



# Pillar 3 Risk Disclosures

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2017



## DISCLAIMER

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# DECLARATION

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The Board of Directors is responsible for the Bank's risk management framework and ensuring that satisfactory risk policies and governance for controlling the Bank's risk exposure are implemented. The Board reviews on a regular basis the status of risk management issues to assess the management and monitoring of the Bank's risks.

It is the Board's assessment that the Bank has in place adequate risk management arrangements with regard to the Bank's risk profile and risk policy.

# RISK STATEMENT

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Arion Bank is a leading, well-balanced universal relationship bank operating on the Icelandic financial market. The Bank places primary emphasis on corporations and individuals seeking a variety of financial solutions, and focuses on building and strengthening long-term customer relationships.

The Bank's business strategy is aligned with its risk appetite as set by the Board. The business strategy is associated with the Bank's risk profile by ensuring that the Bank's business plan does not violate the risk appetite. The risk appetite is cascaded down to risk limits and targets.

Credit risk is one of the Bank's primary risk factors. The Bank's credit policy forms the basis for its credit strategy as integrated in the business plan. Credit risk is managed in line with the credit risk appetite metrics, which includes credit concentration and credit quality measurements. At the end of 2017, the Bank's largest exposure was 9.2% of eligible capital and expected loan loss rate was 39bps.

The Bank invests its own capital on a limited and carefully selected basis in transactions, underwriting and other activities that involve market risk. Market risk is managed in accordance with the risk appetite, by maximum equity position and losses, and the risk limit framework. Total equity exposure was 13.0% of own funds at the end of 2017, thereof 7.9% was due to unlisted equity.

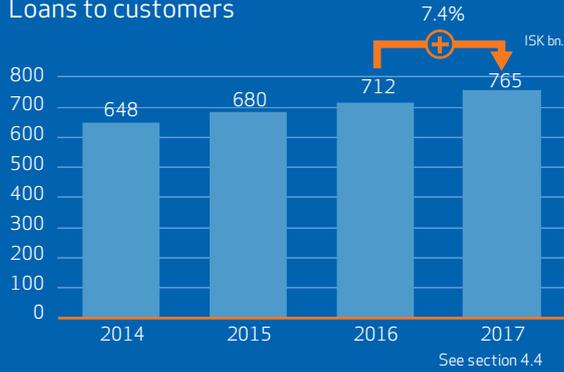
Liquidity risk is a key risk factor to the Bank. The Bank follows a conservative approach to liquidity exposure, liquidity pricing and funding requirement. The Bank's funding profile supports its liquidity profile. Liquidity positions are managed on a day-to-day basis by internal limits and targets in line with the risk appetite and regulatory standards. The Bank's liquidity coverage ratio was 221% at the end of 2017, while the regulatory requirement was 100%.

The Bank's business units are primarily responsible for managing their own operational risk, including reputation risk, with support from control functions. The Bank's operational risk framework integrates risk management practices into processes, systems and culture. The risk appetite contains statement of non-tolerance policy for internal fraud and elimination of incidents and mistakes.

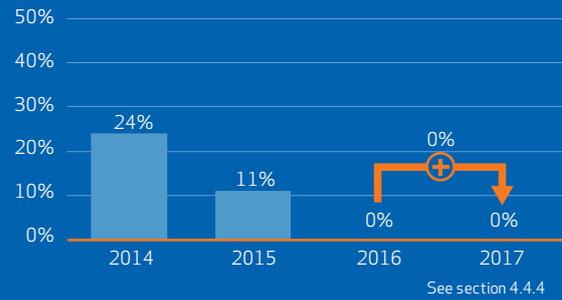
The Bank is well capitalized with capital adequacy ratio of 24.0%, and CET1 ratio of 23.6% at the end of 2017 exceeding both the regulatory requirements and risk appetite.

# RISK METRICS OVERVIEW

Loans to customers



Sum of large exposures net of eligible collateral



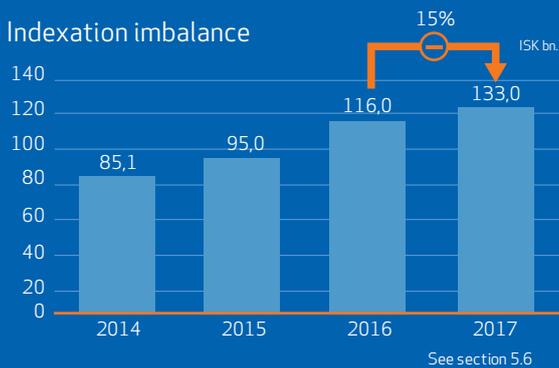
Problem loans (net)



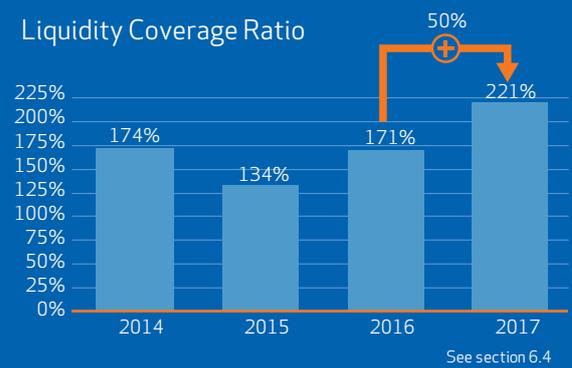
Currency imbalance



Indexation imbalance



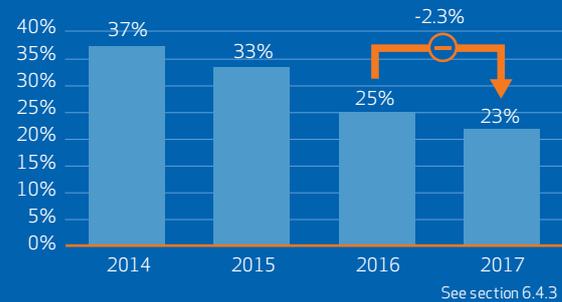
Liquidity Coverage Ratio



Loans to deposits



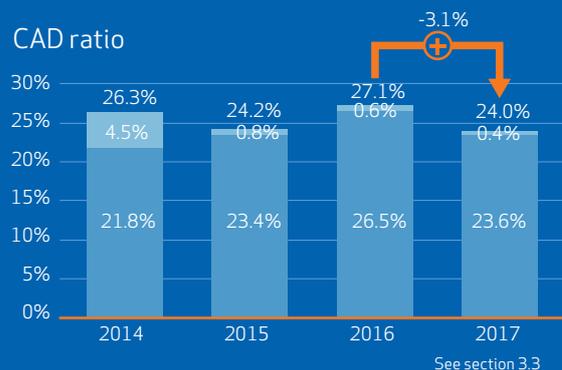
Term deposits divided by Total deposits



RWA divided by Total assets



CAD ratio



■ Tier 1 ratio  
■ Tier 2 ratio

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# 1 INTRODUCTION

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- 1.1 ARION BANK AT A GLANCE
- 1.2 MAJOR CHANGES IN 2017
- 1.3 REGULATORY FRAMEWORK
- 1.4 DISCLOSURE POLICY
- 1.5 PILLAR 3 RISK DISCLOSURES

# 1 INTRODUCTION

The Pillar 3 Risk Disclosures comprise information on capital and risk management at Arion Bank. The purpose of the disclosures is to meet regulatory requirements and to inform readers about Arion Bank's risk profile and risk management. The disclosures contain information on the governance of risk, capital structure and capital adequacy, and risk management with respect to each type of risk. Information on new and upcoming legislation as well as information on remuneration policy is included in the disclosures.

## 1.1 ARION BANK AT A GLANCE

Arion Bank ('the Bank') is an Icelandic universal relationship bank, with a differentiated and innovative approach. The Bank is classified as a domestic systematically important bank (D-SIB) by the Icelandic authorities.

The Bank, whose roots date back to 1930, is built on a strong heritage and infrastructure. Arion Bank is a strongly capitalized bank which offers a full range of universal banking services to its customers through various distribution channels. The Bank operates a number of branches across Iceland with a focus on the Capital Area. In addition, the Bank operates a customer service centre, and offers online and mobile banking, which provides a wide range of self-service options.

Arion Bank is a relationship bank with its prime emphasis on corporations and individuals seeking a variety of financial solutions. The Bank focuses on building and strengthening long-term customer relationships by delivering excellent service and tailored solutions. Arion Bank aims to have a leading position within the domestic financial market in regards to return on equity, operational efficiency, product development and service offering, with high focus on digital services.

Arion Bank has taken important funding and market initiatives in recent years, see section 1.2.

The Bank consists of the following main business segments: Asset Management, Corporate Banking, Investment Banking, Retail Banking, Treasury, and Other divisions. Furthermore, the Bank owns strategic subsidiaries which are important for its service offerings. At year end 2017 the number of full-time equivalent (FTEs) positions at Arion Bank was 844 with an additional 440 FTEs in the subsidiaries.

The Bank's Annual Report 2017 provides further information about the Bank, such as strategy and vision, and corporate governance.

## 1.2 MAJOR CHANGES IN 2017

Several developments influenced Arion Bank's risk profile in 2017. Highlights include:

### CHANGES IN OWNERSHIP

On 19 March 2017 Arion Bank and Kaupthing ehf. announced the private placement sale of a 29% share of Arion Bank to a group of investors, reducing Kaupthing's share, owned via its wholly-owned sub-

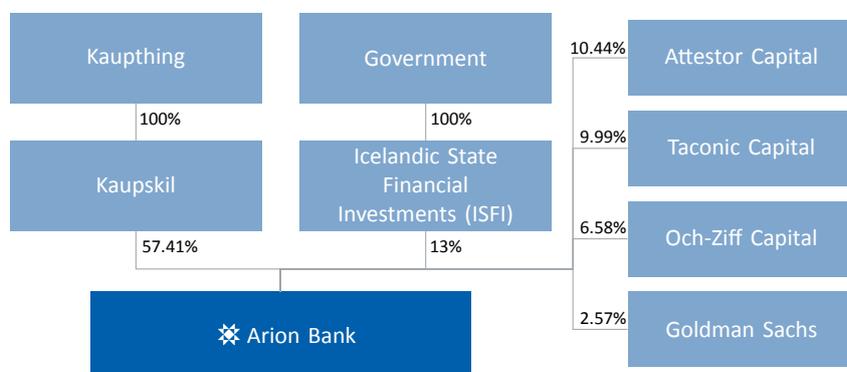
Figure 1.1 Arion Bank's branch network



## ► INTRODUCTION

sidiary, Kaupskil ehf., from 87% to 57.9%. In addition, the private placement agreements granted the investors options in respect of an additional 21.9% share of Arion Bank exercisable until 19 September 2017, of which Attestor Capital LLP exercised a 0.44% share.

Figure 1.2 Ownership structure at year-end 2017



Following these transactions, the ownership of Arion Bank was as follows and as shown in Figure 1.2.: Kaupthing ehf., through its subsidiary Kaupskil ehf., holds 57.41% of the shares, Kaupskil ehf. also holds the voting rights for the 9.99% shareholding of Taconic Capital Advisors UK LLP through TCA New Sidecar III S.A.R.L. and 6.58% shareholding of Sculptor Investments S.A.R.L., an affiliated entity of Och-Ziff Capital Management Group. The remaining shareholding is held by the Icelandic State Financial Investments which holds 13.00% on behalf of the Icelandic government, Attestor Capital LLP through Trinity Investment Designated Activity Company holds 10.44% and Goldman Sachs International through ELQ Investors II Ltd. holds 2.57%.

On 14 February 2018 Arion Bank and Kaupthing ehf. further announced an additional private placement sale of a 5.34% share of Arion Bank to a number of funds managed by four Icelandic fund management companies (2.54%) and two existing owners, Trinity Investments (Attestor Capital LLP) and Goldman Sachs (2.8%).

On 15 February 2018, Icelandic State Financial Investments (ISFI) announced receiving a notification that Kaupskil ehf. wished to exercise its call option over the ISFI's 13% share in Arion Bank hf. in accordance with a shareholder's agreement, dated 3 September 2009, between Arion Bank hf., Kaupskil ehf and the Icelandic Ministry of Finance.

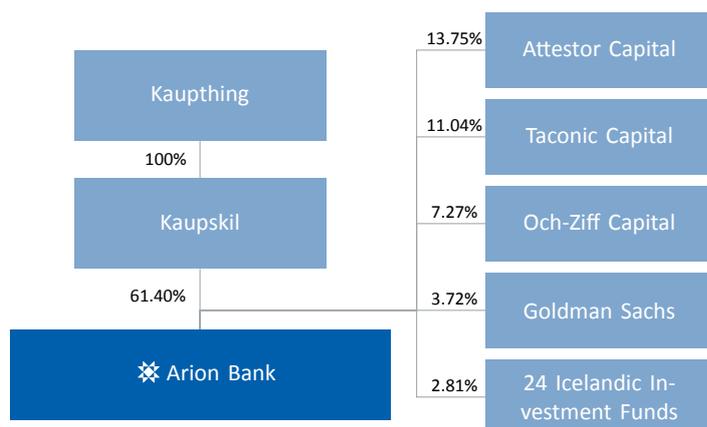
On 15 February 2018, Arion Bank announced that it has agreed to buy back a 9.5% share in the Bank from Kaupskil ehf., conditional upon final settlement between Kaupskil and the Icelandic government concerning Kaupskil's exercise of the aforementioned call option.

On 23 February 2018, the Icelandic Ministry of Finance and Economic Affairs announced the sale of the ISFI's 13% share in the Bank to Kaupskil ehf., in accordance with Kaupskil's exercise of the aforementioned call option.

Figure 1.3 shows the updated ownership structure at the end of February 2018, taking into account that Arion Bank holds 9.5% of its own shares.

## ▶ INTRODUCTION

Figure 1.3 Ownership of outstanding shares at end February 2018



### CAPITAL AND DIVIDENDS

On 12 February 2018 the Bank's shareholders' meeting approved a temporary authorization to purchase own shares and distribute dividends, totaling ISK 25 billion. To account for this foreseeable reduction in equity, own funds at 31 December 2017 were adjusted accordingly.

### CHANGES IN THE GROUP STRUCTURE

In 2017 the Bank's subsidiary Valitor Holding hf. acquired two companies: International Payment Solutions Ltd. (IPS) and Chip and Pin Solutions Ltd. The purpose of the acquisitions is to strengthen Valitor's direct channel market position both in the United Kingdom and in Europe.

The Bank's prudential consolidation (consolidated situation) has been modified to exclude Vörður Insurance (Vörður). See 3.5 for a detailed discussion. These Pillar 3 Risk Disclosures have been modified accordingly.

### ASSET DIVESTMENT

During 2017 Arion Bank continued divesting equity assets acquired during the process of restructuring its clients' debts. Among these assets were all remaining equity holdings in HB Grandi hf., Reitir fasteignafélag hf. and Síminn hf.

### THE LIFTING OF CAPITAL CONTROLS

At the end of 2008, the Icelandic economy became subject to capital controls on almost all monetary transactions to and from Iceland, which entailed a low level of investment and limited access to funding. Since then, Iceland has taken gradual steps toward easing of the capital controls leading, ultimately, to their removal in March 2017. Among those steps was the introduction of special reserve requirements for new foreign currency inflows, introduced in June 2016 with rules no. 490/2016. The rules provide the Central Bank of Iceland with a new policy instrument, commonly referred to as a capital flow management measure, aimed at curtailing carry trade, tempering capital inflows to the country and affecting the composition of such inflows. The stated goal of the measure is to support domestic economic policy and contributing to macroeconomic and financial stability.

## ► INTRODUCTION

### FUNDING

During 2017, the Bank took additional steps to diversify its funding sources, extend the maturity profile of funding and eliminate the reliance on legacy funding related to its establishment in 2008. These steps were taken in parallel with a favorable development of funding cost, see figure 6.6

In January 2017 the Bank tapped an existing EUR 300 million bond series issued in 2016 for an additional EUR 200 million, taking the total issued amount to EUR 500 million.

In June the Bank issued a new three year EUR 300 million bond under the EMTN programme. Part of the proceeds of this issuance was used to tender for EUR 100 million of the total of EUR 300 million bond series maturing in 2018. Another part of the proceeds were used to prepay the remaining USD 100 million of the originally USD 747 million bond issued to Kaupping in 2016, thereby replacing the bond fully with market funding.

The Bank also issued privately placed bonds in Swedish and Norwegian Krone under the EMTN programme for around EUR 150 million in 2017.

Arion Bank continued to issue covered bonds which are secured in accordance with the Covered Bond Act No. 11/2008. The Bank issued a total of ISK 29.9 billion of covered bonds in 2017 in the domestic market, of which ISK 25.2 billion were inflation-linked bonds. The bank prepaid Structured Covered Bonds for an amount of ISK 22.4 billion due to prepayments of mortgages in the underlying cover pool. Arion Bank will continue to issue covered bonds on a regular basis in the domestic market in 2018.

### IFRS 9

On 1 January 2018 the new IFRS 9 accounting standard came into effect in Iceland and was adopted by Arion Bank. Prior to adoption, the Bank had indicated that material increases in loan loss provisions were not expected in order to meet the new accounting requirements. Based on the Bank's assessment the total estimated adjustment on the opening balance equity (net of tax) resulting from the 1 January 2018 adoption of IFRS 9 is approximately ISK 1.0 billion, comprised of:

- ◆ an increase of approximately ISK 0.6 billion because of reduction in loan loss provisions due to changes in impairment calculations,
- ◆ an increase of approximately ISK 0.4 billion due to changes in classification and measurement requirements, other than impairment.

As of 1 January 2018 general loan loss provisions will cease to be eligible as Tier 2 capital because the Icelandic Financial Supervisory Authority (FME) has implemented the European Banking Authority's (EBA) opinion that all IFRS 9 provisions should be considered Special Credit Risk Adjustment as they will not be freely and fully available to meet losses that subsequently materialize, as these provisions are ascribed to particular assets, whether individual or grouped.

### INTERNATIONAL CREDIT RATING – INVESTMENT GRADE

In October 2017 the credit rating agency Standard & Poor's upgraded the Bank's long-term issuer credit rating from BBB to BBB+ with a stable outlook citing strong domestic economic growth and a strong capital position as key drivers for the upgrade.

The rating was confirmed on 14 February 2018, following the announcement of the share buy-back and dividend.

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In 2017 Arion Bank reached an important milestone when it completed the refinancing of all legacy borrowings which had been provided to it by the Icelandic government and Kaupthing in relation to the Bank's establishment in 2008

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S&P revised its rating of Arion Bank to BBB+ with a stable outlook

## ▶ INTRODUCTION

On 21 February 2018, Standard & Poor's announced that it had elevated Iceland to BICRA group 4 from BICRA group 5, where BICRA denotes the agency's Banking Industry Country Risk Assessment.

### 1.3 REGULATORY FRAMEWORK

Capital and risk management disclosure requirements for financial institutions are stipulated in the Basel framework. The framework is an international accord on capital requirements and is intended to strengthen measurement and monitoring of financial institutions' capital by adopting a more risk sensitive approach to capital management.

The Basel framework encompasses three complementary pillars:

- ◆ Pillar 1 - capital adequacy requirements
- ◆ Pillar 2 - supervisory review
- ◆ Pillar 3 - market discipline

Under Pillar 3, capital adequacy must be reported through public disclosures that are designed to provide transparent information on capital structure, risk exposures, and the risk assessment process.

In 2013 the EU Council adopted the CRD IV/CRR framework, which consists of the Capital Requirements Directive (CRD IV: Directive 2013/36/EU) and the Capital Requirements Regulation (CRR: Regulation No. 575/2013), and represents the EU's implementation of the Basel III reforms. Basel III aims to strengthen regulation, supervision and risk management of banks, e.g. with increased level of capital requirements to ensure that banks are sufficiently resilient to withstand losses in times of stress. The framework constitutes the cornerstone of the so-called European Single Rule Book for financial regulation.

Preparation for implementation in Iceland has been underway for some time, beginning in 2012, when the government established a working committee on CRD IV/CRR implementation. Since then, numerous legislative acts have been passed by parliament. These have mostly brought amendments to the Financial Undertaking Act No. 161/2002. The most recent is an implementation through Act No. 23/2017 which implements the CRD IV provisions mandating financial undertakings to have in place whistleblower schemes. The Minister of Finance and Economic Affairs also adopted the CRR as secondary legislation (Regulation No. 233/2017). It should be noted that some provisions of the CRR are though also implemented through the Financial Undertaking Act.

In December 2016 the European Banking Authority (EBA) published a final report on guidelines on disclosure requirements under Part Eight of the CRR. The objective of the guidelines is to provide standardization of disclosures for financial institutions. The guidelines apply from 31 December 2017.

Remaining issues yet to be implemented of the CRD IV/CRR framework concern e.g. activities of branches of financial undertakings and other financial services operating within the EEA, and rules on group supervision. For a further review of these, see section 10.2.

Arion Bank follows the legislative requirements regarding public disclosure of information concerning capital adequacy and risk management.

### 1.4 DISCLOSURE POLICY

The Bank has in place a formal disclosure and transparency policy, approved by the Board of Directors, addressing the requirements laid down by law for information on risk management and capital. Accordingly, the Bank may omit information if it is not regarded as material.

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In December 2016 EBA published guidelines on Pillar 3 disclosure requirements, to provide standardization for financial institutions

## ► INTRODUCTION

Information is regarded as material in disclosures if its omission or misstatement could change or influence the assessment or economic decisions of a user relying on the information.

In addition, if required information is deemed to be proprietary or confidential, the Bank may decide to exclude it from the Pillar 3 Risk Disclosures. The Bank defines information as proprietary which, if shared, would undermine the Bank's competitive position. Information is regarded as confidential if there are obligations binding the Bank to confidentiality.

### 1.5 PILLAR 3 RISK DISCLOSURES

The purpose of Arion Bank's Pillar 3 Risk Disclosures is to fulfill the aforementioned legal disclosure requirements and provide comprehensive information on the Bank's risk management and capital adequacy. The disclosures are prepared in accordance with legislative requirements regarding public disclosure, including the EBA's guidelines on disclosure requirements.

The disclosures have been reviewed, verified and approved internally in line with the Bank's disclosure policy.

Summarized information on risk management and capital adequacy is presented in the Bank's Annual Report and regulatory capital information and leverage ratio are provided quarterly in the Bank's interim financial reports.

The Pillar 3 Risk Disclosures have been prepared in accordance with regulatory capital adequacy rules and differ from similar information in the Bank's Consolidated Financial Statements for 2017, which are prepared in accordance with International Financial Reporting Standards (IFRS). Therefore information in these disclosures may not be directly comparable with the information in the Financial Statements.

Information in the disclosures refers to the Arion Bank Group, which consists of the parent entity, Arion Bank, and its subsidiaries; together referred to as the 'Bank'. The Bank is subject to consolidated supervision by the FME. The basis of consolidation for financial accounting purposes differ from regulatory capital reporting purposes. The differences in the scopes of consolidation is set out in Table 3.3.

Where necessary, a distinction is made in the report between the group and parent entity. Parent entity information includes the Arion Bank Mortgages Institutional Investor Fund (ABMIIF).

All financial figures, calculations and information in the disclosures are based on 31 December 2017 and presented in ISK millions, unless otherwise stated. Due to rounding, numbers in the disclosures may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures. The disclosures are published on an annual basis in conjunction with the Annual Report and are available on the Bank's website. Information in the disclosures are not subject to external audit.

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These Pillar 3 Risk Disclosures are in accordance with CRD IV / CRR, unlike the Bank's Financial Statements, which conform to IFRS. Therefore Pillar 3 information may not be directly comparable with that of the Financial Statements

## 2 RISK MANAGEMENT

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- 2.1 INTERNAL CONTROLS AND LINES OF REPORTING
- 2.2 THREE LINES OF DEFENSE
- 2.3 RISK COMMITTEES
- 2.4 THE RISK MANAGEMENT DIVISION
- 2.5 RISK POLICIES
- 2.6 RISK APPETITE
- 2.7 REPORTING

## 2 RISK MANAGEMENT

The Bank is in the business of taking risk. Risk is primarily incurred from extending credit to customers through trading and lending operations. Beyond credit risk, the Bank is also exposed to a range of other risk types such as market, liquidity, operational, reputational and other risks that are inherent in the Bank's strategy, product range and operating environment.

Risk transparency for senior managers helps them make better decisions. The Bank's risk management policy is to maintain a risk culture in which risk is everyone's business.

The Bank's strategy is to have effective risk control which includes the identification of significant risks, the quantification of the risk exposure, actions to limit risk and monitoring risk. The Executive Management Committee devotes a significant portion of its time to the management of the Bank's risk. The Bank's risk is categorized in four types; credit, market, liquidity and operational risk. Each type will be discussed in detail in this report.

### 2.1 INTERNAL CONTROLS AND LINES OF REPORTING

The Bank is committed to the highest standards of corporate governance in its business, including risk management. The Bank's corporate governance framework is based on legislation, regulations and recognized guidelines in force at each time. The ultimate responsibility for setting the Bank's risk and governance policies and for ensuring effective internal control and management of risk rests with the Board of Directors. The enforcement of the Board's policies is delegated to the Chief Executive Officer (CEO) who in turn delegates risk management to the Chief Risk Officer (CRO) and regulatory compliance to the Compliance Officer.

The CEO, on the behalf of the Board of Directors of Arion Bank, interacts with the boards of directors of individual subsidiaries and ensures that the risk appetites of subsidiaries align with the risk appetite of the Bank. Through the group-level Internal Capital Adequacy Assessment Process (ICAAP) and Internal Liquidity Adequacy Assessment Process (ILAAP), the CRO interacts with individual subsidiaries' risk managers and consolidates the assessment of capital requirements for the Bank.

The Bank is committed to the highest standards of corporate governance in its business, including risk management

Figure 2.1 Internal control structure



## ► RISK MANAGEMENT

Acting within an authority delegated by the Board, the Board Risk Committee (BRIC), see Table 2.1, is responsible for the overseeing and reviewing of prudential risks including, but not limited to, credit, market, capital, liquidity, operational and reputational risk. The BRIC reviews the Bank's risk appetite at least semi-annually, see section 2.6, and makes recommendations thereon to the Board when applicable. Its responsibilities also include reviewing the appropriateness and effectiveness of the Bank's risk management systems and controls, and considering the implications of material regulatory change proposals.

Internal Audit is responsible for the independent review of risk management and the control environment. Its objective is to provide reliable, valuable and timely assurance to the Board and Executive Management of the effectiveness of controls, mitigating current and evolving high risks and in so doing enhancing the controls culture within the Bank. The BAC reviews and approves Internal Audit's plans and resources, and evaluates the effectiveness of Internal Audit. The Chief Internal Auditor is appointed by the Board and accordingly has an independent position in the Bank's organizational chart.

The Compliance Officer and the Compliance function operate according to a charter for compliance defined by the Board of Directors. The Compliance Officer reports to the CEO with unhindered access to the Board. Compliance also reports quarterly to the Board Audit Committee (BAC) and annually to and the Board of Directors.

The role of Compliance is to apply effective precautionary measures to ensure that Arion Bank complies at all times with the law, regulations and good business practices, and to foster an affirmative corporate culture in this respect.

The Compliance Officer is the Bank's Money Laundering Reporting Officer (MLRO), and is responsible for supervising the Bank's measures against money laundering and terrorist financing.

The CRO and the Risk Management function operate according to a charter for Risk Management defined by the Board of Directors. The CRO is a member of the Executive Management Committee and reports to the CEO with unhindered access to the Board. The CRO has overall day-to-day accountability for risk management in the Bank's parent company and periodic accountability for risk assessment in the Bank's subsidiaries through the ICAAP and the ILAAP. Reporting to the CRO, and working in the Risk Management division, are department heads responsible for the management of retail and corporate credit risk, market risk, liquidity risk and operational risk. Along with their teams, the department heads are responsible for overseeing and monitoring the risks and controls of their risk type. The departments interact with each business unit as part of the monitoring and management processes, see section 2.4.

For further information on the Bank's governance arrangements please refer to the Corporate Governance Statement for the year 2017, which provides information on directorships held by Board members, nomination and diversity issues for the selection of Board members, and the number of times BRIC met during the year 2017.

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The BRIC reviews the Bank's risk appetite and makes recommendations thereon to the Board when applicable

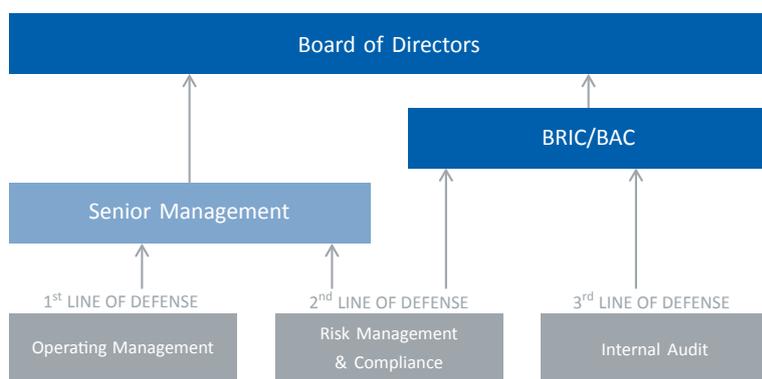
## 2.2 THREE LINES OF DEFENSE

In order to ensure the effectiveness of the Bank's internal controls, to clarify responsibilities and coordinate essential risk management, and to foster the culture wherein risk is every employee's business, the Bank has adopted the three lines of defense model.

The model distinguishes between three lines involved in effective risk management:

1. Functions that own and manage risks
2. Functions that oversee risk management
3. Functions that provide independent assurance of effectiveness

Figure 2.2 Three lines of defense



### FIRST LINE OF DEFENSE: OPERATING MANAGEMENT

Operational management, i.e. those in charge of overseeing and designing business operations, naturally serves as the first line of defense, which owns and manages risks, as controls are designed to fit into systems and processes under their guidance.

### SECOND LINE OF DEFENSE: RISK MANAGEMENT & COMPLIANCE

The second line of defense is established to ensure that the first line of defense is properly designed, in place, and operating as intended. The Bank's Risk Management and Compliance divisions are the primary second line of defense, but other divisions may also have limited second line of defense duties.

### THIRD LINE OF DEFENSE: INTERNAL AUDIT

Internal Audit provides the Board of Directors and the senior management with comprehensive assurance based on the highest level of independence and objectivity within the Bank.

Internal Audit provides assurance on the effectiveness of governance, risk management, and internal controls, including the manner in which the first and second lines of defense achieve risk management and control objectives.

## 2.3 RISK COMMITTEES

The structure of risk committees within the Bank can be split into three levels. The committees define lines of responsibility and accountability within the Bank. They are charged with overseeing risk and the delegation of authority and form a control environment for the Bank.

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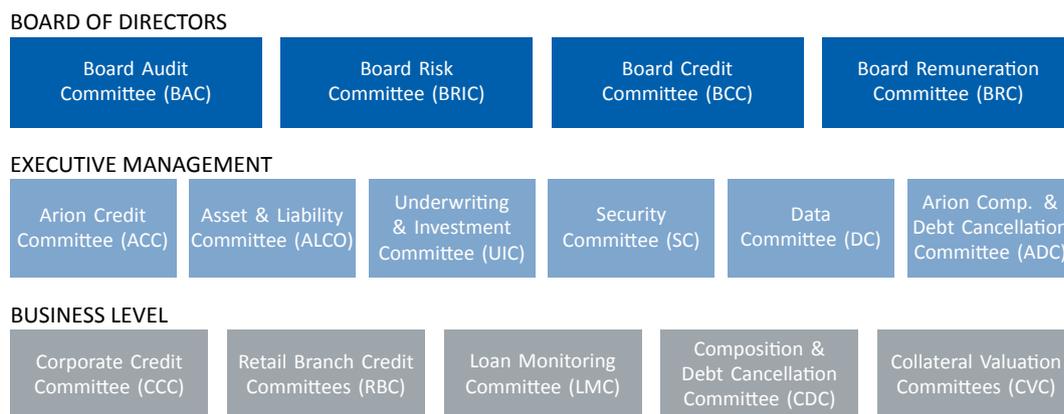
The Bank has adopted the three lines of defense model in order to ensure the effectiveness of internal controls

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The risk committees define lines of responsibility and accountability within the Bank

## ▶ RISK MANAGEMENT

**Figure 2.3** Risk committee structure



Board level committees are established by the Board and composed of members of the Board or external representatives nominated by the Board. An overview of the committees at Board level and their responsibilities is shown in Table 2.1.

