBC has a limited number of CDS transactions to protect its exposure in the portfolio. Tables 25 and 26 show the breakdown of all CDS contracts:

Table 25 Breakdown of CDS contracts by exposure class (nominal amounts)

IN EUR MILLIONS

<u>CDS contract exposure class</u>	<u>Sold protection</u>	<u>Bought protection</u>
Sovereign	-	-
Institutions	-	-
Corporate	10	10
Securitisations	-	4
TOTAL	10	14

Table 26 Breakdown of CDS contracts by name type (nominal amounts)

IN EUR MILLIONS

<u>CDS contract name type</u>	<u>Sold protection</u>	<u>Bought protection</u>
Single name	-	4
Multiple name	10	10
TOTAL	10	14

Interest rate risk in the Banking book

NIBC defines interest rate risk in the Banking book (IRRBB) as the risk of losses from interest rate sensitive positions in non-trading activities due to movements in interest rates. Interest rate risk is measured both from an economic value perspective and an earnings perspective. The first perspective considers the impact on the market value, while the latter considers the impact on the net interest income.

NIBC's banking book consists of:

- Corporate treasury
- Commercial treasury
- Corporate banking
- Retail banking

Governance

Interest rate risk in the Banking book is measured and monitored by the risk management function. For this purpose the IRRBB framework applies across the whole institution.

The risk appetite for IRRBB from an economic value perspective is measured by the modified duration of equity and equal to 5 (with a tolerance of 7.5), while the risk appetite from an earnings perspective is measured by the impact on 1Y earnings and equal to EUR 12.8 million (assuming on average a shift in interest rates of 100 bps). Limits are set on the interest rate risk, both from the economic value perspective and from an earnings perspective. The limits and utilisation are reported to the ALCO once every two weeks. Any major breach of IRRBB limits is reported to the CRO immediately.

Measurement methods

From an economic value perspective the impact of an instantaneous shift in interest rates on a static portfolio is considered. Interest Basis Point Value (BPV) and interest Value at Risk (VaR) measures are calculated on a daily basis and reviewed by the Market Risk department:

- The interest BPV measures the sensitivity of the market value to an instantaneous change of one basis point in each time bucket of the interest rate curve. The BPV as displayed in the tables below represents the sensitivity of the market value to a one-basis-point, parallel upward shift of the underlying curve;
- The interest VaR measures the threshold value, which daily marked-to-market losses with a confidence level of 99% will not exceed, based on four years of historical data for weekly changes in interest rates. These weekly changes are superimposed on the current market rates. The VaR is calculated by means of full valuation to take non-linearity into account.

From the earnings perspective changes in interest rates occur both instantaneously and gradually over time. The combination of static and dynamic (changes to the current portfolio composition) analyses are used. The dynamic

analysis allows the integration of the business strategy in the earnings, by aligning the development of the balance sheet with the business plan, taking into account both refinancing and reinvestments. Earnings at risk (EatR) is calculated by means of the following measure:

- 12 months earnings impact due to a 200 bps gradual upwards or downwards interest rate shift per currency
- EatR as displayed in the tables below represents the 200 bps gradual upwards measure.

Stress testing

The interest rate risk analysis is complemented by a set of scenarios, including scenarios intended as stress testing and vulnerability identification, both based on historical events and on possible future events.

In addition to the VaR, NIBC has defined a number of stress tests. These stress tests consist both of historical events as well as potential extreme market conditions. NIBC uses the following stress tests and scenario analysis:

- An instantaneous parallel shift of all interest rates by 200 bps (both upwards and downwards);
- A steepening or flattening in the yield curve;
- A widening of basis spreads; and
- A change in CPR for the residential mortgage portfolio.

Interest rate risk in the Mismatch book

NIBC accepts a certain economic value risk exposure in the Mismatch book to stabilize earnings. We call this our strategic mismatch exposure. If we would not have this exposure and hedge all our interest bearing assets and liabilities to 3-months Euribor/Libor, our (non-interest bearing) capital will effectively be financing very short-term assets and the interest return on our (non-interest bearing) capital will fluctuate with these short term rates earned on those assets. The Mismatch book exclusively contains swaps in EUR, USD and GBP, as these are the major currencies, in which also lending activities take place. At year-end of 2016 the total notional position is 687 EUR million, with 41% of the mismatch position held in EUR, 31% in GBP and 29% in USD. Duration based the relative positions would be 42% in EUR, 25% in GBP, 32% in USD.

Interest rate risk in the remaining Banking book

Apart from the Mismatch book, interest rate risk is also present in the following books:

- Liquidity portfolio, Collateral portfolio and Debt Investments portfolio
- Mortgages book
- Corporate Treasury book

The Liquidity portfolio, Collateral portfolio and Debt Investments portfolio consist mostly of investments in financial institutions and securitisations, while the Corporate Treasury book mainly contains the funding and the corporate loans of the bank.

The Mortgages book consists of:

- The "old" (white label) mortgage portfolio, EUR 5.7 billion of which EUR 85 million in Germany. This portfolio is accounted on fair value. The hedging strategy of this book is based upon the interest rate sensitivity, including a discount spread.
- In 2013 NIBC started originating mortgages under the NIBC Direct label and this portfolio grew significantly since then. At year-end 2016 this portfolio's size was EUR 3.3 billion. This portfolio is accounted on amortised cost. The hedging strategy of this book is based upon notional amounts, i.e. excluding the discount spread and interest cash flows.

However the interest rate sensitivity (from an economic value perspective) of both books is measured identically, i.e. by taking into account a discount spread.

In Table 27 Interest rate statistics of the Banking Book are presented. As explained earlier, the BPV is the economic value impact of a 1 bp upward shift of interest rate curves. EatR represents the 12 months earnings

impact due to a 200 bps gradual upward shift of interest rate curves (resulting in an on average 100 bps upward shift).

Table 27 Interest rate statistics Banking Book, 31 December 2016

IN EUR THOUSANDS	Economic value perspective (BPV)			Earnings perspective (EatR)		
	Mismatch	Other	Total	Mismatch	Other	Total
EUR	-120	335	216	-1,900	17,260	15,360
USD	-72	0	-71	-1,400	970	-430
GBP	-91	8	-82	-1,200	-900	-2,100
Other	0	0	0	0	20	20
TOTAL	-282	344	62	-4,500	17,350	12,850

From the economic value perspective the impact of a 100 bps (upwards or downwards) shock is presented in table 28.

Table 28 Effect of an interest rate shock on economic value Banking Book, 31 December 2016

IN EUR THOUSANDS

Interest rate shock	-100bp	+100bp
EUR	-25,109	18,499
USD	7,351	-6,947
GBP	8,524	-7,946
Other	21	-22
TOTAL	-9,214	3,584

Market Risk

NIBC defines market risk as:

- the risk of losses in the Trading book arising from adverse movements in market rates and;
- the risk of losses in the Banking Book from NIBC's credit spread risk position and equity positions (exclusively non-tradable equities) and;
- the risk of losses in both the banking and trading book from adverse movements in foreign currencies.

Per 30 June 2016, NIBC Markets (formerly SNS Securities) was acquired by NIBC. All positions within NIBC Markets are part of the Trading book. In the Trading book excluding NIBC Markets (also called Money Markets & Trading), NIBC takes short-term positions in the EUR, GBP and USD yield curves. This book also contains interest rate risk related to derivative transactions of NIBC's clients. The Trading book of NIBC Markets contains bonds and a relatively small equity portfolio in those equities, for which NIBC markets is liquidity provider.

The capital requirement for market risk is based on internal models for the Trading book excluding NIBC Markets and on the standardised approach for NIBC Markets; the capital requirement for the overall FX position of the bank is calculated with the standardised method.

The Money Markets & Trading book contains plain vanilla interest rate derivatives. The Trading book of NIBC Markets consists of bonds and equities. The bonds in the Trading book of NIBC Markets are subject to both interest rate risk and credit spread risk. The equities of the Trading Book of NIBC Markets are related to the function of liquidity provider, which NIBC Markets is for a number of Dutch small and midcap equities.

The risk appetite for market risk is moderate. For all market risk types limits are set and monitored on a daily basis.

The capital requirement for the trading activities is small, in line with the moderate risk appetite for trading activities. FX risk arises primarily from customer-driven loans, principal investments and funding or mismatch positions in foreign currencies. The general guiding principle for market risk management is to hedge FX risk completely, although small residual positions, for example from profits in foreign currencies, are allowed.

The RWA and capital requirement for Market risk for both 31 December 2016 and 31 December 2015 are provided in table 29. The RWA throughout 2016 fluctuated between EUR 159 million and EUR 245 million.

Table 29 Breakdown of RWA and capital requirement for market risk*

IN EUR MILLIONS	31 December 2016		31 December 2015	
	RWA	Capital requirement	RWA	Capital requirement
- of which trading portfolio excl NIBC Markets	175	14	107	9
- of which trading portfolio NIBC Markets	35	3		
- of which FX	18	1	31	2
TOTAL MARKET RISK	228	18	137	11

*capital requirement for the market risk slightly differs from Table 39 due to applied corrections

Governance

The objectives of the market risk function are to measure, report and control the market risk of NIBC subject to the Market Risk framework². Interest rate risk, credit spread risk and traded equity risk limits are defined and positions are monitored daily. The risk management and control function is independent of the trading activities. The market risk position is monitored daily and reported to the ALCO once every two weeks. Any requests for new limits have to be approved by the ALCO. Any major breach of market risk limits is forthwith reported to the CRO and acted upon immediately. Market Risk analyses all overshootings (i.e. occasions, where either the hypothetical or actual P&L exceeds the VaR) in the Trading book and reports them both to the CRO and regulator (DNB) within 5 working days, in accordance with Article 366 point 5 of the CRR.

The risk appetite is set, among others, by the *Value-at-Risk* (VaR, 99% confidence level, one-day holding period) limits. The Money market & Trading book exists of plain vanilla interest rate risk positions only. For this book the interest VaR limit was kept constant at EUR 2.25 million during 2016 and equals the 2015 limit. The Trading Book of NIBC Markets contains debt instruments, which are subject to interest rate risk and credit spread risk and a relatively small position in equities. For NIBC Markets the interest VaR limit is EUR 0.6 million, the credit spread VaR limit is EUR 1.2 million and the equity VaR limit is EUR 0.45 million.

Measurement methods

NIBC uses multiple risk metrics to capture all aspects of market risk. These include interest *basis point value* (BPV), credit BPV, interest VaR and credit VaR. These metrics are calculated on a daily basis and are reviewed by the Market Risk department:

- Interest and credit BPV measure the sensitivity of the market value for a change of one basis point in each time bucket of the interest rate and credit spread, respectively. In the valuation and risk management framework of fixed income products, NIBC uses multiple forward curves (o/n, 1M, 3M, 6M, 12M) and differentiates between collateralised (discounted on o/n curve) and non-collateralised (discounted on 3M curve) transactions; and
- The interest VaR, credit spread VaR and total VaR measure the threshold value which daily marked-to-market losses with a confidence level of 99% will not exceed, based upon four years of historical data for weekly changes in interest rates, credit spreads and both simultaneously. For the Trading book, additional VaR scenarios based upon daily historical market data both for limit-setting as well as for the calculation of the capital requirement; and
- As future market price developments may differ from those that are contained by the four-year history, the risk analysis is complemented by a wide set of scenarios, including scenarios intended as stress testing and vulnerability identification, both based on historical events and on possible future events.

