

EUROPEAN INVESTMENT BANK GROUP

# **Risk Management Disclosure**

## Report 2017





# **European Investment Bank Group Risk Management Disclosure Report 2017**

*The information presented in the EIB Group Risk Management Disclosure Report has not been subject to external audit.*

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# 1. Overview of EIB Group

The EIB Group (also ‘the Group’) consists of the European Investment Bank (‘EIB’ or ‘the Bank’) and the European Investment Fund (‘EIF’ or ‘the Fund’)<sup>1</sup>.

## 1.1. EIB

The European Investment Bank was created by the Treaty of Rome in 1958 as the long term lending institution of the European Union (‘EU’). The EIB enjoys legal personality and financial autonomy and is endowed with its own decision-making bodies. The EIB’s Statute is drawn up as a Protocol (No 5) annexed to the Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU). In accordance with Article 51 of the TEU, it forms an integral part of both Treaties.

In accordance with its statutory framework, the mission of the Bank is to contribute towards the integration, balanced development and economic and social cohesion of the EU Member States (‘MS’). To achieve this, the EIB raises substantial volumes of funds on the capital markets and lends these funds on favourable terms to projects furthering EU policy objectives. Due to the particular nature of the EIB, its mission and its shareholder structure, there are a number of important aspects that differentiate EIB from commercial banks:

### *Governance*

Under its Statute the EIB is governed by a three tier structure: the Board of Governors (‘BoG’), the Board of Directors (‘BoD’) and the Management Committee (‘MC’).

### *Supervision*

The EIB is neither subject to requirements for an authorisation nor supervised by an external supervisory banking authority. Notwithstanding, the Bank has committed through its Statute to conform to best banking practice, which includes adherence to relevant EU banking legislation and guidelines, to the extent determined by the competent EIB governing bodies. The Audit Committee of the Bank (‘AC’), as part of its statutory duties, is required to verify, and report to the BoG, that the activities of the Bank conform to best banking practice applicable to it.

### *Public-policy driven, operating on a non-profit-making basis*

The EIB differs considerably from commercial banks in that its activity is driven by public policy objectives and it operates on a non-profit-making basis, as specified in Article 309 of the TFEU. As such, the Bank does not have a specific statutory target for return on equity, but rather aims at generating an income that shall enable it to meet its obligations, to cover its expenses and risks and to build up a reserve fund.

### *Taxation*

The EIB is not subject to national taxation and benefits from the provisions of the Protocol on Privileges and Immunities annexed to the TFEU (Protocol n. 7).

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<sup>1</sup> The Bank also consolidates the financial statements of the EU Microfinance FCP (EUMPF) since the 01 January 2015. The Bank holds 55.56% of the total committed units of the EUMPF amounting to EUR 180 million.

### *Financial protection and preferred creditor status*

The principle of supremacy of EU primary law and the principle that the property of the EIB shall be exempt from all forms of requisition and expropriation, as enshrined in the EIB Statute, are deemed to guarantee a full recovery of the EU Sovereign Exposures on maturity. This financial protection and the benefit of the preferred creditor status result in zero loss or risk from Member States sovereign exposure or guarantees.

However, similarly to other creditors, the EIB is bound by the majority decision based on collective action clauses included in debt instruments issued by EU Sovereigns.

When operating outside the EU, the Bank is deemed to enjoy preferential treatment comparable to that of other international financial institutions.

### *Mandate business*

The EIB originates business on its own risk, and to a lesser extent through a risk sharing mechanism by which a third party – the Mandator (European Commission or EU Member States) – provides credit enhancement to the EIB or on behalf of third parties at their own risk.

### *Shareholder structure*

EIB's shareholders comprise all EU Member States which in addition to paid-in capital also commit themselves to provide additional capital to such extent as may be required for the Bank to meet its obligations, upon the request of EIB (callable capital).

### *Accounting standards*

The EIB uses the EU Accounting Directives for its stand-alone statutory accounts and the International Financial Reporting Standards ('IFRS') as adopted by the EU for its consolidated financial statements. Since 2009 a second set of consolidated financial statements is also produced under the EU Accounting Directives.

## **1.2. EIF**

The EIF was established in 1994 by decision of the Board of Governors of the EIB, with legal personality and financial autonomy.

The European Investment Fund is a specialist provider of risk finance to small and medium-sized enterprises ('SMEs'). The EIF develops and implements equity and debt financial instruments which respond to the current financing needs of European businesses.

Similarly to the EIB, there are a number of important aspects that differentiate EIF from commercial actors:

### *Governance*

Under its Statutes the EIF is also governed by a three layers structure: the General Meeting, the Board of Directors and the Chief Executive.

### *Supervision*

The EIF is not subject to prudential supervision, but aims to comply with best market practice, to enable compliance with relevant best banking practice applicable to it at Group level for the

purposes of prudential consolidation. The EIF Audit Board, which is appointed by the General Meeting, is responsible for the annual audit of EIF accounts according to Article 22 of the EIF Statutes.

#### ***Public-policy driven organisation***

The EIF differs from commercial actors in that its task is to contribute to the objectives of the European Union. The level of remuneration or other income sought by the EIF shall be determined in such a way as to reflect risks incurred, cover operating expenses, establish necessary reserves and generate an appropriate return on its resources.

#### ***Taxation***

The EIF is not subject to national taxation and benefits of the Protocol on Privileges and Immunities of the European Union annexed to the TFEU (Protocol n. 7).

#### ***Financial protection and preferred creditor status***

In line with EIB, the principle of supremacy of EU primary law and the principle that the property of the EIF shall be exempt from all forms of requisition and expropriation are deemed to guarantee a full recovery of the EU Sovereign Exposures on maturity. This financial protection and the benefit of the preferred creditor status result in zero loss or risk from Member States sovereign exposure or guarantees. However, similarly to other creditors, the EIF is bound by the majority decision based on collective action clauses included in debt instruments issued by EU Sovereigns.

#### ***Mandate business***

EIF finances part of its operations out of its own resources. In addition, EIF may accept the task of administering resources entrusted to it by third parties (Mandates). The majority of EIF operations are currently funded under Mandates governed by specific Mandate agreements. Under such Mandates, EIF deploys financial instruments in the form of cash investments, guarantees or other form of credit enhancement.

#### ***Shareholder structure***

EIF's shareholders comprise the EIB (58.5%), the European Union (29.7%), as well as financial institutions shareholders. EIF's members have committed themselves to provide additional capital (up to 80% of the par value of each share – callable capital) in addition to paid-in capital upon request by the EIF General Meeting and to the extent required for the EIF to meet its liabilities towards its creditors.

#### ***Accounting standards***

The EIF financial statements are prepared in accordance with International Financial Reporting Standards as adopted by the EU.

## 2. Executive summary

In performing its activities, the EIB Group follows a conservative risk management framework. The Group adapts regularly its risk management policies and practices to market conditions and best industry practice. To this extent, the Group publishes annually its Risk Management Disclosure report, designed to provide further information about the approach the Group takes to managing risk and assessing its capital adequacy.

The EIB Group does not fall within the scope of application of the EU legislation on credit institutions, in particular the Capital Requirements Directive and Regulation (Directive 2013/36/EU or 'CRD IV' and Regulation 575/2013 or 'CRR', commonly referred to as 'CRD IV/CRR package'), which is the EU legal framework, and is therefore not legally obliged to meet the requirements of the Directive and Regulation. However, reflecting its statutory duty to conform with best banking practice, the EIB Group aims to comply with relevant EU banking rules and guidelines, to the extent determined by the competent governing bodies. The Audit Committee, as part of its statutory duties, is required to verify, and report to the Board of Governors, that the activities of the Bank conform to best banking practice applicable to it.