**Table 2.1** Board level committees

Committee	Responsibilities
Board Audit Committee (BAC)	The Board Audit Committee assists the Board in meeting its responsibilities in ensuring an effective system of internal controls and compliance and for meeting its external financial reporting obligations under applicable laws and regulations. The BAC supervises accounting procedures, the organization and function of the Bank's internal controls, and the auditing of the annual accounts and the Bank's consolidated accounts.
Board Risk Committee (BRIC)	The Board Risk Committee provides guidance to the Board on the alignment of the Bank's risk policy, high-level strategy and risk appetite, and risk management structure. The BRIC assists the Board in meeting its responsibilities in ensuring an effective system of internal controls and compliance. The BRIC assesses whether incentives which may be contained in the Bank's remuneration system, including variable remuneration, are consistent with the Bank's risk policy.
Board Credit Committee (BCC)	The Board Credit Committee is the Bank's supreme authority in granting of credit and makes decisions on credit, debt cancellations, investments and underwriting in accordance with its authority framework, as decided by the Board. The BCC can delegate specific authority to the CEO to be used in extraordinary circumstances. The committee periodically reviews reports on various aspects of the credit portfolio. The BCC defines credit rules for ACC.
Board Remuneration Committee (BRC)	The Board Remuneration Committee prepares a remuneration policy for the Bank that shall be reviewed by the Board at least annually and submitted to the AGM for approval. The BRC advises the Board on the remuneration of the CEO, Managing Directors, the Compliance Officer and Chief Internal Auditor and on the Bank's incentive scheme and other work-related payments. The CEO proposes a salary framework for Managing Directors, the Compliance Officer and Chief Internal Auditor in consultation with the BRC.

Executive-level committees which are composed of the CEO and Managing Directors or their designated representative are shown in Table 2.2.

**Table 2.2** Executive level committees

Committee	Responsibilities
Arion Credit Committee (ACC)	The Arion Credit Committee makes decisions on credit cases below BCC’s credit granting limits. The committee delegates limited authority and sets forth credit rules to lower credit granting bodies. ACC reviews reports concerning the credit portfolio. The CRO or his alternate has the right to be present at ACC meetings but does not participate in credit decisions. Risk management and the Credit Office are authorized to escalate all decisions of the ACC to the BCC for final approval.
Asset and Liability Committee (ALCO)	The Asset and Liability Committee is responsible for strategic planning relating to the developments of the Bank’s balance sheet as well as the planning of liquidity and funding, and capital activities. The CRO or his deputy is a non-voting observer in committee meetings.
Underwriting and Investment Committee (UIC)	The Underwriting and Investment Committee decides on underwriting and principal investments. The CRO or his deputy is a non-voting observer in committee meetings.
Security Committee (SC)	The Security Committee is a consultation forum on security matters. The committee formulates, reviews and approves security goals and policies, monitors compliance with security policies and implements information security rules.
Data Committee (DC)	The Data Committee serves as a central governing body for all matters relating to data quality and data management. The Data Officer works on behalf of the Data Committee to advance the level of data quality within the Bank in line with the principles for effective risk data aggregation and risk reporting set forth in BCBS 239.
Arion Composition and Debt Cancellation Committee (ADC)	The Arion Composition and Debt Cancellation Committee deals with applications to reach composition with debtors.

The third and lowest level comprises committees on business level with delegated authority from the executive level committees, see Table 2.3.

**Table 2.3** Business level committees

Committee	Responsibilities
Corporate Credit Committee (CCC)	The Corporate Credit Committee makes decisions on credit cases within authorized limits and according to credit rules.
Retail Branch Credit Committees (RBC)	Four Retail Branch Credit committees make decisions on credit cases within authorized limits and according to credit rules.
Lending Monitoring Committee (LMC)	The Lending Monitoring Committee reviews compliances with credit rules and credit committees’ decisions in relation to disbursements.
Composition and Debt Cancellation Committee (CDC)	The Composition and Debt Cancellation Committee deals with applications to reach composition with debtors within authorized limits.
Collateral Valuation Committees (CVC)	Five Collateral Valuation Committees set guidelines on collateral assessment and valuation.

## 2.4 THE RISK MANAGEMENT DIVISION

The Risk Management division focuses on the identification, monitoring and control of risk. Risk Management ensures compliance with internal and external limits, and standards and regulations. Strong emphasis is placed on reporting risk to the relevant stakeholders in a clear and meaningful manner.

Risk Management’s approach is based on understanding the Bank’s operational exposures and how unexpected events may affect them, coupled with sound judgement from risk takers. Good judgment and common sense is often the best risk management tool.

The Risk Management division is divided into three departments; Credit Control, Balance Sheet Risk, and Operational Risk. The Bank’s Data Officer reports to the CRO.

In 2017, Credit Analysis, a former Risk Management department, merged with a new function, Credit Office, which is part of the CEO office. The new department oversees the Bank’s lending process and loan portfolio and is responsible for the operation of the lending committees and updating the Bank’s credit rules. The Credit Office also conducts credit

Risk Management ensures compliance with internal and external limits, standards and regulations

## ► RISK MANAGEMENT

analysis of the Bank's largest borrowers along with other work related to loan documentation and monitoring of loan book quality. The objective of the change is to strengthen the first line of defense with closer day-to-day involvement with the lending committees during the credit granting process. The Credit Control department serves as the second line of defense and monitors risks associated with the department operations.

Figure 2.4 Structure of Risk Management division



### CREDIT CONTROL

The Credit Control department monitors weak and impaired credit exposures on a customer by customer basis. The department analyzes credit exposures according to various credit quality factors, see section 4.8. Credit Control determines the appropriate level of provisioning and reports impairments and write-offs to the ACC. Credit Control also monitors the portfolio credit risk, such as single name and industry-sector concentrations, as well as monitoring financial relationships of obligors and the large exposures to financially related obligors.

Credit Control ensures that the book value of distressed loans accurately reflects the expected recovery value of loans and is responsible for collateral supervision and reporting.

### BALANCE SHEET RISK

The Balance Sheet Risk department is responsible for analyzing, monitoring and reporting on market risk, liquidity risk and capital requirements. The department is also responsible for quantitative functions, including credit modelling and stress testing.

Within the scope of market risk are risks resulting from balance sheet mismatches, i.e. interest rate risk and foreign exchange risk, and risks stemming from the Bank's trading activities. The department interfaces primarily with the Bank's Treasury, Market Making and Capital Markets and reports its analysis and stress testing results for market, funding and liquidity risk to ALCO.

The department is responsible for the development of credit rating models, the calculation of the regulatory capital requirements and managing the Bank's economic capital models, allocated capital model and stress tests. Balance Sheet Risk is responsible for the design, implementation and management of the Bank's ICAAP and ILAAP, and interfacing with the FME in the Supervisory Review and Evaluation Process (SREP).

Additionally the department is in a supportive role for Stefnir Fund Management and the Bank's Asset Management with regards to risk reporting, risk systems and limit surveillance, and provides various quantitative support to the Bank's business units.

### OPERATIONAL RISK

The Operational Risk department is responsible for developing and maintaining tools for identifying, measuring, monitoring and controlling operational risk at Arion Bank. Operational Risk is also responsible for providing leadership and support to every business unit regarding

## ► RISK MANAGEMENT

the implementation of operational risk tools, processes, and ongoing improvements of the control environment. The department serves as the ICFR coordinator in the Bank's ICFR process, see section 7.6.

Operational Risk has the objective to minimize the impact of losses suffered in the normal course of business (expected losses) and to avoid or reduce the likelihood of suffering extreme tail events (unexpected losses) resulting in large losses.

The Bank's operational risk framework comprises a number of elements which allows the Bank to manage and measure its operational risk profile and to evaluate the amount of operational risk capital that the Bank needs to hold to absorb potential losses such as the Risk and Control Self-Assessment (RCSA) and loss data collection.

### DATA GOVERNANCE

The Data Governance function is a part of the Risk Management division. The Data Officer is responsible for data governance, on behalf of the the Data Committee. The Data Committee is the central authority for all matters relating to data and data management in the Bank. The Data Committee is chartered by the CEO.

Data governance is responsible for controlling risk related to data and data management. Types of risk addressed include those related to roles and responsibilities, data architecture, data modeling, data dictionary, business term definition, data quality, data integration, and traceability of data elements. Controls include setting policies and standards for data management, which are approved by the Data Committee. Data governance collaborates with data driven regulatory projects across the Bank. The Bank is currently implementing a solution to consolidate regulatory reporting based on reconciled risk and finance data. The Data Committee is accountable for the Bank's data management strategy.

The data governance function operates according to best practice as defined by Data Management Association International – Data Management Body of Knowledge (DAMA-DMBOK). The Bank's data management maturity level is measured against the CMMI Institute's Data Management Maturity Model.

The Bank considers data governance especially important for regulatory reporting and compliance data. The Bank plans data management improvements in order to control data aggregation for risk and financial reporting, including data quality assurance.

### 2.5 RISK POLICIES

In pursuance of ensuring that existing and potential material risks are identified, managed and monitored the Bank has an enterprise risk management policy in place. The policy is reviewed and approved by the Board of Directors annually. The policy outlines, at high level, the key aspects of the Bank's risk management. The Bank recognizes that risk taking is an integral part of its business activities and must therefore be managed in an effective manner and in line with the Bank's risk appetite, see section 2.6.

The significant risks the Bank is exposed to are defined within the risk management policy. Four risk types have been defined as significant; credit, market, liquidity and operational risk. For each of these risk types the Board sets a specific policy for activities related to that risk type. The policies are reviewed and approved by the Board annually.

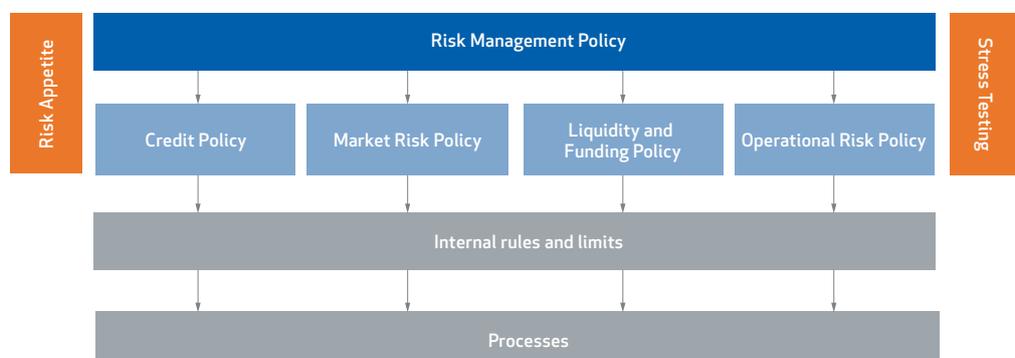
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The Bank recognizes that risk taking is an integral part of its business activities and must therefore be managed in an effective manner and in line with the Bank's risk appetite

## ► RISK MANAGEMENT

The Bank's risk management policy and risk type policies are implemented through the Bank's risk appetite framework, stress testing framework, internal rules and limits, and processes. The policies for each risk type are discussed further in the following chapters.

Figure 2.5 Risk policies implementation



### 2.6 RISK APPETITE

A risk appetite is one of the key components of risk governance. A well-defined risk appetite is critical for managing risk and is essential for reinforcing a strong risk culture. In order to establish, communicate and monitor the Bank's risk appetite, the Bank has in place a risk appetite framework.

The objective of the risk appetite framework is to provide a common framework to the Board and the management to communicate, understand, and assess the types and level of risk that the Board is willing to accept in pursuit of the Bank's strategy. The framework furnishes an appropriate understanding of the Bank's risk profile relative to its risk appetite. The risk appetite framework is reviewed and approved by the Board at least semi-annually. Results of stress tests are incorporated into the review of the Bank's risk appetite and risk limits.

The Bank's risk appetite is articulated through a risk appetite statement and translated into risk limits developed and approved by the CEO or relevant executive level committee. The Bank's risk appetite is monitored by the Risk Management division to ensure that the Bank's risk profile remains within its risk appetite. The Board and BRIC are promptly notified if any risk appetite metrics are exceeded. Internal and external limits are monitored by the Risk Management division in accordance with the Bank's procedures.

The Bank's risk appetite is taken into consideration and aligned with the Bank's strategic objectives, business plan, and remuneration.

The Bank's quantitative risk appetite metrics are shown in Table 2.4. Additionally, the risk appetite statement includes qualitative criteria such as tolerance statements for various operational risk and regulatory compliance breaches.

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A well-defined risk appetite is critical for managing risk and is essential for reinforcing a strong risk culture

Table 2.4 Risk appetite metrics

31 December 2017	Value	Legal Limit	Within Risk Appetite
<b>Credit Risk</b>			
Largest exposure	9.2%	25.0%	✓
Sum of large exposure	0%	-	✓
Sum of 3 largest sectors*	66.1%	-	✓
Largest sector*	32.1%	-	✓
Expected loan loss rate*	0.39%	-	✓
<b>Market Risk</b>			
Total equity exposure*	13.0%	-	✓
Unlisted equity exposure*	7.9%	-	✓
Indirect equity exposure*,**	0.65%	-	✓
<b>Funding and Liquidity Risk</b>			
Liquidity coverage ratio	221%	100.0%	✓
Loans-to-deposit ratio	166%	-	✓
Encumbered asset ratio	18.8%	-	✓
<b>Capital Management</b>			
Capital adequacy ratio	24.0%	19.8%	✓
Leverage ratio	15.3%	3.0%	✓
<b>Assets and Liability Management</b>			
Currency imbalance	0.1%	15.0%	✓
Interest rate risk***	2.7%	-	✓

\* Parent level metric

\*\* Indirect equity exposure is defined as the maximum capital loss to the Bank due to derivatives and margin lending in the event of an equity market stress event, based on assumptions which the Bank has adopted for such purposes.

\*\*\* Interest rate risk is defined as the amount at risk, which is calculated as a change in fair value due to yield curve movements that corresponds to the 99th percentile of the loss distribution.

## 2.7 REPORTING

The Bank's aim is to provide relevant stakeholders with accurate and transparent risk information. Therefore, Risk Management places a strong emphasis on reporting risk and allocating sufficient resources to ensure the fulfillment of the Bank's policy. Risk information is regularly reported to the Board of Directors and its sub-committees. The CEO, the CRO and committees on the executive level, receive risk reports on a regular basis, ranging from daily monitoring reports to the Annual Report. The primary reporting within the Bank is shown in Table 2.5.

The Bank's Annual Report, Financial Statements, and Pillar 3 Risk Disclosures are all available on the Bank's website. Furthermore the Bank delivers regular reports to the FME; i.e. a monthly report on the Bank's loan portfolio quality, a quarterly report on the Bank's capital requirements (COREP) and large exposures; and an annual report on the Bank's ICAAP, ILAAP and stress testing.

**Table 2.5** Primary reporting within the Bank

Primary reporting	Contents	Frequency	Recipient
Credit risk portfolio report	A report containing analysis of the Bank's loan portfolio broken down by various risk factors. Overview of the largest exposures and sector distribution. Thorough analysis of the loan's portfolio quality.	Monthly	ACC
Liquidity and market risk report	A report containing analysis of the Bank's Liquidity Coverage Ratio, information on deposit developments, secured liquidity, funding measures, currency and indexation imbalances, margin trading activities, and other relevant liquidity and market risk information.	Monthly	ALCO
Risk report	An aggregate report containing the credit risk portfolio report and the liquidity and market risk report, as well as information on the Bank's risk appetite and ICAAP status, operational risk and other risk management concerns.	Monthly	Board BRIC Exec. Com.
ICAAP	Evaluation of the Bank's total risk exposure and capital adequacy. The report is submitted for review and/or approval.	Annually	Board BRIC Exec. Com.
ILAAP	Evaluation of the Bank's total risk exposure and liquidity adequacy. The report is submitted for review and/or approval.	Annually	Board BRIC Exec. Com.
Internal bank-wide stress testing	Evaluation of the impacts on the Bank's earnings and own funds, the Bank's capital and liquidity ratios and other risk appetite metrics under various stress scenarios. The report is submitted for review and/or approval.	Annually	Board BRIC Exec. Com.

## 3 CAPITAL MANAGEMENT

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- 3.1 GOVERNANCE
- 3.2 CAPITAL STRATEGY
- 3.3 CAPITAL REQUIREMENTS
- 3.4 CAPITAL MANAGEMENT
- 3.5 CAPITAL POSITION

## 3 CAPITAL MANAGEMENT

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An adequate amount of capital ensures that the Bank is able to absorb losses associated with the risks that are a part of its operation, without its solvency being jeopardized, and allows the Bank to remain a going concern, even in periods of stress.

The Bank employs various techniques to estimate adequate capital levels and to ensure that its capital is fruitfully deployed. The Bank's ICAAP is the cornerstone of the Bank's capital adequacy estimations and is aimed at identifying and measuring the Bank's risk across all risk types and ensuring that the Bank has sufficient capital in accordance with its risk profile and future development.

### 3.1 GOVERNANCE

The Bank's capital policy and dividend policy are established by the Board of Directors based on recommendations from the Board Risk Committee (BRIC). The policies are reviewed on an annual basis.

The Bank's CEO is responsible for carrying out the Bank's capital strategy in adherence to the set policies. As established by the CEO, this responsibility is part of the principal authority of the Asset and Liability Committee (ALCO). The CRO is responsible for compliance to regulatory requirements and supervises the Bank's Internal Capital Adequacy Assessment Process (ICAAP) and allocation of capital. Stress testing, supervised by the Executive Management Committee and integrated with the Bank's business planning and ICAAP, is part of the capital management framework and is used to assess whether capital levels are acceptable under stressed conditions.

### 3.2 CAPITAL STRATEGY

The Bank's objective is to maintain a capital adequacy ratio that is 1.5% above the total regulatory capital requirement, including Pillar 1, Pillar 2 and the combined buffer requirements. Irrespective of that objective, the total capital ratio should not be lower than 20%.

The Bank's capital position is in excess of its capital targets. According to the Bank's capital plan, surplus capital is to be distributed to shareholders and the Bank's own funds are to be restructured through issuance of Additional Tier 1 and Tier 2 capital instruments. The speed and quantum of the normalization of the own funds however depends on a number of factors, including regulatory consent and currency balance restrictions, and is likely to take place over a number of years.

As stipulated in the Bank's dividend policy, based on the Bank's expected financial performance over the medium term, the Bank aims to pay an annual dividend before special distributions, in line with a pay-out ratio around 50% of net income attributable to shareholders.

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The Bank's total capital ratio at year-end 2017 was 24.0%, taking into account a foreseeable equity reduction of ISK 25 billion

### 3.3 CAPITAL REQUIREMENTS

The Bank's capital adequacy is determined in accordance with Act No. 161/2002 on financial undertakings and EU Regulation No. 233/2017 on prudential requirements for financial undertakings, which represent the Icelandic adoption of the EU Capital Requirements Directive and Regulation (CRD IV / CRR), excluding Article 501 on capital requirements relief for small and medium-sized enterprises, until EU Regulation No. 233/2017 will be incorporated into the EEA Agreement. The Bank's risk-weighted assets (RWA) calculations are based on standard approaches for the assessment of credit risk, market risk, credit value adjustments, and operational risk.

As at 31 December 2017, the Bank's consolidated situation as stipulated in CRR is Arion Bank's accounting consolidation without Vörður Insurance (Vörður). As the full accounting consolidation has been applied in prior statements, the figures as at 31 December 2016 are adjusted to reflect the defined consolidated situation. The capital position and solvency requirements of Vörður should be viewed independently from capital adequacy for the Group's consolidated situation.

The total regulatory capital requirement is presented as a percentage of RWA and consists of the items shown in the following table:

Table 3.1 Capital requirements

Source	Description
Pillar 1 requirement	The 8% minimum regulatory requirement
Pillar 2R requirement	The additional capital requirement determined by the Bank's own internal assessment of capital adequacy (ICAAP) and FME's subsequent supervisory regulatory assessment process (SREP)
Combined capital buffer requirement	The aggregated capital requirement due to four capital buffers, the level of which is determined by law (capital conservation buffer) and by the FME following guidance from the Financial Stability Council (buffers for systemic risk, systemically important financial institutions, and countercyclical effects)

As part of the SREP, the results of internal or external bank-wide stress tests may result in non-binding additional capital guidance, defined as Pillar 2G.

The Pillar 1 requirement may be met with different capital instruments, restricted as follows, expressed as a percentage of RWA:

- ◆ Common Equity Tier 1 (CET1) capital shall exceed 4.5%
- ◆ Tier 1 (CET1 and Additional Tier 1) capital shall exceed 6%
- ◆ Total capital (Tier 1 and Tier 2) shall exceed 8%

The same proportion applies to the Pillar 2 capital add-on, i.e. it can be comprised of 56.25% CET1 capital, 18.75% AT1 capital and 25% Tier 2 capital. The combined capital buffer requirement is to be met solely with CET1 capital.

The SREP review of the Bank's ICAAP, which concluded in October of 2017 and was based on financial figures on 31 December 2016 and a full accounting consolidation, resulted in a 3.7% Pillar 2 requirement. For the defined consolidated situation, which excludes Vörður, the Pillar 2 capital add-on is 3.4%. See further discussion in section 3.4.1.

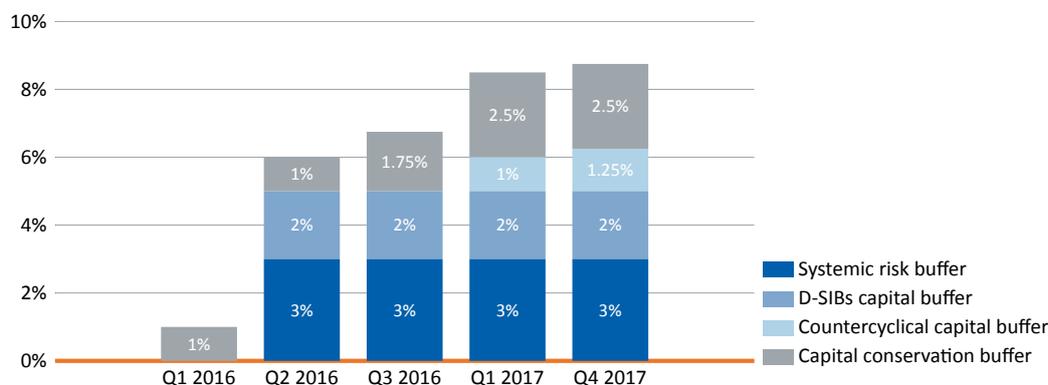
Capital buffers have been incorporated into Icelandic law with the adoption of CRD IV / CRR and became legally valid on 1 January 2016. On 1 March 2016, FME confirmed the proposed buffer levels given by the Financial Stability Council and defined Arion Bank as a domestic systemically important financial institution (D-SIB). In November of 2016,

For the Bank's consolidated situation, the Pillar 2 capital requirement is 3.4% and the institution-specific combined capital buffer requirement is 8.4%

## CAPITAL MANAGEMENT

the Council proposed an increase for the countercyclical buffer, from 1% to 1.25%, which took effect on 1 November 2017.

**Figure 3.1** Implementation of capital buffer levels for Icelandic D-SIBs



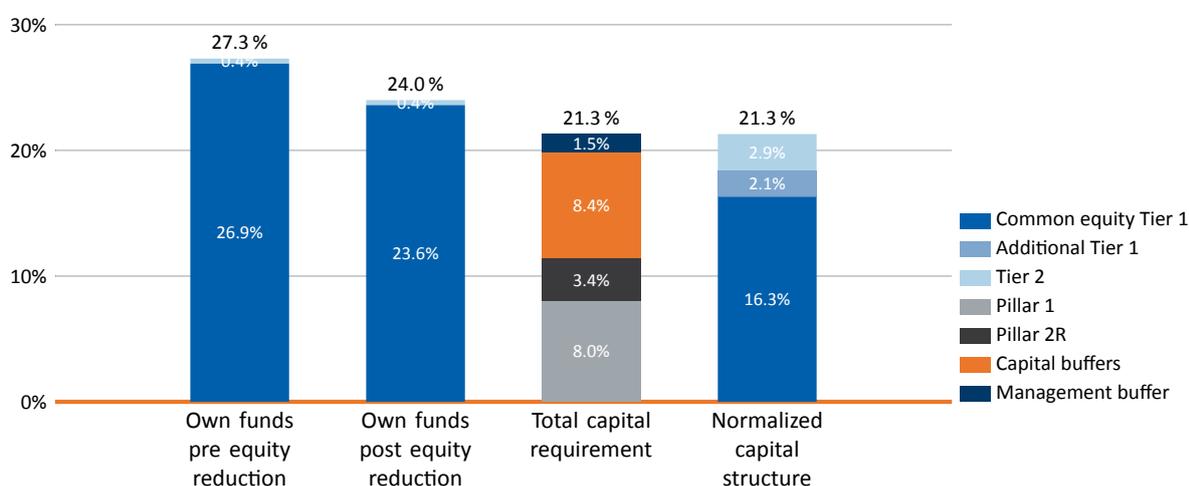
The effective countercyclical capital buffer and systemic risk buffer for the Bank are determined using the weighted average of the respective capital buffer level in the countries where the Bank has exposure and weighting is decided by the percentage of credit risk in RWA. This application for the systemic risk buffer results in the systemic risk buffer and the D-SIB buffer being applied cumulatively as opposed to the higher of the two being applied. Given the Bank's geographic credit risk profile at year-end 2017, the effective combined capital requirement for the Bank is 8.4%.

To summarize, the Bank's total regulatory requirement at year-end 2017 is 19.8%. Management's policy is to voluntarily hold an additional management buffer of 1.5%, which brings the total requirement to 21.3%. The following figure shows the Bank's capital position and the capital requirement, along with an optimal capital structure under CRR.

The Bank's own funds at 31 December 2017 are affected by the ISK 25 billion equity reduction in the form of dividend distribution and purchase of own shares as mandated by the Bank's shareholders on 12 February 2018.

The Bank's total regulatory requirement at year-end 2017, including a 1.5% internal management buffer, is 21.3%

**Figure 3.2** Arion Bank's own funds and own funds requirement at year-end 2017



### 3.4 CAPITAL MANAGEMENT

The Bank employs various techniques in its assessment of capital need. The Bank's ICAAP and stress testing are key elements of the Bank's capital management framework and are performed on an annual basis. In addition to providing a quantitative analysis, the processes are an important tool for management that give an insightful understanding of the risks associated to the Bank's operations and business planning. The Bank's capital is attributed to different business units and an analysis of risk adjusted performance is done on a regular basis.

#### 3.4.1 INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

The ICAAP is the Bank's internal assessment of its capital needs. The ICAAP is carried out in accordance with the Act on Financial Undertakings with the aim to ensure that the Bank has in place sufficient risk management processes and systems to identify, measure and manage the Bank's total risk exposure. The scope of ICAAP is the Bank's consolidated situation, which excludes insurance subsidiaries.

The ICAAP is aimed at identifying and measuring the Bank's risk across all risk types and at ensuring that the Bank has sufficient capital for its risk profile. The Bank's ICAAP report is approved annually by the Board of Directors, the CEO and the CRO and submitted to the FME. The FME reviews the Bank's ICAAP report and sets capital requirements following its supervisory and review process (SREP). Arion Bank's own funds exceed both the internal assessment of capital requirements and the FME's SREP requirements.

In addition to the above the Bank uses the ICAAP to:

- ◆ Raise risk-awareness to all the Bank's activities and to ensure that the Board of Directors and the Executive Management Committee understand the Bank's risk profile.
- ◆ Carry out a process to adequately identify and measure the Bank's risk factors.
- ◆ Carry out a process to monitor that the Bank's capital is adequate and used in relation to its risk profile.
- ◆ Review the soundness of the Bank's risk management systems and controls that are used to assess, quantify and monitor the Bank's risks .

Managing Directors with their key personnel and key personnel from the Bank's subsidiaries participate in the process of identifying and evaluating high risk areas, and discuss their management of risk, in cooperation with Risk Management. The result from the identification phase serves as the basis for the risk assessment within the Bank's ICAAP. Risk categories identified for the business units are shown in Table 3.2.

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The ICAAP is the Bank's internal assessment of its capital needs

**Table 3.2** Risk identification down to business units

Business Units	Credit risk	Market risk	Liquidity risk	Operational risk	Legal risk	Reputational risk	Business risk	Political risk
Asset Management	✓			✓	✓	✓	✓	✓
Corporate Banking	✓			✓	✓	✓	✓	✓
Investment Banking	✓	✓		✓	✓	✓	✓	✓
Treasury	✓	✓	✓	✓	✓	✓	✓	✓
Retail Banking	✓			✓	✓	✓	✓	✓
Other divisions and subsidiaries	✓	✓	✓	✓	✓	✓	✓	✓

The Bank’s ICAAP methodology involves assessing key risks that are not believed to be adequately addressed under Pillar 1. For each such risk, a capital add-on is applied on top of the minimum 8% regulatory capital requirements. This additional capital requirement is referred to as the Pillar 2R requirement. The main risk elements for which additional capital is required are:

- ◆ Interest rate risk in the banking book (IRRBB) and indexation risk
- ◆ Single name concentration of credit risk
- ◆ Equity risk

On the recommendation of the Icelandic Systemic Risk committee (IS: Kerfisáættunefnd), the Systemic Risk Buffer has been set to 3% for domestic exposures. In its recommendation, the committee cited numerous systemic risk factors which the Bank therefore does not include in its Pillar 2 capital assessment.

As part of the Pillar 2 capital assessment the Bank uses internal models to assess capital needs for credit risk. The Bank’s assessment is that the capital requirements specified by the standardized approach are adequate. Meanwhile, the FME has published SREP guidelines, stating that “domestic exposures are considered riskier, resulting in higher capital requirements for those institutions that do not use the internal ratings based method”, and has specified elevated Pillar 2 risk weights for certain exposure classes: 24% for Regional government & Institutions, 42% for Mortgage, 61% for Commercial real estate, 80% for Retail and 109% for Corporate & other. This results in a considerable SREP capital add-on, not reflected in the Bank’s ICAAP result.

The SREP of 2017, which was based on financial figures from 31 December 2016, resulted in a 3.4% Pillar 2R capital requirement for the Bank’s consolidated situation.

### 3.4.2 STRESS TESTING

Stress tests provide an important management tool for the Bank. The results of stress tests raise risk awareness and improve general understanding of the Bank’s operations and are to be considered for strategic, capital and contingency planning. The results of stress tests are incorporated into the review of the risk appetite and the Bank’s limit framework.

The Bank’s stress testing program is carried out in parallel to ICAAP and ILAAP according to the Bank’s stress testing framework, which is aligned with FME’s guidelines No. 2/2015 which are based on EBA’s Guidelines on Stress Testing (GL32). Stress testing at the Bank consists of sensitivity

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The SREP of 2017, which was based on financial figures from 31 December 2016, resulted in a 3.4% Pillar 2R capital requirement for the Bank’s consolidated situation

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Stress tests provide an important management tool for the Bank

## ▶ CAPITAL MANAGEMENT

analysis and scenario analysis.

The impact is estimated on the Bank's earnings and the own funds as well as for the Bank's capital and liquidity ratios and other risk appetite metrics. Each business unit contributes to the estimation of its portfolio with the view of identifying the most important risk drivers and suggests relevant stressed scenarios.