Stress testing

In addition to the VaR, NIBC has defined a number of stress tests. These stress tests consist both of historical events as well as potential extreme market conditions. Market risk stress tests are conducted and reported regularly, both on portfolio as well as on a consolidated level.

Below some examples of stress tests are mentioned:

² Interest rate risk in the Banking Book is separately monitored subject to the IRRBB framework.

- An instantaneous parallel shift of all interest rates by 200 bps (both upwards and downwards);
- Credit crisis of 2008, where credit and basis risk spreads rose significantly;
- Hypothetical scenario, where interest rates shift by -100 basis points or + 100 basis points; and
- Hypothetical scenario, where credit spreads rise significantly.

Regulatory capital for market risk in the Trading book

Since 2008 NIBC uses the *Internal Model Approach (IMA)* for general interest rate risk of the Money Market & Trading book, which is the only risk driver in this book. Articles 362 to 369 of the CRR/CRD IV set all regulatory requirements for the use of Internal Models for the Trading book. NIBC complies in all material aspects with these requirements. The capital requirement for market risk in the Trading book for banks using internal models is based on the combination of the VaR and *Stressed VaR (SVaR)*. The Stressed VaR uses the same methodology as the normal VaR, but based upon a different historical period with extreme stress in the markets. Currently, 2008 is used as historical period to determine the Stressed VaR.

For NIBC Markets, which was acquired in June 2016, NIBC uses the standardised approach to calculate the capital requirement.

VaR

By nature, trading positions fluctuate during the year. This is illustrated in graph 3, which shows the development of the VaR for the Money Market & Trading book for the years 2015 and 2016. NIBC Markets is not included in this graph and in table 30 as this portfolio was acquired in June 2016 and NIBC does not have permission to use the IMA approach for this book.

Throughout 2016, the Money Market & Trading consisted solely of interest rate-driven exposures. Activities comprise short-term (up to two years) interest position-taking, money-market and bond futures trading and swap spread position taking.

Graph 3 Development of VaR in the Money Market & Trading book during 2015 and 2016

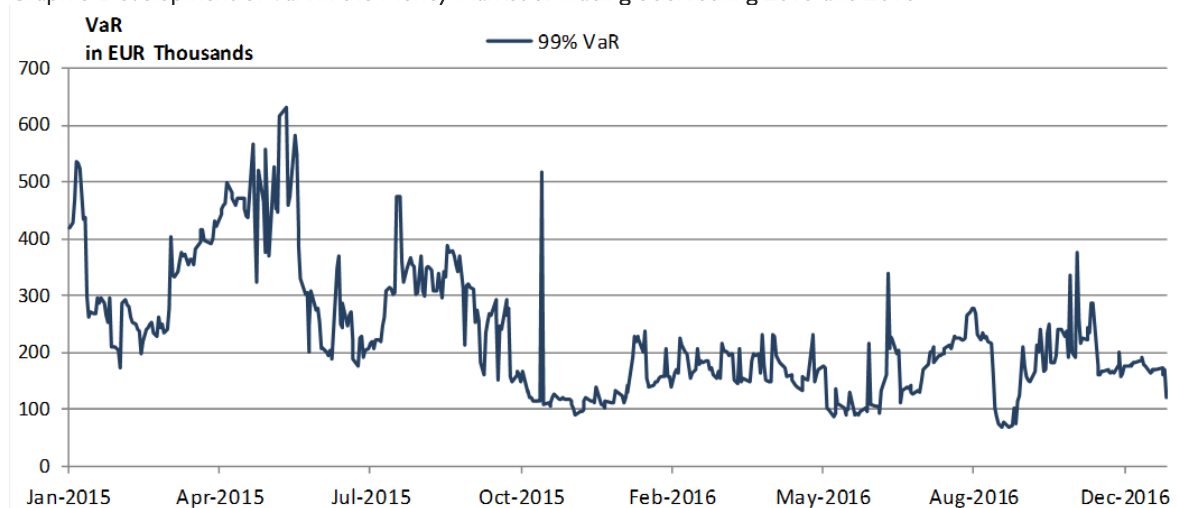


Table 30 Key risk statistics, Money Market & Trading book 2016

IN EUR THOUSANDS	2016		2015	
	Interest rate BPV	Interest rate VaR	Interest rate BPV	Interest rate VaR
Max ¹	-91	377	-65	631
Average	-30	174	-1	288
Min ²	0	69	0	89
YEAR-END	38	116	37	133

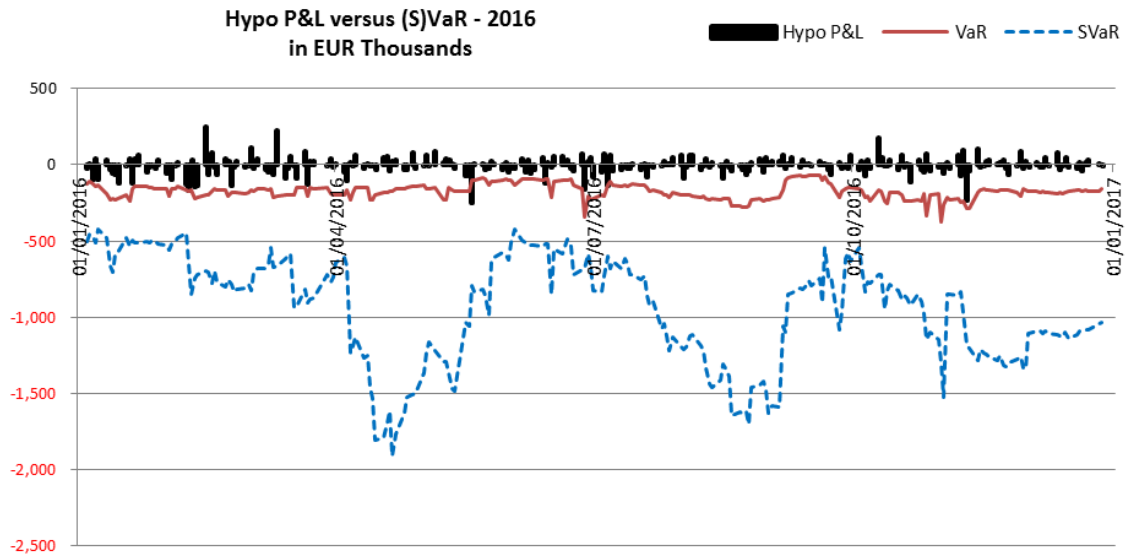
1. Max: value farthest from zero

2. Min: value closest to zero

Back testing

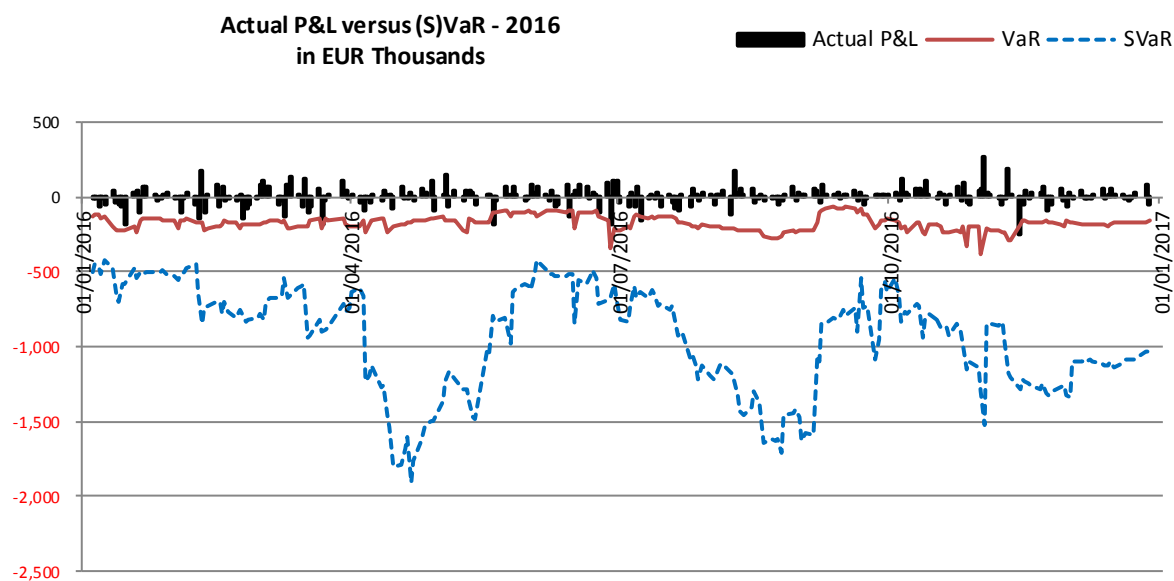
Back testing for the Money Market & Trading book³ is conducted in accordance with the guidelines of the Basel Committee on Banking Supervision, as implemented in Europe by the CRR. The one-day 99% VaR is back tested with both the hypothetical *profit and loss* (P&L) and the actual profit and loss. The hypothetical profit and loss is calculated based upon the end-of-day trading position and the changes in market rates from the trading day to the next business day using full revaluation. Graph 4 shows the hypothetical profit and loss and 99% VaR and Graph 5 the actual profit and loss and 99% VaR. In 2016, there were a few outliers in the actual profit and loss and the hypothetical profit and loss due to market volatility, for example in the aftermath of the Brexit referendum.

Graph 4 Back test results of the Money Market & Trading book during 2016 (Hypothetical profit and loss versus (S)VaR)



³ For NIBC Markets the standardized approach is used.

Graph 5 Back test results of the Money Market & Trading book during 2016 (Actual profit and loss versus (S)VaR)



Market risk outside the Trading book

Credit spread risk

Within Treasury, credit spread risk is concentrated in the Debt Investments book, which contains investments in Institutions, corporate entities and securitisations. Total credit spread sensitivity within Treasury changed from minus 0.424 million EUR/bp at 31 December 2015 to minus 0.329 million EUR/bp at 31 December 2016. For Mortgages total credit spread sensitivity changed from minus 1.938 million EUR/bp at 31 December 2015 to minus 1.770 million EUR/bp at 31 December 2016.

Foreign exchange risk

As stated previously, it is the policy of NIBC to hedge its currency risk as much as possible. NIBC uses the Standardised Approach for the calculation of regulatory capital for currency risk. At year-end 2016, the capital requirement for FX risk was EUR 1 million.

Operational Risk

Operational risk is the risk of direct or indirect loss resulting from inadequate or failed processes or systems, from human error, fraud, or external events including legal risk, compliance risk and reputational risk.

NIBC strives for a 'no surprises' operating environment, i.e. a transparent and consistent way of managing operational risk across all our business lines, banking activities and countries. As part of this, every NIBC business unit and international office (first line) has an operational risk management 'champion'. These employees assess their department's activities for potential operational risks, monitor the control mechanisms in place to mitigate these, coordinate ways of resolving loss-making events and promote awareness for operational risks within their departments. Since the scheme was launched in 2012, this has created a valuable network of experts that shares its knowledge and expertise across the bank.

The central ORM function monitors and controls operational risk on group level, develops policies and processes and provides methodology and tools. The tools enable an assessment whether the operational risk profile of the bank fits within the operational risk appetite. They provide an integrated view of the operational risk and control self-assessments (**RCSA**) performed bottom-up by all BUs and countries, action planning, and event and loss registration and support the constant process of evaluating and reducing operational risk, and planning mitigation measures. Furthermore, the department also co-ordinates the development of forward-looking scenario analysis (hypothetical external or internal scenarios with which it is ensured that a plan exists in case these events occur) and supports business continuity and information security.