### 2.1. Key risk metrics dashboard

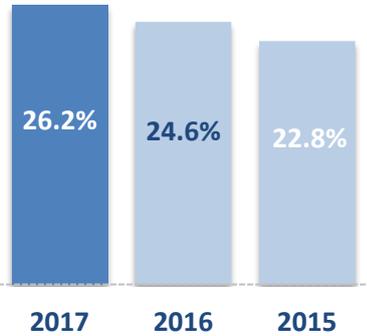
<i>As at year end (in € m)</i>	<b>2017</b>	2016	2015
Capital adequacy (CET1) ratio	<b>26.2%</b>	24.60%	22.80%
Total risk weighted assets	<b>229,553</b>	232,684	244,041
Regulatory own funds (CET1)	<b>60,053</b>	57,154	55,608
Total credit risk exposure*	<b>690,803</b>	714,737	697,992
CRR Leverage ratio	<b>8.69%</b>	8.00%	8.00%
Liquidity coverage ratio (EIB stand-alone)	<b>201%</b>	199%	187%
Pool of high quality liquid assets (EIB stand-alone)	<b>47,258</b>	47,589	47,217

*\*Exposure as used in the CRD IV Leverage ratio calculation*

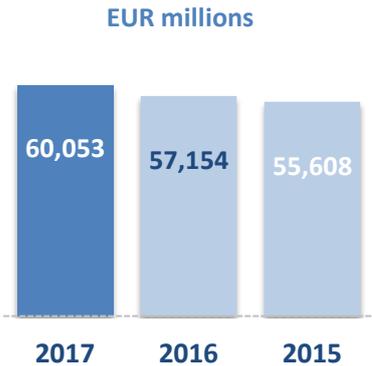
## 2.2. Capital adequacy

### Capital adequacy ratio (CET1)

- As at 31 December 2017, the Group’s common equity tier 1 (‘CET1’) capital ratio stood at 26.2%, up from 24.6% at the end of 2016.
- The ratio’s increase was driven by both a steady growth in regulatory own funds and a decrease of risk weighted assets due to an improvement of the risk profile of the stock, which were only partly offset by the additional riskiness of new business and the new capital charge for market risk.



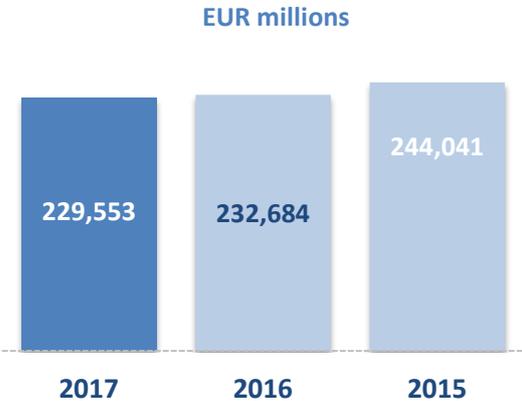
### Regulatory (CET1) own funds



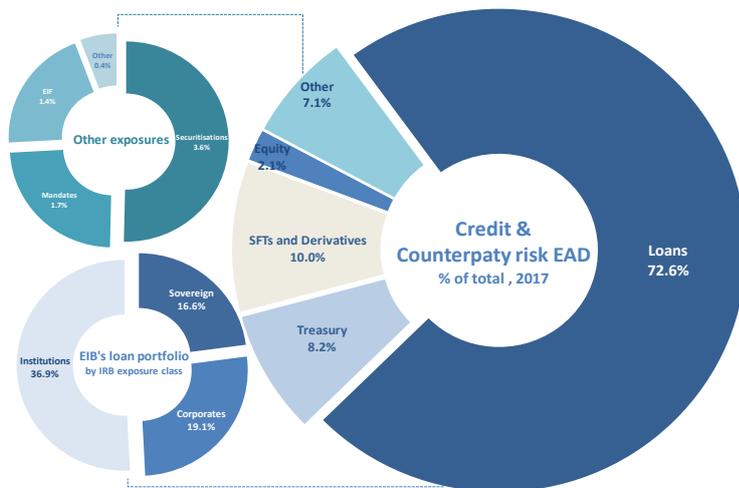
- EIB Group holds CET1 capital of EUR 60.1bn, net of applicable CRR adjustments.
- The profit in 2017 of EUR 2.9bn remained stable compared to the previous financial year and represents the main driver behind the growth in Group’s own funds, as the overall amount of regulatory adjustments stayed flat.

### Total RWA

- The Group’s total risk weighted assets (‘RWA’) of EUR 229.6bn comprise credit risk (EUR 211.5bn), counterparty credit risk (EUR 9.5bn), market risk (EUR 5.9bn) and operational risk (EUR 2.7bn).
- The decreases year on year in credit risk RWA and counterparty credit risk was mainly driven by, respectively, the improved risk profile of the stock of loans and the decrease of the derivatives exposures and related CVA thereon. This was counterbalanced by the new market risk RWA stemming from foreign exchange risk and the trading portfolio.
- The Operational risk remained stable.

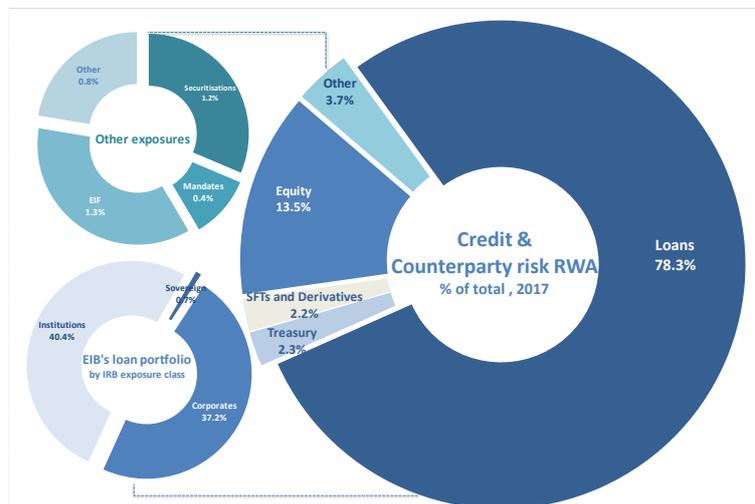


## Credit & counterparty risk exposure and RWA

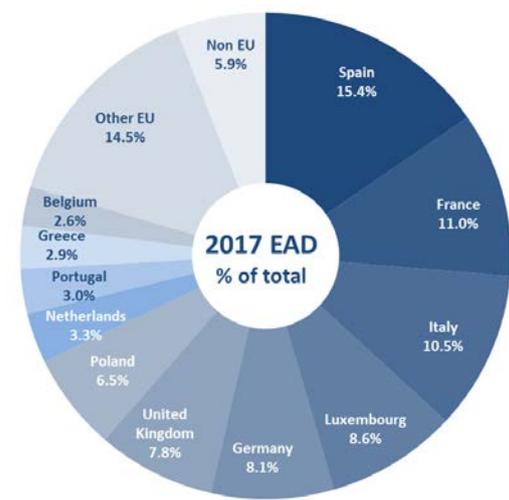


- The loan portfolio represents 73% of the total credit and counterparty risk exposure of the Group.
- The portfolio composition has remained relatively stable over time.

- Loans are also the main component of the total credit risk RWA of the Group.
- Loans to institutions (financial and public sectors) and to corporates each represent more than a third of the total credit risk RWA.
- Sovereign<sup>2</sup> exposures, while significant by volume, represent only a small fraction of RWA.



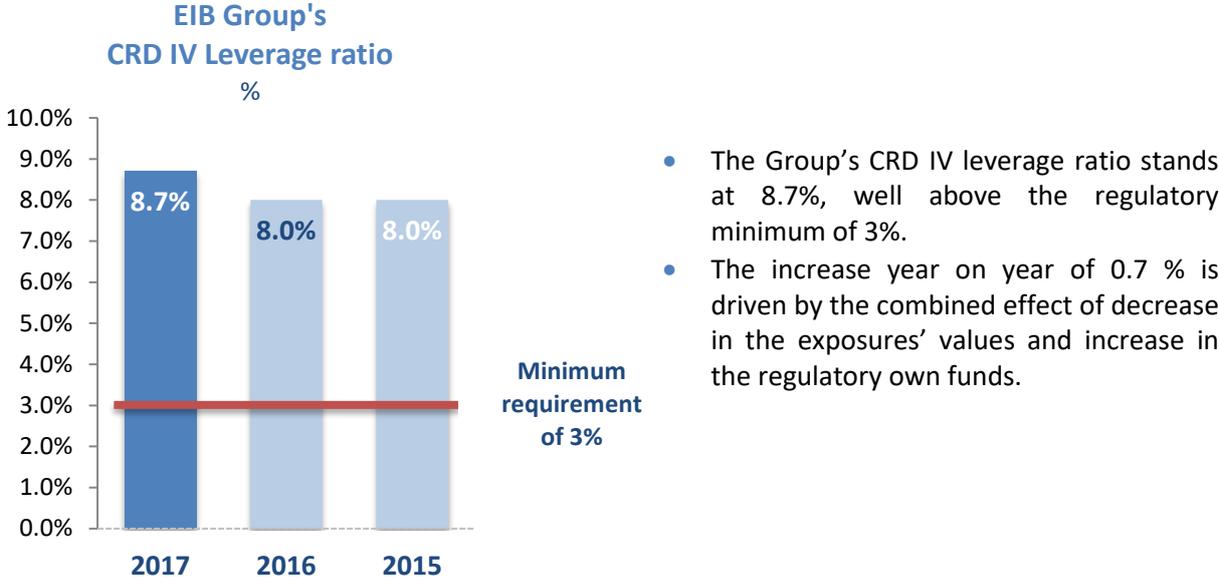
## Geographical split of EAD



- In line with its mission, the majority of the Group's operations are located in the EU. More details on the geographical split can be found in Chapter 6 of this report.