**Figure 3.3** The stress testing process at the Bank.



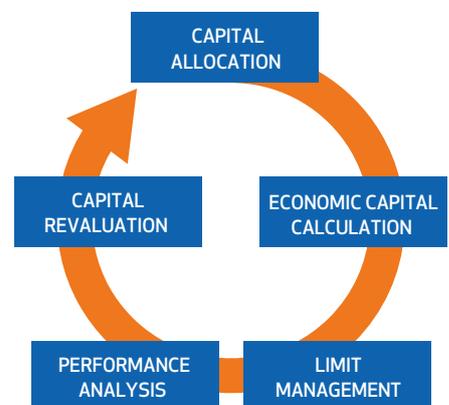
Scenario analyses are carried out on the Bank's business plan. The Bank's Economic Research department contributes an economic base case projection as well as stressed projections that are used in the Bank's capital planning and in preparation of the Bank's five year business plan. The design of the bank-wide internal stress test is challenged and reviewed by the Executive Management Committee and the Board of Directors.

One of the stressed scenarios carried out on the business plan is provided by the Central Bank in collaboration with the FME. The Bank also performs various regularly scheduled stress tests and targeted ad-hoc stress tests.

### 3.4.3 CAPITAL ALLOCATION AND CAPITAL PLANNING

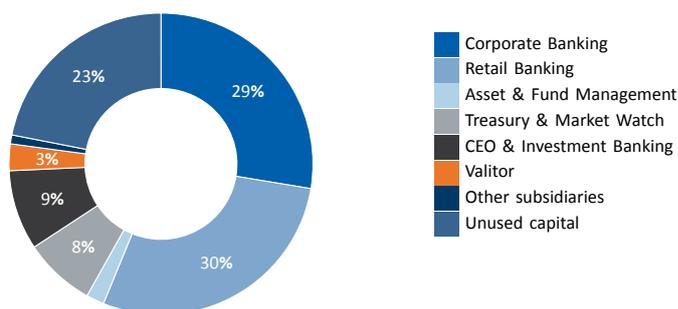
The Bank allocates capital to its business units based on capital requirements assessed under the ICAAP. The risk-adjusted performance of the business units is based on the Return on Allocated Capital (ROAC) and reported to ALCO. The ALCO conducts capital planning based on the capital requirements of the business units.

**Figure 3.4** Capital planning and monitoring process



## ▶ CAPITAL MANAGEMENT

Figure 3.5 Allocated capital at end of December 2017



The focus of capital management at the Bank is to optimize the capital structure in the medium term and consequently maintain the Bank's capitalization comfortably above the regulatory minimum, including capital buffers and Pillar 2 requirements.

### 3.5 CAPITAL POSITION

The following table shows the scope of the Bank's consolidated situation as stipulated by CRR compared to the Group's accounting consolidation. For prudential consolidation, insurance subsidiaries are excluded.

Table 3.3 Arion Bank's consolidated situation (EU LI3)

31 December 2017			Accounting treatment		Prudential treatment	
			Consolidation		Consolidation	
Entity	Description	Ownership [%]	Full	Equity method	Full	Equity method
Valitor Holding hf.	Holding company of payment services	100	✓		✓	
Stefnir hf.	Fund management company	100	✓		✓	
Arion Bank Mortgages Institutional Investor Fund	Structured covered bonds fund	100	✓		✓	
Vordur tryggingar hf.	Insurance company	100	✓		X	
Einkaklubburinn ehf.	Discount service company	100	✓		✓	
Startup Reykjavik Invest ehf.	Venture capital fund	100	✓		✓	
Reiknistofa bankanna hf.	Core banking solution	23		✓		✓
Audkenni hf.	Electronic identification	25		✓		✓
Sameinad Silikon hf	Silicon production, insolvent	67	✓		✓	
EAB 1 ehf.	Holding company	100	✓		✓	
Eignarhaldsfelagid Landey ehf.	Holding company	100	✓		✓	
SER eignarhaldsfelag ehf.	Holding company	35		✓		✓
BG12 GP hf.	Holding company	62	✓		✓	
BG 12 slhf.	Holding company	62	✓		✓	
Gen hf.	Holding company	100	✓		✓	
Fram Foods ehf	Holding company	100	✓		✓	
Farice ehf.	Holding company	39		✓		✓

**Table 3.4** Accounting and regulatory consolidation and mapping of financial statement categories with regulatory risk categories (EU L11)

31 December 2017 [ISK m]	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying value of items				Not subject to capital requirements or subject to deduction from capital
			Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	
<b>Assets</b>							
Cash and balances with Central Bank	139,819	139,819	139,819				
Loans to credit institutions	86,609	85,064	85,064				
Loans to customers	765,101	765,101	765,101				
Financial instruments	109,450	95,416	87,792	7,544		20,018	80
Investment property	6,613	6,613	6,613				
Investments in associates	760	677	677				
Intangible assets	13,848	11,127					11,127
Tax assets	450	357					357
Non-current assets held for sale	8,138	8,138	8,138				
Other assets	16,966	13,133	13,133				
<b>Total assets</b>	<b>1,147,754</b>	<b>1,125,445</b>	<b>1,106,337</b>	<b>7,544</b>	<b>0</b>	<b>20,018</b>	<b>11,564</b>
<b>Liabilities</b>							
Due to credit inst. and Central Bank	7,370	7,370					
Deposits	462,161	463,198	791	1,673			
Financial liabilities at fair value	3,601	3,601		963		2,294	345
Tax liabilities	6,828	6,614					
Other liabilities	57,061	42,886					
Borrowings	384,998	384,676					
<b>Total liabilities</b>	<b>922,019</b>	<b>908,345</b>	<b>791</b>	<b>2,636</b>	<b>0</b>	<b>2,294</b>	<b>345</b>
<b>Total equity</b>	<b>225,735</b>	<b>217,100</b>					

Table 3.5 Overview of own funds and capital adequacy

31 December [ISK m]	2017	2016
<b>Own funds</b>		
Common Equity Tier 1 (CET1) capital	180,635	194,538
Tier 1 capital	180,763	194,710
Total own funds	183,958	199,267
Risk-weighted assets	766,768	745,639
CET1 capital ratio	23.6%	26.1%
Tier 1 capital ratio	23.6%	26.1%
Total capital ratio	24.0%	26.7%
<b>Own funds requirement</b>		
Pillar 1: Minimum capital requirement	8%	8%
<i>of which CET1 requirement</i>	4.5%	4.5%
<i>of which Tier 1 requirement</i>	6%	6%
Pillar 2: Additional capital requirement (ICAAP/SREP)	3.4%	4.3%
<i>of which CET1 requirement</i>	1.9%	2.4%
<i>of which Tier 1 requirement</i>	2.6%	3.2%
Combined capital buffer requirement	8.4%	6.5%
<i>of which capital conservation buffer requirement</i>	2.5%	1.75%
<i>of which systemically important institution buffer requirement</i>	2%	2%
<i>of which systemic risk buffer requirement</i>	2.75%	2.7%
<i>of which countercyclical capital buffer requirement</i>	1.17%	0%
Total CET1 capital requirement	14.8%	13.4%
Total capital requirement	19.8%	18.8%
Own funds in relation to minimum capital requirement	3.00x	3.34x
<b>Leverage ratio</b>		
Exposure measure for leverage ratio calculation	1,177,147	1,095,775
Leverage ratio	15.4%	17.8%

**Table 3.6** Overview of risk-weighted assets (EU OV1)

31 December [ISK m]	RWAs		Minimum own funds requirements
	2017	2016	2017
<b>Credit risk (excluding CCR)</b>	<b>662,038</b>	<b>632,505</b>	<b>52,963</b>
of which the standardized approach	662,038	632,505	52,963
<b>CCR</b>	<b>8,350</b>	<b>8,228</b>	<b>668</b>
of which mark to market	5,844	5,550	468
of which CVA	2,506	2,678	200
Settlement risk			
Securitisation exposures in the banking book (after the cap)			
<b>Market risk</b>	<b>10,368</b>	<b>18,415</b>	<b>829</b>
of which the standardized approach	10,368	18,415	829
Large exposures			
<b>Operational risk</b>	<b>86,013</b>	<b>86,490</b>	<b>6,881</b>
of which standardized approach	86,013	86,490	6,881
Amounts below the thresholds for deduction (subject to 250% risk weight)			
<b>Total</b>	<b>766,769</b>	<b>745,638</b>	<b>61,341</b>

**Table 3.7** Determination of institution-specific capital buffer requirements based on geographical distribution of credit risk. Based on buffers recognized by FME in 2017 SREP.

Country, 31 December 2017	Systemic risk buffer	Countercyclical capital buffer	Credit risk (incl. CCR) RWA [ISK m]	Buffer weight	Institution specific systemic risk buffer	Institution specific countercyclical capital buffer
Iceland	3%	1.25%	612,455	91.7%	2.75%	1.15%
Norway and Sweden		2%	6,442	1.0%		0.02%
Other country with recognized buffer		0.5%	22	0.003%		0.00002%
Other			48,963	7.3%		
<b>Total</b>			<b>667,882</b>	<b>100%</b>	<b>2.75%</b>	<b>1.17%</b>

**Table 3.8** Arion Bank's capital buffer requirements

Capital buffer, 31 December 2017	Buffer rate	Institution-specific buffer rate
Capital conservation buffer	2.5%	2.5%
Systemically important institution buffer	2.0%	2.0%
Systemic risk buffer	3.0%	2.75%
Countercyclical capital buffer	1.25%	1.17%
<b>Total</b>	<b>8.75%</b>	<b>8.4%</b>

**Table 3.9** Own funds disclosure according to Article 5 in EU Regulation No. 1423/2013

Own funds, 31 December [ISK m]	2017	2016	Reference
<b>Common Equity Tier 1 capital: instruments and reserves</b>			
Capital instruments and the related share premium accounts	75,861	75,861	1
Retained earnings	124,336	107,464	2
Accumulated other comprehensive income (and any other reserves)	16,774	19,761	3
Funds for general banking risk			3a
Amount of qualifying items referred to in Article 484 (3) and the related share premium accounts subject to phase out from CET1			4
Public sector capital injections grandfathered until 1 January 2018			
Minority interests (amount allowed in consolidated CET1)			5
Independently reviewed interim profits net of any foreseeable charge or dividend	-25,000		5a
<b>Common Equity Tier 1 (CET1) capital before regulatory adjustments</b>	<b>191,971</b>	<b>203,086</b>	<b>6</b>
<b>Common Equity Tier 1 (CET1) capital: regulatory adjustments</b>			
Additional value adjustments (negative amount)	-157	-127	7
Intangible assets (net of related tax liability) (negative amount)	-11,125	-8,201	8
Empty set in the EU			9
Deferred tax assets that rely on future profitability excluding those arising from temporary difference (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-357	-198	10
Fair value reserves related to gains or losses on cash flow hedges	265	-22	11
Negative amounts resulting from the calculation of expected loss amounts			12
Any increase in equity that results from securitised assets (negative amount)			13
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing			14
Defined-benefit pension fund assets (negative amount)			15
Direct and indirect holdings by an institution of own CET1 instruments (negative amount)			16
Direct, indirect and synthetic holdings of the CET1 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 (negative amount)			17
Direct, indirect and synthetic holdings 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) (negative amount)			18
Direct, indirect and synthetic holdings 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) (negative amount)			19
Empty set in the EU			20
Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative			20a
Deferred tax assets arising from temporary difference (amount above 10%threshold, net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)			21
Amount exceeding the 15%threshold (negative amount)			22
Empty set in the EU			24
Losses for the current financial year (negative amount)			25a
Foreseeable tax charges relating to CET1 items (negative amount)			25b
Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment			26
Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468			26a
Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR			26b
Qualifying AT1 deductions that exceeds the AT1 capital of the institution (negative amount)			27
<b>Total regulatory adjustments to Common Equity Tier 1 (CET1)</b>	<b>-11,374</b>	<b>-8,548</b>	<b>28</b>
<b>Common Equity Tier 1 (CET1) capital</b>	<b>180,597</b>	<b>194,538</b>	<b>29</b>
<b>Additional Tier 1 (AT1) capital: instruments</b>			
Capital instruments and the related share premium accounts			30
Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1			33
Public sector capital injections grandfathered until 1 January 2018			
Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interest not included in row 5) issued by subsidiaries and held by third parties	128	172	34
<b>Additional Tier 1 (AT1) capital before regulatory adjustments</b>	<b>128</b>	<b>172</b>	<b>36</b>

Table 3.9 Continued

Own funds, 31 December [ISK m]	2017	2016	Reference
<b>Additional Tier 1 (AT1) capital: regulatory adjustments</b>			
Direct and indirect holdings by an institution of own AT1 instruments (negative amount)			37
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 (negative amount)			38
Direct, indirect and synthetic holdings 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) (negative amount)			39
Direct, indirect and synthetic holdings 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) (negative amount)			40
Regulatory adjustments applied to Additional Tier 1 capital in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase-out as prescribed in Regulation (EU) No 585/2013 (ie. CRR residual amounts)			41
Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013			41a
Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013			41b
Amounts to be deducted from added to Additional Tier 1 capital with regard to additional filters and deductions required pre- CRR			41c
Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)			42
<b>Total regulatory adjustments to Additional Tier 1 (AT1) capital</b>			<b>43</b>
<b>Additional Tier 1 (AT1) capital</b>	<b>128</b>	<b>172</b>	<b>44</b>
<b>Tier 1 capital (T1 = CET1 + AT1)</b>	<b>180,725</b>	<b>194,710</b>	<b>45</b>
<b>Tier 2 (T2) capital: instruments and provisions</b>			
Capital instruments and the related share premium accounts			46
Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2			47
Public sector capital injections grandfathered until 1 January 2018			
Qualifying own funds instruments included in consolidated T2 capital (including minority interest and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third party			48
Credit risk adjustments	3,195	4,557	50
<b>Tier 2 (T2) capital before regulatory adjustment</b>	<b>3,195</b>	<b>4,557</b>	<b>51</b>
<b>Tier 2 (T2) capital: regulatory adjustments</b>			
Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)			52
Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institutions designed to inflate artificially the own funds of the institution (negative amount)			53
Direct, indirect and synthetic 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) (negative amount)			54
Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amounts)			55
Regulatory adjustments applied to tier 2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			56
Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013			56a
Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tier 1 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013			56b
Amounts to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre- CRR			56c
<b>Total regulatory adjustments to Tier 2 (T2) capital</b>			<b>57</b>
<b>Tier 2 (T2) capital</b>	<b>3,195</b>	<b>4,557</b>	<b>58</b>
<b>Total capital (TC = T1 + T2)</b>	<b>183,920</b>	<b>199,267</b>	<b>59</b>
Risk weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amount)			59a
<b>Total risk-weighted assets</b>	<b>766,768</b>	<b>745,638</b>	<b>60</b>
<b>Capital ratios and buffers</b>			
Common Equity Tier 1 (as a percentage of total risk exposure amount)	23.6%	26.1%	61
Tier 1 (as a percentage of total risk exposure amount)	23.6%	26.1%	62
Total capital (as a percentage of total risk exposure amount)	24.0%	26.7%	63
Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements plus a systemic risk buffer, plus systemically important institution buffer expressed as a percentage of total risk exposure amount)	8.4%	6.5%	64
of which: capital conservation buffer requirement	2.5%	1.75%	65
of which: countercyclical buffer requirement	1.2%	0.0%	66
of which: systemic risk buffer requirement	2.75%	2.7%	67
of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	2.0%	2.0%	67a

Table 3.9 Continued

Own funds, 31 December [ISK m]	2017	2016	Reference
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount) 2)	19.1%	21.6%	68
[non-relevant in EU regulation]			69
[non-relevant in EU regulation]			70
[non-relevant in EU regulation]			71
<b>Amounts below the thresholds for deduction (before risk-weighting)</b>			
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)	2,814	1,088	72
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)			73
Empty set in the EU			74
Deferred tax assets arising from temporary difference (amount below 10%threshold , net of related tax liability where the conditions in Article 38 (3) are met)			75
<b>Applicable caps on the inclusion of provisions in Tier 2</b>			
Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	3,195	4,557	76
Cap on inclusion of credit risk adjustments in T2 under standardized approach	9,585	9,320	77
Credit risk adjustments included in T2 in respect of exposures subject to internal rating-based approach (prior to the application of the cap)			78
Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach			79
<b>Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)</b>			
Current cap on CET1 instruments subject to phase-out arrangements			80
Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)			81
Current cap on AT1 instruments subject to phase-out arrangements			82
Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)			83
Current cap on T2 instruments subject to phase-out arrangements			84
Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)			85

The Bank had no outstanding Additional Tier 1 or Tier 2 capital instruments at reporting date. Apart from the Bank's insurance subsidiaries, which are excluded in prudential consolidation, the Bank had no significant investments in insurance undertakings.

### 3.6 IMPACT ON OWN FUNDS DUE TO REGULATORY AND ACCOUNTING CHANGES

#### 3.6.1 IFRS 9

The International Accounting Standards Board (IASB) issued IFRS 9: Financial Instruments in July 2014. The standard replaces the IAS 39 accounting standard on 1 January 2018. The Bank will apply IFRS 9 from that date onward.

Under the Basel III regulatory capital framework, general provisions (general credit risk adjustments in Act No. 161/2002 on Financial Undertakings) are eligible as Tier 2 capital for financial institutions that apply the standardized approach for capital requirement calculations. General provisions reduce Common Equity Tier 1 capital through reduction of assets but are effectively reintroduced into own funds through Tier 2 capital as they are loss absorbing. In contrast, for financial institutions that apply internal models (IRB) for capital requirement calculations, expected loss reduces risk-weights as capital is meant to meet unexpected losses in excess of expected losses as the latter should be accounted for in the pricing of credit exposures. Any excess of accounting allowances to expected losses under IRB is included as Tier 2 capital for IRB banks.

The European Banking Authority (EBA) has issued an opinion stating that "EBA believes that all IFRS 9 provisions should be considered SCRA

## ▶ CAPITAL MANAGEMENT

[special credit risk adjustment]” as they “will not be freely and fully available to meet losses that subsequently materialize, as these provisions are ascribed to particular assets, whether individual or grouped”. The Financial Supervisory Authority in Iceland has adopted this opinion and as a result, as of 1 January 2018, the Group’s own funds will no longer include general credit risk adjustments. All impairments under IFRS 9 shall be treated as SCRA and changes to IFRS 9 provisions will be directly reflected in the Common Equity Tier 1 (CET1) capital, without re-adjustment through Tier 2 capital.

Transitional rules that mitigate the impact of IFRS 9 on own funds have been introduced into European law through Regulation (EU) No. 2017/2395. The arrangements have not been adopted in Iceland and therefore the Group does not apply transitional rules but recognises the full impact on 1 January 2018.

Taking into account the expected changes to allowance from the adoption of IFRS 9 the Bank’s total capital ratio between 31 December 2017 and 1 January 2018 is reduced from 24.0% to 23.7%.

### 3.6.2 BASEL III REVISION

On 7 December 2017 the Basel Committee on Banking Supervision published an updated Basel III standard which finalizes the Basel III post-crisis reforms. The updated standard will be effective from 1 January 2022 for banks using the standardized approach (SA) and implemented in steps from 1 January 2022 to 1 January 2027 for banks using the IRB method. The initial phase of the Basel III reforms (2010) focused on strengthening global capital and liquidity rules with the goal of promoting a more resilient banking sector.

The Basel III reforms include improvements on the standardized and the IRB approaches. The goal is to restore credibility in the calculation of RWAs, reduce their excessive variability, improve the comparability of banks’ capital ratios and restore a level playing field between standardized and IRB banks.

It is expected that the Bank’s capital ratio will increase as a result of the revision. The more risk-sensitive standardized approach will result in lower average risk-weights for mortgages as the loan-to-value ratio of mortgages are predominantly below 80% and well distributed, see 4.6. Furthermore, as Article 501 of CRR, on capital requirements relief for small and medium-sized enterprises (SMEs), has not been implemented in Iceland, a proposed corporate SME risk-weight will result in lower average corporate exposure risk-weights for the Bank.

## 4 CREDIT RISK

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- 4.1 CREDIT POLICY
- 4.2 CREDIT GRANTING
- 4.3 CREDIT RISK MANAGEMENT
- 4.4 CREDIT RISK EXPOSURE
- 4.5 EQUITY RISK IN THE BANKING BOOK
- 4.6 COLLATERAL MANAGEMENT AND VALUATION
- 4.7 CREDIT RATING
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- 4.9 COUNTERPARTY CREDIT RISK
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## 4 CREDIT RISK

Credit risk is defined as the current or prospective risk to earnings and capital arising from the failure of an obligor to discharge an obligation at the stipulated time or otherwise to perform as agreed. Credit risk arises anytime the Bank commits its funds, resulting in capital or earnings being dependent on counterparty, issuer or borrower performance.

Loans to customers and credit institutions are the largest source of credit risk but credit risk is also inherent in other types of assets, such as bonds, short-term debt securities, derivatives, and in commitments such as guarantees and unused credit lines or limits. Credit risk is inherent in business units connected to lending activities, as well as trading and investment activities, i.e. Corporate Banking, Retail Banking, Investment Banking and Treasury within Finance.

**Table 4.1** Sources of credit risk

Source	Description
Loans to customers	The loan portfolio is the Bank's main asset. To maintain and improve the quality of the loan portfolio it is imperative to constantly monitor the performance of loans, counterparties, and collateral, both individually and at the portfolio level.
Commitments and guarantees	The Bank often commits itself to ensuring that funds are available to customers as required. The most common commitments to extend credit are limits on overdrafts on checking accounts, credit cards, and credit lines.
Bonds and debt instruments	The Bank trades and invests in bonds and debt instruments. Bonds and debt instruments are important to the Bank's liquidity management.
Balances with the Central Bank and loans to credit institutions	The Bank maintains cash and balances with the Central Bank in the form of certificates of deposits, mandatory reserve deposits, and other balances. Furthermore the Bank holds money-market deposits and deposits in nostro accounts with credit institutions. These assets form a key part of the Bank's liquidity buffer.
Counterparty credit risk	The Bank offers financial derivative instruments to professional investors, e.g. FX, interest, and securities derivatives. The Bank also uses hedging derivatives and engages in securities lending. For further information on counterparty credit risk, see section 4.9.
Equity risk in the banking book	Equity risk in the banking book arises primarily from investment in positions that are not made in short term trading purpose and assets repossessed as a result of credit recovery i.e. restructuring or collection. For further information on equity risk in the banking book, see section 4.5.

### 4.1 CREDIT POLICY

The Bank's credit policy contains high-level criteria for credit granting, as well as outlining the roles and responsibilities for further implementation and compliance. The Bank's credit policy is the base for the Bank's credit strategy as integrated in the business plan, the Bank's risk appetite towards credit exposure, the Bank's credit rules, and the Bank's credit procedures and controls.

Arion Bank is a universal bank offering companies and individuals tailored banking solutions. Credit is granted by a hierarchy of credit committees with different credit granting limits, or by employees with restricted credit granting limits. The emphasis is on maintaining a high quality credit portfolio by adhering to a strict credit process, and seeking business with financially strong parties with strong collaterals and good repayment capacity. The risk level of each credit is considered in its pricing.

## ► CREDIT RISK

Credit granting, where the underlying collateral is securities issued by Arion Bank, is prohibited.

### 4.2 CREDIT GRANTING

The Board Credit Committee (BCC) is the supreme authority in granting credit. The Arion Credit Committee (ACC), which acts below BCC's granting limits, has the right to delegate authority within its own credit limits and sets credit granting rules and guidelines for the business units.

In 2017 the Bank established a new Credit Office function in order to strengthen governance when it comes to granting credit. The Credit Office is headed by the Chief Credit Officer who reports directly to the CEO. The Credit Office has voting members in all of the Bank's credit committees and the Chief Credit Officer attends the BCC's meetings as an adviser. The Credit Office manages and advises on the Bank's credit rules and policies.

The Credit Office is involved in larger credit cases and aims to improve credit portfolio oversight in the first line of defense with credit experts specializing in the Bank's major customers and markets. The Credit Office fields credit managers which operate as counterparties to corporate account managers in the preparation of credit proposals. It also employs specialists that provide written comments to be evaluated by the relevant credit committees.

Risk Management is authorized to attend any credit committee meeting. Risk Management and the Credit Office have the power to escalate controversial credit committee decisions to a higher authority. Extraordinary credit proposals are referred to the BCC for approval and also if they surpass 5% of own funds for new loans and 10% group of connected parties.

The Bank gathers information for each credit application and evaluates certain elements that serve as a basis for a decision, e.g. the company profile, the financial analysis of the company, the proposed collaterals, the company's credit rating, and related parties and their total exposure.

The Bank generally requires collateral but a central element in assessing creditworthiness is the customer's ability to service the debt.

### 4.3 CREDIT RISK MANAGEMENT

Credit risk management entails diversification of risk, well informed lending decisions, good oversight of the portfolio performance, and a clear identification of any sign of weaknesses to conduct a timely recovery.

To ensure well informed lending decisions, Credit Office monitors credit risk before a credit decision is made and participates in credit committee meetings at ACC and CCC level, both with an advisor who follows through with the comments as described above, and with a voting member. Various controls ensure that a loan is only disbursed following a thorough review of all documents and the registration of all relevant information regarding the loan and collaterals into the Bank's IT systems.

During the repayment phase, Risk Management monitors the credit portfolio. The Credit Control department aggregates the portfolio monthly, based on consistent criteria, to analyze the outstanding risk, the collateral level, as well as the portfolio quality. Credit Control analyzes loans that have been classified at risk and maintains an inde-

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In 2017 the Bank established a Credit Office function to strengthen the first line of defense for Credit Risk

pendent and centralized overview of distressed credits. Credit Control, based on its analysis, suggests provisions and reviews write-offs. Monthly credit risk reports are sent to the ACC, the BRIC and the Board of Directors.

#### 4.4 CREDIT RISK EXPOSURE

The Bank is exposed to credit risk from both on-balance sheet exposures and off-balance sheet exposures, the latter of which represents credit commitments to customers in the form of undrawn credit limits, unused overdrafts, guarantees, and letters of credit. The tables in this section do not include exposures on the Bank's trading books or counterparty credit risk (CCR) exposures.

The exposure amounts shown are on different basis: Exposure at default amounts according to rules on capital requirements are derived from original exposure (gross carrying value including off-balance sheet amounts), net exposure after applying specific credit risk adjustments to the original exposure, adjusted exposure value (net exposure after applying credit risk mitigation, i.e. exposure net of collateral) and exposure at default (EAD) which is the adjusted exposure value after applying credit conversion factors to off-balance sheet items.

**Table 4.2** Credit risk exposure and credit risk mitigation effects (EU CR4)

31 December 2017 [ISK m]	Net exposures before CCF and CRM		EAD post CCF and CRM		RWAs and RWA density	
	On-balance sheet	Off-balance sheet	On-balance sheet	Off-balance sheet	RWAs	RWA density
Central governments or central banks	171,808	155	171,808	77	0	0%
Regional governments or local authorities	4,163	4,757	4,163	1,731	1,223	20.8%
Public sector entities	316	53	313	15	328	100%
Multilateral development banks	511	80	511	40	0	0%
Institutions	103,010	609	102,979	300	23,823	23.1%
Corporates	334,877	94,143	329,536	34,935	364,471	100%
Retail	113,179	38,531	113,132	14,650	95,836	75%
Secured by mortgages on immovable property	305,138	8,344	305,132	1,941	109,560	35.7%
Exposures in default	16,770	391	16,770	182	21,429	126.4%
Exposures associated with particularly high risk	4,288		4,288		6,432	150%
Equity	11,004		11,004		11,004	100%
Other items	27,930		27,930		27,930	100%
<b>Total</b>	<b>1,092,995</b>	<b>147,063</b>	<b>1,087,566</b>	<b>53,871</b>	<b>662,038</b>	<b>58.0%</b>

Table 4.2 Continued

31 December 2016 [ISK m]	Net exposures before CCF and CRM		EAD post CCF and CRM		RWAs and RWA density	
	On-balance sheet	Off-balance sheet	On-balance sheet	Off-balance sheet	RWAs	RWA density
Central governments or central banks	133,183	151	133,183	76	0	0%
Regional governments or local authorities	4,896	5,117	4,894	2,092	1,451	20.8%
Public sector entities	343	76	340	35	375	100%
Multilateral development banks						
Institutions	86,647	2	84,296	1	19,879	23.6%
Corporates	357,564	69,555	351,140	24,341	375,481	100%
Retail	86,755	35,250	86,399	15,376	76,331	75%
Secured by mortgages on immovable property	261,345	33,659	260,795	15,233	97,246	35.2%
Exposures in default	13,486	107	13,347	32	15,976	119.4%
Exposures associated with particularly high risk	8,329		8,329		12,494	150%
Equity	10,129		10,129		10,129	100%
Other items	23,914		23,910		23,144	96.8%
<b>Total</b>	<b>986,591</b>	<b>143,917</b>	<b>976,762</b>	<b>57,186</b>	<b>632,505</b>	<b>61.2%</b>

The Bank's risk-weight density for credit risk, measured as risk-weighted assets relative to EAD, reduced from 61.2% to 58.0% in 2017. The sale of equity positions, particularly those that are categorised as high risk, contribute to the reduction as well as an increase in the tax value of real estates. The increase for exposures in default is due to the application of cross-defaults for non-retail exposures as per Article 179 in CRR, which was implemented in 2017. The increase is contrary to a general decrease in default rates in 2017.

Table 4.3 Exposure at Default (post CRM and CCF) by exposure classes and risk-weights (EU CR5). The last column refers to ratings from external rating agencies.

31 December 2017 [ISK m]	Risk weights							Total	Of which unrated
	0%	20%	35%	50%	75%	100%	150%		
Central governments or central banks	171,885							171,885	
Regional governments or local authorities		5,839					55	5,895	4,599
Public sector entities							328	328	328
Multilateral development banks	551							551	551
Institutions		93,281		9,662			335	103,278	335
Corporates							364,472	364,472	362,472
Retail					127,782			127,782	127,782
Secured by mortgages on immovable property			293,172	13,901				307,073	307,073
Exposures in default							7,998	8,954	16,952
Exposures associated with particularly high risk								4,288	4,288
Equity							11,004	11,004	11,004
Other items							27,930	27,930	27,930
<b>Total</b>	<b>172,436</b>	<b>99,130</b>	<b>293,172</b>	<b>23,563</b>	<b>127,782</b>	<b>412,122</b>	<b>13,242</b>	<b>1,141,437</b>	<b>863,314</b>

Table 4.3 Continued

31 December 2016 [ISK m]	Risk weights							Total	Of which unrated
	0%	20%	35%	50%	75%	100%	150%		
Central governments or central banks	133,258							133,258	
Regional governments or local authorities		6,919					67	6,986	5,184
Public sector entities							375	375	375
Multilateral development banks									
Institutions		78,034		3,981			2,282	84,297	2,282
Corporates							375,481	375,481	372,164
Retail						101,775		101,775	101,775
Secured by mortgages on immovable property			271,789	4,239				276,028	276,028
Exposures in default							8,185	13,379	13,379
Exposures associated with particularly high risk							8,329	8,329	8,329
Equity							10,129	10,129	10,129
Other items		767					23,144	23,910	23,910
<b>Total</b>	<b>134,025</b>	<b>84,953</b>	<b>271,789</b>	<b>8,220</b>	<b>101,775</b>	<b>419,662</b>	<b>13,524</b>	<b>1,033,948</b>	<b>813,555</b>

#### 4.4.1 CREDIT RISK EXPOSURE BY SECTOR

The Bank's loan book is diversified with regard to individuals and industry sectors. Of loans to customers, 48% are loans to individuals, of which 85% are mortgage loans. Credit exposure to individuals represents 32% of the total credit risk exposure. Real estate activities and construction is the largest industry sector comprising 17% of loans to customers or 13% of the Bank's total credit risk exposure. According to the Bank's analysis, this distribution mirrors closely the sector distribution of credit from all lenders in the Icelandic economy. Thus, the Bank's sector diversification is as good as can be expected for a bank which primarily operates in Iceland.

Arion Bank monitors the risk associated with the rapid growth of the tourism industry. The Bank has not modified its standard industry classification to incorporate a separate tourism sector, opting instead to monitor the exposure internally alongside the standard sectors. To define the tourism industry, the Bank has adopted a classification from the Central Bank of Iceland which identifies, primarily, 19 activities from ISATO8 as core tourism activities. According to this definition, the Bank has determined that its exposure to the tourism industry was 7% of loans to customers at the end of 2017, compared to 5% in 2016. The tourism exposure draws mainly from four standard industry sectors: Wholesale and retail trades (34%), Transportation (27%), Real estate and construction (16%) and Services (15%).