In 2016, NIBC continued enhancing its forward-looking, proactive attitude and its structured approach to managing operational risk across all three lines of defence. This also entails the analysis of new products and services that NIBC plans to launch for its customers. The central element in the New Product Approval Process (**NPAP**) is the client's interest; i.e. determining how the product is suitable for its clients and how NIBC will ensure it can offer the product to its clients in a responsible and sustainable manner. Furthermore, the NPAP assesses the operational capacity of all internal stakeholders that need to co-operate for launching an efficient and effective product. In addition to the NPAP, NIBC has implemented a Significant Change Approval Process (**SCAP**). This process is used to assess the impact of material adjustments in internal processes. These adjustments are reviewed for impact on operational risk.

Operational risk in all its facets - including compliance and regulation, legal risk, dealing with integrity, change management and technology risk, reputation and conduct risk - is a key part of a bank's overall risk management practice. Doing more business always means more risk: that is not negative in itself, but must be properly understood and managed. As such, NIBC's risk appetite framework also includes specific risk appetite statements for operational risk, as well as other non-financial risks, such as legal and compliance/conduct risks.

As part of the yearly cycle, NIBC uses the operational risk management process also as a basis for the in control and responsibility statement of the Managing Board as included in NIBC's annual report.

The capital requirement under the Standardised Approach is the sum of the requirement per individual business line. Within each business line, gross income is the indicator that serves as a proxy for the scale of business operations and as such, the likely scale of operational risk exposure within each of these business lines.

The capital requirement for each business line is calculated by multiplying the average gross income of the past three years by a CRR/CRD IV regulated factor assigned to that business line. This factor serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.

The determination of the regulatory capital requirement for operational risk is performed annually by NIBC's Finance department. Table 31 shows the amount of RWA and the capital requirement for operational risk as at year-end 2016 and 2015.

The operational risk calculation includes data from the three years preceding the reporting year to determine the regulatory capital charge and is restated yearly after the publication of the Annual Report. Operational risk at year-end 2015 included the years 2012, 2013 and 2014; at year-end 2016, it was based on the years 2013 to 2015.

In 2016, the capital requirements for operational risk were higher than those of 2015 due to two facts:

- a) The income of the year added to the calculation (2015) was higher than the income of the year that was removed (2012), which accounts for EUR 1 million of the increase.
- b) The acquisition of SNS Securities (renamed to NIBC Markets) as of mid-year 2016 increased the gross income on consolidated NIBC Holding level, which accounts for the remainder of the capital increase (EUR 5 million).

Table 31 Breakdown of RWA and capital requirement for operational risk

IN EUR MILLIONS	2016		2015	
	RWA	Capital requirement	RWA	Capital requirement
Standardised approach	538	43	458	37
TOTAL OPERATIONAL RISK	538	43	458	37

Liquidity Risk

NIBC defines liquidity risk as the inability of the company to fund its assets and meet its obligations as they become due, at acceptable cost.

At NIBC we aim through our liquidity management framework to maintain a comfortable liquidity position at all times. NIBC Holding further improved its diversified funding base in 2016. A structured transaction was redeemed (DMBS XVI of approximately EUR 500 million). To attract new funding, NIBC Holding employed various instruments. In 2016, NIBC Holding issued a new senior unsecured bond (a total of EUR 500 million, tenor 3.5 years), a new conditional pass through covered bond (EUR 500 million), senior unsecured private placements of nearly EUR 0.7bn and increased the TLTRO participation with about EUR 700mln. Our retail savings slightly show a managed decrease to the total amount of 9.7bn whereas the ESF funding portfolio slightly increased to 1.2bn at the end of the year. Overall, NIBC Holding has strengthened its position in the various funding markets and continues to improve the composition and efficiency of its funding mix.

Liquidity framework

Based on the current maturity profiles of existing assets and liabilities as well as on projections prepared by our business units and reviewed by the Asset and Liability Management department, several liquidity projections and stress tests are prepared and presented every two weeks to the ALCO. These reports lay at the centre of NIBC's Liquidity Risk Management. The Base Case Liquidity forecast has a 5 year horizon and takes into consideration the expected cash flows (such as maturing loans and funding, production of new assets, liquidity actions and the future cash flows due to CSA collateral postings) of NIBC's assets and liabilities.

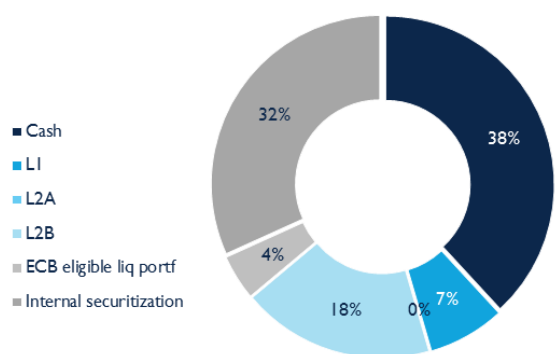
Furthermore, we monitor the development of the ECB eligible assets which consist of treasury assets and internal securitisations. Additionally, the Basel III Liquidity Ratios Liquidity Coverage Ratio and Net Stable Funding Ratio are both monitored within NIBC's Liquidity Framework. We have adopted early both ratios in our framework and since October 2015 LCR is a subject of a regulatory minimum level.

Also part of the Liquidity Framework are periodical gap analyses, monitoring of the coverage of on demand savings, asset encumbrance ratios and loan to deposit ratio. For the end of 2016 a selection of the main Liquidity Ratios is presented below as well as a split of the Liquidity Buffer:

Table 32 Key Liquidity Indicators, 31 December 2016

IN %	
LCR	124%
NSFR	112%
Loan-to-Deposit	151%
Asset Encumbrance	28.7%
IN EUR MILLIONS	
Liquidity Buffer	2,257

Graph 6 Liquidity Buffer Composition, 31 December 2016



Stress scenarios

Our liquidity needs are carefully considered in the following stress scenarios:

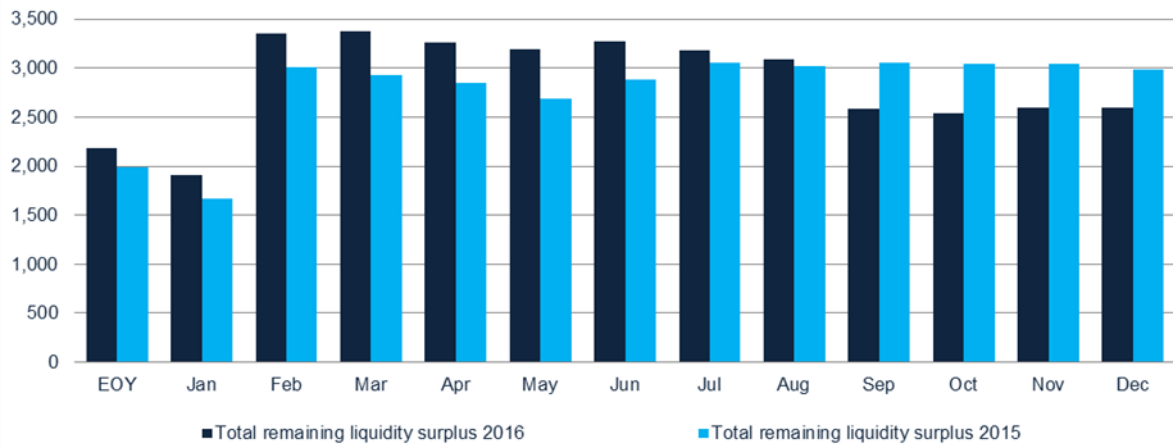
- A 12-month market-wide liquidity crisis, characterised by an economic downturn with impact on both financial institutions (their willingness to lend and to purchase assets from each other) and non-financial institutions (leading to lower loan prepayments and larger/faster drawdowns of committed credit facilities). Such a market situation is assumed to result in no access to wholesale funding and worsening market variables (rating migration, additional haircuts on market value of collateral, CSA cash outflow, slowing prepayments, etc.);
- A 12-month institution-specific stress test, caused by a material event that calls into question the reputation and/or credit quality of the institution, leading to a subsequent run on the bank. Furthermore, a significant credit rating downgrade applies. This is assumed to result in a significant outflow of retail savings and no access to ECB-financing in the first three months in addition to having no access to wholesale funding;
- A 6-month combined stress test that combines elements from the aforementioned market-wide and institution-specific liquidity stress tests. Essentially it captures a prolonged market stress with a relatively short period of a severe NIBC specific stress. Due to the severe character of the stress, the stress period is shortened to six months assuming earlier management intervention. Under this scenario ECB lending is assumed to be available whereas asset market liquidity is worsened due to fire sales and increased credit spreads.

The liquidity stress tests assume that all of the NIBC's contractual obligations are met and take into consideration varying levels of access to funding markets. The outcomes of the liquidity stress tests are at a comfortable positive level and remain positive for a prolonged period, under the assumptions that normal measures are carried out. The survival period and the sufficiency of the liquidity buffers are monitored on a bi-weekly basis.

Graphs 7 to 9 show the outcomes of the 12-month market-wide stress test, the 12-month institution-specific stress test and the 6-month combined stress tests. Dependent on the stress test, the projected liquidity surplus consists of the cash position, the liquidity portfolio and other ECB capacity and is adjusted monthly for maturing assets and liabilities and the outflows as prescribed by the liquidity stress tests. For each of the three stress tests, the outcomes remain positive throughout its horizon. As displayed in the graphs below, the outcomes over 2016 are at comfortably high levels. The stress test figures are more or less in line with the last year.

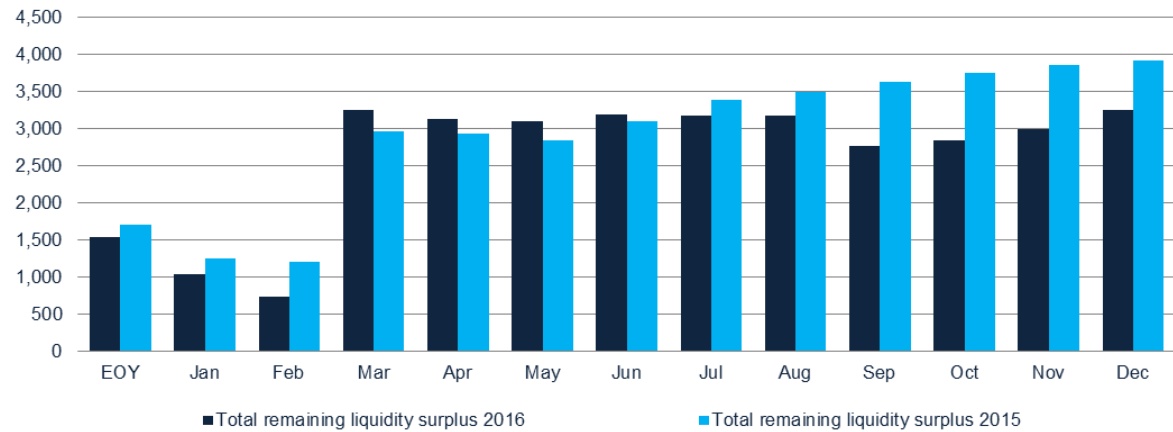
Graph 7 Market Stress Scenario, short-term analysis, 31 December 2016 and 31 December 2015