<sup>2</sup> Sovereign exposure refers to exposures to central governments and central banks under the IRB classification

**CRD IV leverage ratio**



The Group calculates 97% of its RWA under advanced regulatory calculation approaches. The Group is committed to ensuring that its internal models are fully aligned with the requirements of the CRR.

**2.3. Liquidity**

The EIB achieved a total liquidity ratio<sup>3</sup> of 74.4% at end-2017 (end-2016: 74.7%) of the forecast annual net cash outflows. At end of 2017, the Group’s total treasury assets amounted to EUR 73.7bn (2016: EUR 84.7bn).

EIB is an eligible counterparty in the Eurosystem monetary policy operations. As such, EIB has access to ECB’s refinancing operations.

<sup>3</sup> This liquidity ratio is defined as the ratio of the total net treasury to the next 12 months’ projected net cash outflows.

## 3. Introduction

### 3.1. Purpose

The EIB Group Risk Management Disclosure report is designed to provide further information about the approaches the EIB Group takes to managing risk and assessing capital adequacy. The report follows the principles set out in CRD IV/CRR package on public disclosure and related Pillar 3 disclosure requirements. Additional relevant information may be found in the EIB 2017 Financial Report, which includes the EIB statutory financial statements under EU Accounting Directives and EIB Group consolidated financial statements under EU Accounting Directives and IFRS. The Risk Management Disclosure Report should be read in conjunction with the EIB Group Consolidated Financial Statements under EU Accounting Directives, unless specified differently.

### 3.2. Scope of application

The institutions included in the EIB Group for prudential consolidation are the European Investment Bank and the European Investment Fund, which is fully consolidated. Disclosures of the European Investment Fund's risk taking activities and management processes are presented proportionally to the risk materiality of the Fund within the EIB Group or are omitted where the risk is considered not material (on the basis of Article 432 of the CRR).

### 3.3. Disclosure criteria

In addition to following the principles set out in the CRD IV and CRR this report considers guidelines and standards on improving transparency of disclosures beyond Pillar 3. These include the guidelines and opinions of the European Banking Authority ('EBA'), on which most quantitative disclosures will be based, a report on 'Enhancing the Risk Disclosures of Banks' and the related progress reports issued by the Enhanced Disclosure Task Force ('EDTF'), as well as the Standards Documents from the Basel Committee of Banking Supervision ('BCBS') on Pillar 3 disclosure requirements (BCBS d309 and d400).

See Appendix VI for a reference to the Group's compliance with the CRR's disclosure requirements.

### 3.4. Declaration on adequacy of risk management information provided

The information contained in this report is verified internally and in our view there are no material deficiencies in terms of the reasonableness of quantitative and qualitative information.

The quantitative information in this report, as well as the underlying data, has been reconciled to the Financial Report where possible. Note however that some measures presented in this report differ significantly from the financial statements in terms of methodology, e.g. exposure at default as opposed to book value of a loan. Therefore, comparing the risk measures of this report to accounting measures in the financial statements is not always relevant and meaningful.

### 3.5. Approval process

This report and its external publication has been approved by the EIB Board of Directors on the basis of a proposal by the Management Committee and upon recommendation of the EIB's Risk Policy Committee (RPC).

### 3.6. Overview of the report

Chapter 4 provides a summary of the Group's risk governance and management. It includes the main features of the Group's operational plan, risk management organisation, risk appetite framework, and risk management operational guidelines.

Chapter 5 contains: the Group's capital adequacy and risk-weighted assets (RWA) break-down. Both CRR and BCBS d309/d400 emphasise a clear linkage between the Financial Statements and the composition of regulatory capital. For that purpose the 'Own funds disclosure template' of the Commission Implementing Regulation (EU) No 1423/2013 on own funds disclosure requirements was utilised.

From Chapter 6 onwards, the Report provides information about the risks the EIB Group is exposed to, and the principles of how these risks are managed, measured and how the respective RWA amounts are calculated. The information contained in Chapters 7 and 8 follows the recommendation of BCBS d309 to present credit risk arising from derivatives and from securitisations separately. The majority of the quantitative information provided in these chapters follows the BCBS d309 disclosure templates and the corresponding EBA Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013 (EBA/GL/2016/11).

Chapter 9 provides both quantitative and qualitative information on market risk. The Chapter is divided in two main sections presenting separately the Bank's traded market risk (the Fund does not have trading book) and the Group's non-traded market risk (also referred to as market risk in the banking book).

Chapter 10 presents liquidity risk. The information provided is primarily based on the recommendations of the EDTF, and the EBA/GL/2017/01 guidelines on LCR.

The Basel III framework proposed significant enhancements to liquidity risk management, which include the Liquidity Coverage Ratio ('LCR') and the Net Stable Funding Ratio ('NSFR').

The LCR has been implemented and disclosed in accordance with EBA/GL/2017/01 guidelines, while the NSFR is expected to be binding from January 2019. The Group follows the developments in this area closely and will disclose additional information on these ratios as they come into force.

Chapter 11 provides an overview of internal models, reporting and quantitative disclosures on operational risk at the Group.

Chapter 12 refers to remuneration disclosures.

## 4. Risk governance

This chapter provides an overview of EIB Group's risk governance and management.

### 4.1. Risk management organisation

Within the Bank, the **Risk Management Directorate** ('RM') controls, monitors and reports on the credit, market, liquidity and operational risks.

Reputational, conduct and compliance risks are overseen by the Compliance function, headed by **EIB's Group Chief Compliance Officer** ('GCCO').

The Director General of RM reports to the President, meets regularly with the **Audit Committee**, and is also responsible for overseeing internal risk reporting to the **Management Committee**, the **Board of Directors**, and the **Risk Policy Committee**.

The MC consists of a President and eight Vice-Presidents appointed for a period of up to six years by the Board of Governors on a proposal from the Board of Directors. The MC is responsible for the current business of the Bank, under the authority of the President and the supervision of the Board of Directors.

The BoD consists of 29 directors (one director nominated by each Member State and one by the European Commission) and 19 alternate directors that are appointed by the Board of Governors for five years. The BoD also includes three non-voting experts as well as three alternate experts.

The RPC of the BoD is EIB's separate risk committee. It gives non-binding opinions and provides recommendations to the Board of Directors in relation to Bank risk policies so as to facilitate the decision-making process of the Board. It meets at least on a quarterly basis.

Several internal EIB committees support the implementation of the Bank's risk policies, as follows:

**Asset/Liability Committee** ('ALCO') provides a high-level discussion forum for debating the Bank's approach to financial risks. The ALCO has a number of sub-committees dealing with Liquidity, Interest Rate Risk and FX Risk.

**New Product Committee** ('NPC') approves all new products, prior to their use. A product is considered as being new to the Bank if it contains features or risks not encountered in the past.

**Derivatives Strategy and Model Committee** ('DSMC') analyses the methodological aspects of the development of derivatives valuation and counterparty risk models in order to ensure their adequacy and coherence.

#### **Internal Rating Models Maintenance Committee**

The role of the Internal Rating Models Maintenance Committee ('IRMMC') is to be a forum for discussion on internal rating systems and methodologies and, in particular, to have oversight over development and maintenance activities regarding the Internal Rating Models and more specifically all stages of the internal rating models' lifecycle, such as initial design and prototype development, roll-out in the technical infrastructure and in the organisation. Periodic comprehensive reviews and

performance monitoring as well as independent validation of those activities fall in the scope of IRMMC.

#### **Compliance and Control Committee**

Compliance and Control Committee ('CCC') has the purpose of providing a platform to monitor the Bank's compliance and control risks and to make recommendations for improvements, including alignment of the Compliance and Controls framework across the EIB Group.