7% of loans to customers are related to the growing tourism industry

**Table 4.4** Net exposure (pre CRM and CCF) by industries and exposure classes (EU CRB-D)

Net exposure, 31 December 2017 [ISK m]	Agriculture	Financial and insurance services	Fishing industry	Individuals	Industry, energy and manufacturing	Information and communication technology	Public administration, human health and social act.	Real estate and construction	Services	Transportation	Wholesale and retail trades	Other/Not specified	Total
Administrative bodies						114	255						369
Central government		140,353					31,593		18				171,964
Corporate	2,546	39,613	83,368	6,632	48,167	22,420	1,669	120,870	14,636	20,083	69,013		429,017
In default	1,133	75	1,369	8,160	532	40	163	1,374	2,877	3	1,437		17,163
Multilateral development banks					10	25		64	475		16		590
Real estate	777	859	1,168	275,524	2,084	705	1,516	23,083	2,584	350	4,833		313,483
Regional government					2,546		5,551		824				8,921
Retail	2,990		2,146	112,392	2,991	1,511	1,023	12,405	6,054	1,415	8,783		151,710
Institutions		103,587					31						103,618
High risk	8	3,498	29		44	219		287	202		2		4,289
Equity		7,802			2,254						948		11,004
Other assets	1	76	48		43	9	2	232	8	7	5	27,499	27,930
<b>Total standardized approach</b>	<b>7,455</b>	<b>295,863</b>	<b>88,128</b>	<b>402,708</b>	<b>58,671</b>	<b>25,043</b>	<b>41,803</b>	<b>158,315</b>	<b>27,678</b>	<b>21,858</b>	<b>85,037</b>	<b>27,499</b>	<b>1,240,058</b>

#### 4.4.2 CREDIT RISK EXPOSURE BY GEOGRAPHIC AREA

The Bank is not significantly exposed to credit in other countries than Iceland apart from liquid assets, which includes short term deposits and money market loans at foreign credit institutions, and foreign sovereign bonds. Loans to customers outside Iceland amounted to ISK 24,694 million at the end of 2017 or 3.2% of the total loans to customers of which ISK 6,833 million are loans to individuals currently domiciled outside Iceland.

**Table 4.5** Net exposure (pre CRM and CCF) by geography and exposure classes (EU CRB-C)

31 December 2017 [ISK m]	Iceland	Nordic	Rest of Europe	North America	Other	Total
Central governments or central banks	150,594	538	17,826	2,882	123	171,963
Regional governments or local authorities	8,920					8,920
Public sector entities	370					370
Multilateral development banks			591			591
Institutions	15,551	19,614	37,918	28,011	2,525	103,618
Corporates	409,947	7,037	9,935	2,100	1	429,021
Retail	146,709	2,874	1,114	699	314	151,710
Secured by mortgages on immovable property	311,133	693	1,115	269	273	313,483
Exposures in default	16,785	228	95	7	45	17,161
Items associated with particularly high risk	4,150	42	37		59	4,288
Equity exposures	3,890		4,236	2,776	102	11,004
Other exposures	24,975	276	2,024	654		27,929
<b>Total standardized approach</b>	<b>1,093,024</b>	<b>31,303</b>	<b>74,891</b>	<b>37,399</b>	<b>3,441</b>	<b>1,240,058</b>

#### 4.4.3 CREDIT RISK EXPOSURE BY MATURITY

The following table shows net exposure by residual maturity and exposure classes.

**Table 4.6** Net exposure (pre CRM and CCF) by residual maturity and exposure classes (EU CRB-E)

31 December 2017 [ISK m]	On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Central governments or central banks	140,370	27,109	2,667	1,817		171,963
Regional governments or local authorities		4,063	2,363	2,495		8,920
Public sector entities		259	106	4		370
Multilateral development banks		77	499	15		591
Institutions	100,144	609	2,803	63		103,618
Corporates	184	140,908	223,234	64,694		429,020
Retail	237	48,186	37,433	65,853		151,710
Secured by mortgages on immovable property		16,199	16,665	280,619		313,483
Exposures in default		6,417	1,044	9,700		17,161
Items associated with particularly high risk					4,288	4,288
Equity exposures					11,004	11,004
Other exposures		5,966			21,964	27,930
<b>Total standardized approach</b>	<b>240,935</b>	<b>249,793</b>	<b>286,814</b>	<b>425,261</b>	<b>37,256</b>	<b>1,240,058</b>

#### 4.4.4 RELATED PARTIES AND LARGE EXPOSURES

A large exposure is defined as an exposure to a group of related parties which exceeds 10% of the Bank's eligible capital according to Act on Financial Undertaking No. 161/2002 and Regulation No. 233/2017 on prudential requirements. The legal maximum for individual large exposures, net of eligible collateral, is 25% of the eligible capital.

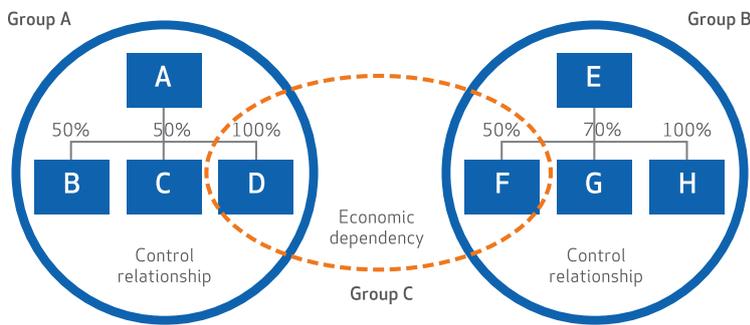
The Bank seeks to limit its total credit risk through diversification of the loan portfolio by limiting large exposures to groups of related parties. No single large exposure or sum of large exposures shall exceed limits

## ► CREDIT RISK

expressed in the Bank's risk appetite, both of which are lower than the legal limits.

The Bank connects related parties according to internal rules that conform to Act on Financial Undertakings No. 161/2002 and the EBA guidelines from 2009, which define the groups of related parties. The internal rules define the Bank's interpretation of conditions a. and b. in the FME rules, and describe the roles and responsibilities related to the interpretation and maintenance of related parties. The Bank evaluates the relationship of customers with respect to both control and economic dependencies. Economic dependencies between two companies within different groups of related parties do not necessarily combine these groups into one. This relationship is illustrated in Figure 4.1.

Figure 4.1 Related parties



Risk Management monitors party relations both prior to the granting of a loan and during the lifetime of the loan. Connections are stored in the Bank's customer relationship management (CRM) system and the Bank's relationship database.

Customers' exposures are updated daily and are available at any time through the Bank's CRM system. In addition, an exposure report for a group of connected clients is updated weekly and is accessible at any time to Risk Management, Corporate Banking and Retail Banking. The report shows a breakdown of lending to each group. Exposures that exceed 2.5% of the eligible capital are reported monthly to the ACC and to the BRIC.

At year end 2017 the Bank had no large exposures. The same applied for the end of 2016. The largest exposure to a group of related parties at the end of 2017 was ISK 16.8 billion or 9.2% of the eligible capital, before accounting for eligible collateral.

The Bank's single-name concentration continues to decrease, see Figure 4.2. For comparison, large exposures among loans to customers were 24% at the end of 2014. On the other hand the sum of large exposures exceeding 2.5%, net of eligible collateral, increased from 92% to 125% year-on-year. This is a result of the Bank's foreseeable reduction of equity in 2018.

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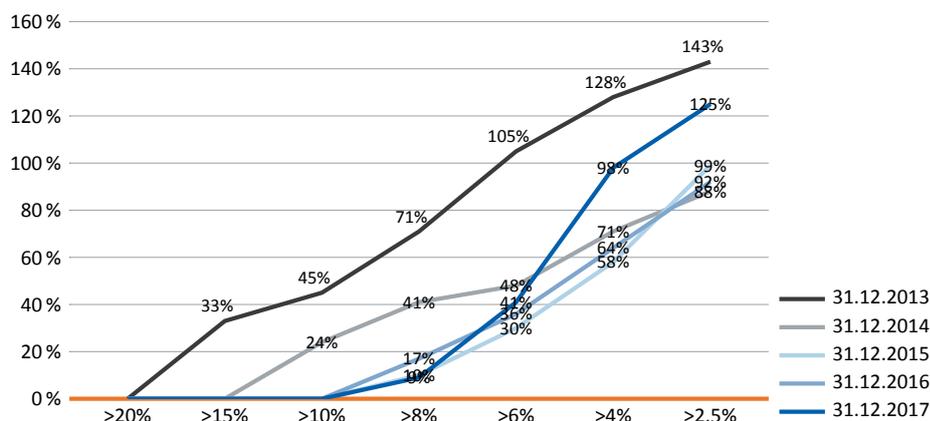
Risk Management monitors party relations both prior to granting a loan and during the lifetime of the loan

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No exposure to a group of related parties was classified as a *large exposure* at year end 2017

## ► CREDIT RISK

**Figure 4.2** Total of net exposures to a group of related parties (excluding loans to financial institutions)



### 4.5 EQUITY RISK IN THE BANKING BOOK

Exposure limits for the banking book are set in the Bank's risk appetite statement. The Bank has had a disposal schedule for non-core assets which it acquired during the process of restructuring companies following the financial crisis in 2008. The Bank has successfully carried out this plan, resulting in a significant reduction in equity exposures over the past years. The position in listed equities was reduced in 2017, mainly as a result of the sale of shares in Reitir and HB Grandi.

The increase in fund shares stems from investing a significant part of the Bank's liquidity reserves in foreign currencies in liquidity funds. Amounts in Table 4.7 are based on the Bank's prudential consolidation which excludes the Group's insurance operations. Figures for 31 December 2016 are adjusted accordingly.

**Table 4.7** Equity exposure in the banking book

31 December 2017 [ISK m]	Listed	Unlisted	Total
Investments in associates, non-core		291	291
Equity instruments with variable income	3,725	7,625	11,350
Fund shares - Bonds		15,367	15,367
Fund shares - Other	127	2,728	2,865
<b>Total equity exposure in the banking book</b>	<b>3,852</b>	<b>26,021</b>	<b>29,873</b>
Realized gain/loss in 2017			2,512
Unrealized gain/loss in 2017			3,887
31 December 2016 [ISK m]	Listed	Unlisted	Total
Investments in associates, non-core		339	339
Equity instruments with variable income	7,703	7,617	15,320
Fund shares - Bonds		1,368	1,368
Fund shares - Other	192	2,940	3,132
<b>Total equity exposure in the banking book</b>	<b>7,895</b>	<b>12,263</b>	<b>20,158</b>
Realized gain/loss in 2016			1,666
Unrealized gain/loss in 2016			3,089

### 4.6 COLLATERAL MANAGEMENT AND VALUATION

Accurately valued collateral is one of the key components in mitigating credit risk. The Bank's initial valuation of a collateral takes place during

## ► CREDIT RISK

the credit approval process. Credit rules outline the acceptable levels of collateral for a given counterparty and exposure type. The collateral obtained by the Bank is typically as follows:

- ◆ Retail loans to individuals: Mortgages in residential properties.
- ◆ Corporate loans: Real estate properties, fishing vessels and other fixed and current assets including inventory and trade receivables, cash and securities.
- ◆ Derivative exposures: Cash, treasury notes and bills, asset backed bonds, listed equity, and funds that consist of eligible securities.

Other instruments used to mitigate credit risk include pledges, guarantees and master netting agreements.

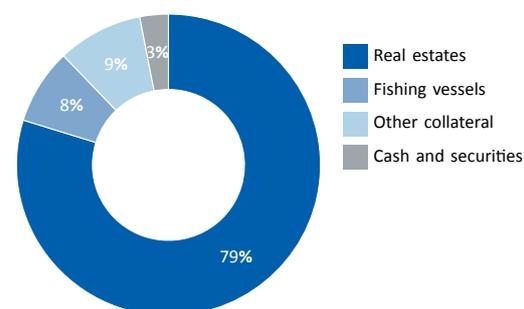
To ensure coordinated collateral value assessment, the Bank operates five collateral valuation committees. The committees set guidelines on collateral valuation techniques, collateral value, valuation parameters and haircuts on the applied collateral value. The five committees' areas of expertise are:

- ◆ Agriculture
- ◆ Fishing vessels and fishing quota
- ◆ Real estate
- ◆ Securities
- ◆ Inventory and trade receivables

The Bank operates a collateral management system (CMS) to consolidate the Bank's collateral data. Table 4.8 shows the collateral held by the Bank for loans to customers, broken down by business sector. Collateral held at year end is to the largest extent real estate collateral, which makes up 79% of the total collateral. At the end of 2017, loans to customers were secured by collateral conservatively valued at ISK 650,748 million, which results in a collateral coverage ratio of 85% compared to 89% at the end of 2016.

The credit exposure towards the Central Bank and financial institutions is unsecured as it is due to the Bank's own deposit accounts and money market loans.

Figure 4.3 Collateral by type



The collateral coverage ratio of loans to customers at the end of 2017 was 85% compared to 89% at the end of 2016

Table 4.8 Collateral for loans to customers

31 December 2017 [ISK m]	Cash and securities	Real estate	Fishing vessels	Other collateral	Total collateral	Unsecured ratio % 2017	Unsecured ratio % 2016
Individuals	195	326,456	16	8,413	335,080	8.3%	9.3%
Real estate activities and construction	371	115,467	208	1,928	117,974	7.9%	5.3%
Fishing industry	24	8,569	52,693	10,580	71,866	9.0%	3.5%
Information and communication technology	541	1,103		2,035	3,679	83.3%	26.7%
Wholesale and retail trade	208	32,294	12	16,131	48,645	15.3%	10.9%
Financial and insurance services	13,440	4,184	681	6,174	24,479	28.3%	33.4%
Industry, energy and manufacturing	660	19,367	0	5,747	25,774	12.5%	11.0%
Transportation	3	973	278	1,395	2,649	84.5%	25.4%
Services	15	7,365	98	3,047	10,525	42.0%	36.7%
Public sector	114	3,657		92	3,863	50.6%	54.1%
Agriculture and forestry	0	5,966		248	6,214	5.7%	11.3%
<b>Total</b>	<b>15,571</b>	<b>525,401</b>	<b>53,986</b>	<b>55,790</b>	<b>650,748</b>	<b>14.9%</b>	<b>11.5%</b>

Note that the collateral value in the table above is capped by exposure

amount.

Figure 4.5 shows the mortgage portfolio broken down to LTV bands based on the face value of the mortgages. At the end of 2017, 83% of the mortgages, by value, had loan-to-value below 80% compared to 76% at the end of 2016. As shown in figure 4.4 the mortgage properties are primarily located in the Greater Reykjavik area or 71% of the portfolio, by value.

Figure 4.5 Loan to value of mortgage loans [ISK m]

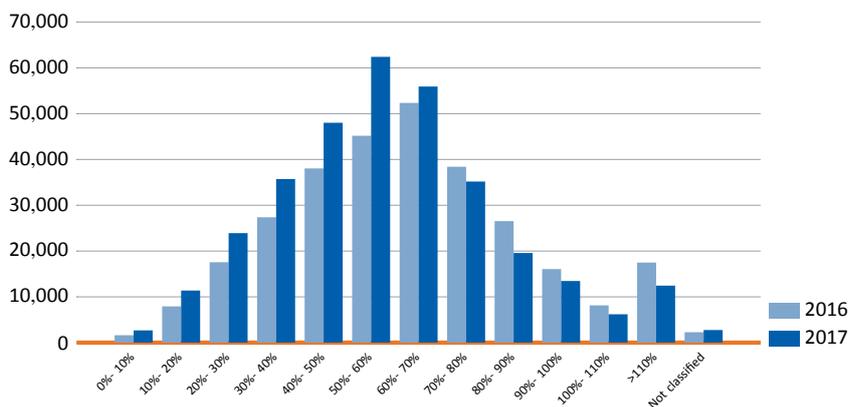
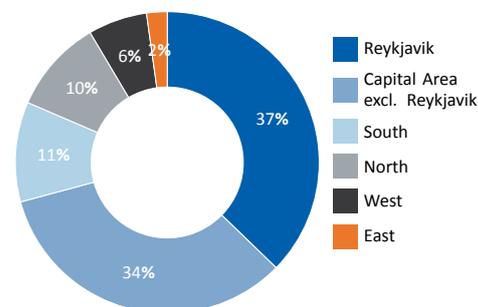


Figure 4.4 Mortgage portfolio by location



#### 4.7 CREDIT RATING

As outlined in Chapter 3, the Bank uses the standardized approach to calculate capital requirements for credit risk. Nevertheless, it is the Bank’s policy to apply sophisticated credit rating models to monitor the development of credit risk and to estimate customers’ default probability. These estimates are used extensively within the Bank as they play a role in both the manual and automatic evaluations of loan applications, portfolio monitoring, collective provisioning and internal economic capital calculations.

The Bank uses four credit rating models that apply to different types of borrowers and exposures. In preparation of IFRS 9, the Bank has also created separate application-versions of each model in order to rate new exposures and loan commitments.

Table 4.9 Probability of Default models

Model	Description
Large corporates	Defined as corporate clients with a) individual exposure over ISK 160 million (approx. EUR 1 million) or b) individual exposure over ISK 65 million and related exposure over ISK 160 million. The model is run manually, based on quantitative information drawn from financial statements as well as qualitative data entered by account managers and approved by Credit Office.
Retail corporates	Defined as corporate clients with a) individual exposure below ISK 65 million or b) individual exposure between ISK 65 million and ISK 160 million and related exposure below ISK 160 million. The model is statistical, run automatically, and uses quantitative internal and external information found to be predictive of default.
Individuals, prime mortgages	Applied to prime mortgages, for which there are standard loan collateral agreements. The model is statistical, run automatically, and based on historical behavior of customers and characteristics of the customer and the exposure.
Individuals, other exposures	Applied to other loans than prime mortgages. The model is statistical, run automatically, and based on historical behavior of customers and characteristics of the customer and the exposure.

The Bank’s PD models are developed within the Balance Sheet Risk department, while the validation of the models is performed independently by the Risk Management’s Credit Control unit.

#### 4.7.1 CREDIT EXPOSURE BY RATING

Table 4.10 shows the portfolio’s rating status, by exposure, for each rating model. In some cases, companies are temporarily unrated. This is primarily due to newly formed entities where no financial or historical information is available, and entities for which the Bank’s main rating models are deemed unreliable. During the process of carrying out compliance with IFRS 9, emphasis was placed on rating every customer. Newly formed entities and corporates without financial statements were rated using application models and special rating models were created for guarantees and public sector entities based on expert judgement, supported by analysis of historical data. At the end of 2017 only 0.1% of the parent company’s loan portfolio was unrated.

A default rating grade (DD) is assigned to an exposure when it has been in arrears for over 90 days or the customer is deemed unlikely to pay, which, among other things, can be a result of provisioning against the customer’s exposure. Around 2.2% of the portfolio, by exposure, was assigned a default rating at the end of 2017 compared to 3.0% at the end of 2016. Active PD values are translated into an internal rating scale of letters from CCC- to A+. The scale is outlined in table 4.11. The Bank has standardized five risk classes that categorize the internal rating scale, shown in the same table.

**Table 4.10** Breakdown of rating status by exposure

Rating Model	2017			2016		
	% Active credit rating	% DD	% Unrated	% Active credit rating	% DD	% Unrated
Large corporates	98.1%	1.7%	0.2%	94.9%	1.9%	3.2%
Retail corporates	94.6%	5.4%	0.0%	93.3%	5.8%	0.9%
Individuals, prime mortgages	98.5%	1.5%	0.0%	97.4%	2.6%	0.0%
Individuals, other exposure	95.2%	4.8%	0.0%	93.0%	7.0%	0.0%
<b>Total</b>	<b>97.7%</b>	<b>2.2%</b>	<b>0.1%</b>	<b>95.4%</b>	<b>3.0%</b>	<b>1.5%</b>

**Table 4.11** Rating scale

Risk class	Rating	Lower PD	Upper PD
1	A+	0.00%	0.07%
	A	0.07%	0.11%
	A-	0.11%	0.17%
	BBB+	0.17%	0.26%
	BBB	0.26%	0.41%
2	BBB-	0.41%	0.64%
	BB+	0.64%	0.99%
	BB	0.99%	1.54%
3	BB-	1.54%	2.40%
	B+	2.40%	3.73%
	B	3.73%	5.80%
4	B-	5.80%	9.01%
	CCC+	9.01%	31.00%
	CCC-	31.00%	99.99%
5	DD	100.00%	100.00%

The rating distributions of each model are discussed below.

LARGE CORPORATES

Figure 4.7 shows the large corporates portfolio broken down by ratings. As seen in table 4.10, the number of unrated corporates has dropped from around 3.2% at year-end 2016 to 0.2% at year-end 2017.

The change in the rating distribution can be attributed to an increased number of active ratings, but is mainly due to pure migration i.e. an overall improvement in the rating of existing customers. Note that the distribution also includes new customers and customers previously rated by the model for retail corporates. The model is partly based on quantitative information drawn from financial statements and the risk profiles of many of the largest corporates have been improving steadily over the past years.

Figure 4.7 Distribution of exposure by rating for large corporates

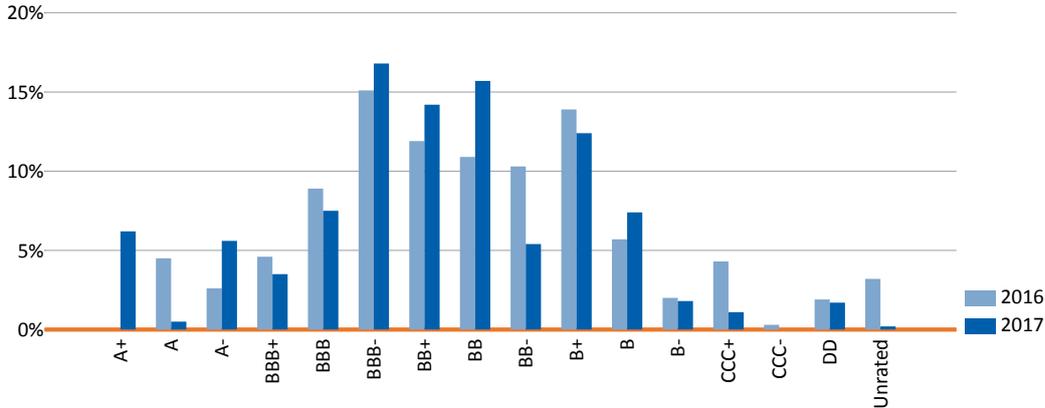
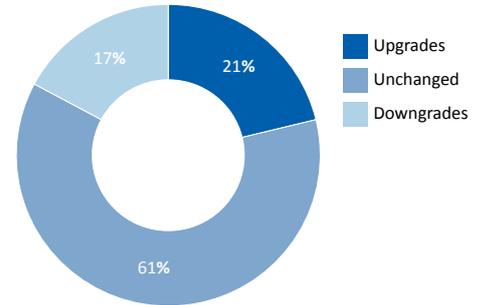


Figure 4.6 Risk class rating migration by exposure between 2016 and 2017 – Large Corporates



RETAIL CORPORATES

Figure 4.9 shows the retail corporates portfolio broken down by ratings. The exposure-weighted average PD was 6.7% at the end of 2017, the same as at the end of 2016. Overall, the changes in rating distribution seem to be minor, and positive if anything.

In terms of exposure 18% have been upgraded towards a better risk class whereas 21% have been downgraded. Migration analysis does not cover defaulting customers or customers that were previously unrated or rated by the model for large corporates. The overall change in rating distribution is mainly attributed to pure migration.

Figure 4.9 Distribution of exposure by rating for retail corporates

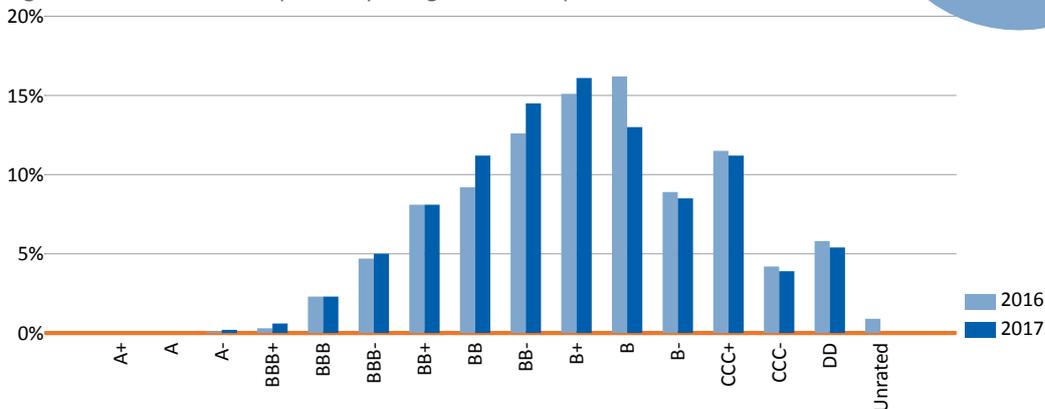
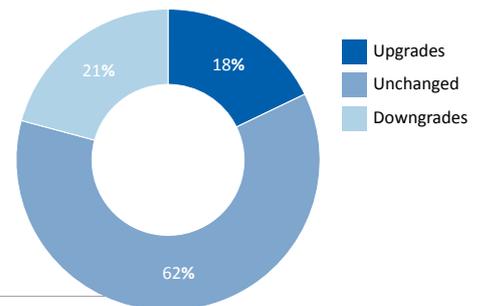


Figure 4.8 Risk class rating migration by exposure between 2016 and 2017 – Retail Corporates



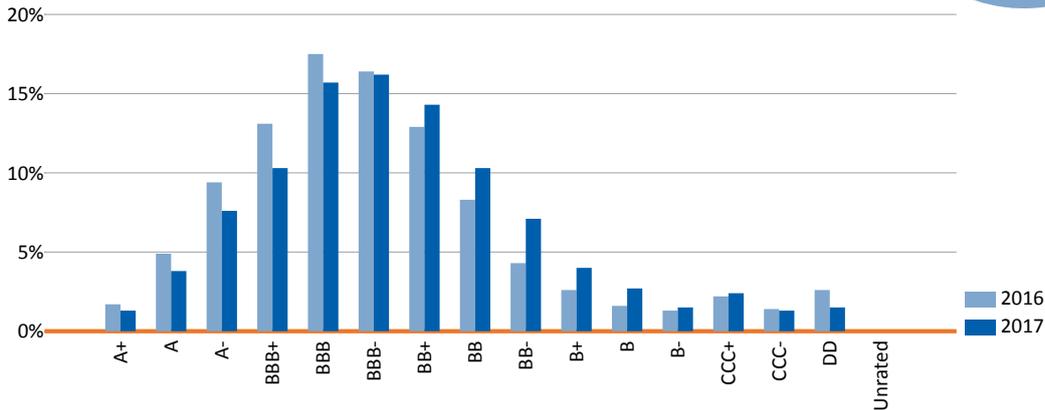
## ► CREDIT RISK

### PRIME MORTGAGES TO INDIVIDUALS

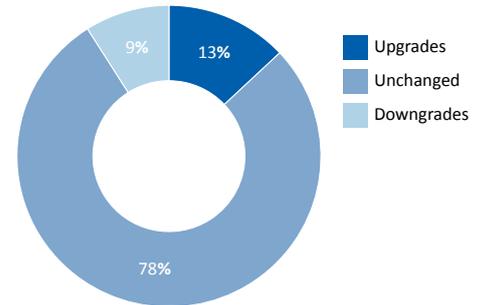
Figure 4.11 shows the prime mortgage portfolio broken down by ratings.

The exposure-weighted average PD for the prime mortgage portfolio was 2.0% in year-end 2017 compared to 1.8% in year-end 2016. However, in terms of exposure, approximately 13% of prime mortgages have migrated towards an improved credit grade whereas only 7% have been downgraded. The migration analysis does not cover defaulting customers and customers that were previously unrated and/or are new.

**Figure 4.11** Distribution of exposure by rating for prime mortgages to individuals



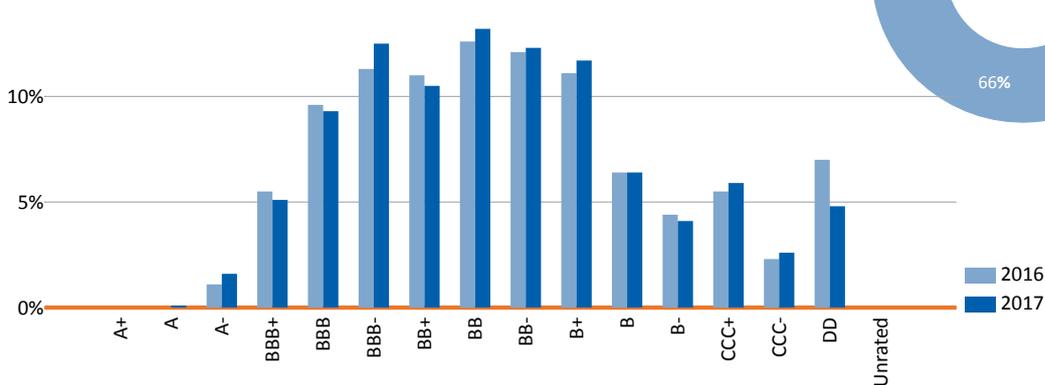
**Figure 4.10** Risk class rating migration by exposure between 2016 and 2017 - prime mortgages to Individuals



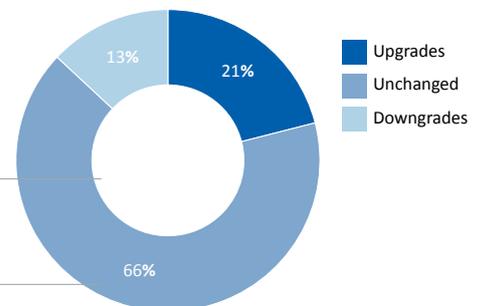
### OTHER EXPOSURES TO INDIVIDUALS

Figure 4.13 shows the portfolio for other exposures to individuals broken down by ratings. The distribution is very similar between years and as for the other portfolios the portion of exposure in default has decreased. The exposure weighted average PD for the portfolio was 3.9% at year-end 2017 compared to 3.8% at year-end 2016.

**Figure 4.13** Distribution of exposure by rating for other exposures to individuals



**Figure 4.12** Risk class rating migration by exposure between 2016 and 2017 - Other Exposures to Individuals



### MODEL PERFORMANCE

All four rating models in use have passed internal validation tests in 2017. The discriminatory power is in line with or exceeds the Bank's internal requirements and the prediction accuracy is satisfactory. The comparison values for the average PD estimates at the end of 2016 and observed default rates in 2017 are shown in the following table.

**Table 4.12** Model performance. Observed default rates in 2017 compared to probability of default predicted at year-end 2016

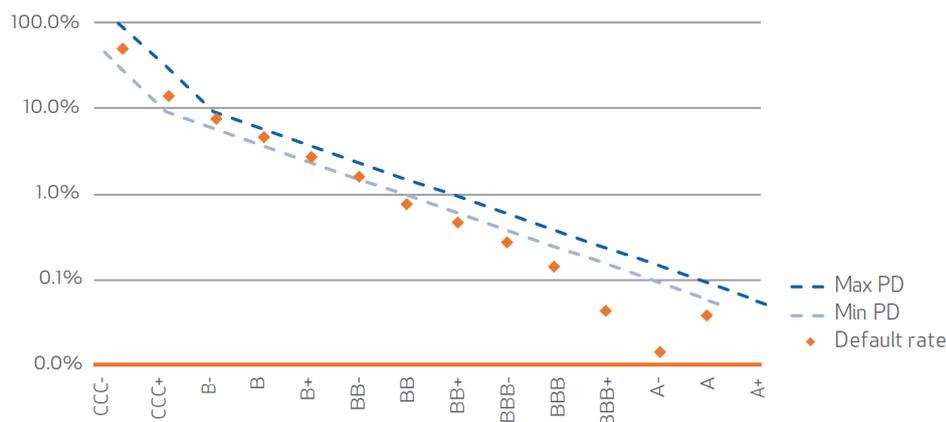
Model portfolio	Average PD	Observed avg default rate
Large corporates	3.1%	5.1%
Retail corporates	3.9%	4.0%
Individuals, prime mortgages	1.5%	0.9%
Individuals, other exposures	2.5%	2.0%

Note that here the default rate and predicted probability is measured by number of customers, not exposure-weighted as for the rating distributions above.