IN EUR MILLIONS



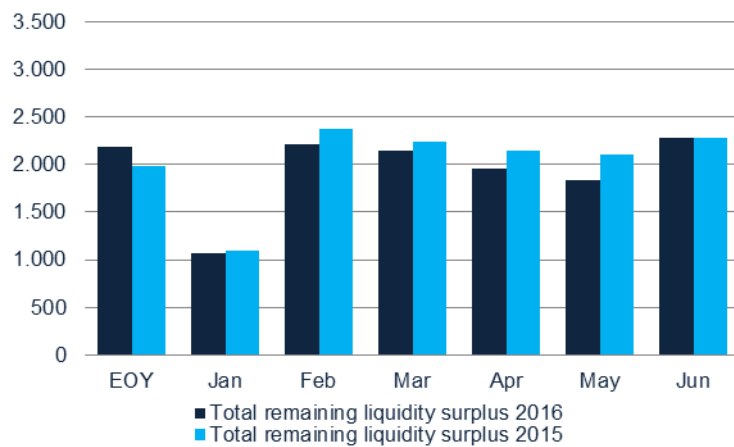
Graph 8 Institution Specific Stress Scenario, short-term analysis, 31 December 2016 and 31 December 2015

IN EUR MILLIONS



Graph 9 Combined Stress Scenario, short-term analysis, 31 December 2016 and 31 December 2015

IN EUR MILLIONS

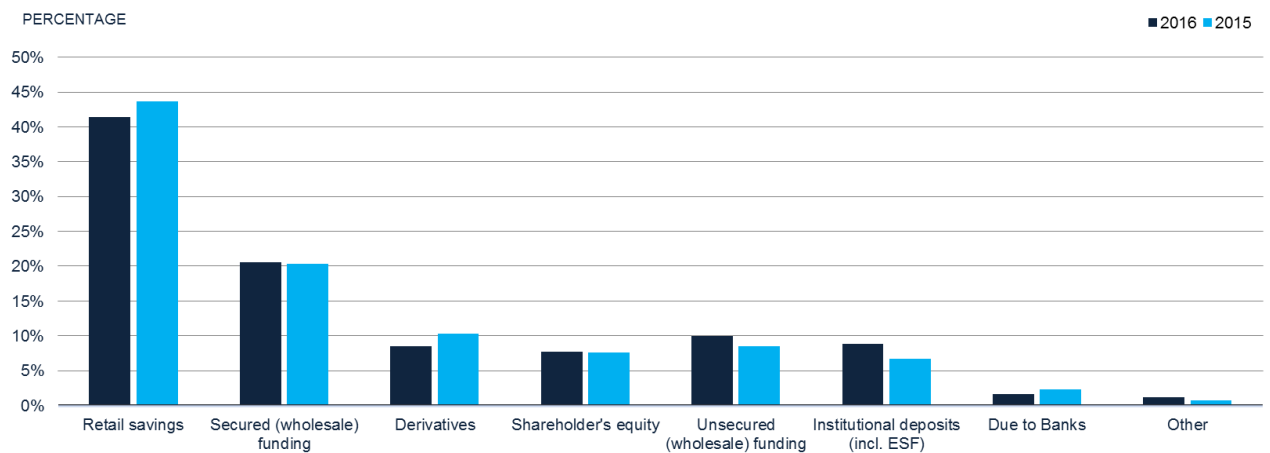


In addition to the 12-month liquidity stress analysis described above, NIBC also conducts liquidity analyses over longer periods once every two weeks according to a base scenario. These analyses assume a growth in our loan portfolio in combination with new funding initiatives. The outcome of, for example, a three or five year liquidity analysis shows again a positive buffer throughout the period.

Funding

NIBC Holding further diversified its funding base by the initiatives mentioned earlier. An overview of the total liabilities portfolio at 31 December 2016 and 31 December 2015 is shown in graph 10. The liabilities overview is based on total balance sheet amounts.

Graph 10 Breakdown of Total Liabilities, 31 December 2016 (EUR 23,493 million) and 31 December 2015 (EUR 23.153 million)



Securitisation Exposures

Overview and strategy

NIBC as originator

NIBC has been active in the securitisation and structuring market for over twenty years. The types of collateral for these securitisations include residential mortgages, commercial mortgages and leveraged loans. NIBC's *Dutch Residential Mortgage Backed Securities (RMBS)* programme was established in 1997. NIBC's residential mortgage programme was later extended with the Sound and Essence issues. In 2003, NIBC started its North Westerly *Collateralised Loan Obligations (CLO)* programme. In 2004, NIBC became the collateral manager of its first US *Collateralised Debt Obligations (CDO)* transaction. In 2006, NIBC launched its introductory *Commercial Mortgage-Backed Securities (CMBS)* transaction under its MESDAG programme. In addition, NIBC has acted as arranger and lead manager on a number of third-party transactions. Table 33 gives an overview of the cumulative nominal amounts at 31 December 2016 of which NIBC was originator:

Table 33 Cumulative nominal amounts of NIBC's securitisations

IN EUR MILLIONS	Total
UNDERLYING ASSET	
Residential mortgages	660
Commercial mortgages	76
CLO	2,162
TOTAL	2,898

At 31 December 2016, there were no synthetic originated securitisations in NIBC's Securitisations portfolio.

Objectives

NIBC's objectives in relation to securitisation activities are:

- Transfer of credit risk;
- Obtain funding, reduce funding cost and diversify funding sources;
- Earn management fees on the assets under management;
- Support selected clients in their funding needs;
- Offering attractive yields and quality investments for investors; and
- Earn fees on ancillary roles in securitisations.

Roles and involvement

NIBC has fulfilled the following roles in the securitisation process:

- Arranger (structuring) of both third-party and proprietary securitisation transactions;
- Underwriter in securitisation transactions involving both third-party and proprietary transactions;
- Collateral manager for a number of managed CDO/CLO transactions;
- Swap counterparty for a number of commercial mortgage securitisations;
- Liquidity facility provider for a number of residential and commercial mortgage securitisations;
- Calculation agent and paying agent for number of residential and commercial mortgage securitisations;
- Company administrator for a number of securitisations; and
- Investor in securitisations.

Securitisation activity in 2016

In 2016, NIBC called the RMBS Dutch MBS XVI, North Westerly I and Leo Mesdag securitisations.

Names of the External Credit Assessment Institutions used for securitisations

NIBC uses Fitch, Moody's and Standard & Poor's to rate its securitisations.

Accounting policy

NIBC consolidates securitisation *Special Purpose Entities (SPE)* in its financial statements when:

- It will obtain the majority of the benefits of the activities of an SPE;
- It retains the majority of the residual ownership risks related to the assets in order to obtain the benefits from its activities;
- It has decision-making powers to obtain the majority of the benefits; and
- The activities of the SPE are being conducted on NIBC's behalf according to NIBC's specific business needs so that it obtains the benefits from the SPE operations. Such an evaluation is necessarily subjective.

NIBC does not consolidate SPEs that it does not control.

The Annual Report contains more detailed information on the accounting policies used by NIBC.

NIBC as investor

Next to its role as originator of securitised products, NIBC has also been active as an investor in securitised products. In 2007, NIBC's perspective on the securitisation market changed and a policy of active de-risking was implemented for both the Western European and North American portfolio. As part of this policy, NIBC reduced its legacy US structured credits portfolio in the past years and divested the last part of this portfolio in 2013. The Western European portfolio also reduced significantly in size.

At the end of 2009, NIBC set up a Liquidity Investments portfolio. This portfolio was set up to invest part of NIBC's excess liquidity in the securitisation market. Investments are limited to mostly AAA-rated RMBS transactions backed by Dutch collateral or AAA-rated ABS transactions, and are eligible to be pledged as collateral with the *European Central Bank (ECB)*.

In addition to this restrictive mandate, each investment is pre-approved by the Financial Markets Credit Risk department.

Securitisation exposures

Under this heading, several overviews regarding the securitisation exposures (retained and purchased) of NIBC are presented, detailing underlying collateral type and credit quality. The figures in this section are different from those in the risk notes of the Annual Report, because the IFRS rules for consolidating securitisation exposures differ from Pillar 3 classifications under the securitisation framework. Table 34 provides an overview of NIBC's exposures in securitisations at 31 December 2016.

Table 34 EAD of Securitisations portfolio at NIBC, 31 December 2016

IN EUR MILLIONS	Investor	Originator	Total
ABS	1	-	1
CDO/CLO	48	11	59
CMBS	11	-	11
RMBS	64	-	64
TOTAL WESTERN EUROPEAN SECURITISATIONS	123	11	134
NL - RMBS AAA Liquidity portfolio	356	-	356
EU - ABS AAA Liquidity portfolio	162	-	162
TOTAL SECURITISATION EXPOSURE	640	11	652

Small differences are possible in the table due to rounding

Credit quality of Securitisations portfolio

The credit quality is based on an internal composite, following CRR/CRD IV guidelines, including external ratings from Standard & Poor's, Moody's and Fitch. The non-rated portion of the portfolio relates to first-loss positions in both NIBC's own securitisations and third-party securitisations, which have been marked down to between 1% and 10% of their nominal value at 31 December 2016.

Table 35 Rating distribution of Securitisations portfolio (investor), 31 December 2016

IN EUR MILLIONS	AAA	AA	A	BBB	BB	Below BB	Total
ABS	-	-	-	-	-	-	1
CDO/CLO	24	10	7	-	4	3	48
CMBS	-	-	-	-	-	11	11
RMBS	5	13	29	4	-	12	64
TOTAL WESTERN EUROPEAN SECURITISATIONS (INVESTOR)	29	23	36	4	4	26	123
NL - RMBS AAA Liquidity portfolio	353	-	3	-	-	-	356
EU - ABS AAA Liquidity portfolio	162	-	-	-	-	-	162
TOTAL SECURITISATION EXPOSURE (INVESTOR)	543	23	39	4	4	26	640

Table 36 Rating distribution of retained positions in the Securitisations portfolio (originator), 31 December 2016

IN EUR MILLIONS	AAA	AA	A	BBB	BB	Below BB	Total
ABS	-	-	-	-	-	-	-
CDO/CLO	-	-	2	-	9	11	23
CMBS	-	-	-	-	-	-	-
RMBS	-	-	-	-	-	-	-
TOTAL SECURITISATION EXPOSURE (ORIGINATOR)	-	-	2	-	9	11	23

Small differences are possible in the table due to rounding

Internal Capital Adequacy Assessment Process

The *Internal Capital Adequacy Assessment Process (ICAAP)* of each institution refers to the process in which risks and related capital are internally measured, allocated and managed, and by which the adequacy of available capital is assessed.

The internal capital requirements of NIBC under the ICAAP are based upon an internal Economic Capital framework. In addition to this, NIBC has set up an extensive framework of historical and theoretical stress scenarios that analyse the impact of severe shocks in the credit risk and market risk environment. The outcomes of these stress scenarios are compared to the available capital, which is also done on a quarterly basis with the calculated Economic Capital usage.

Economic capital

Economic Capital (EC) is the amount of capital that NIBC allocates as a buffer against potential losses from business activities, based upon its internal assessment of risks. EC is based on the CRR/CRD IV regulatory capital, with the addition of EC for risks not captured by the regulatory method. Relating the risk-based EC of each business to its profit results in *Risk-Adjusted Return On Capital (RAROC)*, a risk-weighted measure of return. EC and RAROC are key tools used in support of the capital allocation process according to which shareholders' equity is allocated as efficiently as possible based on expectations of both risk and return. The usage of EC is steered in the ALCO. The ALCO can adjust the maximum EC level allocated to and within each business, taking into account business expectations and the desired risk profile.