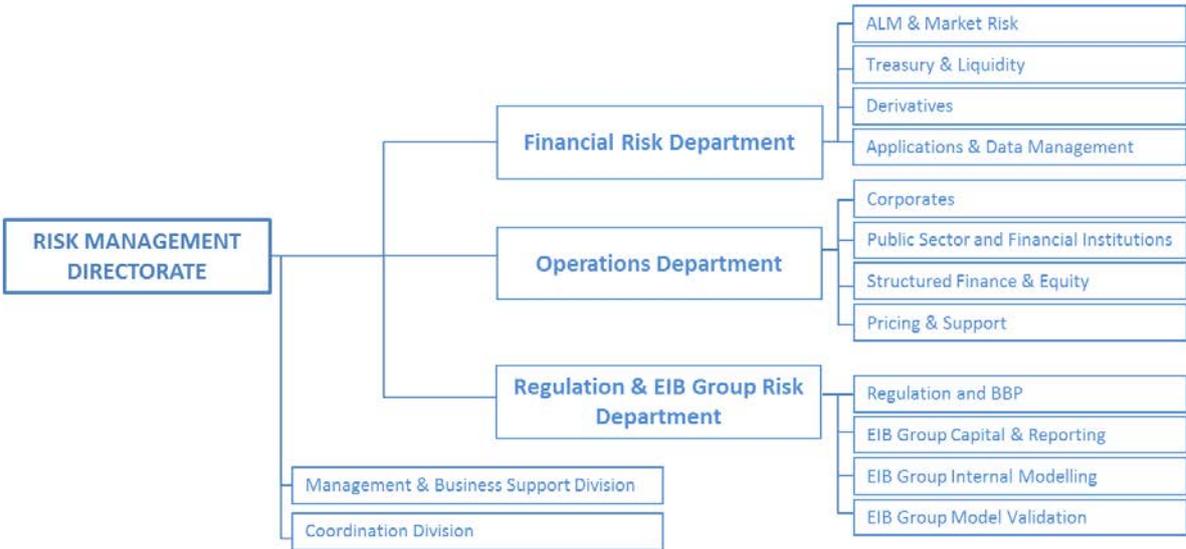
#### **Ethics and Compliance Committee**

Ethics and Compliance Committee ('ECC') deciding on potential Conflicts of Interest and all other ethical matters regarding MC and Board members.

There are three departments within RM (see Figure 4-1): the Financial Risk Department ('FIN'), the Operations Department ('OPE'), and the Regulation & EIB Group Risk Management ('REG'). The structure of RM is set out in Figure 4-1 below.

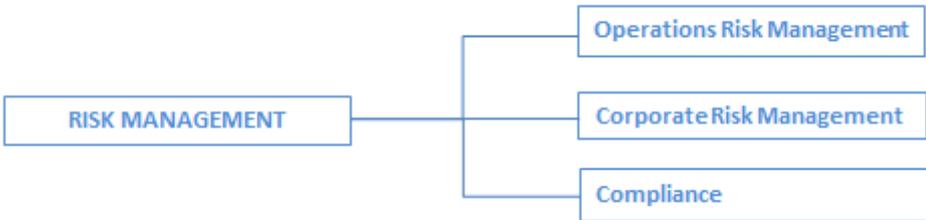
Within the context of EIB's access to ECB's liquidity facilities, the Central Bank of Luxembourg ('BCL'), on behalf of ECB, performs liquidity assessments on EIB periodically, aiming at monitoring its liquidity position and liquidity risk management activities.

Figure 4-1: Organisational structure of the Risk Management Directorate at the EIB



The EIF ensures appropriate risk identification and management through its Risk Management department (see Figure 4-2), which is responsible for measuring and managing the main risk types of the Fund and ensuring compliance with best practices.

Figure 4-2: Organisational structure of Risk Management at the EIF



### 4.2. Risk management framework

The Group Risk Management Charter codifies the sound principles-based approach to risk management to ensure that Group Risks are managed in an effective and consistent manner. This section introduces the Group's exposure to risks as well as the overall strategies and processes to managing those risks.

## Risk management principles

The oversight of risk at Group level needed for prudential consolidation is performed by the EIB. The EIB Risk Management Directorate coordinates the prudential consolidation of the EIF.

The following principles, as defined by Group Risk Management Charter, are the fundamentals of the Risk Management culture and policies:

- **Best banking practice:** the Group strives for the implementation of best banking practice applicable to it.
- **Risk culture:** the Group promotes a sound risk-based culture in the performance of its activities.
- **Proactive, adaptive and on-going risk management:** the Group continuously identifies, analyses and assesses the risks inherent to its activities, products, funding sources and transactions.
- **Risk appetite framework:** efficient risk management is driven by the definition, embedding, monitoring, reporting and governing of a risk appetite.
- **Specific risk management policies, processes and procedures:** the Group sets specific risk management policies, processes and procedures, commensurate with its tasks under the statutory framework and the activities it develops.

## Risk types

The main risk categories arising from the Group's business activities are:

- **Credit risk:** the risk of loss resulting from client or counterparty default and arising on credit exposure in all forms;
- **Market risk:** the risk of loss arising from exposure to observable market variables such as interest rates, foreign exchange rates and equity market prices;
- **Liquidity risk:** the risk that the Group is unable to fund assets or meet obligations at a reasonable price or, in extreme situations, at any price; and
- **Operational risk:** the potential loss resulting from inadequate or failed internal processes, people and systems or from external events.

EIB's risk profile is different compared to commercial banks in the European Union, due to the Group's specificities as a public owned long term lending institution. EIB concentrates on lending to support EU policy objectives, which the Bank finances through funds raised on the capital markets. Consequently, most of the Bank's risk arises from lending operations, the management of liquidity in the treasury portfolios as well as its overall asset-liability management. As a result, the Bank is exposed mainly to credit risk, and to a lesser extent to market risk, liquidity risk and operational risk.

The Fund is exposed to credit and market risks due to its mandate to support SME finance for start-up, growth and development, in line with EU policy objectives as described in the previous section. The Fund is also exposed to operational risk.

The regular management and control of risks are handled separately by each legal entity and, therefore, risk management information presented here and within the remainder of this report distinguishes between the Bank and the Fund where appropriate.

The Fund's Risk Management Department operates in close contact with the European Investment Bank's Risk Management Directorate, particularly with regard to Group risk exposure relating to Guarantees, Securitisation & Microfinance ('GSM') and Private Equity ('PE') operations under the Bank's Risk Capital Resources mandate ('RCR'), the different windows under the Bank's EIB Group Risk Enhancement Mandate ('EREM') and EIF risk policy matters.

The Group puts emphasis on its codes of conduct as well as a clear segregation of front and back office duties and controls. As a result, the Group follows the principles of the "three lines of defence" model for risk governance.

### **Pillar 1 Reporting and Oversight**

The 'CRD IV/CRR package' defines the regulatory minimum capital requirements by providing rules and regulations for measurement of credit risk, market risk and operational risk. The resulting capital requirement must be covered by eligible own funds. In addition, it lays down requirements for leverage and liquidity risk management.

The Group analyses, manages and monitors risks thoroughly ensuring an adequate level of capital and liquidity at all times. Within the Bank, the Risk Management Directorate is responsible for identifying, assessing, monitoring, managing and reporting of Pillar 1 risks the Bank is exposed to. A monthly internal risk report provides a detailed view on credit, asset liability management (ALM), financial and operational risks and is provided to the Management Committee, the Board of Directors and the Audit Committee.

### **Pillar 2 Reporting and Oversight**

As a part of best banking practice framework applicable to the EIB, EIB has established an Internal Capital Adequacy Assessment Process ('ICAAP').

The ICAAP includes the following components: a risk appetite statement, a risk identification process, economic capital allocation, internal limit system and internal risk reporting.

In terms of scope, EIB's ICAAP focuses on the Bank, but the EIF is considered in the following ways: The ICAAP considers exposures stemming from mandates granted to the EIF (i.e. RCR, EREM). In addition, the ICAAP covers the equity stake of the EIB in the EIF for purposes of the capital adequacy calculation. Further enhancements regarding inclusion of the Fund in the ICAAP are planned, to promote a group-wide approach in the future. In terms of time horizon, the ICAAP is aligned with the Bank's Operational Plan.

The Management Committee endorses the ICAAP document prepared by RM, with the input from different services across the Bank. The ICAAP document is submitted to the Management Committee for validation at least on an annual basis, as well as when rendered necessary due to any material changes to the Bank's business model or risk profile. Upon the recommendation of the Risk Policy Committee, the Board of Directors ultimately approves (the update of) the ICAAP document.

### **Risk Identification, Risk Taxonomy and Materiality Assessment Process**

An integral part of EIB's ICAAP is the risk identification and assessment process, which aims to ensure that EIB identifies all of the risks it is exposed to in the pursuit of its business, extending beyond Credit, Market and Operational risks by also covering risks not (fully) captured under Pillar 1.

The Bank assesses these identified risks in terms of materiality (taking into account any mitigants) and incorporates these into stress testing and capitalization. The risk identification process is performed by EIB's RM (with the input from the relevant Services).