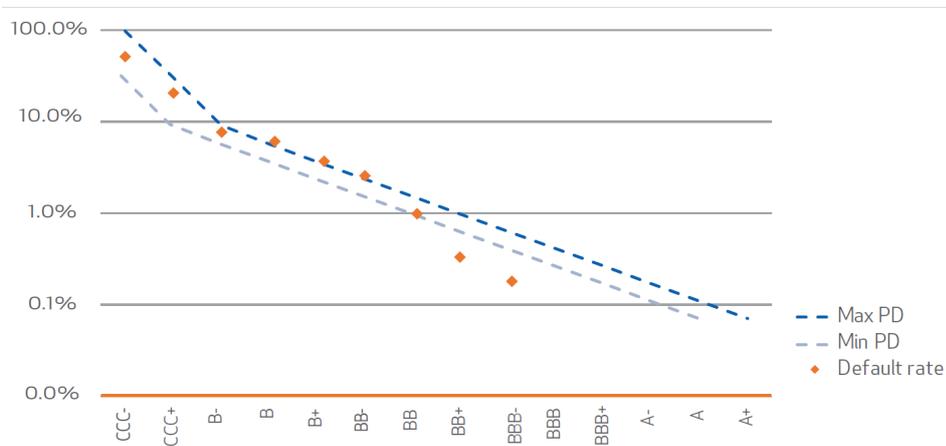
In figures 4.14 and 4.15, the actual default rate for each rating level in 2017 is compared to the predicted default probability at the end of 2016 for individuals and corporates, respectively.

For individuals, no defaults were observed for A+ customers, and no defaults were observed for BBB corporate customers or better.

**Figure 4.14** Comparison of actual default rate in 2017 and predicted default probability - Individuals



**Figure 4.15** Comparison of actual default rate in 2017 and predicted default probability - Corporates



## 4.8 PORTFOLIO CREDIT QUALITY AND PROVISIONS

The Bank places great emphasis on monitoring and reporting the quality of its loan portfolio. The credit portfolio quality is regularly aggregated and assessed in terms of industry concentration, single name concentration, product type and credit rating. Risk Management presents its findings to the ACC and the BRIC on a monthly basis. Credit Office monitors extensively the residential real estate market and at least semi-annually reports to the ACC its findings and outlook.

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The Bank places great emphasis on monitoring and reporting the quality of its loan portfolio

### 4.8.1 IMPAIRMENT AND PROVISIONS

The Credit Control department is in charge of the Bank's provisioning process. Provisions for impairment are made both on a portfolio level and by individual assessment. All exposures to borrowers with loans that are considered impaired are moved to risk class 5 (DD rating), with the exception that impairment on prime mortgages to individuals do not trigger movement to risk class 5 for other exposures to the borrower, and vice versa.

#### INDIVIDUAL ASSESSMENT

Financial assets are impaired when objective evidence demonstrates that a loss event has occurred and that the loss event has an impact on the future cash flows of the asset. The level of detail for credit monitoring depends on the size of the exposure, where factors such as delinquency by the borrower, forbearance measurements, and the internal credit rating (see chapter 4.7) are considered. For larger borrowers, interviews with account managers are also conducted. Loans are not classified as impaired if the value of collateral prudently covers the outstanding amount.

#### PORTFOLIO ASSESSMENT

The provisioning process for prime mortgages and other exposures to individuals, where the amount of the exposure is within a predetermined, and acceptable range, is made on a portfolio basis. The impairment is based on a 90 days delinquency status and a collateral allocation method where the collateral is usually the tax value of the pledged real estate property.

For further discussion on measurement of impairment, see Note 54 in the Bank's Consolidated Financial Statements for 2017.

#### COLLECTIVE PROVISION FOR PERFORMING LOANS

Collective provisioning is applied to all credit that has been not specifically impaired. Loans that are over 90 days in default but have been determined not to require provisions for impairment are also exempt from the collective provisions. Collective provisions are based on estimates of one-year expected loss, the borrower's probability of default (PD), loss given default (LGD) and exposure at default (EAD). Both the probability of default and loss given default are based on the Bank's internal models.

**Table 4.13** Credit quality of exposures by exposure classes and instruments (EU CR1-A)

31 December 2017 [ISK m]	Gross carrying value of		Specific credit risk adjustment	General credit risk adjustment	Net values
	Defaulted exposures	Non-defaulted exposures			
Central government		171,963			171,963
Regional government		8,920		13	8,907
Administrative bodies		370		2	368
Multilateral development banks		591		5	586
Institutions		103,618			103,618
Corporate		429,020		1,272	427,748
of which SME		160,323		663	159,660
Retail		151,730	20	1,663	150,047
of which SME		39,319		418	38,901
Real estate		313,483		229	313,254
In default	27,429	0	10,268	10	17,151
Equity		11,004			11,004
High risk		4,288			4,288
Other assets		27,930			27,930
<b>Total</b>	<b>27,429</b>	<b>1,222,916</b>	<b>10,287</b>	<b>3,195</b>	<b>1,236,863</b>
of which: Loans to Customers	27,429	897,602	10,287	3,195	911,549
of which: Debt securities		55,097			55,097
of which: Off-balance sheet exposures	80	146,983			147,063

**Table 4.14** Credit quality of exposures by industries (EU CR1-B)

31 December 2017 [ISK m]	Gross carrying value of		Specific credit risk adjustment	General credit risk adjustment	Net values
	Defaulted exposures	Non-defaulted exposures			
Agriculture	1,298	6,320	165	73	7,380
Financial and insurance services	355	295,789	280	244	295,621
Fishing industry	2,022	86,758	653	158	87,969
Individual	12,175	394,567	4,031	1,476	401,235
Industry, energy and manufacturing	1,005	58,140	473	85	58,586
Information and communication technology	151	25,002	111	62	24,980
Public administration, human health and social act.	208	41,639	45	21	41,781
Real estate and construction	1,838	156,942	467	529	157,784
Services	6,447	24,802	3,570	176	27,503
Transportation	4	21,855	1	102	21,756
Wholesale and retail trades	1,927	83,601	490	269	84,768
Other	0	27,499	0	0	27,499
<b>Total</b>	<b>27,429</b>	<b>1,222,916</b>	<b>10,287</b>	<b>3,195</b>	<b>1,236,863</b>

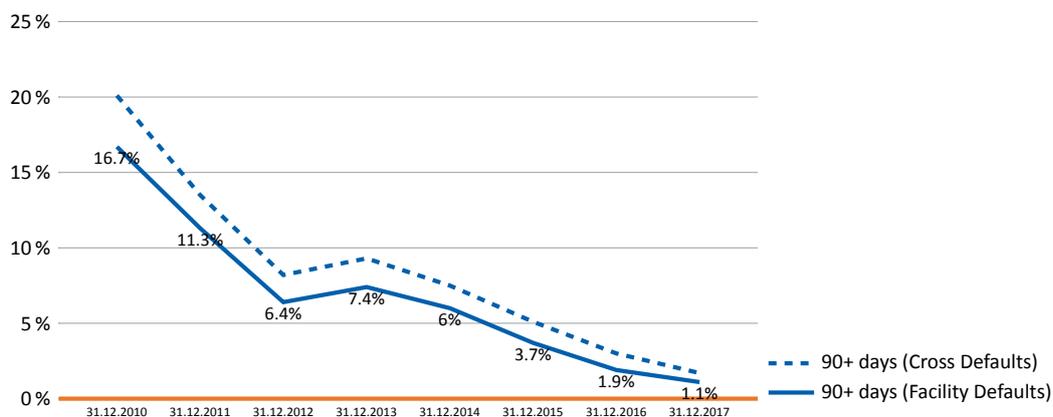
**Table 4.15** Credit quality of exposures by geography (EU CR1-C)

31 December 2017 [ISK m]	Gross carrying value of		Specific credit risk adjustment	General credit risk adjustment	Net values
	Defaulted exposures	Non-defaulted exposures			
Iceland	26,369	1,076,256	9,604	2,965	1,090,058
Nordic	673	31,075	445	72	31,231
Rest of Europe	201	74,796	105	143	74,748
North America	118	37,392	111	9	37,390
Other	67	3,397	22	5	3,436
<b>Total</b>	<b>27,429</b>	<b>1,222,916</b>	<b>10,287</b>	<b>3,195</b>	<b>1,236,863</b>

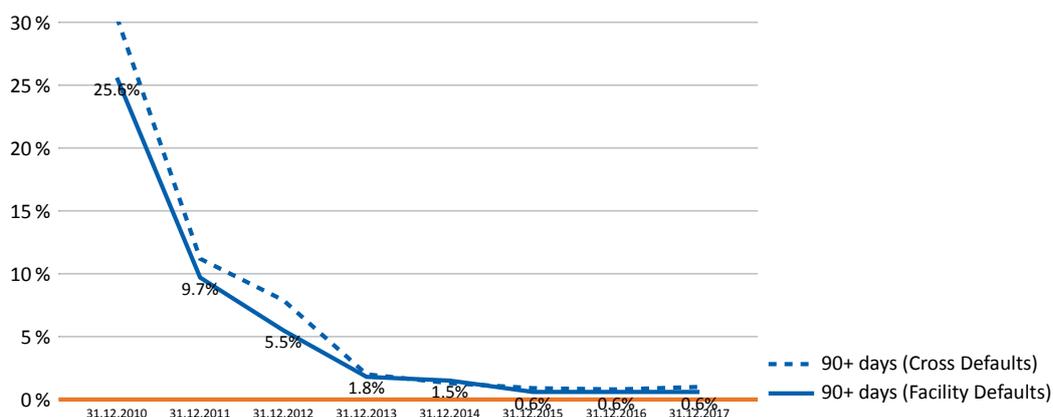
### 4.8.2 PAST DUE EXPOSURES

Figures 4.16 and 4.17 show the development of serious defaults from the end of 2010 for individuals and corporates, using the facility default and the cross default methods. In the latter method, all exposure to the customer is considered in default if one facility is in default. Defaults have steadily decreased during the period, mainly due to the progress made in restructuring problem loans, the resolution of the legal uncertainty surrounding the FX loans, progress in legal collection, as well as a better economic environment.

**Figure 4.16** Development of past due exposures to individuals, parent company



**Figure 4.17** Development of past due exposures to companies, parent company



Customer loans that are more than 90 days past due more than 90 days were 0.8% of the total loan book at year-end 2017 if measured at facility level. The cross default ratio more than 90 days past due was 1.3%; 1.7% for individuals and 1.0% for corporates.

Customer loans that are more than 90 days past due represent 0.8% of the total loan book at year-end 2017 if measured at facility level

**Table 4.16** Ageing of past-due exposures (EU CR1-D)

31 December 2017 [ISK m]	Gross carrying value of					
	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
Companies	8,748	1,908	1,450	1,375	1,408	1,676
Individuals	11,576	4,758	365	1,843	1,238	3,753
<b>Total loans</b>	<b>20,324</b>	<b>6,666</b>	<b>1,815</b>	<b>3,218</b>	<b>2,646</b>	<b>5,429</b>

### 4.8.3 FORBEARANCE

The Bank has adopted the European Banking Authority’s (EBA) definition of forbearance. According to the definition, an exposure is considered forborne if concessions, such as modification of terms or debt refinancing, have been granted due to the client’s financial difficulties of and those concessions would not have been granted in the absence of those financial difficulties.

The Bank is willing to consider forbearance measures in situations when a client is unable to comply with terms and conditions due to financial difficulties, but there is a realistic possibility that the terms and conditions can be met again. This is especially considered in cases when the Bank and the client have enjoyed a long-standing business relationship.

The decision to apply a forbearance measure is subject to the Bank’s credit granting mechanism, as described in section 4.2 and for potential forbearance cases there is, as a part of the relevant credit committee’s decision, a determination of whether the concession constitutes forbearance.

Table 4.17 shows the amount of forborne loans at the Bank by forbearance type and whether the loan is currently classified as performing or as a problem loan.

**Table 4.17** Forborne loans to customers

31 December [ISK m]	2017		2016	
	Performing	Problem Loans	Performing	Problem Loans
Modification	25,351	5,682	24,643	3,593
Refinancing	1,440	18	1,347	162
<b>Total</b>	<b>26,791</b>	<b>5,700</b>	<b>25,990</b>	<b>3,755</b>

Table 4.18 Non-performing and forborne exposures (EU CR1-E)

31 December 2017 [ISK m]	Debt securities	Loans and advances	Off-balance sheet exposures
<b>Gross carrying values of performing and non-performing exposures</b>	<b>55,097</b>	<b>778,583</b>	<b>147,063</b>
of which performing but past due > 30 days and <= 90 days		1,307	
of which performing forborne		26,791	599
of which non-performing		25,760	397
of which defaulted		11,293	4
of which impaired		12,758	30
of which forborne		11,078	51
<b>Accumulated impairment and provisions and negative fair value adjustments due to credit risk</b>			
on performing exposures		3,214	
of which forborne		315	
on non-performing exposures		10,268	
of which forborne		5,377	
<b>Collaterals and financial guarantees received</b>			
on non-performing exposures		16,063	
of which forborne exposures		5,898	

#### 4.8.4 EXPECTED CREDIT LOSS

Expected credit loss (ECL) is defined as the amount of credit loss that the Bank expects, on average, in the following business year. The Bank accounts for general provisions in its accounts, which are based on expected loss calculations. In addition, the Bank holds capital in order to be able to meet unexpected loss (see chapter 3.3).

The Bank has refined its ECL model, taking advantage of enhanced collateral management within the Bank and the experience gained from the economic difficulties in the past few years. Among the areas which benefit from these refined ECL calculations are the determination of collective provisions (see section 4.8.1), impairment predictions in the annual budget, and the pricing of credit, where credit spreads take into account the exposure’s expected loss, cost of capital, and operational cost.

Expected credit loss is calculated using the formula  $ECL = PD \cdot LGD \cdot EAD$  where each credit exposure’s ECL is derived from the customer’s probability of default (PD) as per the Basel III definition, loss given default (LGD) for the credit type, and the predicted amount of the exposure at default (EAD). For additional information about the estimation of PD see sections 4.7 and 4.7.1.

The main components of LGD are:

- ◆ the *cure-rate* of the exposure, which describes the probability that the customer returns to a non-defaulting status, without a write-off, within one year from the default event
- ◆ the *collateral gap* of the defaulted exposure, with haircuts based on historical evidence and expert judgement
- ◆ assessment of recoveries of defaulted non-collateralized exposures, conditional on non-cure

Expected credit loss is calculated using the formula

$$ECL = PD \cdot LGD \cdot EAD$$

## ► CREDIT RISK

Table 4.19 shows the expected credit loss rate for different customer and exposure classes. PD and LGD values are weighted by the corresponding balances. The expected credit loss rate decreases considerably from 56 bps to 39 bps year-on-year. Model development, as a part of the preparation for the adoption of the IFRS 9 accounting standard (see Note 71 in the Bank's Consolidated Financial Statements for 2017), explains a part of the decrease but also the increase in tax value of real estate in 2017 plays a big role in lower LGD for mortgage loans.

**Table 4.19** Expected credit loss by exposure type

31 December 2017	PD	LGD	EL
Corporate	1.6%	22.3%	0.33%
SME	6.1%	15.3%	1.05%
Individuals, Prime Mortgages	2.0%	2.4%	0.06%
Individuals, Other	4.0%	32.7%	1.32%
<b>Weighted average</b>	<b>2.3%</b>	<b>15.7%</b>	<b>0.39%</b>

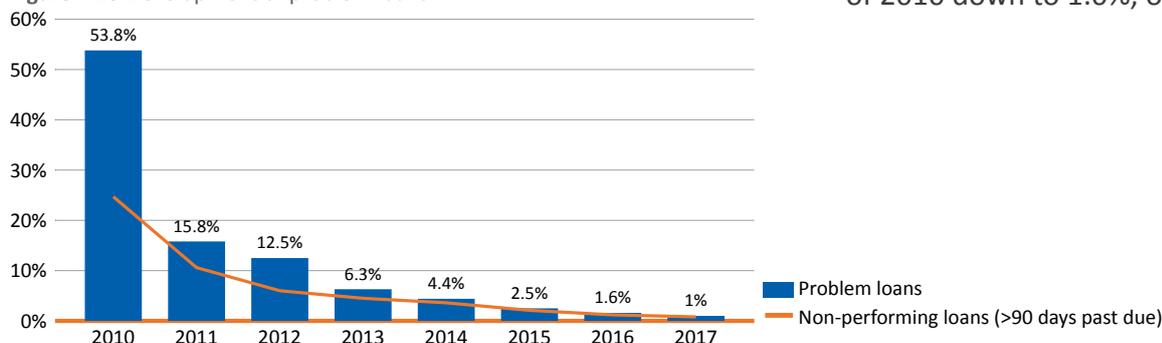
31 December 2016	PD	LGD	EL
Corporate	2.4%	20.9%	0.54%
SME	6.3%	18.3%	1.24%
Individuals, Prime Mortgages	1.8%	5.0%	0.12%
Individuals, Other	4.0%	35.2%	1.47%
<b>Weighted average</b>	<b>2.6%</b>	<b>17.0%</b>	<b>0.56%</b>

### 4.8.5 PROBLEM LOANS

The Bank defines *problem loans* as loans that are more than 90 days past due and loans that are not past due but individually impaired. This corresponds to the Basel II definition of default. The ratio of problem loans has steadily decreased since its peak in 2010, mainly due to the progress made in problem-loan restructuring, the resolution of the legal uncertainty surrounding FX loans, progress in legal collection, and better economic environment.

At year-end 2017, problem loans constituted 1.0% of loans to customers and had decreased from 53.8% in 2010, or by 98%, see Figure 4.18. 61% of problem loans, by value, at year-end 2017 are loans to individuals and 39% are loans to corporates.

**Figure 4.18** Development of problem loans



The breakdown of problem loans by status is shown in Figure 4.19. Approximately 14% of the problem loans are impaired without being over 90 days past due.

Problem loans, as a percentage of loans to customers, have decreased from 53.8% at the end of 2010 down to 1.0%, or by 98%

## ► CREDIT RISK

Figure 4.19 Breakdown of problem loans by status

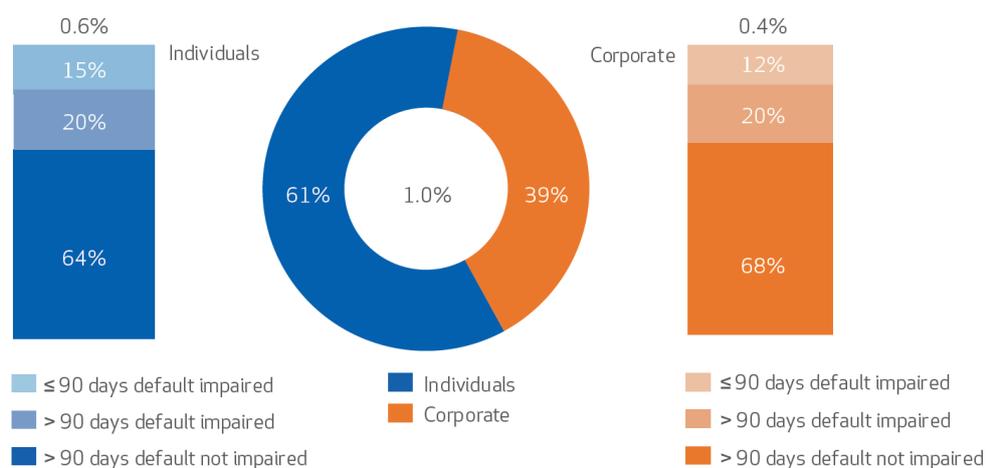


Table 4.20 Net and gross carrying value of problem loans

31 December 2017 [m ISK]	Type	Impaired or in default	Of which impaired	Of which in default	Total
Net carrying value	Corporates	2,922	962	2,535	399,814
	Individuals	4,507	1,529	3,898	365,287
	<b>Total</b>	<b>7,429</b>	<b>2,491</b>	<b>6,434</b>	<b>765,101</b>
Gross carrying value	Corporates	9,167	5,539	4,459	407,845
	Individuals	8,618	7,239	6,834	370,738
	<b>Total</b>	<b>17,785</b>	<b>12,778</b>	<b>11,293</b>	<b>778,583</b>

31 December 2016 [m ISK]	Type	Impaired or in default	Of which impaired	Of which in default	Total
Net carrying value	Corporates	3,827	2,046	2,306	375,006
	Individuals	7,755	3,185	6,568	337,416
	<b>Total</b>	<b>11,582</b>	<b>5,231</b>	<b>8,873</b>	<b>712,422</b>
Gross carrying value	Corporates	14,932	13,257	8,609	388,531
	Individuals	14,998	10,223	11,907	346,729
	<b>Total</b>	<b>29,930</b>	<b>23,480</b>	<b>20,515</b>	<b>735,260</b>

### 4.9 COUNTERPARTY CREDIT RISK

Counterparty credit risk is the risk of the Bank's counterparties in derivative transactions, securities lending, or repurchase agreement defaulting before the final settlement of the contract's cash flows.

The Bank offers financial derivative instruments to professional investors. Table 4.21 shows derivative trading activities currently permitted. The derivative instruments are classified according to primary risk factor and type of derivative instrument.

**Table 4.21** Permitted derivative trading activities

Primary risk factor	Swaps	Forwards	Options
Interest rate	x		
Foreign exchange	x	x	x
Securities		x	x
Commodities		x	x

Value changes are made in response to changes in interest rates, exchange rates, security prices and commodity prices. Counterparty credit risk arising from derivative financial instruments is the combination of the replacement cost of instruments with a positive fair value and the potential for future credit risk exposure. Replacement risk and future risk are used to calculate the capital requirement for counterparty credit risk in combination with the counterparty's risk weights, taking into account collateral posted (credit risk mitigation, CRM).

**Table 4.22** Analysis of counterparty credit risk exposure by approach (EU CCR1)

31 December 2017 [ISK m]	Replacement cost/current market value	Potential future credit exposure	EAD post CRM	RWAs
Mark to market	7,546	5,269	8,296	4,867
Original exposure				
Standardized approach				
IMM (for derivatives and SFTs)				
Financial collateral simple method (for SFTs)				
Financial collateral comprehensive method (for SFTs)			2,117	977
VaR for SFTs				
<b>Total</b>			<b>10,413</b>	<b>5,844</b>

**Table 4.23** CCR exposures by standardized risk-weights and exposure class (EU CCR3)

31 December 2017 [ISK m]	Risk weights				Total	Of which unrated
	0%	20%	50%	100%		
Exposure classes						
Central governments and central banks	170				170	
Regional governments or local authorities		10			10	10
Institutions			8,782		8,782	
Corporates				1,451	1,451	476
<b>Total</b>	<b>170</b>	<b>10</b>	<b>8,782</b>	<b>1,451</b>	<b>10,413</b>	<b>486</b>

**Table 4.24** Credit valuation adjustment (CVA) capital charge (EU CCR2)

31 December 2017 [ISK m]	Exposure value	RWAs
Total portfolios subject to the advanced method		
All portfolios subject to the standardized method	7,437	2,506
Based on the original exposure method		
<b>Total subject to the CVA capital charge</b>	<b>7,437</b>	<b>2,506</b>

The Bank sets limits on customer's total exposure to control the Bank's risk associated with derivatives trading. These limits are generally

## ► CREDIT RISK

client-specific and may refer specifically to different categories of contracts. Generally, collateral is required to cover potential losses on a contract. Should the net-negative position of the contract fall below a certain level, a call is made for additional collateral. If extra collateral is not supplied within a tightly specified deadline, the contract is closed. The margin-call process is monitored by Risk Management.

The margin-call process is monitored by Risk Management

**Table 4.25** Impact of netting and collateral held on exposure values (EU CCR5A)

31 December 2017 [ISK m]	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	7,546		7,546	-4,519	3,027
SFTs	7,599		7,599	-5,483	2,117
Cross-product netting					
<b>Total</b>	<b>15,146</b>		<b>15,146</b>	<b>-10,001</b>	<b>5,144</b>

**Table 4.26** Composition of collateral for exposures to CCR (EU CCR5B)

31 December 2017 [ISK m]	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair Value of Collateral received		Fair Value of Collateral posted		Fair Value of Collateral received	Fair Value of Collateral posted
	Segregated	Unsegregated	Segregated	Unsegregated		
Cash - domestic currency		870				1,833
Cash - other currency		3,481		1,582		
Domestic sovereign debt		224			1,747	88
Other sovereign debt					3,801	
Institutions		126				
Corporate		21			84	5,357
Equity securities		3,435				
Other collateral		588				
<b>Total</b>		<b>8,744</b>		<b>1,582</b>	<b>5,631</b>	<b>7,278</b>

### 4.10 INFORMATIVE: CPI-LINKED LOANS EXPLAINED

Loans indexed to the official consumer price index (CPI) have been a common credit product in Iceland since 1979. An Icelandic government agency, Statistics Iceland, maintains the CPI by measuring changes in the prices paid by consumers for a reference-basket of goods and services, the composition of which is based on an expenditure survey conducted regularly. The expenditure survey has been carried out continuously since 2000, and the results are used in the annual revision of the CPI base. The CPI is published monthly.

CPI-linked mortgages are the most common form of mortgage lending in Iceland. They are typically annuities, where the monthly payment and the remaining principal are linked to the CPI. As the real interest rates on the loans are generally lower than nominal rates, the initial payments for CPI-linked loans are lower than those for corresponding non-CPI-linked loans. This increases the borrower's purchasing power, which contributes to the popularity of the product.

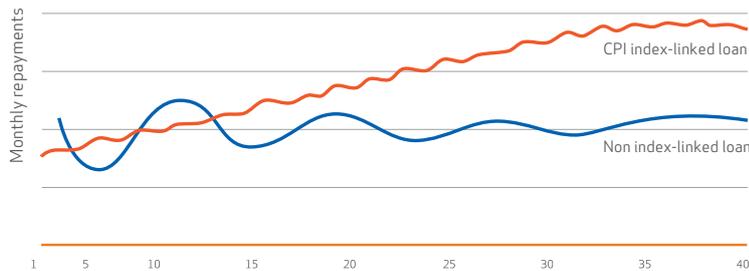
In an inflation environment there will be a gradual increase in the monthly payment. To understand the risk trade-off for the borrower it is interesting to contrast a CPI-linked mortgage and a non-CPI-linked mortgage with a variable interest rate. In a high inflation environment,

CPI-linked mortgages are typically annuities, where the monthly payment and the remaining principal are linked to the CPI

## ► CREDIT RISK

with e.g. 20% annual inflation, a monthly payment of 100 would rise to 120 year-on-year. In this environment, a non-CPI borrower might see a doubling of his interest rate which could lead, approximately, to a doubling of the monthly payment. The greater risk of default for the non-CPI loan is evident in this scenario. For CPI-linked loans, the inflation effect accumulates on top of the principal, effectively being borrowed throughout the lifetime of the exposure.

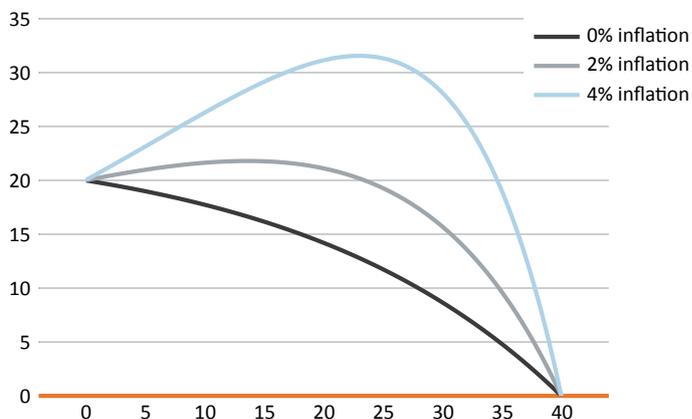
**Figure 4.20** Monthly payments of a 40 year CPI-linked annuity, for illustrative purposes



Default-risk in CPI-linked loans is further mitigated by a legislated mechanism called *payment adjustment* (IS: greiðslujöfnun). The purpose of this mechanism is to reduce the risk of borrower distress in periods when inflation outpaces increases in wages. The mechanism is triggered when the CPI exceeds the official wage index and has the effect that the monthly payment is temporarily indexed to the wage index instead of the CPI and a portion of the monthly payment is deferred. The deferred portion is drawn down once the wage index has surpassed the CPI or by extending the term of the loan.

The downside for CPI-linked loans is the borrower's equity position. Because the remaining principal is CPI-linked, in an inflation environment a negative amortisation may occur, particularly during the first part of the term, see Figure 4.21. During the period of 20% inflation in the aforementioned scenario, the remaining principal would increase by approximately 20%, which could deplete the borrower's equity (LTV could increase from 80% to 100%).

**Figure 4.21** The effect of inflation (x-axis) on the development of the remaining principal of a 40 year CPI-linked annuity [ISK m] (y-axis)



Typically wages and housing prices are correlated to the CPI in the medium and long term. Therefore, payment difficulties and LTV-deficiencies for a CPI-linked mortgage are often demonstrated to be temporary. This relationship was stressed following the financial crisis

For CPI-linked loans, the inflation effect accumulates on top of the principal, effectively being borrowed throughout the lifetime of the exposure

In an inflation environment a negative amortization of a CPI-linked loan may occur, particularly during the first part of the term

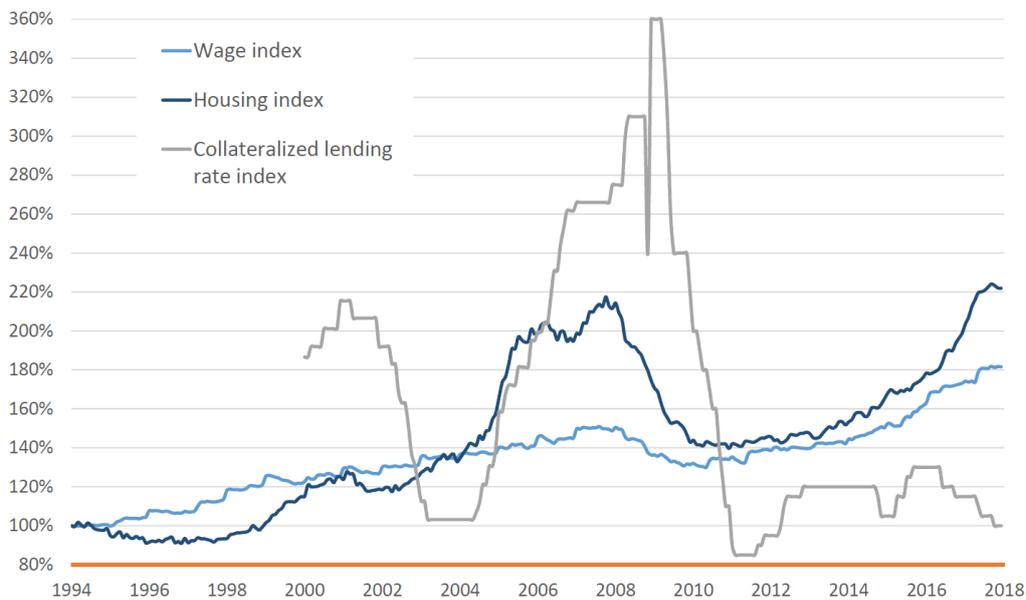
## ► CREDIT RISK

which began in October 2008. Figure 4.22 shows the development of the official wage and housing indices, in real terms. The figure demonstrates the approx. 35% average drop in housing prices and approx. 15% average drop in salaries – in real terms – during the recession of 2009-2010. The loss of home equity and purchasing power explains the loss in mortgage portfolio quality during the period.

Figure 4.22 also shows the development of the Central Bank's key interest rate (not CPI-linked) for collateralized lending (indexed to the 5% believed to be prevailing in 1994). Periods with sharp increases in the key rate are evident.