EC methodology

The EC calculation is based on a one-year risk horizon, using a 99.9% confidence level. This confidence level means that there is a probability of 0.1% that losses in a period of one year will be larger than the allocated EC, based on a constant portfolio and no management intervention.

NIBC uses a bank-wide EC framework and fully attributes all EC charges to portfolios.

NIBC uses regulatory capital for all Pillar I risks, whereas internal models are used for Pillar II risks.

Pillar I risks

Pillar I risks include credit risk, market risk (including CVA) and operational risk. As stated above the EC for Pillar I risks follows the regulatory capital treatment:

- The Credit EC is mostly based upon the A-IRB formula, using internal estimates of PD, LGD, EAD and M, whereas for a limited number of exposures the Standardised Method is used.

- The Market risk EC includes regulatory capital for the Trading Book, FX risk and CVA.
- The EC for Operational risk is based upon the Standardised method for Regulatory Capital.

Pillar II risks

As part of the risk identification, NIBC has assessed all risks, to which it is exposed in addition to the Pillar I risks. These include both financial and non-financial risks. For the financial risks, NIBC uses internally developed models. Examples of these other financial risks are Interest Rate Risk In the Banking Book (IRRBB), concentration risk both single name and sector concentration and market risk for fair value positions. The EC for non-financial risks is based on stylized scenarios and business projections. Examples of non-financial risk are business risk, model risk and reputational risk.

Diversification

NIBC does not recognise any diversification between risk types. Within certain risk types diversification is inherently included, like market risk, IRRBB and concentration risk.

Table 37 shows the EC per risk type for NIBC Holding.

Table 37 EC usage per risk type

IN EUR MILLIONS	31 December 2016
Credit Risk	725
Market Risk (including CVA)	26
Operational Risk	43
Total Pillar 1 Risks	794
Other financial risks	314
Other non-financial risks	99
Total Pillar 2 Risks	413
TOTAL DIVERSIFIED ECONOMIC CAPITAL	1,207

Stress scenarios

NIBC performs internal Stress Testing as part of the overall Pillar 2 framework for CRR/CRD IV. On a quarterly basis, stressed scenario outcomes estimated by NIBC's Stress Testing Framework are presented to the RMC and RPCC, providing senior management and the Supervisory Board members with information that can be taken into account for strategic decision making. Moreover, outcomes are directly linked to NIBC's Risk Appetite Framework, based on which management steers the bank's aggregated risks. The Stress Testing Framework accounts for the impact of a set of historical and hypothetical stress scenarios on the profit and loss and capital adequacy of NIBC.

Capital Base Components

The capital base, also referred to as regulatory capital, is calculated in accordance with the CRR/CRD IV. The available regulatory capital is based on capital contributed by subsidiaries covered by prudential consolidation accounts, which should be available, without restrictions or time constraints, to cover risks and absorb potential losses. All amounts are included net of tax charges.

The available regulatory own funds at NIBC are classified under three main categories, being Common Equity Tier-1 capital, Tier-1 capital and Tier-2 capital. The two main components in the regulatory own funds are core equity and subordinated debt. The full year net profit, excluding dividend pay-out, is included in the Common Equity Tier-1 capital. The key terms and conditions of each of these categories are summarised below.

The capital ratio is calculated by dividing the regulatory capital by the risk weighted assets (RWA).

Common Equity Tier-1 capital

Common Equity Tier-1 capital

Common Equity Tier-1 capital consists of common share capital including share premium accounts, retained earnings, accumulated other comprehensive income, adjusted by deduction of repurchased own shares and other eligible items.

Deduction from Common Equity Tier-1 capital

Cash flow hedge reserve

The amount of the cash flow hedge reserve that relates to the hedging of items that are not fair valued on the balance sheet is derecognised in the calculation of Common Equity Tier-1. This means that positive amounts are deducted.

Intangible assets (goodwill)

The deducted intangible assets contain goodwill.

Funding revaluation

Unrealized gains and losses that have resulted from changes in the fair value of liabilities that are due to changes in NIBC's own credit risk.

Deferred tax assets

Deferred tax assets are deducted from the Common Equity Tier-1 capital as far as they rely on future profitability.

Securitisation exposures

NIBC has purchased subordinated bonds issued by various securitisation entities. According to CRR/CRD IV the subordinated bonds are deducted fully from the Common Equity Tier-I capital.

AIRB provision excess of expected loss (EL)

An adjustment is made for the difference between EL and provisions for the related exposures in the regulatory own funds. The negative difference (when EL amount is larger than the provision amount) is included in the regulatory own funds as shortfall. According to CRR/CRD IV the shortfall amount shall be deducted fully from the Common Equity Tier-I capital. Due to transitioning in the period 2014-2017 they are gradually shifting from 50% deduction from Additional Tier-I capital and 50% from Tier-2 capital towards full deduction from Common Equity Tier-I.

Tier-I capital

Tier-I capital is composed of Common Equity Tier-I capital and additional Tier-I capital instruments after deduction of eligible items.

Additional Tier-I capital

Additional Tier-I capital instruments are deeply subordinated debt instruments, senior only to Shareholders' Equity. These instruments must meet strict rules predefined by the CRR/CRD IV.

Deduction from Tier-I capital

AIRB provision excess of expected loss (EL)

An adjustment is made for the difference between EL and provisions for the related exposures in the regulatory own funds. The negative difference (when EL amount is larger than the provision amount) is included in the regulatory own funds as shortfall. According to CRR/CRD IV the shortfall amount shall be deducted fully from the Common Equity Tier-I capital. Due to transitioning in the period 2014-2017 they are gradually shifting from 50% deduction from Additional Tier-I capital and 50% from Tier-2 capital towards full deduction from Common Equity Tier-I.

Transitional Recognition in Consolidated own funds:

The recognition in consolidated own funds refers to the treatment of capital issued by subsidiaries to third parties. Capital instruments issued by consolidated subsidiaries and held by third parties may no longer be fully recognised towards capital at group level under the CRR but only to the extent used by the subsidiary to cover the minimum capital requirements, including capital buffers. The partial de-recognition of capital issued to third parties by subsidiaries applies to all fully consolidated subsidiaries, including wholly-owned and partly owned. The partial de-recognition will affect the Additional Tier-I and Tier-2 provided to third parties by all subsidiaries.

Tier-2 capital

The Tier-2 capital is composed of subordinated debt instruments after deduction of eligible items. Tier-2 capital includes two types of subordinated debt instruments; perpetual and dated instruments. Tier-2 capital may not exceed total Tier-I capital, and long-term subordinated debt may not exceed 50% of Tier-I capital. The limits are set after deductions.

The amount possible to include in the Tier-2 capital related to dated Tier-2 capital instruments is reduced if the remaining maturity is less than five years. The outstanding amount in the specific issue is deducted by 20% for each year beyond five years.

Revaluation reserve

Under CRR/CRD IV revaluation reserve is part of OCI.

Deductions from Tier-2 capital

AIRB provision excess of expected loss (EL)

An adjustment is made for the difference between EL and provisions for the related exposures in the regulatory own funds. The negative difference (when EL amount is larger than the provision amount) is included in the regulatory own funds as shortfall. According to CRR/CRD IV the shortfall amount shall be deducted fully from the Common Equity Tier-1 capital. Due to transitional provisions in the period 2014-2017 they are gradually shifting from 50% deduction from Additional Tier-1 capital and 50% from Tier-2 capital towards full deduction from Common Equity Tier-1.

Transitional Recognition in Consolidated own funds:

The recognition in consolidated own funds refers to the treatment of capital issued of subsidiaries to third parties. Capital instruments issued by consolidated subsidiaries and held by third parties may no longer be fully recognised towards capital at group level under the CRR but only to the extent used by the subsidiary to cover the minimum capital requirements, including capital buffers. The partial de-recognition of capital issued to third parties by subsidiaries applies to all fully consolidated subsidiaries, including wholly-owned and partly owned. The partial de-recognition will affect the Additional Tier-1 and Tier-2 provided to third parties by all subsidiaries.

A summary of items included in the regulatory capital is as follows:

Table 38 Reconciliation of shareholders' equity to regulatory capital of NIBC Holding N.V., 2016 and 2015

IN EUR MILLIONS	2016	2015
TOTAL SHAREHOLDERS' EQUITY PER ACCOUNTING BALANCE SHEET	1,789	1,728
Called-up share capital	1,408	1,408
Other reserves & OCI	573	578
Retained earnings	(271)	(328)
Net result attributable to parent shareholders	104	70
Interim and final dividend paid	(25)	-
Regulatory adjustments to accounting basis & Prudential Filters	(249)	(285)
Prudent additional value adjustments	(7)	(8)
Cash flow hedge reserve and other reserves	(43)	(50)
Intangible assets (goodwill)	(1)	-
Funding revaluation	(102)	(115)
Deferred tax assets	(31)	(25)
Securitisation exposures	(35)	(57)
AIRB provision excess of expected loss (EL)	(27)	(29)
Regulatory adjustments relating to unrealised gains and losses pursuant to articles 467 and 468 CCR	(3)	(1)
COMMON EQUITY TIER 1 CAPITAL	1,540	1,443
Additional Tier 1 Capital	108	100
AIRB provision excess of expected loss (EL)	(10)	(21)
Directly issued capital instruments subject to phase out from Additional Tier 1	165	187
Transitional recognition in consolidated own funds	(47)	(66)
TIER 1 CAPITAL	1,648	1,543
Additional Tier 2 Capital	157	136
Subordinated Loans	292	261
Revaluation reserve	-	-
Securitisation exposures	-	-
AIRB provision excess of expected loss (EL)	(9)	(21)
Transitional recognition in consolidated own funds	(126)	(104)
TOTAL REGULATORY CAPITAL	1,805	1,679

Changes in Common Equity Tier-I and Tier-I capital

The Common Equity Tier-I capital increased by EUR 97 million due to the net profit at year end 2016 and a decrease of regulatory adjustments. Total Tier-I capital increased by EUR 105 million due to transition impact of AIRB provision excess of expected loss (EL) and the phase out of directly issued capital instruments.

Changes in Tier-2 capital

The Tier-2 capital increased by EUR 21 million favourable influenced the phase in of directly issued capital instruments from Tier-I Capital and by the transition of AIRB provision excess of expected loss (EL) however unfavourable lowered by regulatory adjustments in respect of amounts to transitional treatments subject to phase out (as prescribed in the Regulation ((EU) no 575/2013).

Capital Adequacy

The capital adequacy of NIBC is managed at NIBC Holding level.

The principal ratios for reviewing the capital adequacy of NIBC are the Common Equity Tier-1 ratio and the Tier-1 ratio. These ratios, which were implemented by the *Bank for International Settlements (BIS)*, are intended to promote comparability between financial institutions. They are based on the CRR/CRD IV legislation.

NIBC monitors the developments in its ratios on a monthly basis, including comparison between the expected ratios and the actual ratios. These ratios indicate capital adequacy to mitigate on-balance credit risks, including off-balance sheet commitments, market risks, operational risks and other risk positions expressed as risk-weighted items in order to reflect their relative risk.

Capital ratios of NIBC Holding

The Common Equity Tier-1 ratio is defined as Common Equity Tier-1 capital divided by the total RWA.

The Tier-1 ratio is defined as Tier-1 capital divided by the total RWA.