For risk identification purposes the Bank's business activities can be broken down into five categories:

- Lending – long-term financing to projects and (intermediated) financing to SMEs and Midcaps through loans, guarantees and securitisations;
- Treasury – holding liquid assets for liquidity purposes; managing investment portfolio for ALM purposes;
- ALM/derivatives – maintaining a balanced and sustainable revenue profile as well as limiting the volatility of the economic value of the own funds (EVE), via the Bank's ALM strategy;
- Funding – funding the lending operations of EIB by issuing bonds in the capital markets;
- Advisory – enhancing the capacity of promoters, strengthening the economic and technical foundations of an investment and catalysing funding from other sources.

The main risk categories relevant for Pillar 1 capital, leverage and liquidity requirements are shown below in Tables 4-1 and 4-2 with the respective RM department that is responsible for managing the risk. For further information on risk definitions (incl. information on other risk types covered solely in EIB's ICAAP report) please see Appendix I.

Table 4-1: Main EIB risk categories as of 2017

Main Risk Category	Sub Risk Category	Business activities	Responsible Risk Management Function
Credit Risk	Credit default risk (including country, transfer and convertibility risk)	Mainly lending	Operations
	Issuer credit risk	Mainly treasury and to a lesser extent lending (loan substitutes)	Financial risk / Operations
	Counterparty credit risk (including CVA)	Treasury and derivatives	Financial risk / Operations
	Credit risk in loan substitutes (banking book)	Lending	Financial risk / Operations
	Credit concentration risk	Lending, treasury and derivatives	Operations / Financial risk
Market risk in the banking book	Interest rate risk in the banking book	All activities	Financial risk
	Cross currency basis risk	All activities	Financial risk
	FX risk	All activities	Financial risk
	Funding spread risk	All activities	Financial risk
	Equity risk	Mainly lending	Financial risk
Market risk in the trading book	Position risk related to non-securitisation debt instruments (Interest rate risk in the trading book)	Treasury	Financial risk
Settlement risk	Settlement risk	Mainly treasury and ALM/derivatives	Financial risk
Liquidity risk	Liquidity risk	All activities	Financial risk
Operational risk	Operational risk	All activities	Coordination
	Legal risk	All activities	Coordination

Table 4-2: Main EIF risk categories as of 2017

Main Risk Category	Sub Risk Category	Business activities	Responsible Risk Management Function
Credit Risk	Credit default risk	Mainly guarantees, securitisation and Innovation Finance	Operations RM
	Issuer credit risk	Mainly guarantees, securitisation and Innovation Finance and treasury	Operations RM and Corporate RM
	Credit concentration risk	Mainly guarantees, securitisation and Innovation Finance	Operations RM
Market risk	Interest rate risk in the banking book	Treasury	Corporate RM
	FX risk	All activities	Corporate RM
	Equity risk	Mainly Equity activities	Operations RM
Settlement risk	Settlement risk	Treasury	Corporate RM
Liquidity risk	Liquidity risk	All activities	Corporate RM
Operational risk	Operational risk	All activities	Corporate RM
	Legal risk	All activities	Compliance

## 4.3. Risk Appetite Framework

### 4.3.1. EIB's Risk Appetite Framework

The Bank defines the concept of risk appetite as the level of risk that it is able and willing to incur in pursuing its activities in the context of its public mission and objectives. The Bank's risk appetite is articulated in a risk appetite statement, which makes transparent to shareholders, management, and employees the boundaries of the risk profile EIB is willing to assume in the pursuit of its business strategy. Ultimately, risk appetite aims to align the Bank's risk taking with its business objectives.

The **Risk Appetite Framework** ('RAF') contains the main building blocks through which risk appetite is set, reported, monitored and revised throughout the Bank.

EIB sets and articulates its overall bank-wide risk appetite (statement) based on the proper identification and assessment of its:

- Public mission
- Stakeholders
- Strategy and business model and the related risks emanating from them; and
- Risk capacity to bear the risks it is exposed to in the pursuit of its objectives.

EIB embeds its high-level risk appetite in the organisation by translating it into measurable and controllable risk appetite metrics, which are subject to boundaries. EIB monitors its actual risk profile against its risk appetite boundaries. Upon any (emerging) breach of these boundaries, designated corrective actions will be taken by the relevant decision bodies within EIB to ensure risk appetite compliance.

The RAF covers the major financial risks (credit, liquidity and market risks) that the Bank is exposed to. Work is in progress in parallel to the current RAF to address operational risk and other non-financial risk categories (such as compliance, conduct and reputational risk).

In the event of changes to its business strategy, EIB revises its risk appetite statement accordingly. All processes within the RAF (as it is currently in place) are integrated into the governance of the Bank.

#### *EIB's high level risk appetite statement*

In pursuit of its business strategy the Bank accepts to take on credit, market and liquidity risk up to the level where it remains aligned with the following high level risk appetite statement:

- The Bank aims to remain compliant with its Statute (including compliance with Best Banking Practice) and public mission
- The Bank aims to do business in an ethical and fair way with proper regard for anti-money laundering and combating the financing of terrorism
- The Bank aims to retain its long-term AAA rating from the major rating agencies, which is a primary pillar of the Bank's business model

- The Bank aims for stability of earnings and preservation of the economic value of own funds in order to ensure the self-financing of the Bank's growth in the long term

The Bank does not aim to make profits from speculative exposures to risks. As a consequence, the Bank does not consider its treasury or funding activities as profit-maximising centres and does not engage in speculative operations.

In compliance with its Statute, the Bank engages only in currency operations directly required to carry out its lending operations or fulfil commitments arising from borrowings or guarantees granted by it. The Bank's objective is to eliminate foreign exchange risk by reducing net positions per currency through operations on the international foreign exchange markets.

The ALM strategy is driven by medium to long term objectives and is not influenced by any short term views on trends in interest rates.

### 4.3.2. EIF's Risk Appetite Framework

The **EIF Risk Appetite Framework** (EIF's 'RAF') encompasses the main building blocks through which risk appetite is determined, integrated, measured, monitored, reported, managed and revised throughout the Fund.

The EIF's RAF covers major financial risks (credit, market, liquidity, and strategic risks) as well as major non-financial risks (operational, compliance, and reputational risks) the Fund is exposed to.

EIF continuously reviews and, to the extent so required by business development, updates its RAF. All processes within the EIF's RAF are integrated into the governance of the Fund.

#### *EIF's high level risk appetite statement*

Based on the Stakeholders' key expectations and its business strategy, the EIF Board of Directors articulates a high-level Risk Appetite Statement, which builds the cornerstones for the EIF's RAF and sets the risk framework within which the EIF should operate in order to achieve its mission and objectives without jeopardizing the viability of its business model. This high-level statement is then translated into measurable metrics that cover the relevant risk categories arising from the Fund's business model and are subject to limits which aim at keeping the overall Risk Profile within the Fund's Risk Capacity.

### 4.4. Risk management operational guidelines and processes

The Group's risk management operational guidelines cover the three main types of risk:

- Credit risk
- Financial risk
- Operational risk

The following sub-sections provide an overview of the main elements of EIB's risk management operational guidelines per risk type, as well as concise descriptions of relevant risk management processes.

### 4.4.1. Credit risk

#### Overview

The credit risk management process consists of identifying, analysing, measuring and reporting the risks incurred by the Group in its operations and making decisions to effectively manage these risks.

Credit risk is managed pursuant to detailed internal guidelines. The purpose of these guidelines is to ensure that credit risk is managed prudently within the parameters set by the Bank’s Risk Appetite Framework.

As operations inside and outside the EU may have different risk profiles, there are separate guidelines for EU and non-EU activities.

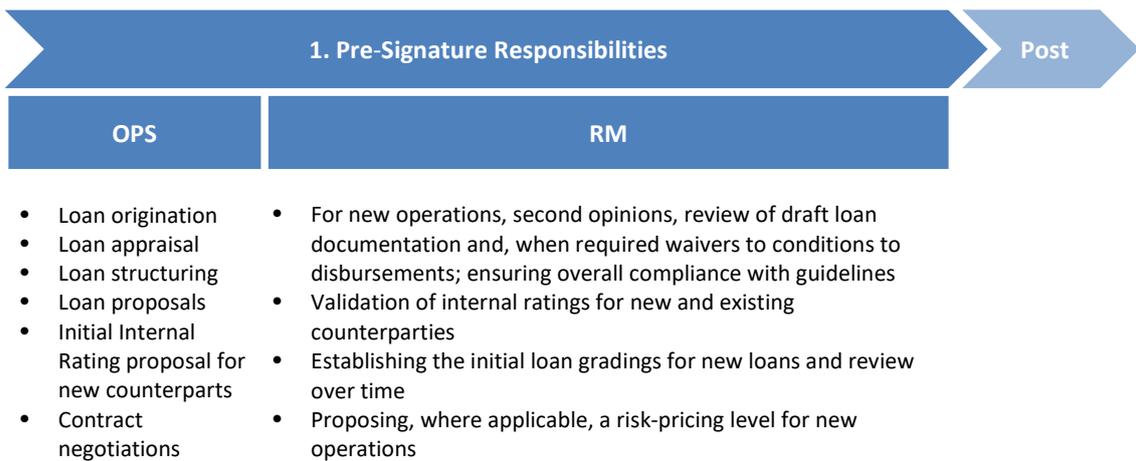
#### Guidelines revision and approval process

RM is responsible for drafting and proposing revisions of the guidelines to the Management Committee in consultation with other services within the Bank. The Bank’s Management Committee approves the guidelines. The Board of Directors is at least annually informed about changes to the guidelines.