The loss of home equity and purchasing power during the recession of 2009-2010 explains the loss in mortgage portfolio quality during the period

**Figure 4.22** Development of wages, housing prices and interest rates



A significant portion of the Bank's CPI-linked mortgages has a fixed interest rate for up to 40 years and is match funded with covered bonds which have a pre-payment option.

## 5 MARKET RISK

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- 5.1 GOVERNANCE AND POLICY
- 5.2 MARKET RISK MANAGEMENT
- 5.3 MARKET RISK MEASUREMENT
- 5.4 MINIMUM CAPITAL REQUIREMENTS
- 5.5 FOREIGN EXCHANGE RISK
- 5.6 INDEXATION RISK
- 5.7 INTEREST RATE RISK IN THE BANKING BOOK
- 5.8 TRADING BOOK

## 5 MARKET RISK

Market risk is the current or prospective risk that changes in financial market prices and rates will cause fluctuations in the value and cash flow of financial instruments. The risk arises from market making and dealing, and positions in bonds, equities, currencies, derivatives, and any other commitments depending on market prices and rates. The main market risk factors are price risk, currency risk, indexation risk and interest rate risk.

### 5.1 GOVERNANCE AND POLICY

The Bank's market risk policy and market risk appetite is established by the Board of Directors and is reviewed annually.

In accordance with the market risk policy, the Bank's CEO has set up a market risk framework, which outlines responsibilities, rules and limit framework for market risk arising from the Bank's operations. On the management level, the Asset and Liability Committee (ALCO) is the principal authority for management and monitoring of market risk.

According to the policy, the Bank invests its own capital on a limited and carefully selected basis in transactions, underwritings and other activities that involve market risk. The Bank aims to limit market exposure and imbalances between assets and liabilities in balance with its strategic goals for net profit.

### 5.2 MARKET RISK MANAGEMENT

Market risk controls vary between trading and banking (non-trading) books where the trading book holds positions with trading intent, according to the EU Capital Requirements Directive, that are actively managed on a daily basis. The limit framework for the trading book is explicit and is monitored daily, while such a framework does not apply to the banking book due to the nature of the exposure. However, the banking book market risk exposure is monitored and reported on a monthly basis. The Board of Directors has set limits on various market risk exposures in the Bank's risk appetite statement.

**Table 5.1** Sources of market risk

Origin	Source	Risk Management
Trading Book	Positions held for Market Watch and Proprietary Trading purposes. Trading derivatives and associated hedge positions managed within Treasury and Capital Markets.	Explicit limits and rules for positions and hedging requirements. Daily monitoring.
Banking Book	Balance sheet imbalances.	Board of Directors' risk appetite and strategic management of ALCO. Monthly monitoring.

Risk Management's Balance Sheet Risk department is responsible for measuring and monitoring market risk exposure and compliance with the limits framework. The performance, exposure and relevant risk measures are summarized and reported to the relevant employees and managing directors on a daily basis. Exposures and relevant risk mea-

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asures are reported on a regular basis to ALCO and the Board of Directors.

### 5.3 MARKET RISK MEASUREMENT

Market risk exposure and price fluctuations in markets are measured on an end-of-day basis. The Bank uses various risk measures to calculate market risk exposure, see Table 5.2.

**Table 5.2** Methods of market risk measurement

Market risk type	Measurement methods
Equity risk	Exposure in equity is measured with net and gross positions. VaR and stressed VaR is used to assess risk of loss under current and severe circumstances.
Interest rate risk	Interest rate risk is quantified as the change in fair value and/or variability in net interest income, after simulating yield curve movements. This is done for all positions sensitive to interest rates. Prepayment risk is reflected in the Bank's models.
Foreign exchange risk	Foreign exchange risk is quantified using the net balance of assets and liabilities in each currency, and their total sum. This includes current positions, forward positions, delta positions in FX derivatives and the market value of derivatives in foreign currency. The VaR method is used to quantify possible losses.
Indexation risk	Indexation risk is quantified using the net balance of CPI-linked assets and liabilities. In assessing unexpected loss to earnings due to indexation, the CPI is simulated in conjunction with interest rate movements.

### 5.4 MINIMUM CAPITAL REQUIREMENTS

The Bank's capital requirements for market risk under Pillar 1 are calculated using the standardized method as stipulated in the EU Capital Requirements Regulation (CRR) No. 575/2013.

**Table 5.3** Market risk minimum capital requirements

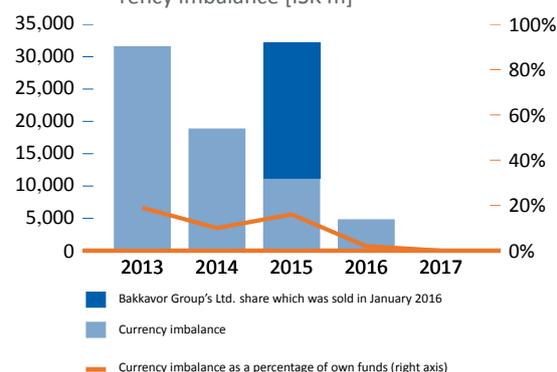
31 December 2017 [ISK m]	RWAs	Capital requirements
<b>Outright products</b>		
Interest rate risk (general and specific)	2,121	170
Equity risk (general and specific)	3,352	268
Foreign exchange risk	4,895	392
Commodity risk		
Options (non-delta)		
Securitisation (specific risk)		
<b>Total</b>	<b>10,368</b>	<b>830</b>

### 5.5 FOREIGN EXCHANGE RISK

Currency risk is the risk of loss due to adverse movements in foreign exchange rates. The Bank is exposed to currency risk due to imbalances between assets and liabilities for different currencies.

The Bank has managed to significantly reduce its total net position in currencies over the past years. At year end 2017 the consolidated currency imbalance was 0.1% of total own funds. According to the Central Bank's rules No. 950/2010 the currency imbalance may not exceed 15% of total own funds.

**Figure 5.1** Development of the Bank's currency imbalance [ISK m]



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**Table 5.4** Net position of assets and liabilities by currency and Value-at-Risk results at year-end 2017

Foreign currency [ISK m]	Net Exposure	10 day 99%VaR
EUR	-2,390	66
USD	753	34
GBP	2,770	128
DKK	-2,315	64
Other	1,371	60
Diversification		-204
<b>Total</b>	<b>189</b>	<b>147</b>

### 5.6 INDEXATION RISK

Indexation risk is defined as the risk of loss due to movements in the Consumer Price Index (CPI), i.e. inflation or deflation. A considerable part of the Bank's balance sheet consists of indexed assets and liabilities, the value of which is directly linked to the CPI. This risk factor should not be mistaken for inflation risk which represents the risk of loss in real value due to inflation.

At the end of 2017, the total amount of CPI-linked assets amounted to ISK 363,791 million and the total amount of CPI-linked liabilities amounted to ISK 230,851 million. Therefore, the net CPI-linked imbalance was ISK 132,940 million, which means that deflation would result in a loss for the Bank. The indexation imbalance has increased in 2017 by ISK 16,980 million primarily due to an increase in the Bank's inflation-linked loans to customers, which exceeded the increase in indexed liabilities.

The Bank strives to keep its indexation imbalance stable. The Bank views the imbalance as an important hedge against loss to equity in real value terms and as a hedge against increased leverage. The price of the hedge is reflected in higher volatility of earnings in nominal terms.

Periods of persistent deflation in the Icelandic economy are unknown in modern history. However the economy is currently in uncharted territory with an unprecedented period of low inflation. The Bank measures its capital requirements due to indexation risk in conjunction with interest rate risk as inflation is a dominant factor in the dynamics of interest rates and therefore cannot be viewed independently.

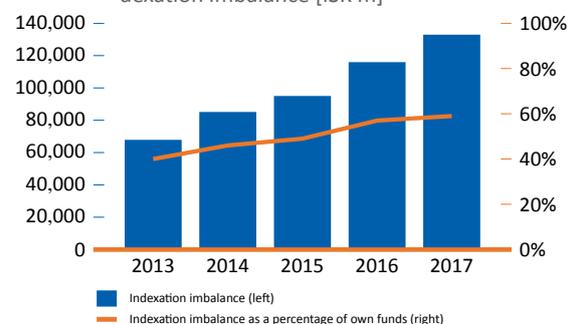
### 5.7 INTEREST RATE RISK IN THE BANKING BOOK

Interest rate risk is the risk of loss through changes in fair value or net interest income caused by changing interest rates. The Bank's balance sheet is subject to a mismatch between interest-bearing assets and interest-bearing liabilities, characterized by a gap in interest-fixing periods. A large amount of liabilities such as deposits have floating interest rates while assets in general have longer interest-fixing periods.

The Bank's strategy for managing interest rate risk is to strive for an interest rate balance between assets and liabilities.

The Bank's interest rate risk for foreign currencies is limited as foreign denominated assets predominantly have short fixing periods and the Bank has applied cash flow hedging for its foreign denominated fixed

**Figure 5.2** Development of the Bank's indexation imbalance [ISK m]



**Figure 5.3** Twelve month inflation in Iceland.



The Bank's balance sheet is subject to a mismatch between interest-bearing assets and interest-bearing liabilities, characterized by a gap in interest-fixing periods

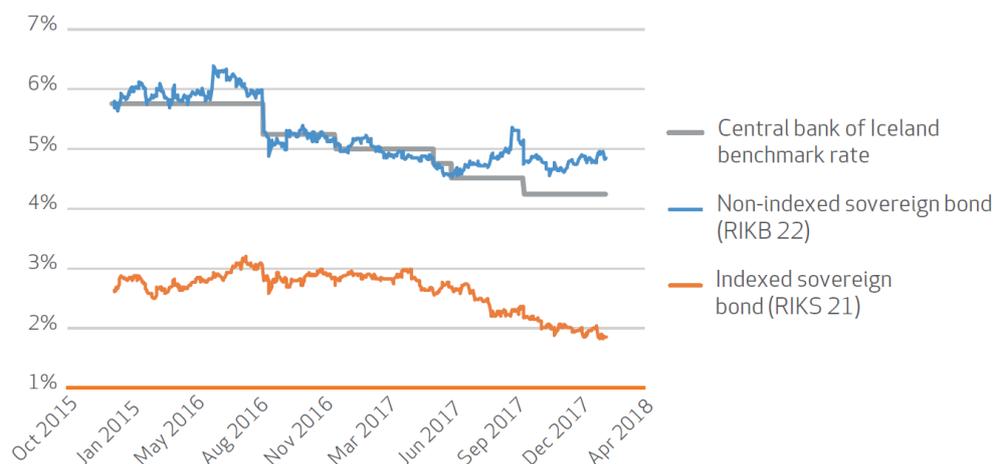
## ▶ MARKET RISK

rate borrowings. For domestic rates, longer fixing periods are more common, and this especially applies to indexed mortgages issued between 2004 and 2006. The fixing profile of indexed mortgages is however matched by that of the Bank's structured covered bonds issues, which serves as a hedge against repricing risk. The Bank has been able to manage relatively small interest fixing gaps.

For a breakdown of the Bank's interest-bearing assets and liabilities by interest-fixing periods, see Note 41 in the Consolidated Financial Statements.

In the past years domestic interest rates, nominal and real, have fallen. Due to favorable refinancing spreads, prepayments and refinancing of loans have been considerable. Prepayment risk is mitigated by prepayment fees and the Bank's own prepayment options. The Bank's prepayment of structured covered bonds is a reaction to mortgage prepayments and mortgage refinancing.

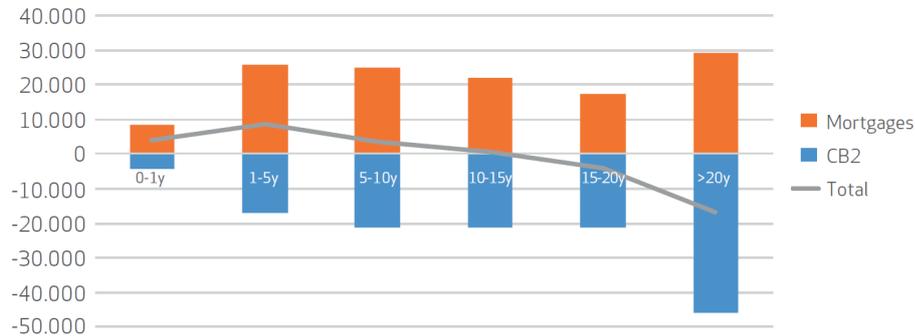
**Figure 5.4** Development of the Central bank of Iceland benchmark rate, and yields of sovereign bonds.



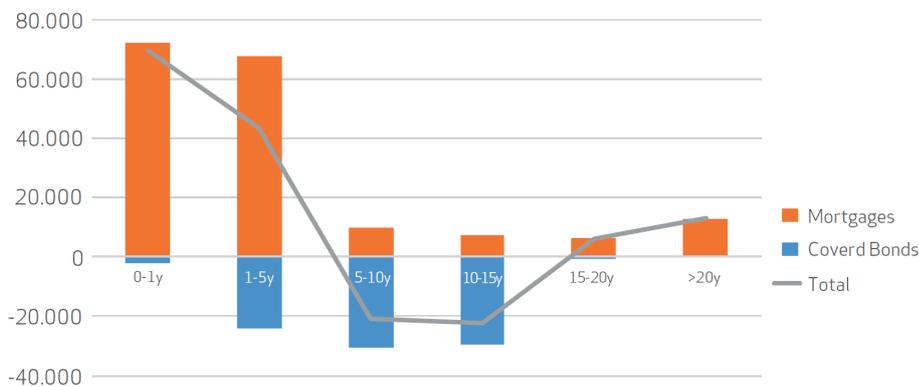
Refinancing of fixed-rate loans and matching covered bonds has resulted in the shortening of the Bank's interest-fixing profile as current market lending is targeted on shorter interest-fixing periods. This has resulted in reduced interest rate risk for the Bank. The Bank's net interest income is now sensitive to lower interest rates as its statutory covered bonds are largely non-prepayable. Figures 5.5 to 5.7 show the Bank's interest fixing profile for the Bank's mortgages to individuals and covered bonds, indexed and non-indexed.

## ▶ MARKET RISK

**Figure 5.5** Interest-fixing profile of the Bank's only remaining structured covered bond, CB2, and the corresponding pledged mortgages. CB2 is a prepayable bond [ISK m]



**Figure 5.6** Interest fixing profile of the Bank's indexed mortgages and covered bonds other than CB2 and its corresponding pledged mortgages [ISK m]



**Figure 5.7** Interest fixing profile of the Bank's non-indexed mortgages and covered bonds [ISK m]

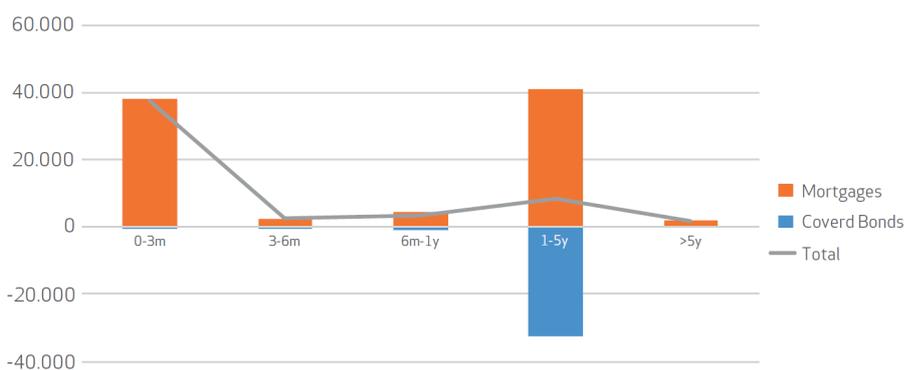


Table 5.5 shows the fair value sensitivity of interest-bearing assets and liabilities in the banking book for different yield curve shifts. The risk is asymmetric as the Bank applies its prepayment models in the fair value calculations, taking into account the prepayment likelihood of loans and matched liabilities and the expected behavior of non-maturing deposits. Note that the Bank's book value is not affected in the same way as the fair value.

## ▶ MARKET RISK

**Table 5.5** Sensitivity of the fair value of interest bearing assets and liabilities in the banking book by interest rate base

31 December 2017 [ISK m]	-100bps	-50bps	+50bps	+100bps
ISK, CPI indexed linked	-1,465	-237	1,254	2,411
ISK, Non Indexed linked	-76	-27	274	742
Foreign currencies	88	49	-55	-113

The capital assessment for interest rate risk in the banking book for domestic rates is calculated through simulations of ISK and CPI yield curve movements and the value of the CPI. The dynamics between interest rates and the CPI are calibrated to historical data and economic fundamentals. Significant diversification is observed due to the close correlation between inflation and interest rates. Economic capital is the 1% worst loss due to fair value losses and loss to net interest income due to changes to the CPI. For foreign currencies, the Bank applies a 200bps shock interest rate hike.

### 5.8 TRADING BOOK

The trading book is defined as the Bank's positions held with trading intent, which includes market watch and proprietary trading positions and non-strategic derivatives positions and associated hedge positions. The purpose of strategic derivatives is to reduce imbalances on the balance sheet and hedge against market risk. Non-strategic derivatives are however offered to the Bank's customers to meet their investment and risk management needs. Financial instruments on the trading book are exposed to price risk, i.e. the risk that arises due to possible losses from adverse movements in the market prices at which securities in the Bank's holding are valued.

#### 5.8.1 MARKET MAKING ACTIVITIES AND PROPRIETARY TRADING

Securities positions in relation with the Bank's market making and proprietary trading activities are shown in Table 5.6.

**Table 5.6** Positions within the Bank's market making activities and proprietary trading

31 December [ISK m]	2017	2016
Bonds	2,445	5,277
Equity	1,661	2,948
<b>Total</b>	<b>4,107</b>	<b>8,225</b>

Market watch is subject to a limit framework where possible breaches are monitored daily and reported to relevant parties such as the CEO, CRO, relevant MD and trader. The Bank's trading exposure varies from day to day and the following table shows the end of year exposure along with the 2017 average and maximum exposure in both equity and bonds.

**Table 5.7** The Bank's proprietary trading exposure

31 December 2017 [ISK m]	Bonds		
	Long	Short	Net
Year-end	2,445	-343	2,101
Average	4,808	-372	4,432
Maximum	7,736	-1,545	7,554

31 December 2017 [ISK m]	Equity		
	Long	Short	Net
Year-end	1,661	-67	1,594
Average	2,343	-17	2,326
Maximum	3,972	-136	3,972

## 5.8.2 TRADING DERIVATIVES

The Bank's derivative operation is twofold: a) a trading operation where the Bank offers a variety of derivatives to customers to meet their investment and risk management needs and b) a strategic operation where the Bank uses derivatives to hedge various imbalances on its own balance sheet in order to reduce risk such as currency risk. This section covers trading derivatives.

Trading derivatives are subject to a rigid limit framework where exposure limits are set per customer, per security, per interest rate etc. Forward contracts with securities are traded within Capital Markets and bear no market risk since they are fully hedged. Derivatives for which the Bank takes on market risk are traded within Treasury and are subject to interest rate limits per currency and an open delta position limit for each underlying security.

**Table 5.8** Derivatives on the trading book

31 December 2017 [ISK m]	No. of contracts	Assets	Liabilities	Net	Underlying positions	Main risk factor
Forward exchange rate agreements	30	332	236	97	28,224	Market risk
Interest rate and exchange rate agreements	39	945	579	365	24,719	Market risk
Bond swap agreements	18	1	15	-14	1,819	Credit risk
Share swap agreements	163	678	-47	631	8,212	Credit risk
Options	4	9	0	9	1,138	Market risk
<b>Total</b>	<b>254</b>	<b>1,965</b>	<b>783</b>	<b>1,088</b>		

31 December 2016 [ISK m]	No. of contracts	Assets	Liabilities	Net	Underlying positions	Main risk factor
Forward exchange rate agreements	106	67	236	-169	13,341	Market risk
Interest rate and exchange rate agreements	54	1,113	677	436	32,907	Market risk
Bond swap agreements	18	1	8	-7	2,995	Credit risk
Share swap agreements	183	597	457	140	8,138	Credit risk
Options	9	7	26	-19	1,218	Market risk
<b>Total</b>	<b>370</b>	<b>1,785</b>	<b>1,404</b>	<b>381</b>		

Counterparty credit risk is the risk of the Bank's counterparty in a derivative contract defaulting before final settlement of the derivative con-

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tract's cash flows. This risk is addressed in section 4.9.

### 5.8.3 TRADING BOOK RISK

The trading book's profit or loss is calculated daily. Table 5.9 shows the 10 day 99% Value-at-Risk for the trading book position at the end of 2017, based on historical data collected over the previous 250 business days. The risk of loss is calculated for each instrument and portfolio within the trading book, as well as for the aggregate portfolio. Loss due to currency risk is not taken into account in the loss distribution as it is addressed in the Bank's VaR calculations for currency risk which covers both the banking book and the trading book.

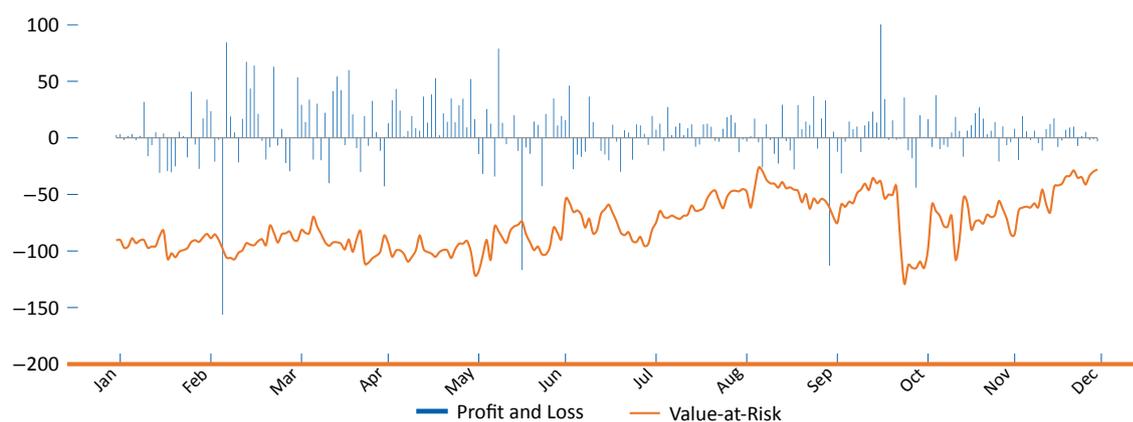
**Table 5.9** Value-at-Risk for the trading book with a 99 percent confidence level over a 1 day and 1 year horizon

31 December 2017 [ISK m]	10 day 99%VaR
Equities	294
Equity options	91
Bonds	93
Interest rate wvaps	65
Diversification effects	-329
<b>Trading book Total</b>	<b>214</b>

According to the result, there is 1% likelihood of loss in the trading book that exceeds ISK 214 million over a 10 day period.

Figure 5.8 further shows the daily profit and loss of the Bank's trading book for 2017 along with the evolution of its one-day 1% Value-at-Risk. The trading book's loss exceeds the VaR three times during the 250 business days, in line with the 2.5 times expected by the risk measure.

**Figure 5.8** Backtesting of the Bank's one-day 99 percent Value-at-Risk for 2017 [ISK m]



## 6 LIQUIDITY RISK

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- 6.1 GOVERNANCE AND POLICY
- 6.2 LIQUIDITY RISK MANAGEMENT
- 6.3 LIQUIDITY AND FUNDING RISK MEASUREMENT
- 6.4 LIQUIDITY POSITION
- 6.5 FUNDING

## 6 LIQUIDITY RISK

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Liquidity risk is the current or prospective risk that the Bank, though solvent, either does not have sufficient financial resources available to meet its liabilities when they fall due, or can only secure them at excessive cost. Liquidity risk arises from the inability to manage unplanned decreases or changes in funding sources.

An important source of funding for the Bank is deposits from individuals, corporations and institutional investors. As the maturity of loans generally exceeds the maturity of deposits, the Bank is exposed to liquidity risk.

### 6.1 GOVERNANCE AND POLICY

The Bank's liquidity and funding policy and related risk appetite statements are established by the Board of Directors and is reviewed annually.

In accordance with the liquidity and funding policy, the Bank's CEO has set up a liquidity and funding framework, which outlines responsibilities, strategy and methods in relation to the Bank's liquidity and funding risk. On the management level, the Asset and Liability Committee (ALCO) is the principal authority for management and monitoring of liquidity and funding.

According to the liquidity and funding policy, the Bank follows a conservative approach to liquidity exposure, liquidity pricing and funding requirement. The Bank maintains a sufficient level of liquid assets in order to meet expected and unexpected cash flows and collateral needs, without it having adverse financial impact on the Bank. Liquidity risk is considered in all material business activities. The Bank shall have a funding profile that supports its liquidity profile to withstand extended periods of stress without reliance on volatile funding or external support. The Bank manages its assets and liability mismatches, seeks a balanced maturity profile and diversifies its funding between deposits and wholesale funding.

### 6.2 LIQUIDITY RISK MANAGEMENT

Liquidity risk is a key risk factor and emphasis is placed on managing it. The Bank's liquidity risk is managed by the Treasury department on a day-to-day basis and monitored by the Balance Sheet Risk department. Treasury provides all divisions with funds for their activities against a charge of internal interest. A small part of the Bank's total liquidity risk is due to subsidiaries which have their own liquidity management.

ALCO is responsible for liquidity management conforming to the policies and risk appetite set by the Board. The committee meets monthly to review liquidity reports and make strategic decisions on liquidity and funding matters.

Liquidity risk is controlled by limit management and monitoring. Active management of liquidity is only possible with proper monitoring capabilities. An internal liquidity report is issued daily for Treasury and Risk

## ► LIQUIDITY RISK

Management staff and at each ALCO meeting liquidity and funding ratios are reported as well as information on deposit development and withdrawals, secured liquidity, stress tests and any relevant information or risk management concern regarding liquidity and funding risk. ALCO maintains and reviews the Bank's liquidity contingency level on a regular basis.

For best practice liquidity management, the Bank follows FME's *Guidelines for Financial Institutions' Sound Liquidity Management*, No. 2/2010, which are based on *Principles for Sound Liquidity Risk Management and Supervision*, issued by the Basel Committee in 2008.

### 6.2.1 INTERNAL LIQUIDITY ADEQUACY ASSESSMENT PROCESS

In conjunction with the ICAAP, see Section 3.4.1, the Bank runs the Internal Liquidity Adequacy Assessment Process (ILAAP) with the purpose of assessing the Bank's liquidity position. The ILAAP is carried out in accordance with the Act on Financial Undertakings with the aim to ensure that the Bank has in place sufficient risk management processes and systems to identify, measure and manage the Bank's liquidity risk.

The Bank's ILAAP report is approved annually by the Board of Directors, the CEO and the CRO and submitted to the FME. The FME reviews the Bank's ILAAP report following its supervisory and review process (SREP).

### 6.2.2 CONTINGENCY PLAN FOR LIQUIDITY SHORTAGE

The Bank monitors its liquidity position and funding strategies on an ongoing basis, but recognizes that unexpected events, economic or market conditions, earning problems or situations beyond its control could cause either a short or long-term liquidity crisis. Although it is unlikely that a funding crisis of any significant degree could materialize, it is important to evaluate this risk and formulate contingency plans should one occur.

The Bank's Contingency Plan for Liquidity Shortage is constantly active and the contingency level is reviewed at each of the monthly ALCO meetings, based on various analysis and stress tests. ALCO reviews a report on liquidity risk from Risk Management and receives projections on sources of funding and the use of funds from Finance.

## 6.3 LIQUIDITY AND FUNDING RISK MEASUREMENT

In December 2010, the Basel Committee on Banking Supervision issued Basel III: Internal Framework for Liquidity Risk Measurement, Standards and Monitoring. The framework introduced two new liquidity measures, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR), designed to coordinate and regularize liquidity risk measurements between banks. The Central Bank of Iceland has implemented LCR requirements for total and foreign currency positions as well as NSFR requirements for foreign currencies. The Bank reports the LCR and NSFR measures to the Central Bank of Iceland on a monthly basis.

LCR matches high quality liquid assets against estimated net outflow under stressed conditions in a period of 30 days. Different outflow weights are applied to each deposit category and the measure is thus dependent on the stickiness of each bank's deposit base. The ratio is therefore comparable throughout the banking sector.

## ▶ LIQUIDITY RISK

While the focus of LCR is on short term liquidity, the NSFR is aimed at requiring banks to maintain an overall stable funding profile. Subject to NSFR, funding with maturity greater than one year is considered stable. Different weights are applied to funding with shorter maturities depending on the type of funding. The aggregated weighted amounts are defined as the Available Stable Funding (ASF). Similarly, on-balance and off-balance sheet items on the asset side are weighted differently, depending on its liquidity and maturity, to form a bank's Required Stable Funding (RSF) under NSFR. The ratio of the two gives the NSFR. When calculating the ratio for foreign currencies, a negative foreign currency balance is subtracted from the numerator and a positive balance is subtracted from the denominator.

In addition to using LCR and NSFR for liquidity and funding measurement, the Bank performs various analysis, including liquidity survival horizons and stress tests in relation to the concentration of deposits.

### 6.4 LIQUIDITY POSITION

At year end 2017, the Bank's liquidity buffer amounts to ISK 228,909 million, or 20% of total assets and 50% of total deposits. Composition of the Bank's liquidity buffer is shown in Note 42 of the Bank's Consolidated Financial Statements.

The Bank's strong liquidity position was reflected in high Liquidity Coverage Ratio (LCR) values, namely 221% and 323% for total and foreign currency balances respectively. Under the liquidity rules issued by the Central Bank of Iceland, credit institutions are required to maintain a LCR above 100% from 1 January 2017, for both total LCR and LCR in foreign currencies.

The liquidity position at year-end 2017 should however be viewed in context of a foreseeable equity reduction and maturity of a EMTN issue in the first quarter of 2018. The liquidity position has been managed with forecasted LCR levels above 100% taking these outflows into account.

**Table 6.1** Liquidity Coverage Ratio

31 December 2017	FX	Total
Liquidity Coverage Ratio	323%	221%
LCR Central Bank requirements (2017)	100%	100%

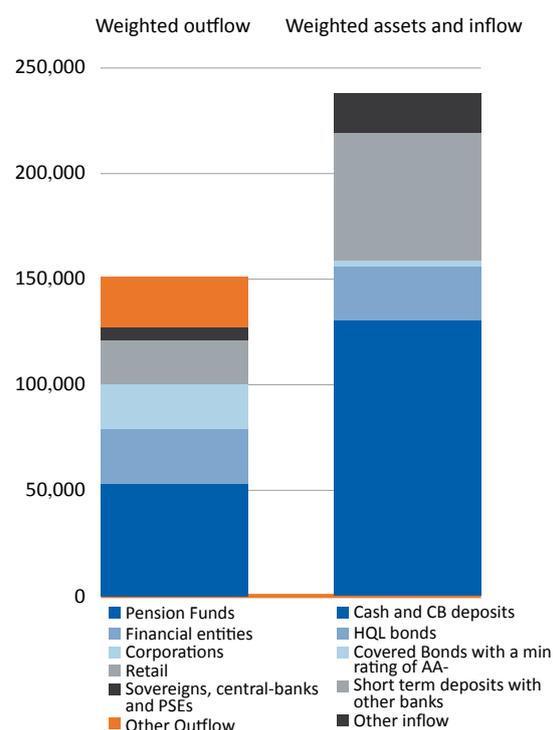
#### 6.4.1 BREAKDOWN OF LCR

As single point values of the LCR can give a distorted view of a Bank's liquidity profile, the Bank reports in table 6.2 the key figures behind the Bank's LCR based on averages of month-end observations over the twelve months preceding year-end 2017. For greater detail see exhibit EU LIQ1 in the accompanying excel sheet. In general, total inflow is capped at 75% of total outflow. As a result, the Bank's foreign currency position in nostro and money market accounts, which contribute to cash inflow under LCR, is not fully utilized for foreign currency LCR.