The Total Capital ratio is defined as Total Capital (which is the sum of Tier-1 capital and Tier-2 capital) divided by RWA.

NIBC Holding's fully loaded Tier-1 capital ratio was 15.1% at end-2016. This is a healthy position that also implies that NIBC Holding can fulfil the CRR/CRD IV requirements when fully implemented as of December 31, 2018.

Table 39 shows the capital ratios of NIBC Holding.

in %	2016		2015	
	Fully Loaded	Transition	Fully Loaded	Transition
CAPITAL RATIOS				
Common Equity Tier-1 ratio	15.1	15.5	13.9	14.7
Tier-1 ratio	15.1	16.6	13.9	15.7
Total Capital / BIS ratio	18.0	18.2	16.7	17.0

Table 40 Breakdown of EAD, capital requirements and RWA of NIBC Holding N.V.

IN EUR MILLIONS	2016			2015		
	EAD	RWA	Capital requirement	EAD	RWA	Capital requirement
CREDIT RISK	22,847	9,065	726	22,327	9,090	727
AIRB APPROACH						
- of w hich corporate	10,199	5,763	462	9,713	5,478	438
- of w hich institutions	695	478	38	940	628	50
- of w hich retail	8,350	883	71	8,491	957	77
- of w hich securitisations	673	107	9	703	154	12
- of w hich equities	262	969	77	300	1,112	89
STANDARDISED APPROACH						
- of w hich institutions	378	58	5	404	84	7
- of w hich sovereign	1,016	0	0	864	0	0
- of w hich retail	779	319	26	473	248	20
- of w hich corporate	244	238	19	225	219	17
- of w hich equities	0	0	0	0	0	0
- of w hich other	251	251	19	213	211	17
MARKET RISK		204	16		137	11
- of w hich trading book VaR		150	12		106	9
- of w hich FX Standardised approach		18	1		31	2
- of w hich Debt Instruments Standardised approach		31	3			
- of w hich Equities Standardised approach		4	0			
OPERATIONAL RISK		538	43		458	37
Standardised approach		538	43		458	37
CREDIT VALUE ADJUSTMENT		125	10		163	13
Standardised approach		125	10		163	13
TOTAL	22,847	9,931	795	22,327	9,848	788

The recognition in consolidated own funds refers to the treatment of capital issued of subsidiaries to third parties. Capital instruments issued by consolidated subsidiaries and held by third parties may no longer be fully recognised towards capital at group level under the CRR/CRD IV but only to the extent used by the subsidiary to cover the minimum capital requirements including capital buffers. The partial de-recognition of capital issued to third parties by subsidiaries applies to all fully consolidated subsidiaries, including wholly-owned and partly owned. The partial de-recognition will affect the Additional Tier-1 and Tier-2 provided to third parties by all subsidiaries.

Table 41 on the next page presents the leverage ratio based on CRR/CRD IV regulation, calculated for NIBC Holding on a fully loaded Tier 1 capital. The leverage ratio of NIBC Holding increased in 2016 to 6.5%.

Table 4I Leverage ratio based on fully loaded Tier I Capital of NIBC Holding N.V. (balance sheet)

IN EUR MILLIONS		2016
Summary reconciliation of accounting assets and leverage ratio exposures		
1	Total assets as per published financial statements	23,495
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(11) of Regulation (EU) No 575/2013 "CRR")	-
4	Adjustments for derivative financial instruments	(1,163)
5	Adjustments for securities financing transactions "SFTs"	-
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	(876)
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	-
EU-6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	-
7	Other adjustments	-
8	Total leverage ratio exposure	21,456
Leverage ratio common disclosure		
On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	20,667
2	(Asset amounts deducted in determining Tier 1 capital)	(178)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	20,489
Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	915
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	249
EU-5a	Exposure determined under Original Exposure Method	1,164
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-
8	(Exempted CCP leg of client-cleared trade exposures)	-
9	Adjusted effective notional amount of written credit derivatives	-
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-
11	Total derivative exposures (sum of lines 4 to 10)	1,164
Derivative exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	-
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-
14	Counterparty credit risk exposure for SFT assets	-
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	-
15	Agent transaction exposures	-
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	-
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	-
Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	1,953
18	(Adjustments for conversion to credit equivalent amounts)	(1,076)
19	Other off-balance sheet exposures (sum of lines 17 to 18)	877
Other off-balance sheet exposures		
EU-19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	-
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	-
Capital and total exposures		
20	Tier 1 capital	1,458
21	Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	22,530
Leverage ratio		
22	Leverage ratio	6.5%
Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	-
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	-
Split-up of on balance sheet exposures (excluding derivatives, SFTs and exempted exposures)		
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	20,489
EU-2	Trading book exposures	-
EU-3	Banking book exposures, of which:	20,489
EU-4	Covered bonds	170
EU-5	Exposures treated as sovereigns	965
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	-
EU-7	Institutions	989
EU-8	Secured by mortgages of immovable properties	653
EU-9	Retail exposures	8,251
EU-10	Corporate	7,141
EU-11	Exposures in default	1,118
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	1,202

Remuneration Policy

The Supervisory Board reviewed and amended NIBC's Remuneration Policy in 2015. The review took account of all relevant laws, regulations and guidelines: the Dutch Corporate Governance Code, the Dutch Banking Code, the *DNB Principles on Sound Remuneration Policies (DNB Principles)*, including additional DNB guidance on the implementation of the DNB Principles and the *Committee of European Banking Supervisors Guidelines on Remuneration Policies and Practices (CEBS Guidelines)* and CRR/CRD IV. Forthcoming Dutch remuneration legislation for Financial Services Companies (*Wet belonging Financiële ondernemingen – Wbfo*) was also taken into account.

NIBC's remuneration policy is sustainable, balanced and in line with our chosen strategy and risk appetite. It revolves around these five key principles: remuneration is (i) aligned with business strategy; (ii) appropriately balanced between short and long term; (iii) differentiated and linked to the achievement of performance objectives and the results of the bank; (iv) externally competitive and internally fair; and (v) managed in an integrated manner that takes into account total compensation.

The *Remuneration and Nominating Committee (RNC)* and the Supervisory Board believe that the remuneration policy is compliant with the latest laws, regulations and is prudent and sustainable. The Supervisory Board continues to believe in prudent management of remuneration but recognises that NIBC operates in a competitive marketplace where it needs to be able to attract, motivate and retain sufficient talent. NIBC is determined to make a positive contribution towards creating the level playing field that regulators envisage with regard to variable compensation.

The 2016 Annual Report contains a detailed overview of NIBC's remuneration policy.

Appendix I

Scope of Application

The basis of NIBC's financial consolidation scope is described in the accounting policies section of NIBC Holding financial statement 2016. The scope is based on IFRS, which is determined in accordance with IAS 27 Consolidated and Separate Financial Statements, IAS 28 Investments in Associates, IAS 31 Interest in Joint Ventures and SIC 12 Consolidation Special Purpose Entities.

The regulatory consolidation scope differs from the financial consolidation scope. The regulatory consolidation does not include Special Purpose Entities where significant risk has been transferred to investors. Subsidiaries engaged in non-financial activities are excluded from the regulatory consolidation. Exposures to the Special Purpose Entities and non-financial subsidiaries are risk weighted as securitisation exposures and investments in associates (equity method).

The table present the entities that form part of the capital base of NIBC Holding N.V.

	Principal place of business	Country	Nature of activity	Percentage of voting rights held
SUBSIDIARIES OF NIBC HOLDING N.V.				
NIBC Bank N.V.	The Hague	Netherlands	Banking	100%
NIBC Investment Management N.V.	The Hague	Netherlands	Financing	100%
NIBC Investment N.V.	The Hague	Netherlands	Financing	100%
BEEQUIP B.V.	Rotterdam	Netherlands	Financing	75%
SUBSIDIARIES OF NIBC BANK N.V.				
NIBC Bank Deutschland AG	Frankfurt	Germany	Banking	100%
NIBC Markets N.V.	Amsterdam	Netherlands	Brokerage	100%
Parnib Holding N.V.	The Hague	Netherlands	Financing	100%
Counting House B.V.	The Hague	Netherlands	Financing	100%
B.V. NIBC Mortgage-Backed Assets	The Hague	Netherlands	Financing	100%
NIBC Principal Investments B.V.	The Hague	Netherlands	Financing	100%
NIBC Financing N.V.	The Hague	Netherlands	Financing	100%

Appendix 2

Own Funds

The recognition in consolidated own funds refers to the treatment of capital issued of subsidiaries to third parties. Capital instruments issued by consolidated subsidiaries and held by third parties may no longer be fully recognised towards capital at group level under the CRR/CRD IV but only to the extent used by the subsidiary to cover the minimum capital requirements including capital buffers. The partial de-recognition of capital issued to third parties by subsidiaries applies to all fully consolidated subsidiaries, including wholly-owned and partly owned. The partial de-recognition will affect the Additional Tier-1 and Tier-2 provided to third parties by all subsidiaries.

The tables in this appendix contain information on:

- Reconciliation from IFRS to regulatory balance sheet;
- Own funds disclosure reflecting the capital position of NIBC;
- Transitional disclosure covering the phasing in of the regulatory adjustments; and
- Capital instruments main features.

Table 42 Reconciliation of balance sheets – financial accounting to regulatory scope of consolidation.

IN EUR MILLIONS	Accounting Balance sheet	Regulatory balance sheet
Assets		
FINANCIAL ASSETS AT AMORTISED COST		
Cash and balances with central banks	918	918
Due from other banks	1,468	1,468
Loans and receivables		
Loans	7,844	7,844
Debt investments	3,346	3,346
Residential mortgages own book	287	287
FINANCIAL ASSETS AT AVAILABLE-FOR-SALE		
Equity investments	41	41
Debt investments	1,028	1,028
FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS (INCLUDING TRADING)		
Loans	210	210
Residential mortgages own book	4,124	4,124
Securitised residential mortgages	1,550	1,550
Debt investments	60	60
Equity investments (including investments in associates)	204	204
Derivative financial assets	1,811	1,811
OTHER		
Investments in associates (equity method)	7	7
Intangible assets	3	3
Property, plant and equipment	50	50
Investment Property	271	271
Current tax	-	-
Other assets	227	227
Assets held for sale	-	-
Deferred tax	46	46
TOTAL ASSETS	23,495	23,495

Liabilities

FINANCIAL LIABILITIES AT AMORTISED COST

Due to other banks	1,290	1,290
Deposits from customers	11,802	11,802
Own debt securities in issue	3,855	3,855
Debt securities in issue related to securitised mortgages	1,337	1,337

FINANCIAL LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS (INCLUDING TRADING)

Borrowings	49	49
Own debt securities in issue	37	37
Debt securities in issue structured	620	620
Derivative financial liabilities	2,006	2,006

OTHER FINANCIAL LIABILITIES

Other liabilities	275	275
Current tax	-	-
Deferred tax	3	3
Employee benefits	3	3
Liabilities directly associated with the assets classified as held for sale		

SUBORDINATED LIABILITIES

Amortised cost	122	122
Fair value through profit or loss	276	276

OTHER

Liabilities held for sale	-	-
TOTAL LIABILITIES	21,675	21,675

SHAREHOLDERS' EQUITY

Share capital	1,408	1,408
Other reserves	678	678
Retained earnings	(373)	(373)
Net result attributable to parent shareholders	104	104
Interim and final dividend paid	-	-
TOTAL PARENT SHAREHOLDERS' EQUITY	1,817	1,817
Non-controlling interests	3	3
TOTAL SHAREHOLDERS' EQUITY	1,820	1,820

TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	23,495	23,495
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In table 43 information on NIBC own funds are shown in accordance with the specific format that was provided in the Implementation Technical Standards of the *European Banking Authority (EBA)* and which is according to CRR/CRD IV.