Any derogation from the guidelines must be specifically approved by the Bank’s Management Committee on the basis of a duly justified request from the Operations Directorate (‘OPS’) or Transaction Management and Restructuring (‘TMR’) (as relevant) which will be accompanied by an opinion from RM.

#### Credit risk responsibilities and processes

The main credit risk responsibilities are divided between RM, OPS and TMR. The respective responsibilities are as follows divided between pre- and post-signature tasks:



Pre **2. Post-Signature Responsibilities**

RM	OPS	TMR
----	-----	-----

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>Reporting regularly on the evolution of the loan portfolio and Watch List containing all loans subject to a more frequent and stringent surveillance based on their loan gradings</li> <li>Co-approving loan documentation; conducting checks that security has been provided as required and that disbursement instructions are consistent with contractual documentation</li> </ul> | <ul style="list-style-type: none"> <li>Contract monitoring to full disbursement except for project finance (PF) and operations outside EU</li> <li>Relations and event resolution with regular, repeat promoters, or global relationship managers borrowers, guarantors graded E+ or higher</li> <li>Assessment of the impact of restructurings or workouts proposed by TMR on lending policy and client relations.</li> </ul> | <ul style="list-style-type: none"> <li>Refinancing, restructuring or workout for all non-regular, non-repeat borrowers and for all loans graded below E- or F</li> <li>Internal ratings and financial monitoring of counterparts and contracts post-signature to full disbursement; PF counterparts and contracts from signature; non-EU lending from first disbursement to maturity</li> <li>Propose, with reference to all credit exposures, the appropriate level of the General Loan Reserve and for credit impaired operations, the creation of specific provisions.</li> </ul> |
|--|--|--|

### Acceptable counterparts

Whether or not a given entity is acceptable to the Bank as a counterpart in a lending operation is determined on the basis of a careful analysis and evaluation of the entity using qualitative metrics but also relying on experience and expert judgment.

The following issues, in particular, are taken into account:

- The existence of a credit exposure limit for the entity.
- Satisfaction of a Minimum Internal Rating ('MIR') requirement set on the basis of the Bank's Internal Rating Methodology (see below).
- Any independent collateral, securities or guarantees available.

### Internal rating methodology

The Bank uses an internal rating methodology to determine internal ratings for substantially all of its counterparts. The methodology is based on a system of scoring sheets and uses a granular rating scale to assess counterpart acceptability. The resulting rating given to a counterparty is one of the main elements used for the purposes of the Loan Grading system (explained later in this section). The internal rating is an important element in the Bank's risk management processes, including the monitoring of risks, risk pricing of lending operations and creation of provisions.

## The lending process: contractual guidelines

A legal analysis is performed to determine whether a counterpart can comply with the contractual standards.

### *Legal framework*

The guidelines set out orientation points for the legal framework under which the Bank may lend and in particular, aspects like the governing laws and jurisdictions for the settlement of disputes which the Bank deems acceptable in view of its specific status as a multilateral finance institution owned by the Member States of the European Union.

### *Risk mitigation clauses*

Risk mitigation clauses are the contractual clauses included in the lending documents signed by the Bank and its counterparts. These documents are, principally, the loan agreement and any guarantee, security or collateral agreement.

Risk mitigation clauses include disbursement conditions making the disbursement of the loan conditional on certain conditions being satisfied, undertakings (covenants) given by the counterpart to the Bank and events of default enabling the Bank to take certain steps on the occurrence of a credit event post signature.

These clauses are designed to protect the Bank against the deterioration of an operation's credit risk and to enable it to take action to preserve its position upon occurrence of any such event.

The clauses may be either (i) "standard" (i.e. common to all EIB loan agreements) or (ii) inserted on a case by case basis depending on the nature of the counterpart and other factors affecting the credit risk profile of the relevant operation.

## The lending process: counterpart exposure limits

EIB distinguishes between new counterparties and existing ones. In the first case OPS makes suggestions for initial counterparty rating and counterparty limit. Then RM validates these suggestions and prepares a decision about the acceptance of a counterpart. Moreover, any adjustments to a counterparty's current limit are analysed with respect to the Group's risk appetite.

### *Counterparty limits*

The Bank places counterpart-based limits on its maximum exposure to all financial institutions, corporates, sub-sovereign public authorities, and public sector entities (as borrowers and/or guarantors).

Counterparty limits are designed to keep lending exposures within a reasonable proportion of the Bank's and the counterparts' own funds thereby maintaining credit risk on individual counterparts within acceptable bounds and avoiding the development of concentrations of credit risk on a limited number of counterparts.

The Bank also has exposure limits for certain sectors of economic activity, namely energy, telecommunications, transport, urban and social, water and environmental protection or primary production and industry.

### *Internal risk weights*

For the purposes of applying the exposure limits, the Bank has a risk weighting methodology whereby exposures set against the limit are internally weighted from 0% to 100% depending on the nature of the counterpart and the existence of external guarantees or collateral provided as security for the relevant exposure.

### *Regulatory limits*

In addition to the Bank's own limits referred to above, and in compliance with best banking practice applicable to the EIB, EIB applies the regulatory limits on the maximum exposure to a single client or a group of connected clients.

## **Collateral and guarantee management**

### *Security classification*

The credit risk attached to a particular borrower may be enhanced by the provision of third party guarantees and/or valuable collateral.

Guarantees may also be credit enhanced through provision of collateral by the Guarantor.

In order to distinguish the quality of such credit enhancements, the Bank has a granular classification system defining the essential characteristics of the different types of credit enhancement, which may be offered as security.

This distinction is based not only on the credit standing of the issuer of the relevant instrument but also on the instruments legal enforceability and liquidity.

### *Security eligibility and management*

Detailed rules are set out in relation to, inter alia:

- Minimum rating requirements for guarantors and the Bank's rights in case the guarantor loses such rating
- Eligibility of collateral including applicable coverage ratios and haircuts
- Monitoring of guarantors and of the value of collateral
- Acceptable caps on guarantees

The guidelines contain specific rules relating to guarantees provided by monoline insurance companies.

## EIB's Loan Grading system

The Loan Grading ('LG') system is used for internal credit risk assessment of EIB's lending operations. The LG system is an important part of the loan appraisal and monitoring process. It is also used as a reference point for credit risk pricing.

A loan's LG reflects the present value of the estimated level of the lifetime expected loss for that loan. This is determined as the product of the probability of default, the loan exposure at risk and the loss given default. The LG system is used for the following purposes:

- aid to a finer and more quantitative assessment of lending risks
- indicator of credit risk variations for the purposes of prioritising monitoring efforts
- description of the Bank's loan portfolio quality at a given date
- benchmark for calculating the annual additions to the General Loan Reserve
- input in risk-pricing decisions

The following factors are used to determine an LG:

- Borrower creditworthiness:** expressed in accordance with internal rating methodology ('IRM') (see above), which is orienting itself on Moody's methodology.
- Value of third party guarantees and/or collateral:** takes into account the correlation between the credit risk attaching to the guarantor/issuer of the collateral and the borrower.
- The applicable recovery rate:** being the amount assumed to be recovered following a default by the relevant counterpart expressed as a percentage of the relevant loan exposure.
- Risk mitigating clauses:** the presence of contractual clauses will add to the loan's quality and enhance its LG.
- Loan maturity:** all else being equal, the longer the loan term, the higher the risk of default.

Depending on the level of expected loss determined on the basis of the above factors, a loan is assigned to one of the following LG classes:

"A" Prime quality loans of which there are three sub-categories.

"A0" comprising loans to or guaranteed by an EU Member State which have an expected loss of 0% (based on the Bank's preferred creditor status and statutory protection which are deemed to assure a full recovery of the Bank's assets upon maturity).