At 31 December 2017, under the LCR stressed scenario the Bank's weighted assets and inflows amount to ISK 238,261 million, substantially exceeding the stressed outflow of ISK 151,269 million. Of the total stressed outflow, ISK 133,180 million are due to deposits which are further analyzed in the section on deposit categories on page 80. Figure

At year end 2017, Arion Bank's strong liquidity position was reflected in high LCR values, namely 221% and 323% for total and foreign currency balances respectively

**Figure 6.1** Breakdown of the Bank's weighted outflow, inflow and assets under LCR's stressed scenario as of 31 December 2017 [ISK m]



## ▶ LIQUIDITY RISK

6.1 further shows the contribution of the Bank's main components to the LCR's weighted outflows, inflows and assets.

**Table 6.2** Breakdown of average end of month LCR values for the twelve months preceding 31 December 2017 (EU LIQ1)

Consolidated Quarter ending on 31 December 2017 [ISK m]			
Based on 12 data points	Unweighted amount	Weighted amount	Reference
<b>High-quality liquid assets</b>			
Total high-quality liquid assets (HQLA)		157,067	1
<b>Cash outflows</b>			
Retail deposits and deposits from small business customers, of which:	197,104	18,643	2
Stable deposits	45,836	2,292	3
Less stable deposits	151,268	16,352	4
Unsecured wholesale funding	163,048	106,434	5
Operational deposits (all counterparties) and deposits in networks of cooperative banks	22,442	5,609	6
Non-operational deposits (all counterparties)	138,134	98,352	7
Unsecured debt	2,473	2,473	8
Secured wholesale funding			9
Additional requirements	7,452	7,452	10
Outflows related to derivative exposures and other collateral requirements*	5,338	5,338	11
Outflows related to loss of funding on debt products	2,114	2,114	12
Credit and liquidity facilities			13
Other contractual funding obligations	996	996	14
Other contingent funding obligations	47,039	12,109	15
<b>Total cash outflows</b>		<b>145,634</b>	<b>16</b>
<b>Cash-inflows</b>			
Secured lending (eg reverse repos)			17
Inflows from fully performing exposures	94,573	69,754	18
Other cash inflows	11,291	3,626	19
(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)			EU-19a
(Excess inflows from a related specialised credit institution)			EU-19b
<b>Total cash inflows</b>	<b>105,864</b>	<b>73,380</b>	<b>20</b>
Fully exempt inflows			EU-20a
Inflows Subject to 90% Cap			EU-20b
Inflows Subject to 75% Cap			EU-20c
<b>Liquidity buffer</b>		<b>157,067</b>	<b>21</b>
<b>Total net cash outflows</b>		<b>72,254</b>	<b>22</b>
<b>Liquidity coverage ratio (average 12 month value)</b>		<b>217%</b>	<b>23</b>

\* Impact of an adverse market scenario on derivatives is based on the Historical Look-back Approach

## ▶ LIQUIDITY RISK

### 6.4.2 DEPOSIT CATEGORIES

As per the LCR methodology, the Bank's deposit base is categorized based on the type of deposit holders. Deposits are also classified as stable or less stable based on business relations and insurance scheme coverage. Each category is given an expected outflow weight based on stickiness, i.e. the likelihood of withdrawal under stressed conditions.

Figure 6.3 shows the contribution of each category, in order of magnitude, to the stressed outflow under LCR, whereas figure 6.2 shows the distribution of the Bank's deposit base.

At year end 2017, 61% of the Bank's deposit base are due to retail clients, up from 58% at year end 2016. The Bank has placed emphasis on increasing its retail deposit base.

### 6.4.3 CONCENTRATION OF DEPOSITS

As seen in figure 6.4, 77% of the Bank's deposits mature within 30 days compared with 75% at year end 2016. At the end of 2017, 18% of the Bank's deposits maturing within 30 days belonged to the 10 largest depositors, up from 16% in 2016 as seen in 6.5

Figure 6.2 Distribution of deposits by LCR categories at year-end 2017

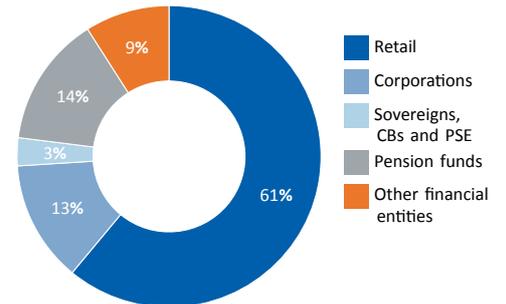


Figure 6.3 Source of impact on LCR outflow from deposits categories

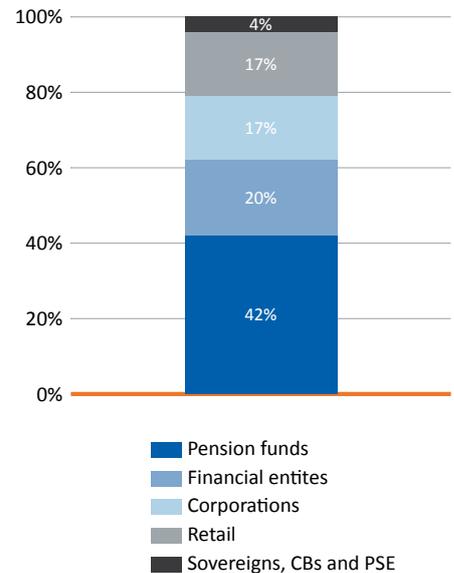
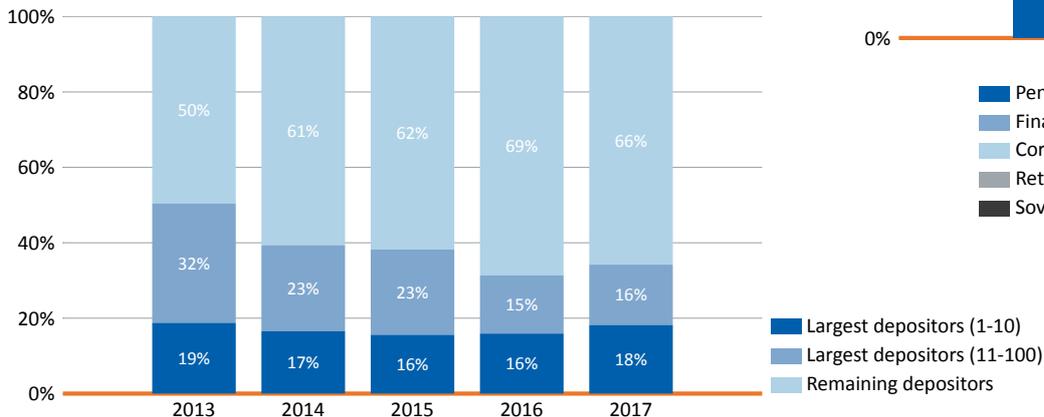


Figure 6.5 Concentration of deposits on demand within 30 days



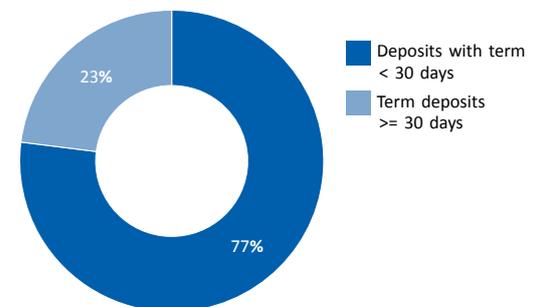
## 6.5 FUNDING

The Bank has continued to diversify its funding profile. In January 2017 the Bank tapped an existing EUR 300 million bond series issued in 2016 for an additional EUR 200 million, taking the total issued amount to EUR 500 million.

In June 2017 the Bank issued a new three year EUR 300 million bond under the EMTN programme. Part of the proceeds of this issuance was used to tender for EUR 100 million of the total of EUR 300 million bond series maturing in 2018. Another part of the proceeds were used to prepay the remaining USD 100 million of the originally USD 747 million bond issued to Kaupping in 2016, thereby replacing the bond fully with market funding.

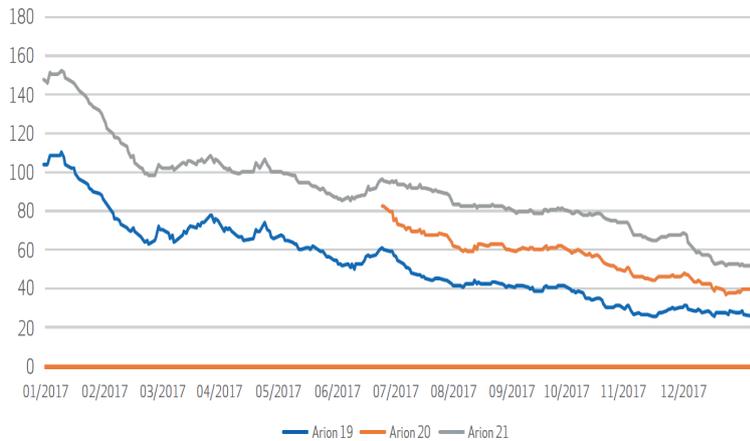
In October 2017 S&P upgraded the Bank's long-term issuer credit rating from BBB to BBB+ with a stable outlook citing strong domestic economic growth and a strong capital position as key drivers for the upgrade.

Figure 6.4 Deposit term distribution



## LIQUIDITY RISK

**Figure 6.6** Development of the market spread for the Bank's EUR bond issue [Basis points]

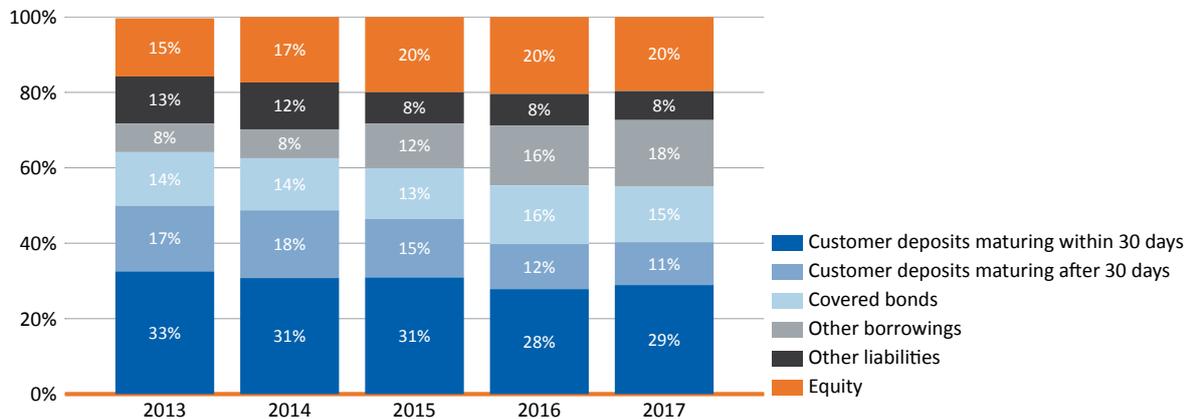


The Bank also issued privately placed bonds in Swedish and Norwegian Krone under the EMTN programme for around EUR 150 million in 2017.

Arion Bank continued to issue covered bonds which are secured in accordance with the Covered Bond Act No. 11/2008. The Bank issued a total of ISK 29.9 billion of covered bonds in 2017 in the domestic market, of which ISK 25.2 billion were inflation-linked bonds. The bank prepaid Structured Covered Bonds for an amount of ISK 22.4 billion due to prepayments of mortgages in the underlying cover pool. Arion Bank will continue to issue covered bonds on a regular basis in the domestic market in 2018.

Figure 6.7 shows the development of the Bank's funding profile.

**Figure 6.7** Development of funding by type



Despite progress in diversifying the Bank's funding sources and extending the maturity profile, the deposit base continues to be an important funding source and the focal point of liquidity risk management. The ratio of loans to deposits was 168% as at 31 December 2017. The development of the loans to deposits ratio is shown in Table 6.3.

Covered bonds are also an important source of funding and its payment profile is largely matched by the corresponding pledged mortgages, see Figure 6.8. Other liabilities are mostly foreign currency denominated with the next significant redemption in March 2018 as seen in Figure 6.9. As the Bank's foreign currency deposits are effectively entirely covered by liquid assets, these other FX liabilities are a source of funding for loans to customers in foreign currency. The duration of those liabil-

In October 2017 S&P upgraded the Bank's long-term issuer credit rating from BBB to BBB+ with a stable outlook

There is low maturity gap risk for the Bank's foreign currency position

## ▶ LIQUIDITY RISK

ities is greater than that of the loans, so there is low maturity gap risk for the Bank's foreign currency position.

The Bank's asset encumbrance ratio, the ratio of pledged assets and total assets, has decreased from 21% to 19% in the year 2017.

**Table 6.3** Development of the Bank's loans to deposits ratio and asset encumbrance ratio

31 December	2017	2016	2015	2014	2013
Loans to deposits ratio	166%	173%	145%	142%	135%
Asset encumbrance ratio	19%	21%	23%	27%	30%

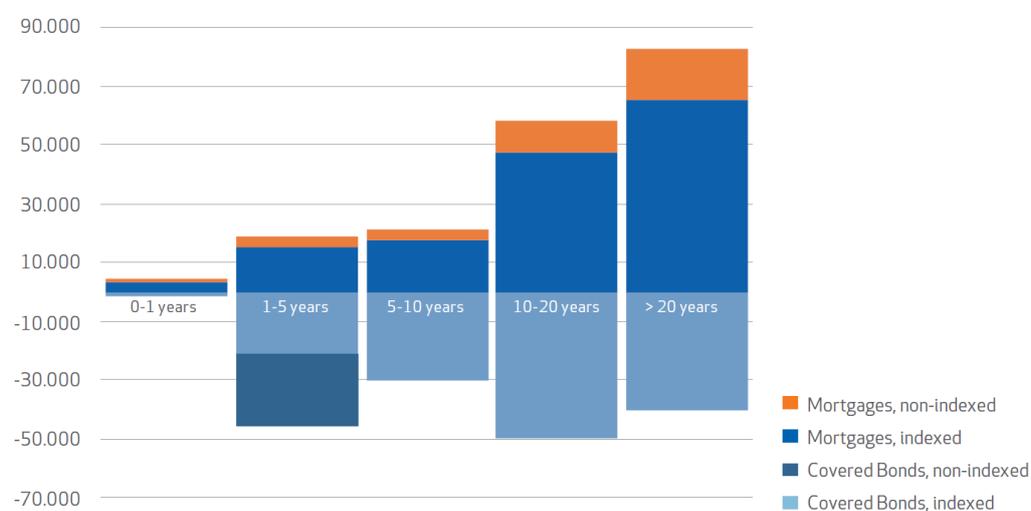
The NSFR for financial institutions' foreign currency positions shall be greater than 100%. The Bank's NSFR in foreign currencies is at 181% at year-end 2017 while the total NSFR is 125%.

**Table 6.4** Net Stable Funding Ratio

31 December 2017	FX	Total
Net Stable Funding Ratio	181%	125%
NSFR Central Bank requirements	100%	N/A

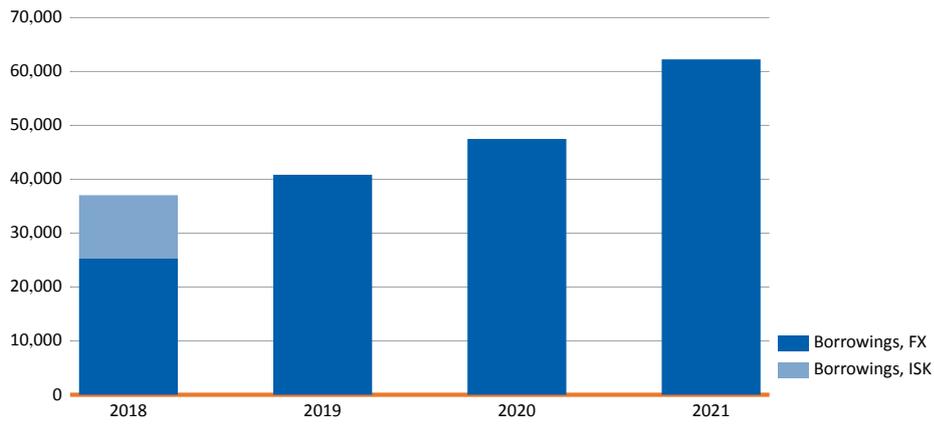
The Bank's NSFR in foreign currencies is at 181% at year-end 2017 while the total NSFR is 125%

**Figure 6.8** Contractual cashflow profile of covered bonds and corresponding pledged mortgages [ISK m]



## ▶ LIQUIDITY RISK

Figure 6.9 Maturity profile of borrowings, other than covered bonds [ISK m]



## 7 OPERATIONAL RISK

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- 7.1 OPERATIONAL RISK POLICY
- 7.2 OPERATIONAL RISK MANAGEMENT FRAMEWORK
- 7.3 REPUTATIONAL RISK
- 7.4 INFORMATION SECURITY AND IT RISK
- 7.5 OPERATIONAL RISK MEASUREMENT
- 7.6 INTERNAL CONTROL OVER FINANCIAL REPORTING

# 7 OPERATIONAL RISK

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Operational risk is the risk of direct or indirect loss or damage to the Bank's reputation resulting from inadequate or failed internal processes or systems, from human error or external events that affect the Bank's image and operational earnings.

Reputational risk, IT risk and legal risk are, among others, considered sub-categories of operational risk. Operational risk is inherent in all activities within the Bank.

- ◆ Reputational risk is defined as the risk arising from negative perception on the part of customers, counterparties, shareholders, investors or regulators that can adversely affect the Bank's ability to maintain existing, or to establish new business relationships and continued access to sources of funding.
- ◆ IT risk is defined as the risk arising from inadequate information technology and processing in terms of manageability, exclusivity, integrity, controllability and continuity.
- ◆ Legal risk is defined as the risk to the Bank's interests resulting from instability in the legal and regulatory environment, as well as risk arising from ambiguous contracts, laws or regulations (see also section 8.1).

Each business unit within the Bank is primarily responsible for managing their own operational risk. The Operational Risk department is responsible for developing and maintaining tools for identifying, measuring, monitoring and reporting the Bank's operational risk.

The Bank uses the Basel III standard approach for the calculation of capital requirements for operational risk.

## 7.1 OPERATIONAL RISK POLICY

The Bank's policy is to reduce the frequency and impact of operational risk events in a cost effective manner. The Bank reduces its exposure to operational risk with a selection of internal controls and quality management, educated and qualified staff, and awareness of operational risk. The Bank follows the Basel principles of sound management of operational risk. This policy defines operational risk at a high-level and delegates responsibility for further implementation and compliance within the Bank.

## 7.2 OPERATIONAL RISK MANAGEMENT FRAMEWORK

The operational risk management framework at the Bank aims at integrating risk management practices into processes, systems and culture. The Operational Risk department serves as a partner to senior management supporting and challenging them to align the business control environment with the Bank's strategy by measuring and mitigating risk exposure, contributing to optimal return for the stakeholders.

The ideology behind the framework is based on the effectiveness of managing processes, their risks and controls, analyzing deviations from best practices and continuously improving the operation.

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The Bank reduces its exposure to operational risk with a selection of internal controls, quality management and well-trained and qualified staff

## ▶ OPERATIONAL RISK

### PROCESS MANAGEMENT

The most important business processes are documented, where primary activities, risks and respective control are identified, along with employee roles and responsibilities. A uniform methodology is used to improve efficiency and increase standardization within the operation. Process mapping is not only an effective method to streamline the operation but necessary to determine the risks within the processes and relevant control activities.

### RISK ASSESSMENT

The Bank regularly performs a Risk and Control Self-Assessment (RCSA) on the main processes and important sub-processes underlying the operation, detecting and evaluating risks within the processes, and the effectiveness of the respective controls. The risks are assessed based on severity and likelihood of an event occurring as well as the effectiveness of the internal control environment. The assessment of the severity of an event includes both financial losses and reputational damage. Actions are planned for risks with extreme, high or moderate impact due to insufficient controls. The goal is to bring relevant risks to acceptable levels by enhancing the control environment.

### CONTROL MANAGEMENT

Internal controls minimize losses from operational risk events and ensure that the Bank's operation is efficient, compliant and that information is reliable, timely and complete. The Bank's internal controls involve management control as well as confirmation and testing of controls. Key controls are tested periodically based on design, implementation and performance.

### DEVIATION ANALYSIS

The Bank captures information on deviations from the Bank's standard operations (Loss Data) to provide meaningful information on operational risks and the effectiveness of internal controls. The analysis involves the impact of deviations on financial losses, damage to the Bank's reputation and the Bank's capital requirements. The information is utilized to understand the root cause of the event to be able to mitigate the risk and improve internal controls.

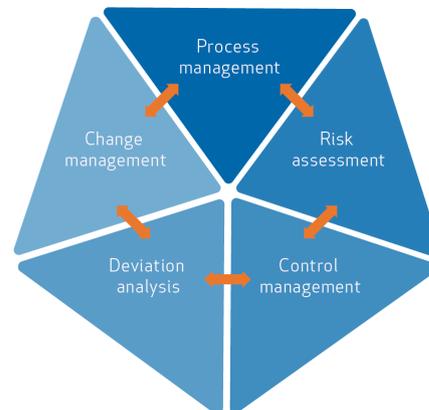
### CHANGE MANAGEMENT

The Bank has adopted an approval process for all critical changes within the operation. This include new or changed products, activities, processes and systems. The process assesses the possible impact on the Bank's processes, risks, controls, and systems. The process is used for new products, services or systems that are currently not offered to clients or a significant change to an existing product, service or systems. The process ensures an appropriate level of cross communication with all stakeholders, and an adequate preliminary assessment prior to implementation.

### CONTINUOUS IMPROVEMENT

Any issues arising from the RCSA, the auditing process, loss data collection or any other internal or external event are used to enhance the internal control environment of the Bank and can result in remediation on processes or internal controls. Once the issues are identified, analyzed and assessed, the business unit is in charge of improvements, but Operational Risk unit will support and follow up on planned actions.

Figure 7.1 Operational risk management framework



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The goal is to bring relevant risks to acceptable levels by enhancing the control environment. The Operational Risk department follows up on the planned actions with the units

## ▶ OPERATIONAL RISK

### 7.3 REPUTATIONAL RISK

The Bank has put in place controls to monitor reputational risk. The Bank performs a RCSA on the reputational risk that reveals what events can cause reputational damage, what the possible consequences are and what can be done to prevent the reputational event. This raises awareness of reputational risk within the Bank, and for the most severe events, contingency processes are prepared with the aim to prevent or reduce the damage that the Bank's reputation might sustain. The Bank uses the outcome from the RCSA and reputational data from the deviation database and applies stress tests that assess the effect of reputational risk regarding primary risk types (e.g., credit, liquidity, market or operational risk) to which the Bank may be exposed.

### 7.4 INFORMATION SECURITY AND IT RISK

Information security means that information is protected against a variety of threats to ensure business continuity, minimize damage and maximize performance. Information security includes ensuring confidentiality, integrity and availability.

The Bank's Security Officer (SO) is responsible for the day-to-day supervision of issues relating to the Bank's IT and data security, and is under the authority of the Security Committee. The Security Committee is responsible for the implementation and enforcement of the Bank's security policy.

Risk related to information security is managed according to the Bank's Information Security Management Manual and is based on best practices according to ISO/IEC27001:2013 Information technology - Security techniques - Information security management system - Requirement and the Information Technology Infrastructure Library (ITIL). The Bank has in place a business continuity management (BCM) approach with the aim to ensure that specific operations can be maintained or recovered in a timely fashion in the event of a major operational disruption.

To understand security risks better, the Bank conducts a special Information Security Risk Assessment on the Bank's most important assets, according to Guidelines No. 2/2014 on the Information Systems of Regulated Parties published by the Financial Supervisory Authority (FME).

### 7.5 OPERATIONAL RISK MEASUREMENT

The Bank uses Key Risk Indicators (KRIs) to provide an early warning that may be indicative of increased risk and/or ensure that risks remain within established tolerance levels.

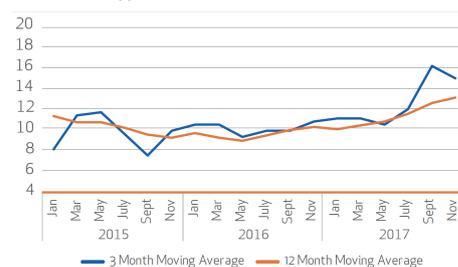
Major Incident (MI) is an event causing interruption in IT or a failure in a system classified as important. As these events can affect the service level provided to the Bank's customers and can, if serious enough, harm the operation, they are managed through a robust MI process. The purpose of the process is to ensure firm, coordinated and controlled action in the occurrence of MI, in order to restore service as soon as possible with minimum interruptions and damage to the business.

An increase in MIs was observed during 2017, see fig 7.2. This trend can largely be attributed to transition challenges due to outsourcing of operations of the Bank's IT infrastructure and the Bank's digitalization efforts, which place increased reliance on third-party providers of real-time data. In 2018 efforts will be made to normalize MI-rates to pre-2017 levels.

A new classification scheme was developed and deployed in the beginning of January 2018 categorizing the incidents depending on severity.

The Bank has in place a business continuity management (BCM) approach with the aim to ensure that specific operations can be maintained or recovered in a timely fashion in the event of a major operational disruption

Figure 7.2 Development of Major Incidents in IT

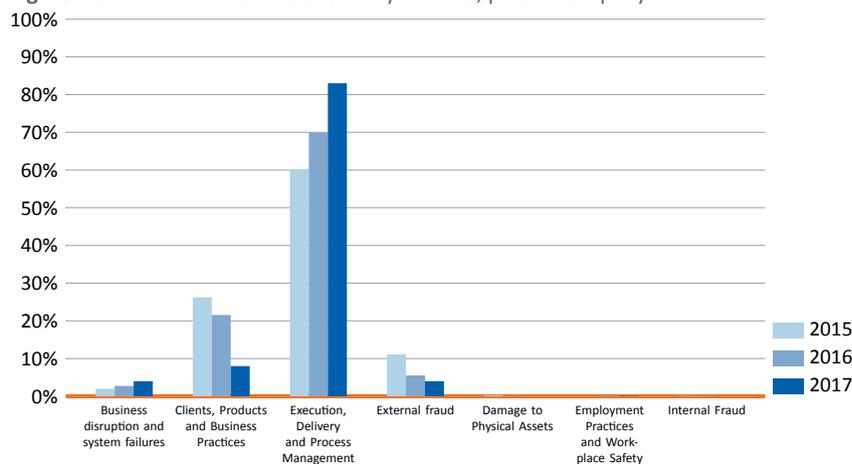


## ▶ OPERATIONAL RISK

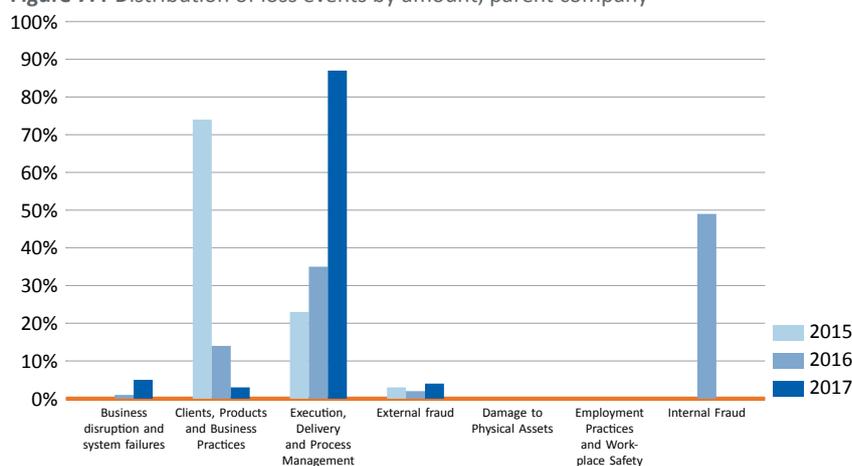
The three categories are Minor, Partial and Extensive. Minor are incidents that have little impact but need quick reactions, Partial are incidents that have a moderate and delimited effect on the business, and Extensive are incidents that have a significant impact on the bank and are reported to FME by the Security Officer.

The Bank utilizes the deviation data to quantify the operational risk the Bank faces in its current affairs. The Bank records the data using the categorisation from Basel and can quickly draw out a statistical summary that shows to which category most of the events belong and where the most significant losses occur.

**Figure 7.3** Distribution of loss events by number, parent company\*



**Figure 7.4** Distribution of loss events by amount, parent company\*



\* From 2016 the parent company has adopted the approach of estimating the loss of reported events when the final results are not known. Among the incidents that are subject to this change are three incidents of alleged internal fraud that were investigated in 2016. One of these incidents is alleged to have occurred in an entity that merged with the parent company in the year of 2015.

## 7.6 INTERNAL CONTROL OVER FINANCIAL REPORTING

Internal Control over Financial Reporting (ICFR) is a process designed to provide reasonable assurance regarding the reliability of financial reporting and reduce the risk of misstatement. The Bank's ICFR is based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Operational Risk unit has taken on the role of ICFR coordinator.

## ▶ OPERATIONAL RISK

### INCREASED FOCUS ON ICFR

In 2017, the Bank initiated a project of ICFR to improve the internal control of financial reporting further. This will be an ongoing project for the Bank. The Board, BAC and Executive Management Committee are monitoring the development and implementation of this project.

The ICFR framework is built upon five internal components: Control Environment, Risk Assessment, Control Activities, Information & Communication and Monitoring. The text below describes how the ICFR work is organized within the Bank with regards to these five components to ensure structured monitoring of key controls.

### PROCESS RISK ASSESSMENT AND ICFR CATALOGUE

In order to identify and understand the risks in the financial reporting, the Bank has identified the key processes affecting the financial statements. The processes were risk assessed, and key controls that mitigate the assessed risk were identified. The Bank will continuously monitor that the most significant risks are identified and that the controls in place will appropriately mitigate the risks.

The identified risks and key controls that affect the financial reporting are listed in the ICFR catalogue with a detailed description. The ICFR coordinator and Group Accounting continuously communicate with involved parties within the Bank that are responsible for controls, to set expectations and clarify responsibilities. The framework consists of group-wide controls as well as IT and process controls, for example, validation of the valuation of financial instruments.

### CONTROL MONITORING AND TESTING

The controls are monitored and evaluated on a continuous basis by control owners through self-assessments. Control owners shall confirm the implementation and effectiveness of controls which they are responsible for.

The ICFR coordinator performs a formal testing of all of the key controls that have been assessed as significant in mitigating risks regarding the financial closing of the Bank. The tests are performed in accordance with an annual testing plan that is based on the frequency and risk of mistakes in the performance of each control. The testing focuses on the design and implementation of each control and whether the control was performed. The results from the evaluations of the controls are analysed to assess the risk of misstatements in the financial reporting.

The Bank has issued procedures on the management and testing of controls within the Bank, linking the responsibility of controls to the overall internal control framework of the Bank.

### REPORTING

Semi-annually the ICFR coordinator reports to the BAC the outcome of the self-assessment and testing. Group Accounting is responsible for updating the Bank's financial handbook and other accounting instructions and making them available to the reporting units.

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8	<b>OTHER MATERIAL RISK</b>
9	<b>REMUNERATION</b>
10	<b>UPCOMING AND NEW LEGISLATION</b>
11	<b>ABBREVIATIONS</b>

## 8 OTHER MATERIAL RISK

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In addition to the previously mentioned risk types, the Bank faces other types of risks. Of these risk types, the Bank has identified legal and compliance risk, business risk and political risk as material risk. Other risk types are not considered material, and will not be discussed further.

### 8.1 LEGAL AND COMPLIANCE RISK

Legal risk is defined as the risk to the Bank's interests resulting from instability in the legal and regulatory environment, as well as risk arising from ambiguous contracts, laws or regulations. The Bank holds additional capital for legal risk under Pillar 2.

Compliance risk is defined as the current or prospective risk to earnings and capital arising from violations or non-compliance with laws, rules, regulations, agreements, prescribed practices or ethical standards. Compliance risk is present in all areas of the Bank. Compliance risk can lead to fines, damages and/or the voiding of contracts and can diminish the Bank's reputation.