Table 43 Disclosure NIBC own Funds (Transitional), 31 December 2016

IN EUR MILLIONS	2016	2015
Common Equity Tier 1 (CET1) Capital: instruments and reserves		
Capital instruments and the related share premium accounts	1,932	1,932
of which: instrument type 1	1,932	1,932
of which: instrument type 2	-	-
of which: instrument type 3	-	-
Retained earnings	(271)	(328)
Accumulated other comprehensive income	48	54
Funds for general banking risk	-	-
Amount of qualifying items referred to in art. 484 (3) and the related share premium accounts subject to phase out from CET1	-	-
Public sector capital injections grandfathered until 1 January 2018	-	-
Minority interests	-	-
Independently reviewed interim profits net of any foreseeable charge or dividend	79	70
Common Equity Tier 1 (CET 1) capital before regulatory adjustments	1,788	1,728

IN EUR MILLIONS	2016	2015
CET1 Capital: regulatory adjustments		
Additional value adjustments (-)	(7)	(8)
Intangible assets (net of related tax liability) (-)	-	-
Empty set in the EU	-	-
deferred tax assets that rely on future profitability excluding those arising from temporary differences	(31)	(25)
Fair value reserves related to gains or losses on cash flow hedges	(43)	(50)
Negative amounts resulting from the calculation of expected loss amounts	(27)	(29)
Any increase in equity that results from securitised assets (-)	-	-
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(102)	(115)
Defined-benefit pension fund assets (negative amount)	-	-
Direct and indirect holding by an institution of own CET1 instruments (-)	-	-
Holdings of the CET 1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (-)	-	-
Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)	-	-
Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)	-	-
Empty set in the EU	-	-
Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	(35)	(57)
of which: qualifying holdings outside the financial sector (-)	-	-
of which: securitisation positions (-)	(35)	(57)
of which: free deliveries (-)	-	-
Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related eligible tax liabilities)	-	-
Amount exceeding the 15% threshold	-	-
Of which: direct and indirect holding by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	-	-
Empty set in the EU	-	-
of which: deferred tax assets arising from temporary differences	-	-
Losses for the current financial year (-)	-	-
Foreseeable tax charges relating to CET1 items (-)	-	-
Regulatory adjustments applied to CET1 in respect of amounts subject to pre-CRR treatment	-	-
Regulatory adjustments relating to unrealised gains and losses pursuant to articles 467 and 468	(3)	(1)
Of which: Filter for unrealised losses	5	11
Of which: Filter for unrealised loss on exposures to central governments classified in the "available for sale" category in the EU endorsed IAS 39.	-	-
Of which: Filter for unrealised gains	(8)	(12)
Of which: Filter for unrealised gains on exposures to central governments classified in the "available for sale" category in the EU endorsed IAS 39.	-	-
Amount to be deducted from or added to CET1 capital with regard to additional filters and deductions required pre CRR	-	-
Of Which: ...	-	-
Qualifying AT1 deductions that exceed the AT1 capital of the institution (-)	-	-
Total regulatory adjustments to CET1	(248)	(286)
CET1 capital	1,540	1,442

IN EUR MILLIONS	2016	2015
Additional Tier 1 (AT1) capital: instruments		
Capital instruments and the related share premium accounts	-	-
of which: classified as equity	-	-
of which: classified as liabilities	-	-
Amount of qualifying items referred to in art. 484 (3) and the related share premium accounts subject to phase out from AT1	-	-
Public sector capital injections grandfathered until 1 January 2018	-	-
Qualifying Tier 1 capital included in consolidated AT1 capital issued by subsidiaries and held by third parties	165	187
of which: instruments issued by subsidiaries subject to phase out	165	187
AT 1 capital before regulatory adjustments	165	187
AT 1 Capital: regulatory adjustments		
Direct and indirect holding by an institution of own AT1 instruments (-)		
Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (-)		
Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)		
Direct, indirect and synthetic holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)		
Regulatory adjustments applied to AT1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Reg. (EU) No 575/2013	(47)	(66)
Residual amounts deducted from AT1 capital with regard to deduction from CET1 capital during the transitional period pursuant to art. 472 of Reg. (EU) No 575/2013	(10)	(21)
Of which: intangibles	(1)	
Of which: shortfall of provisions to expected losses	(10)	(21)
Residual amounts deducted from AT1 capital with regard to deduction from T2 capital during the transitional period pursuant to art. 475 of Reg. (EU) No 575/2013		
Of which items to be detailed line by line, e.g. reciprocal cross holding in T2 instruments, direct holding of non-significant investments in the capital of other financial sector entities, etc.		
Amount to be deducted from or added to AT1 capital with regard to additional filters and deductions required pre CRR		
Of which: ... possible filter for unrealised losses		
Of which: ... possible filter for unrealised gains		
Of which: ...		
Qualifying T2 deductions that exceed the T2 capital of the institution (-)		
Total regulatory adjustments to AT1 capital	(57)	(87)
Additional Tier 1 Capital	108	100
Tier 1 Capital (T1=CET1+AT1)	1,648	1,542
Tier 2 (T2) capital: instruments and provisions		
Capital instruments and the related share premium accounts		
Amount of qualifying items referred to in art. 484 (3) and the related share premium accounts subject to phase out from T2		
Public sector capital injections grandfathered until 1 January 2018		
Qualifying own funds instruments included in consolidated T2 capital issued by subsidiaries and held by third parties (excluding row 5 and 34)	292	261
of which: instruments issued by subsidiaries subject to phase out	-	2
Credit risk adjustments		
T2 capital before regulatory adjustments	292	261
T2 capital: regulatory adjustments		
Direct and indirect holding by an institution of own T2 instruments and subordinated loans (-)		
Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (-)		
Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)		
Of which new holdings not subject to transitional arrangements		
Of which holdings existing before 1 January 2013 and subject to transitional arrangements		
Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions)(-)		
Regulatory adjustments applied to T2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Reg. (EU) No 575/2013	(126)	(104)
Residual amounts deducted from T2 capital with regard to deduction from CET1 capital during the transitional period pursuant to art. 472 of Reg. (EU) No 575/2013	(9)	(21)
Of which: shortfall of provisions to expected losses	(9)	(21)
Residual amounts deducted from T2 capital with regard to deduction from AT1 capital during the transitional period pursuant to art. 475 of Reg. (EU) No 575/2013		
Of which items to be detailed line by line, e.g. reciprocal cross holding in T2 instruments, direct holding of non-significant investments in the capital of other financial sector entities, etc.		
Amount to be deducted from or added to T2 capital with regard to additional filters and deductions required pre CRR		
Of which: ... possible filter for unrealised losses		
Of which: ... possible filter for unrealised gains		
Of which: ...		
Total regulatory adjustments to T2 capital	(135)	(125)
Tier 2 Capital	157	136
Total Capital (TC = T1 + T2)	1,805	1,678

IN EUR MILLIONS	2016	2015
RWA in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Reg. (EU) No 575/2013	-	-
Of which: ... items not deducted from CET1	-	-
Of which: ... items not deducted from AT1 items	-	-
Of which: ... items not deducted from T2 items	-	-
Total risk weighted assets	9,931	9,449
Capital Ratio's and buffers		
CET1 (as a % of total risk exposure amount)	15.5%	14.7%
T1 (as a % of total risk exposure amount)	16.6%	15.7%
TC (as a % of total risk exposure amount)	18.2%	17.1%
Institution specific buffer requirement	-	-
of which: capital conservation buffer requirement	-	-
of which: countercyclical buffer requirement	-	-
of which: systemic buffer requirement	-	-
of which: G-SII or O-SII buffer	-	-
CET1 available to meet buffers (as a % of risk exposure amount)	2.8%	3.0%
[non relevant EU regulation]	-	-
[non relevant EU regulation]	-	-
[non relevant EU regulation]	-	-
Amounts below the thresholds for deduction		
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-
Direct and indirect holdings of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	-
Empty set in the EU	-	-
deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	-	-
Applicable caps on the inclusion of provisions in Tier 2		
Credit risk adjustments included in T2 in respect of exposures subject to standardised approach	-	-
Cap on inclusion of credit risk adjustments in T2 under standardised approach	-	-
Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach	-	-
Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	-	-
Capital Instruments subject to phase-out arrangements (1 Jan 2014 - a Jan 2022)		
Current cap on CET1 instruments subject to phase out arrangements	-	-
Amount excluded from CET1 due to cap	-	-
Current cap on AT1 instruments subject to phase out arrangements	222	222
Amount excluded from AT1 due to cap	-	-
Current cap on T2 instruments subject to phase out arrangements	4	4
Amount excluded from T2 due to cap	-	-