"A+" comprising loans granted to (or guaranteed by) entities other than EU Member States in respect of which there is no expectation of deterioration in quality over their term.

"A-" includes those lending operations where there is some doubt about the maintenance of their current status but where any downside is expected to be limited.

"B" High quality loans: these represent an asset class with which the EIB feels comfortable, although a minor deterioration is not ruled out in the future. B+ and B- are used to denote the relative likelihood of the possibility of such deterioration occurring.

- “C” Good quality loans: an example could be unsecured loans to solid banks and corporates, with a reasonable maturity and adequate protective clauses.
- “D” Borderline between acceptable quality loans (designated as D+) and those that have a risk profile which is worse than that generally accepted by the Bank (designated as D-). Operations whose LG is D- or below are classified as Special Activities (see section below) and are subject to specific rules, including specific size restrictions, reserve allocations and risk pricing rules.
- “E” Comprising loans that have explicitly been approved as higher risk Special Activity operations or loans whose quality has materially deteriorated such that a loss cannot be excluded. The sub-classes E+ and E- further differentiate the risk profile of the loans, with those operations graded E- being in a position where there is a possibility that debt service cannot be maintained on a timely basis and therefore some form of debt restructuring may be required, possibly leading to an impairment loss.
- “F” F (fail) denotes loans representing unacceptable risks. F-graded loans can only arise out of outstanding transactions that have experienced unforeseen, exceptional and dramatic adverse circumstances after signature. All operations where there is a loss of principal are graded F and a specific provision is raised.

### **The Watch List and guidelines for dealing with distressed operations**

EIB maintains a Watch List ('WL') for loan exposures which require special (high or moderate) credit risk monitoring following the deterioration of their risk profile post-signature.

The WL includes all outstanding loans graded at D- or below, excepting those originally approved as higher risk Special Activity loans (see below). Special Activity loans will, however, be included in the Watch List if the LG of such loan has deteriorated post-signature as a result of a material credit event.

The WL is updated on a continual basis throughout the year and is reported to the Management as part of RM's monthly internal risk report.

If the credit profile of a watch-listed loan improves sufficiently, it is upgraded and removed from the WL.

### **Distressed operations: restructurings**

Operations with credit quality that deteriorates to an LG of E- or lower are considered distressed and are, therefore, placed on the WL. For distressed loans, there is a possibility debt service may not be paid in a timely manner and a limited possibility of loss of principal. The Bank may undertake a credit-based restructuring to minimise the risk of loss.

When the credit quality of an operation deteriorates even further, and is assigned an LG of F, there is a material risk of loss of principal. Specific provisions will be created against the exposure.

Specific guidelines are set out in respect of distressed borrowers where the Bank may need to take exceptional measures to preserve its position and minimise losses. These guidelines include procedural rules reflecting the urgency of decision making in certain situations.

### **Risk pricing methodology**

The Bank has a risk pricing methodology, which ensures that the risk attached to any given operation is adequately remunerated. The level of risk pricing is based a number of factors including the Loan Grading assigned to the relevant lending operation.

### Special Activities ('SA')

Special Activities are lending or guarantee operations that entail risk that is greater than the risk generally accepted by the Bank. Such operations are signified by a Loan Grading of "D-" or below.

SA operations are possible with all established customer groups (corporates, banks, sub-sovereign public authorities, public sector entities and project finance transactions) and are subject to additional loan grades and counterpart based limits; and a specific reserve allocation requirement (see below).

### Reserves and impairment provisions

The Bank maintains two reserves for expected and unexpected credit losses:

- General Loan Reserve ('GLR'), and
- Special Activities Reserve ('SAR').

The GLR covers expected losses resulting from EIB's loan and guarantee portfolio. The SAR covers unexpected losses of operations which are classified as Special Activities.

Specific provisions are raised for impaired assets. The amount of such provisioning reflects the difference between the loan book value and the present value of all the expected future cash flows generated by the impaired asset.

### Product specific guidelines for complex / higher risk products

In order to ensure that the additional risk involved in complex or structured lending transactions is adequately analysed, quantified and mitigated, specific detailed guidelines have been developed in respect of certain types of operations complementing the general guidelines.

The following types of operations are covered by specific sections of the guidelines:

- Subordinated corporate debt
- Project finance transactions
- Loan substitutes
- Risk sharing products
- Layered funds and securitisations
- Trade finance

### Lending outside EU

As lending outside the EU often implies a higher risk profile than lending operations within the EU, the Bank established operational guidelines for such transactions to ensure that they are in line with the Bank's risk appetite. Moreover, on certain operations outside the EU originated under the External Lending Mandate the EIB benefits from an EU guarantee.

EIB's non-EU operations are split between public and private sector operations and due to the different risk profiles both are considered separately in the operational guidelines.

Similarly to all other transactions, EIB estimates expected losses taking into account a counterpart's internal rating and transaction contractual features and assigns a Loan Grading to non-EU lending transactions.

Beyond capturing the credit strength of a potential counterpart, EIB risk assessment also considers local and country jurisdiction and currency circumstances, which affect the particular market environments, e.g. for emerging market investments. Based on such risk assessment, EIB sets up an internal rating for each of the relevant counterparts.

### **EIF Credit Risk**

EIF's Credit Risk arises mainly through its activity linked to debt products, which encompasses guarantees and securitisations. Credit risk management is based on a three-lines-of-defence model which permeates all areas of EIF's business functions and processes: (i) front office, (ii) independent risk and compliance functions and (iii) internal audit.

The EIF has developed a set of tools for its Guarantees and Securitisations business in order to analyse and monitor portfolio guarantees and structured finance transactions in line with common market practices.

In the context of the independent opinion process relating to its guarantees and securitisations, the Operations Risk Management division ("ORM") reviews each transaction proposal provided by the Guarantees, Securitization, and Innovation Finance ("GS&IF") department in accordance with EIF's internal rules and procedures.

The performance of a transaction is reviewed regularly – at least on a quarterly basis – and assessed based on EIF's surveillance triggers which take into account elements such as: a) the level of cumulative defaults, b) the credit enhancement, and, c) rating actions by external rating agencies. In case of breach of such triggers and depending on the magnitude and expected consequence(s) of such a breach, a transaction can either change its status (e.g. Under Review, Positive or Negative Outlook) or a model re-run is initiated to reassess EIF's internal rating.

## 4.4.2. Financial risk

### Overview

Financial risk is the risk of losses arising from the Group's financial operations. The main financial risks are market risk, liquidity risk, credit risk arising from the financial activities and settlement risk:

- **Market risk** is the risk of losses arising from evolution of market variables such as interest rates, foreign exchange rates and equity market prices.
- **Liquidity risk** is the risk that the Group is unable to timely fund assets or meet obligations or to liquidate treasury positions at a reasonable price or, in extreme situations, at any price.
- **Credit risk arising from the financial activities**, which includes counterparty risk, is the risk of loss resulting from default of treasury and derivative counterparts.
- **Settlement risk** is the risk of losses due to unsettled transactions after their due delivery dates.

Financial risk is managed pursuant to RM Financial Risk Guidelines ('FRG') internal guidelines. The purpose of those is to ensure that financial risk is managed prudently within the parameters set by the Bank's Risk Appetite Framework.

The financial risk management process consists of identifying, analysing, measuring and reporting the risks incurred by the Bank in its financial operations.

### Guidelines' revision and approval process

RM is responsible for drafting and proposing revisions of the guidelines to the Management Committee in consultation with other services within the Bank. They are approved by the Bank's Management Committee. The Board of Directors is at least annually informed about changes to the guidelines.

Any derogation from the guidelines must be specifically approved by the Bank's Management Committee on the basis of a duly justified request from the Financial Directorate, which will be accompanied by an opinion from RM.

## EIB's ALM policy and strategy

The Bank's ALM policy forms an integral part of the Bank's overall financial risk management. The cornerstones of this policy are the expectations of the three main stakeholders of the Bank, in particular the Bank's owners, borrowers and financial markets' investors. The Bank's owners expect the Bank to fulfil its mission, remain in operation over the long term and protect the economic value of its own funds. The Bank's borrowers would like to secure long-term loans on attractive financial terms and conditions and financial markets's investors expect the Bank to retain its AAA financial strength in the future.

The own funds of the Bank are benchmarked to a notional portfolio with a target cash flow structure and financial duration. The structure of the notional portfolio is kept within the allowed range approved by the Management Committee. Value at Risk and stress-testing on the economic value of own funds is performed on a monthly basis. Some ad hoc analyses are performed as the case may be, in order to assess risk exposures due to new products and structures, or new market developments.