In 2017, the Bank was not subject to any fines or other sanctions arising from violations or non-compliance.

Frequent changes to applicable requirements, and any ambiguous requirements, increase compliance risk. The Bank monitors upcoming changes, and has in place procedures for regulatory change management. Foreseeable changes in legislation that might affect the Bank are discussed in chapter 10. These risk factors are considered in the Bank's ICAAP.

#### LEGAL CLAIMS

Litigation is a common occurrence in the banking industry due to the nature of the business undertaken. The Bank has formal controls and policies for managing legal claims. Once professional advice has been obtained and the amount of loss reasonably estimated, the Bank makes adjustments to account for any adverse effects which the claims may have on its financial standing. At year-end, the Bank had several unresolved legal claims.

The largest cases concerning the Bank and possible impact on the Bank's financial position, can be put into a two categories: a) court cases and b) cases before other supervisory authorities. In 2017 there were several legal matters or unresolved legal claims that were considered contingent liabilities, such as legal proceedings regarding damages. The Bank is a party to a few significant cases, that fall into category a). Description of these cases can be found in Note 34 in the Consolidated Financial Statements for 2017.

#### COMPETITION

Competition is one of the factors that the Bank is constantly monitoring. To safeguard its own competitive practices, the Bank has set a competition compliance policy. According to the compliance policy, the Bank endeavors to protect and encourage active competition for the good of the consumer, the business sector and society at large. It is furthermore the Bank's policy to practice effective and powerful competition

## ▶ OTHER MATERIAL RISK

on all the markets on which it operates. An integral component of the Bank's competition policy is to ensure that the Bank complies with competition law at all times.

The Icelandic Competition Authority (ICA) opened a formal investigation into the alleged abuse of a supposed collective dominant position by the three largest retail banks in Iceland, which included the Bank. The investigation was initiated by separate complaints from BYR hf. and MP banki hf. in 2010. In 2017 the Bank concluded a settlement with the ICA which had the objective to stimulate competition in retail banking services for individuals and small businesses. The Bank has taken actions with the objective of e.g. reducing switching costs in financial services, promote active competition in financial services market for individuals and small businesses and negate circumstances that may enforce tacit co-ordination in the retail market. With the settlement the ICA has closed the investigation with respect to Arion Bank.

### 8.2 BUSINESS RISK

Business risk is defined as risk associated with uncertainty in profits due to changes in the Bank's operations and competitive and economic environment. Business risk is present in most areas of the Bank. Business risk is considered in the Bank's ICAAP.

The Bank faces competition in the marketplace. Competition from less regulated financial institutions has been increasing in recent years, for example the use of specialized credit funds that are able to offer better terms for quality loans. The pension funds' expanded participation in the mortgages market for individuals is further affecting the Bank. The Bank responds by offering more versatile and tailored services, and competes on price where possible. Another threat is competition from foreign banks that mainly target strong Icelandic companies with revenues in foreign currency.

Another competitive factor facing the bank is the large footprint of the Icelandic State in financial services through its ownership in Landsbankinn hf., Íslandsbanki hf., The Icelandic Housing Financing Fund and the Icelandic Student Loan Fund, who together are representing the largest pool of all loans to individuals.

Arion Bank faces a business risk in the form of excessive or unbalanced taxation. Several new taxes on financial institutions were introduced to help fund the recovery of the Icelandic financial system following the crisis of 2008 and were understood to be temporary. The taxes paid by the main Icelandic banks are much higher than those paid by other companies. Most significant in this respect are the special 6% tax on earnings exceeding ISK 1 billion and the bank levy of 0.376% on liabilities exceeding ISK 50 billion. Although the recovery of the Icelandic financial system and the Icelandic economy has, by most accounts, been successfully completed the tax environment has not changed.

### 8.3 POLITICAL RISK

Political risk is defined as risk to the Bank's interests resulting from political uncertainty, e.g. from political decision making or destabilizing political events, which therefore lead to instability in the legal and regulatory environment. In the present political and economic environment in Iceland, the Bank faces some political risk.

Iceland is part of the EEA Agreement and applies therefore most of the European Union legislation in the financial services sector. The Single Rulebook of the European Union aims to provide a single set of harmonised prudential rules which institutions throughout the EU must

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An integral component of the Bank's competition policy is to ensure that the Bank complies with competition law at all times

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Special taxes on Icelandic banks include the special 6% tax on earnings exceeding ISK 1 billion and the bank levy of 0.376% on liabilities exceeding ISK 50 billion

## ▶ OTHER MATERIAL RISK

respect. Nevertheless, in recent years the number of special Icelandic rules in the field of financial services has increased.

Given discussions in the Icelandic Parliament there is a certain possibility that the government will resort to regulatory restrictions that are different and more stringent than reforms being discussed in the rest of Europe. As the Icelandic State is now the majority owner of the Bank's principal domestic competitors, Landsbankinn hf. and Íslandsbanki hf., the likelihood of this event may have increased.

Foreseeable changes in legislation that might affect the Bank are discussed in chapter 10. These risk factors are considered in the Bank's ICAAP.

## 9 REMUNERATION

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Arion Bank has a remuneration policy in place in accordance with Act No. 2/1995, on Public Limited Companies, Act No. 161/2002, on Financial Undertakings, and the FME's Rules No. 388/2016, on Bonus Schemes under the Act on Financial Undertakings. The policy is an integral part of Arion Bank's strategy to protect the long-term interests of the Bank's owners, its employees, customers and other stakeholders in an organized and transparent manner. The Bank's subsidiaries also have remuneration policies in place when applicable in accordance with law.

### THE DESIGN OF THE REMUNERATION SYSTEM

Arion Bank's remuneration policy is framed in accordance with regulatory requirements, such as those established in the Financial Supervisory Authority's (FME) Rules No. 388/2016 on Bonus Schemes under the Act on Financial Undertakings. Arion Bank's remuneration policy is reviewed annually by the Board and submitted and approved at the Bank's annual general meeting. Arion Bank's remuneration policy is, furthermore, published on the Bank's website and information on compensation to the Board of Directors and Bank's management is disclosed in the Consolidated Financial Statements for 2017, see Note 11.

The Bank's main objective with regard to employee remuneration is to offer competitive salaries in order to be able to attract and retain outstanding and qualified employees. The Bank, furthermore, aims to ensure that the policy does not encourage excessive risk taking, but rather, supports the Bank's long-term goals and its healthy operation. The policy is an integral part of the Bank's strategy to protect the long-term interests of the Bank's owners, its employees, customers and other stakeholders in an organized and transparent manner. In accordance with Article 79a of Act No. 2/1995 on Public Limited Companies and rules on good corporate governance, the Board of Directors of Arion Bank approves the Bank's remuneration policy with respect to salaries and other payments to the Board Directors, Chief Executive Officer, Managing Directors, Compliance Officer and Internal Auditor.

### REMUNERATION COMPONENTS AND PARAMETERS

According to the previously cited FME's rules on Bonus Schemes under the Act on Financial Undertakings, the combined amount of variable remuneration, including deferred payments, may not exceed 25% of annual salary of the recipient employee. The rules require a deferral of at least 40% of the variable remuneration for a period of no less than three years, unless the total aggregate is less than 10% of the fixed salary of the employee, in which case the variable remuneration does not require deferral and may be paid in full.

Lastly, in accordance with the Rules, Risk Management, Compliance and Internal Audit review and analyze whether the variable remuneration scheme complies with the aforementioned rules and the Bank's remuneration policy. The objective of the scheme is to incentivize employees to help the Bank achieve its objectives. Well defined measures concerning risk and compliance are an integral part of the scheme. Parameters deciding the amount of the payments are on four levels:

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Arion Bank's remuneration policy is framed in accordance with regulatory requirements, such as those established by the FME, and is reviewed and approved annually

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The combined amount of variable remuneration, including deferred payments, may not exceed 25% of annual salary, with at least 40% thereof deferred for no less than three years

## ▶ REMUNERATION

- ◆ The performance of the Bank as a whole (these include return on equity, return on risk-weighted assets and costs-to-net income)
- ◆ Performance of individual divisions
- ◆ Performance of individuals
- ◆ Compliance with internal and external rules

In the year 2017 the Bank made provision for variable remuneration, including salary related expense.

### CORPORATE GOVERNANCE ARRANGEMENTS

The Board Remuneration Committee (BRC) and the Board Risk Committee (BRIC), which are established by the Board of Directors of Arion Bank, provide guidance to the Board on the Bank's remuneration policy. The BRC advises the Board on the remuneration of the CEO, Managing Directors, the Compliance Officer and Chief Internal Auditor, as well as the Bank's remuneration scheme and other work-related payments. The BRC convened 5 times in the year 2017. The committee consists of at least three members, the majority of whom must be independent of the Bank's significant shareholders. The CEO, Managing Directors, or other employees of the Bank cannot be members of the Committee.

The main responsibilities of the BRC are to review and propose changes to the Board on the Bank's remuneration policy, which proposes the changes to a shareholders' meeting. In addition, the BRC is tasked with ensuring that wages and other employment terms are in accordance with laws, regulations and best practices as current from time to time.

The CEO decides on a salary framework for Managing Directors and the Compliance Officer in consultation with the Head of Human Resources taking into consideration the size of the relevant division and level of responsibility.

A performance based compensation system has been in place since 2013 where both BRC and BRIC have a role as regards its design. BRC reviews and monitors the scheme, before submitting it to the Board, and BRIC's role is to assess annually whether incentives which may be contained in the Bank's system are consistent with the Bank's risk policy. About 100 employees take part in the scheme. They include the CEO, Managing Directors, many heads of divisions as well as several other employees. Excluded are the CRO, the Internal Auditor, the Compliance Officer, the Head of Research and all the employees they manage.

### QUANTITATIVE INFORMATION ON REMUNERATION

According to disclosure requirements set out in Art. 450 of the Capital Requirements Regulation (EU) No. 575/2013, financial undertakings are required to provide aggregate quantitative information on remuneration, broken down by senior management and members of staff whose actions have a material impact on the risk profile of the institution. The Bank discloses information on remuneration for all beneficiaries of variable remuneration.

Table 9.1 Remuneration broken down by business areas

[ISK m]	Asset management	Corporate banking	Investment banking	Retail banking	Other functions
Total remuneration in the year 2017	478	261	460	2,640	3,320
of which variable remuneration	41	28	19	64	78

The Board Remuneration Committee monitors the performance based compensation scheme, ensuring compliance with laws, regulations and best practices. The Boards Risk Committee annually assesses whether incentives are consistent with the Bank's risk policy

## ▶ REMUNERATION

**Table 9.2** Remuneration broken down by fixed and variable remuneration

[ISK m]	Executive management committee	Other beneficiaries
Number of beneficiaries	7	94
Total remuneration in the year 2017	256	1,683
Fixed remuneration	224	1,484
Variable remuneration	31	199
of which cash	31	199
of which to be paid out	19	119
Ratio of variable remuneration to fixed	14.0%	13.4%
Outstanding deferred remuneration		
Outstanding deferred remuneration from previous years	43	288
Deferred remuneration awarded during 2017	13	80
Reduced through performance adjustments	-7	-5
Vested in 2017 and paid out	-10	-94
New sign-on and severance payments made during 2017		
Number of beneficiaries		
Severance payments awarded during 2017		
Number of beneficiaries		
Highest severance payment		

Table 9.2 shows total remuneration earned in the financial year 2017 by the members of the Executive Management Committee of Arion Bank, as well as other beneficiaries, separated into fixed remuneration—including pension contributions and other salary related benefits—and variable, performance based remuneration. No variable remuneration took the form of shares but was granted as direct funds. Also, deferred remuneration is divided into vested and un-vested contributions, where the former refers to guaranteed payments earned in 2017 and due to be paid in 2018.

Boards of directors of individual subsidiaries decide on an incentive scheme for the subsidiaries. The Asset Management Company Stefnir and the card and payment solution company Valitor have incentive schemes in place. For information on a consolidated basis, see Note 11 in the Consolidated Financial Statements for 2017.

## 10 UPCOMING AND NEW LEGISLATION

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As a financial undertaking, Arion Bank, and many of its subsidiaries, must comply with various laws and regulations. The legal environment is dynamic and the Bank must therefore constantly monitor upcoming changes in legislation in order to meet legal requirements at any given time. The following section covers recent legislative activities by Parliament, Althingi, as well as upcoming legislation signalled by the Icelandic authorities, which the Bank deems necessary to mention.

### 10.1 NEW LEGISLATION

#### ACT NO. 23/2017 AMENDING THE ACT ON FINANCIAL UNDERTAKINGS (NO. 161/2002) AND THE ACT ON OFFICIAL SUPERVISION OF FINANCIAL ACTIVITIES (NO. 87/1998)

The amending Act continues the transposition of the CRD IV Directive (2013/36/EU) into Iceland's legal framework. The Act brings amendments to the Financial Undertaking Act (No. 161/2002) and the Act on Official Supervision of Financial Activities (No. 87/1998) and aims at establishing an effective and reliable mechanism to encourage reporting of potential or actual breaches of national provisions within financial institutions.

To this end, financial undertakings are obligated to operate specific procedures for the receipt of reports on breaches and their follow-up, while also implementing appropriate protection for employees who report breaches, both breaches committed as well as potential breaches. These procedures must be kept separate from other internal procedures.

Those tasked with receiving such notifications must be independent in their operations and financial institutions must ensure that sufficient competences, e.g. for information gathering, as well as financial resources are devoted to the task. Furthermore, employees that bring attention to infringements are to be protected and financial institutions are bound to confidentiality as regards their identity.

Furthermore, the Act makes clear that financial liability in relation to a reporting employee may ensue, should the financial institution be found to be in violation of the Act.

In addition, it should be noted that the EU's Capital Requirements Regulation No. 575/2013 (CRR-regulation) has now been adopted as secondary legislation, as of March 2017. This signifies a big stepping stone in the implementation of the CRD IV/CRR regulatory framework in Iceland.

The Act came into force 23 May 2017.

#### ACT NO. 24/2017 ON THE EUROPEAN SYSTEM OF FINANCIAL SUPERVISION

The Act implements a European System of Financial Supervision into the Icelandic legal framework. The Act adopts substantive provisions

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of EU Regulation 1093/2010 establishing a European Banking Authority (EBA), Regulation 1094/2010 establishing a European Insurance and Occupational Pensions Authority (EIOPA) and Regulation 1095/2010 establishing a European Securities and Markets Authority (ESMA).

The aim is to ensure uniform surveillance and application throughout the entire EEA. In accordance with the two-pillar structure of the EEA Agreement, the EFTA Surveillance Authority (ESA) will have the formal power to take decisions addressed to national supervisory authorities or market operators in Norway, Iceland and Liechtenstein. Furthermore, ESA will formally be the designated supervisory authority for credit rating agencies and trade repositories established in the three countries.

The Act came into force 23 May 2017.

### ACT NO. 36/2017 AMENDING THE ACT ON INTEREST AND INDEXATION (NO. 38/2001), ACT ON THE CENTRAL BANK OF ICELAND (NO. 36/2001), AND THE CONSUMER MORTGAGE ACT (NO. 33/2013), CONCERNING LOANS IN FOREIGN CURRENCIES AND CAUTIONARY RULES

The Act addresses a reasoned opinion by the EFTA Surveillance Authority (ESA), which concluded that an all-out ban on granting exchange rate indexed loans in ISK was inconsistent with Iceland's obligations via the EEA Agreement. Prior to the Act entering into force, savings and loans could be price indexed if the basis of the indexation was the consumer price index as calculated by Statistics Iceland, in accordance with the law applicable to that index. Furthermore, loan agreement could be based on a share price index, domestic or foreign, or a collection of such indices which did not measure changes to general price levels. The Act came into force on 1 June 2017.

Two rulings by the Supreme Court of Iceland in 2010 confirmed that since Act No. 38/2001 did not provide a legal basis for the granting of exchange rate indexed loans in ISK, such loans were not legal. Those rulings concerned the granting of exchange rate indexed loans to two individuals. In 2011, the Supreme Court of Iceland subsequently ruled that this prohibition also applied to legal persons.

ESAs reasoned opinion concluded that Iceland was in breach of the EEA Agreement, since such a ban on indexed loans would dissuade Icelandic financial institutions from financing their loans in other currencies than the national currency and therefore restrict the free movement of capital. The Authority did, however, acknowledge the risks associated with such lending practices.

Accordingly, the Act includes regulatory competences for the Central Bank of Iceland (CBI) in line with an overall macro-prudential framework for financial stability. The CBI may, on the basis of a financial stability assessment and based on recommendations by the Financial Stability Council, set rules concerning the granting of exchange rate indexed loans to those lacking adequate protection vis-à-vis exchange rate risks. The rules may include provisions on maturity and repayment periods, permissible collateral, and maximum loan-portfolio ratios of such loans for individual financial institutions, as well as requiring specific reporting to the CBI. In addition, as concerns consumers specifically, the Act mandates that consumer's ability and propensity to repay the credit should always be assessed and verified before a credit agreement is concluded, as well as requiring an obligation to provide specific information to consumers.

The Act came into force on 16 June 2017.

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### ACT NO. 55/2017 ON SHORT SELLING AND CREDIT DEFAULT SWAPS

The Act, transposing EU Regulation No. 236/2012 on Short Selling, introduces new requirements to notify competent authorities when a short position exceeds certain limits, places restrictions on unprotected short selling and provides regulatory bodies the authority under certain conditions to temporarily ban short selling or to publicly disclose the short position of a party.

The Act represents a novelty in the Icelandic legal framework, as there were no general provisions on the short selling of financial instruments in Icelandic law. The aim is increased transparency of short positions held by investors and a reduction in settlement risks. Also, competent authorities will have powers to intervene in exceptional situations to reduce systemic risks and risks to financial stability and market confidence arising from short selling and credit default swaps.

It should be noted that the Icelandic Financial Services Association in its remarks to Parliament during the legislative process, made several comments concerning the clarity of provisions defining criminal sanctions according to the Act. The main criticism, which Parliament decided not to heed, concerned the lack of clear definitions in the Act itself of behaviour constituting criminal offences. This is due to the fact that the Act in fact cites definitions found in the corresponding EU Regulation rather than defining them in the legal text itself.

The Act came into force 1 July 2017.

### ACT NO. 27/2017 AMENDING THE ACT ON THE TREATMENT OF KRÓNA-DENOMINATED ASSETS SUBJECT TO SPECIAL RESTRICTIONS (NO. 37/2016)

The amending Act is part of a Government plan to remove capital controls and includes a twofold concession to owners of króna-denominated assets subject to special restrictions. Firstly, withdrawals are permitted from the special custodial accounts, where these assets are kept, when stemming from accrued expenses due to loan obligations, without prior approval by the Central Bank of Iceland (CBI). Secondly, yearly permitted withdrawal from said accounts is raised from ISK 1 million to ISK 100 million. This only applies to individuals and not legal persons, however.

The Act came into force 27 May 2017.

### ACT NO. 26/2017 AMENDING THE PUBLIC LIMITED COMPANY ACT (NO. 2/1995) AND THE PRIVATE LIMITED COMPANY ACT (NO. 138/1994)

The amendments introduced aim at simplifying and modernising Iceland's company law by adopting corporate registration and its legal structure for the availability of electronic registration submissions.

The Act came into force 25 May 2017.

### ACT. NO. 25/2017 AMENDING THE PUBLIC LIMITED COMPANY ACT (NO. 2/1995), THE PRIVATE LIMITED COMPANY ACT (NO. 138/1994) AND THE ACT RESPECTING FOUNDATIONS ENGAGING IN BUSINESS OPERATIONS (NO. 33/1999)

The amending Act simplifies the legal framework for Public Limited Companies and Private Limited Companies. The most salient amendments are as follows: Firstly, a requirement that a majority of founders of Public Limited Companies and Private Public Limited Companies be resident in Iceland, another Contracting State to the EEA Agreement, a State party to the European Free Trade Association or in the Faroe Islands is removed. Secondly, registered NGOs and Pension Funds no

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longer require an exemption to found such companies. Thirdly, similar residency requirements vis-à-vis members of a Board of Directors, CEOs and Branch Managers are removed. Fourthly, minor changes were passed concerning initial capital requirements. Lastly, a duty of notification is introduced should a Board Member lose his or hers eligibility for a seat on the board.

The Act came into force 25 May 2017.

### ACT NO. 59/2017 AMENDING VARIOUS ACTS ON TAXES, CUSTOMS AND OTHER FEES

The Act brought several amendments to the tax code. The most salient changes concerning the Bank include amendments regarding joint taxation of cross-border corporations within the EEA, as well as limitations on deductions due to interest payments, when a lender is subject to unlimited taxation in Iceland.

The Act came into force 21 June 2017.

### ACT NO. 61/2017 ON THE SUPPLEMENTARY SUPERVISION OF FINANCIAL CONGLOMERATES

The Act implements Directive 2002/87/EC on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate and Directive 2011/89/EU as regards the supplementary supervision of financial entities in a financial conglomerate. The Act also provides a legal basis for the Financial Supervisory Authorities' (FME) regulation No. 165/2014. As far as known, no financial conglomerate is operating in Iceland today.

The Act came into force 21 June 2017.

## 10.2 UPCOMING LEGISLATION

### 10.2.1 BILLS TO BE SUBMITTED TO PARLIAMENT

#### BILL ON OTC DERIVATIVES

The bill aims at enhancing transparency of OTC derivative trading and reducing counterparty and operational risk as well as increasing the activity of the derivative market via more effective procedures. The bill implements Regulation No. 648/2012/EB (EMIR) on OTC derivatives, central counterparties and trade repositories into Icelandic law.

The acronym EMIR stands for European Market Infrastructure Regulation, whereas the legislative act is grounded on an agreement made in Pittsburgh, US, in September 2009 by the leaders of the G20 countries. Amongst the changes introduced include all standardized OTC derivatives contracts to be cleared via central counterparties, the objective of which is to minimise systemic risks, as well as reporting duties to a trade repository, which is to include at least the counterparty and the underlying of the derivatives contract as well as the face value of the contract.

The impact of this will be a substantial change to current market practices. Challenges include setting-up of internal processes in relation to the compliance with the reporting and clearing obligations.

The bill was submitted to Parliament in January 2018.

#### BILL ON AMENDMENTS TO THE FINANCIAL UNDERTAKING ACT (NO. 161/2002)

The bill brings amendments to the Financial Undertakings Act that are expected to be implemented early in 2017. The amending bill corre-

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sponds to provisions of Directive 2001/24/EC on the reorganisation and winding up of credit institutions and seeks to respond to comments made by the EFTA Surveillance Authority, which found Iceland to have improperly transposed certain provisions of the Directive.

It should be noted that the EFTA Surveillance Authority published a reasoned opinion in February 2018 concerning Iceland's failure to address the issue and correct its legal framework. A reasoned opinion is the last step before the Authority brings Iceland before the EFTA Court for a breach of the EEA Agreement.

The Bill is expected to be submitted to Parliament in early 2018.

Another bill, amending the Financial Undertakings Act, is one of the final part of the CRD IV implementation process. The amending bill concerns branch activities of financial undertakings and other financial services operating within the EEA, namely, branch operations by EEA financial institutions as well as activities of branches by non-EEA financial institutions in Iceland.

In addition, the proposed bill will likely transpose Directive 2014/59/EU (BRRD) into Icelandic law through amendments to the Financial Undertaking Act. The BRRD lays out a comprehensive set of measures which ensures that banks and authorities make adequate preparation for crises. The BRRD will equip national authorities with the necessary tools to intervene in a troubled institution at a sufficiently early stage to address developing problems and have harmonized resolution tools and powers to take rapid and effective action when bank failure cannot be avoided. With the BRRD it will be mandatory for banks to build a Recovery Plan which meets the BRRD standards and requirements.

The bill is expected to be submitted to Parliament in early 2018.

### BILL ON THE PROTECTION OF PRIVACY

In April 2016, an agreement was reached between the relevant EU institutions on a new European legal framework for data protection, the General Data Protection Regulation 2016/679 (GDPR), which is scheduled to come into force on May 25 2018 in the EU.

Protection of personal data falls within the confines of the EEA Agreement and hence Icelandic legislation mirrors that of the EU's. Therefore, the Regulation will be introduced in Iceland and it is expected that the date of adoption in Iceland will mirror that of the EU's date of entry into force.

The reform in question signifies the biggest reform of data protection by the EU since the adoption of Directive 95/46/EC, which Iceland's current Act on the Protection of Privacy as regards the Processing of Personal Data, No. 77/2000, is based on. The framework seeks to strengthen and unify data protection for individuals in the EEA and entails a strict data protection compliance regime with somewhat severe penalties in case of breaches. The regulation also applies to organizations based outside the EEA should they process personal data of EEA residents.

A bill is likely to be submitted to Parliament in May 2018.

### BILL ON NEW ACT ON MANAGERS OF ALTERNATIVE INVESTMENT FUNDS

The bill transposes Directive 2011/61/EU on Alternative Investment Fund Managers. The Directive introduces a legal framework for the authorization, supervision and oversight of managers of a range of alternative investment funds (AIFM), including hedge funds and private equity funds located and/or operated in EU countries requiring fund managers to obtain authorization from the competent authority as well

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as making them subject to supervision. Furthermore, the bill will repeal provisions of the Act on Undertakings for Collective Investment in Transferable Securities (UCITS), Investment Funds and institutional investor funds regarding investment funds (No. 128/2011).

The bill is expected to be submitted to Parliament in early 2018.

### BILL ON SECURITIES SETTLEMENT AND ON CENTRAL SECURITIES DEPOSITORIES

Regulation No. 909/2014 on improving securities settlement and on central securities depositories (CSDR) is intended to harmonise the relevant rules in this sector and to better ensure safe and efficient settlements of security transactions. Examples of further demands concern increased prudential requirements for central securities depositories and an increase in regulatory oversight.

A bill is likely to be submitted to Parliament in early of 2018.

### BILL ON AML IV

The AML IV Directive 2015/849/EU seeks to reinforce the efficacy of the fight against money laundering and terrorist financing, and to align Union legal acts with the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation adopted by the FATF in February 2012. The Directive applies i.a. to credit and financial institutions, and emphasizes the use of a risk-based approach to identify, understand and mitigate the risks of money laundering and terrorist financing. Member States shall bring the Directive into force by 26 June 2017, and a bill to that effect is likely to be submitted to Parliament in 2018.

The bill is expected to be submitted to Parliament in early 2018.

## 10.2.2 EU DIRECTIVES AND REGULATIONS – EXAMPLES OF FORESEEABLE IMPLEMENTATION

Considerable changes have taken place recently in the legal environment of financial institutions, on account of changes brought about by the introduction of EU directives to the EEA agreement and subsequently into Icelandic law. In the medium term there is also a great deal of work to be carried out concerning proposed changes to legislation applying to banking and in response the Bank is now in carrying out implementation process. Legislation to be implemented include e.g. UCITS V, MiFID II, MAR, PSD II and GDPR.

### UNDERTAKINGS FOR THE COLLECTIVE INVESTMENT IN TRANSFERABLE SECURITIES BILL

Directive 2014/91/EU brings amendments to the regulatory framework outlined by Directive 2009/65/EB Undertakings for collective investment in transferable securities, in conjunction with higher standards vis-à-vis alternative investment funds which the implementation of the AIFM Directive will introduce. The amendments focus on further clarifying the UCITS depositary's functions and improvements to provisions governing their liability, should assets be lost in custody; the introduction of rules on remuneration policies; and harmonisation of the minimum administrative sanctions that are to be available to supervisors.

A bill might be submitted to Parliament in autumn of 2018.

### BILL ON MIFID II/MIFIR

The MiFID II Directive 2014/65/EU and the accompanying MiFIR Regulation 600/2014 represent a review and update to the Markets in Financial Instruments Directive 2004/39/EC (MiFID), passed into law in

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Iceland in 2007. The review seeks to increase market stability and confidence and bolster consumer protections.

The MiFID II Directive applies to all financial entities providing investment services, introducing a new trading venue for bonds, structured finance products, emissions allowances and derivatives. These organised trading facilities (OTF) aim to increase transparency and efficiency of the financial market. Financial undertakings licensed to engage in securities trading will be made to fulfil more extensive organisational and trade transparency requirements.

A bill might be submitted to Parliament in 2018 or 2019.

### BILL ON MARKET ABUSE

A bill is expected concerning the implementation of Regulation No. 596/2014 on market abuse (MAR). The regulation entails new provisions on insiders, lists of insiders, handling of insider information, duties of notification, market abuse, etc. The MAR regulation contains more extensive provisions than the present legal framework, a broader scope and includes more financial instruments than previously.

A bill is likely to be submitted to Parliament in 2019.

### BILL ON PAYMENT SERVICES

Directive 2015/2366/EU, which the bill seeks to introduce into Icelandic law, broadened the scope of the Directive on Payment Services 2007/64/EC considerably, which previously only applied to intra-EEA payments. The legal framework introduced by the Directive further strengthens intra-EEA cross-border payment activities, including payments to and from third countries where one of the payment service providers is located in the European Economic Area, and enhances consumer protection. The Directive sets out strict security requirements for electronic payments and the protection of consumers' financial data; increases the transparency of conditions and information requirements for payment services; and sets out rules concerning the rights and obligations of users and providers of payment services.

The Directive, furthermore, seeks to open up payment markets to new entrants, which is expected to lead to increased competition. It is specifically aimed at emerging and innovative payment services, such as internet and mobile solutions. As regards the Bank specifically, once implemented, the Bank's customers, consumers and businesses alike, will be able to use third-party providers to manage their finances. Banks will be obligated to provide access to customers' accounts to these third-party providers, through open APIs (application program interface), enabling third-parties to build financial services on top of the Banks' data and infrastructure. The Directive is complemented by Regulation (EU) 2015/751, which puts caps on interchange fees charged between banks for card-based transactions. This is expected to drive down the costs for merchants in accepting consumer payment cards.

PSD2 is thus foreseen to fundamentally change the payments value chain, impacting the profitability of more traditional business models in banking.

A bill is likely to be submitted to Parliament in 2018 or 2019.

# 11 ABBREVIATIONS

ACC	Arion Credit Committee
AIFM	Alternative Investment Fund Manager
ALCO	Asset and Liability Committee
AML	Anti Money Laundering
BAC	Board Audit Committee
BCC	Board Credit Committee
BRC	Board Remuneration Committee
BRIC	Board Risk Committee
BRRD	Bank Resolution and Recovery Directive
CBI	Central Bank of Iceland
CCC	Corporate Credit Committee
CCF	Credit Conversion Factor
CCR	Counterparty Credit Risk
CEO	Chief Executive Officer
CMMI	Capability Maturity Model Institute
COREP	Common Reporting
CPI	Consumer Price Index
CRD	Capital Requirements Directive
CRM	Credit Risk Mitigation
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CVA	Credit Value Adjustment
D-SIB	Domestic Systemically Important Bank
EAD	Exposure at Default
EBA	European Banking Authority
EEA	European Economic Area
ECL	Expected Credit Loss
EFTA	European Free Trade Association
EMIR	European Market Infrastructure Regulation
EMTN	Euro Medium Term Note
ESA	EFTA Surveillance Authority
EU	European Union
FATF	Financial Action Task Force
FME	Financial Supervisory Authority Iceland
FTE	Full-time equivalent
GDPR	General Data Protection Regulation
IAS	International Accounting Standards
ICA	Icelandic Competition Authority
ICAAP	Internal Capital Adequacy Assessment Process
ICFR	Internal Controls over Financial Reporting
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
IRB	Internal Ratings Based approach
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LTV	Loan to Value
MAR	Market Abuse Regulation
MD	Managing Director
MI	Major Incident
MIFID	Markets in Financial Instruments Directive
MIFIR	Markets in Financial Instruments Regulation
NSFR	Net Stable Funding Ratio
OTC	Over the Counter
PD	Probability of Default
PSD	Payment Services Directive
PSE	Public Sector Entities
RCSA	Risk Control Self-Assessment
RWA	Risk-Weighted Assets
SCRA	Specific Credit Risk Adjustment
SME	Small and Medium Enterprises
SREP	Supervisory Review and Evaluation Process
UCITS	Undertaking for Collective Investment in Transferable Securities
VaR	Value at Risk

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