Table 44 NIBC Capital instruments' main features

	Tier 1 instruments	Tier 1 instruments	Tier 1 instrument	Tier 2 instrument
Issuer	NIBC Bank N.V.	NIBC Bank N.V.	NIBC Bank N.V.	NIBC Bank N.V.
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	XS0215294512	XS0249580357	XS0269908074	NIB 6.95 09A PR27
	The securities are governed by, and construed in accordance with the English law save for the subordination clause which is governed by, and construed in accordance with, the laws of the Netherlands	The securities are governed by, and construed in accordance with the English law save for the subordination clause which is governed by, and construed in accordance with, the laws of the Netherlands	The securities are governed by, and construed in accordance with the English law save for the subordination clause which is governed by, and construed in accordance with, the laws of the Netherlands	The loan is governed by the laws of the Netherlands
Governing law(s) of the instrument				
Regulatory treatment				
Transitional CRR rules	Additional Tier 1	Additional Tier 1	Additional Tier 1	Tier 2
Post-transitional CRR rules	Tier 2	Tier 2	Tier 2	Tier 2
Eligible at solo/ (sub-)consolidated/ solo & (sub-)consolidated	Solo & consolidated	Solo & consolidated	Solo & consolidated	Solo & consolidated
	Additional Tier 1 (grandfathered) as published in Regulation (EU) No 575/2013 article 484.3; Tier 2 as published in Regulation (EU) No 575/2013 article 63	Additional Tier 1 (grandfathered) as published in Regulation (EU) No 575/2013 article 484.3; Tier 2 as published in Regulation (EU) No 575/2013 article 63	Additional Tier 1 (grandfathered) as published in Regulation (EU) No 575/2013 article 484.3; Tier 2 as published in Regulation (EU) No 575/2013 article 63	Tier 2 as published in Regulation (EU) No 575/2013 article 63
Instrument type (types to be specified by each jurisdiction)				
Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	EUR 60 mln as AT1 and EUR 26 mln as Tier 2	EUR 35 mln as AT1 and EUR 15 mln as Tier 2	EUR 97 mln as AT1 and EUR 42 mln as Tier 2	EUR 11 mln
Nominal amount of instrument	USD 90 mln	EUR 50 mln	USD 146 mln	EUR 11 mln
Issue price	100%	100%	100%	100%
Redemption price	Redemption at par	Redemption at par	Redemption at par	Redemption at par
Accounting classification	Liability - fair value	Liability - fair value	Liability - fair value	Liability - amortised cost
Original date of issuance	24-3-2005	30-3-2006	18-10-2016	9-4-1997
Perpetual or dated	Perpetual	Perpetual	Perpetual	Dated
Original maturity date	No maturity	No maturity	No maturity	9-4-2027
Issuer call subject to prior supervisory approval	Yes	Yes	Yes	No
Optional call date, contingent call dates, and redemption amount	First call date 24/03/2015; tax call, reg call; all calls at par	First call date 30/03/2011; tax call, reg call; all calls at par	First call date 18/10/2011; tax call, reg call; all calls at par	NA
Subsequent call dates, if applicable	annual call on 24/03	annual call on 30/03	annual call on 18/10	NA
Coupons / dividends				
Fixed or floating dividend/coupon	Fixed to floating	Fixed to floating	Fixed	Fixed
Coupon rate and any related index	7.5% p.a. till March 2007; 10 year USD sw ap rate + 0.1% afterwards	8% p.a. till March 2011; 10 year EUR sw ap rate + 0.1% afterwards	7.625%	6.95% p.a.
Existence of a dividend stopper	No	No	No	Yes
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Partially discretionary - Existence of the mandatory payment event	Partially discretionary - Existence of the mandatory payment event	Partially discretionary - Existence of the mandatory payment event	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Partially discretionary	Partially discretionary	Partially discretionary	Mandatory
Existence of step up or other incentive to redeem	No	No	No	No
Noncumulative or cumulative	ACSM	ACSM	ACSM	NA
Convertible or non-convertible	Convertible	Convertible	Convertible	Nonconvertible
If convertible, conversion trigger (s)	Total capital ratio below 8%	Total capital ratio below 8%	Total capital ratio below 8%	NA
If convertible, fully or partially	Always Fully	Always Fully	Always Fully	NA
If convertible, conversion rate	1 to 1	1 to 1	1 to 1	NA
If convertible, mandatory or optional conversion	Mandatory	Mandatory	Mandatory	NA
If convertible, specify instrument type convertible into	Preference shares	Preference shares	Preference shares	NA
If convertible, specify issuer of instrument it converts into	NIBC Bank N.V.	NIBC Bank N.V.	NIBC Bank N.V.	NA
Write-down features	NA	NA	NA	No
If write-down, write-down trigger (s)	NA	NA	NA	NA
If write-down, full or partial	NA	NA	NA	NA
If write-down, permanent or temporary	NA	NA	NA	NA
If temporary write-down, description of write-up mechanism	NA	NA	NA	NA
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinated to all claims subordinated only to the claims of unsubordinated creditors	Subordinated to all claims subordinated only to the claims of unsubordinated creditors	Subordinated to all claims subordinated only to the claims of unsubordinated creditors	Subordinated only to claims of unsubordinated creditors
Non-compliant transitioned features	Yes	Yes	Yes	No
If yes, specify non-compliant features	Mandatory payment event, Conversion to preference shares	Mandatory payment event, Conversion to preference shares	Mandatory payment event, Conversion to preference shares	NA

	Tier 2 Instrument	Tier 2 Instrument	Tier 2 Instrument	Tier 2 Instrument
Issuer	NIBC Bank N.V.	NIBC Bank N.V.	NIBC Bank N.V.	NIBC Bank N.V.
Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	XS0161702914	NIB VAR 01JUL99	XS0210781828	XS1183596151
Governing law (s) of the instrument	The securities are governed by, and construed in accordance with the English law save for the subordination clause which is governed by, and construed in accordance with, the laws of the Netherlands	The loan is governed by the laws of the Netherlands	The securities are governed by, and construed in accordance with the English law save for the subordination clause which is governed by, and construed in accordance with, the laws of the Netherlands	The loan is governed by the laws of the Netherlands
Regulatory treatment				
Transitional CRR rules	Tier 2	Tier 2	Tier 2	Tier 2
Post-transitional CRR rules	Tier 2	Tier 2	Eligible	Tier 2
Eligible at solo/ (sub-)consolidated/ solo & (sub-)consolidated	Solo & consolidated	Solo & consolidated	Solo & consolidated	Solo & consolidated
Instrument type (types to be specified by each jurisdiction)	Tier 2 as published in Regulation (EU) No 575/2013 article 63	Tier 2 (grandfathered Tier 2 according to Regulation (EU) No 575/2013 article 490) compliant with (EU) No 575/2013 article 63 on a rolling 10 years basis	Tier 2 as published in Regulation (EU) No 575/2013 article 63	Tier 2 as published in Regulation (EU) No 575/2013 article 63
Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	EUR 20 min	EUR 44 min	EUR 55 min	EUR 50 min
Nominal amount of instrument	EUR 20 min	USD 47 min	EUR 55 min	EUR 50 min
Issue price	100%	100%	100%	100%
Redemption price	Redemption at par	Redemption at par	Redemption at par	Redemption at par
Accounting classification	Liability - fair value	Liability - amortised cost	Liability - fair value	Liability - amortised cost
Original date of issuance	10-2-2003	30-6-1999	21-2-2005	24-3-2015
Perpetual or dated	Dated	Perpetual	Dated	Dated
Original maturity date	10-2-2043	No maturity	21-2-2040	24-3-2025
Issuer call subject to prior supervisory approval	Yes	Yes	Yes	No
Optional call date, contingent call dates, and redemption amount	First call date 10/02/2013; tax call, reg call, all calls at par call every 5 years starting in Feb 2013	First call date 01/07/2009; tax call, reg call, all calls at par call every 10 years starting in July 2009	First call date 21/02/2035	N/A
Subsequent call dates, if applicable			one time call	N/A
Coupons / dividends				
Fixed or floating dividend/coupon	Fixed	Floating to Floating	Fixed to Floating	Fixed
Coupon rate and any related index	0% (6.35% yield)	6m USD Libor + 0.55% till 1 July 2009; 6m USD Libor + 1.55% afterwards	7% p.a till Feb 2007; afterwards min(8.5, max((10 year EUR swap rate-2 year EUR swap rate)*4, 2.85))	4.00% p.a.
Existence of a dividend stopper	No	Yes	Yes	No
Fully discretionary, partially discretionary or mandatory (in terms of timing)	N/A	Mandatory	Mandatory	Mandatory
Fully discretionary, partially discretionary or mandatory (in terms of amount)	N/A	Mandatory	Mandatory	Mandatory
Existence of step up or other incentive to redeem	No	Yes	No	No
Noncumulative or cumulative	N/A	N/A	N/A	N/A
Convertible or non-convertible	Nonconvertible	Non-convertible	Non-convertible	Non-convertible
If convertible, conversion trigger (s)	N/A	N/A	N/A	N/A
If convertible, fully or partially	N/A	N/A	N/A	N/A
If convertible, conversion rate	N/A	N/A	N/A	N/A
If convertible, mandatory or optional conversion	N/A	N/A	N/A	N/A
If convertible, specify instrument type convertible into	N/A	N/A	N/A	N/A
If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A	N/A
Write-down features	No	No	No	No
If write-down, write-down trigger (s)	N/A	N/A	N/A	N/A
If write-down, full or partial	N/A	N/A	N/A	N/A
If write-down, permanent or temporary	N/A	N/A	N/A	N/A
If temporary write-down, description of write-up mechanism	N/A	N/A	N/A	N/A
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Subordinated only to claims of unsubordinated creditors	Subordinated to all claims subordinated to the claims of unsubordinated creditors	Subordinated to all claims subordinated to the claims of unsubordinated creditors	Subordinated to all claims subordinated to the claims of unsubordinated creditors
Non-compliant transitioned features	No	No	No	Yes
If yes, specify non-compliant features	N/A	step-up	N/A	N/A

As part of NIBC's funding and credit risk mitigation activities, the cash flows of selected financial assets are transferred or pledged to third parties. Furthermore, NIBC pledges assets as collateral for derivative transactions. Substantially all financial assets included in these transactions are residential mortgages, other loan portfolios, debt investments and cash collateral. The extent of NIBC's continuing involvement in these financial assets varies by transaction.

The asset encumbrance ratio at year end 2016 was 29% (2015: 29%).

Table 45 Encumbered assets NIBC Holding N.V, 31 December 2016

IN EUR MILLIONS	2016	2015	2014	2013
<i>Carrying amount of encumbered assets</i>				
Debt investments / Residential mortgages own book	3,518	1,902	1,595	2,255
Securitised loans and mortgages	2,170	3,619	4,833	4,413
Cash collateral (due from other banks)	1,004	1,128	1,620	1,231
	6,692	6,649	8,048	7,899
<i>Matching liabilities, contingent liabilities or securities lent</i>				
Due to other banks / Own debt securities in issue	2,943	1,865	1,621	1,482
Debt securities in issue related to securitised loans and mortgages	1,945	2,802	3,934	4,061
Derivative financial liabilities	888	1,128	1,620	1,231
	5,776	5,795	7,175	6,774

Appendix 3

List of Abbreviations

AIRB	Advanced Internal Ratings' Based (approach)
AFM	Authority for Financial Markets
ALCO	Asset & Liability Committee
ALM	Asset & Liability Management (department)
BIS	Bank for International Settlements
BPV	Basis-point Value
CC	Compliance & CSR
CCF	Credit Conversion Factor
CCR	Counterparty Credit Rating
CDO	Collateralised Debt Obligations
CDS	Credit Default Swap
CEBS	Committee of European Banking Supervisors
CLO	Collateralised Loan Obligations
CMBS	Collateralised Mortgage-Backed Securities
CM&PA	Credit Modelling & Portfolio Analysis (department)
CRR/CRD IV	Capital Requirements Regulation and Directive IV
CRM	Credit Risk Management (department)
CRO	Chief Risk Officer
CSA	Credit Support Annex
CSR	Corporate Social Responsibility
CVA	Credit Value Adjustments
DNB	Dutch Central Bank
DVA	Debt Value Adjustments
EAD	Exposure at Default
EBA	European Banking Authority
EC	Economic Capital
EC	Engagement Committee
ECB	European Central Bank
EL	Expected Loss
FMCR	Financial Markets Credit Risk (department)
FX	Foreign Exchange
GCD	Global Credit Data
IBNR	Incurring but not reported
IC	Investment Committee
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IMA	Internal Model Approach
IRS	Interest Rate Swaps
ISDA	International Swaps and Derivatives Association
LGD	Loss Given Default
LtIMV	Loan-to-Indexed Market Value
M	Maturity
MRM	Market Risk Management (department)
NHG Guarantee	Dutch government guarantee
NPAP	New Product Approval Process
OCI	Other Comprehensive Income
ORM	Operational Risk Management (department)

OTC	Over-the-Counter derivatives
P&L	Profit & Loss (account)
PD	Probability of Default
RAROC	Risk-Adjusted Return on Capital
RA&MV	Risk Analytics and Model Validation (department)
RC	Pillar-I Regulatory Capital
RCSA	Operational Risk and Control Self-assessments
RDA	Restructuring & Distressed Assets Management (department)
RL	Realised Loss
RLCC	Risk Management, Legal, Compliance and Corporate Social Responsibility
RMBS	Residential Mortgage-Backed Securities
RMC	Risk Management Committee
RNC	Remuneration and Nominating Committee
RPCC	Risk Policy & Compliance Committee
RWA	Risk Weighted Assets
SA	Standardized Approach
SPE	Special Purpose Entity
SREP	Supervisory Review and Evaluation Process
SvaR	Stressed VaR
TC	Transaction Committee
TLTRO	Targeted Long Term Refinancing Operation
VaR	Value-at-Risk
WbFO	Wet belonging Financiële ondernemingen
Wft	Wet op het Financieel Toezicht

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