## Market risk – interest rate risk

Interest rate risk is the risk of loss due to volatility and adverse movements of the term structure of interest rates. Exposure occurs due to mismatches in repricing and maturity characteristics of the assets, liabilities and hedge instruments. In measuring and managing interest rate risk, the Bank refers to the Principles for the Management and Supervision of Interest Rate Risk issued by the Basel Committee for Banking Supervision and the European Banking Authority.

An interest rate risk that is particularly relevant for the Bank is funding spread risk. This refers to the volatility in the economic value of, or in the income derived from, the Bank's positions due to movements in the funding spread of the Bank. The Bank's exposure to funding spread risk mainly results from maturity mismatches between its assets and liabilities, implying a future refinancing or reinvesting need which may occur under adverse funding spread conditions. The Bank's current ALM does not incorporate any formal requirement or limit with regards to funding spread risk management. The funding spread risk is mitigated by recommended funding maturity profile for the next year which aims at keeping a controlled maturity transformation between new lending and funding and thus keeping the future refinancing risks limited.

Cross currency (XCCY) basis risk is the risk that the Bank incurs when its lending and funding activities in foreign currency do not match in terms of maturity and/or currency. For example when loans denominated in one currency (e.g. EUR) are funded via the proceeds of debt issuance originated in another currency (e.g. USD). The Bank's exposure to cross-currency basis risk vis-à-vis its tradeable currencies is monitored and subject to specific limits defined per currency and tenor.

## Market risk – foreign exchange risk

Foreign exchange risk is the volatility in the economic value of, or in the income derived from, the Bank's positions due to adverse movements of foreign exchange rates. The Bank is exposed to a foreign exchange risk whenever there is a currency mismatch between its assets and liabilities.

In compliance with its Statute, the Bank does not engage in currency operations not directly required to carry out its lending operations or fulfil commitments arising from loans or guarantees granted by it.

Mismatches of currencies in the asset-liability structure of the Bank are kept within tight limits.

The foreign exchange risk implicit in interest margin accruing in currencies different from EUR is regularly hedged. The hedging programme addresses the interest rate loan margins expressed in USD and in GBP for the next 3 years on a rolling basis.

In accordance with the CRR (Articles 351 to 354), the Bank calculates own funds requirement for foreign exchange risk if its net FX position, including any gold position and Collective Investment Undertakings (CIUs), exceeds 2% of its regulatory own funds (the “de minimis requirement”). In this case, the own funds requirement for FX risk is determined as the Bank’s overall net FX position multiplied by 8%, with the exceptions detailed in Article 354.

### **Market risk – equity risk**

Equity type risks result from the Bank’s investments that de facto expose the Bank to the risk of the performance of the investee’s business.

EIB is exposed to equity risk due to activities approved by the BoD pursuant to Article 18 of the Statute and shares that have been received in the context of a financial restructuring of a publicly-quoted or privately held company the Bank has lent to.

### **Liquidity risk**

Liquidity risk refers to the ability of the Bank to fund itself and meet obligations as they come due, without incurring unacceptable losses.

RM calculates and monitors a number of liquidity metrics with the aim of ensuring that the Bank holds an adequate liquidity buffer to cover its future net cash outflows.

Regular stress-testing analyses on different liquidity and funding scenarios are performed to determine the appropriate size of the Bank’s liquidity buffer. The various scenarios take into account different lending and funding forecasts as well as stressed loan repayments and liquid assets.

The Bank has developed a contingency liquidity plan, which specifies appropriate decision making procedures and corresponding responsibilities. The plan is subject to annual update and regular testing and is approved by the Management Committee.

### **Counterparty risk: treasury**

The primary aim of the Treasury portfolios is to ensure that the Bank holds sufficient liquidity to meet its commitments at all times.

In order to meet these objectives, the Front Office manages several portfolios with different instruments, benchmarks and maturities. While the Front Office is solely responsible for the choice of the investments, the compliance of the latter with the respective RM guidelines is monitored on a daily basis by RM, which assigns limits to the eligible counterparts to define the maximum acceptable exposure.

Eligibility criteria for counterparties are fixed according to the type of institution, its credit quality (as measured by their internal rating), and its own funds (when relevant).

In the case of downgrading of a counterpart below the eligibility levels, the corresponding limits will be reduced or closed and new transactions will be blocked. Sale of securities issued by the downgraded counterpart may also take place.

In order to ensure the diversification of investments in the Treasury portfolios, concentration limits apply to counterparties and security issues.

Repo and reverse repo transaction may only be concluded with counterparts that have signed a Global Master Repurchase Agreement (GMRA) with EIB.

### Counterparty risk: derivatives

The Bank only trades derivatives with counterparts meeting minimum internal rating criteria at the outset of each transaction. The Bank has a right of early termination if the rating drops below a certain level and the Bank proactively manages its exposures to counterparties.

Exposures to commercial banks (exceeding thresholds) are collateralised by cash and/or bonds. All of the Bank's derivative transactions are concluded in the contractual framework of ISDA Master Agreements and if applicable Credit Support Annexes, which specify the conditions of exposure collateralisation. The Bank's derivatives and received collateral are valued on a daily basis, with a subsequent call for additional collateral or release, also daily in nearly all cases.

The Bank measures the counterparty risk exposure related to derivatives using the Current Unsecured Exposure and Potential Future Exposure for reporting and limit monitoring.

The Current Unsecured Exposure is the larger of zero and the market value of the portfolio of transactions within the netting set with a counterparty, less the value of collateral received. The Potential Future Exposure takes into account the potential increase in the netting set's exposure - following a counterparty's insolvency - over a time horizon that depends on the actual portfolio of transactions. The Potential Future Exposure is computed using stressed market parameters in order to arrive at conservative estimates.

The derivatives portfolio is valued and compared against limits on a daily basis.

### Settlement risk

Settlement Risk is applicable to both Trading Book (not relevant for the Bank during 2016) and Banking Book transactions which may remain unsettled after their due delivery dates. According to the definition above, and due to the nature of the Bank's operations, the most relevant transactions that are affected by settlement risk are the payments related to debt instruments (i.e. Treasury) and the exchanges of foreign currencies through derivative instruments (i.e. ALM/derivatives).

In terms of mitigation of settlement risk, the Bank has put in place a framework to manage credit risk in payment and settlement activities related to its capital markets, treasury and derivatives operations, including minimum acceptability criteria of counterparties in terms of credit quality (internal rating), contractual provisions, and basing securities transactions on the principle "delivery versus payment".

Furthermore, with specific respect to FX swaps, the Bank has access to the Continuous Linked Settlement (CLS) system. Settling transaction through CLS generally reduces exposures to settlement risk as exchanges of different currencies are operated by CLS under conditions of simultaneity. However, not all FX swap transactions can be settled through CLS, due to the fact that not all currencies are covered and also to the presence of maximum daily volume limits set by our CLS third-party agent.

Settlement risk is regularly reported on a weekly basis (as part of the “weekly report on treasury exposures”) by RM/FIN.

Under Pillar 1, a capital charge is calculated for treasury transactions that remain unsettled during the reporting date (last working day of the month), and when the “number of working days after due settlement date” is above 4. In order to calculate the capital charge for settlement risk, the Bank applies regulatory factors to the price difference of the agreed settlement price and the current market value.

Both at the end of December 2017 and December 2016 there were no unsettled transactions beyond their due delivery date and consequently there was no required capital charge in relation to settlement risk.

### **Fund transfer pricing system**

The Bank’s financial results and overall risk exposure are generated through various activities. In particular:

- Lending
- Funding
- Treasury Portfolios
- Venture capital
- Participations
- Other equity holdings
- Debt management (buy-backs)
- Management of own funds

In conducting its day-to-day activities the Bank may hold a residual (i.e. net) position on its balance sheet resulting from the mismatches between its assets and liabilities. Such position is therefore consolidated in a portfolio called the Corporate ALM Centre (‘CC’), and hedged as required by the ALM strategy. This consolidation is implemented via a transfer pricing (‘TP’) system.

The TP system has two main objectives – to measure the contribution of the various activities to the Bank’s revenues and to transfer part or all of interest rate and FX risk out of the individual centres of activity such that this risk can be centrally measured by RM and hedged by the Front Office.

The TP system assigns a notional funding and liquidity cost to all activities consuming funds and a notional investment yield to all activities providing funds (mainly borrowings). For the CC, the former becomes the yield notionally generated by the Bank’s assets while the latter represents its notional (or internal) funding and liquidity cost. The sum of all the individual contributions over any given period, CC’s positions included, represents the Bank’s financial revenue over the same period.

## Monitoring of financial collateral

In order to mitigate the credit exposure of transactions, EIB receives collateral from counterparties in different activities: derivatives, treasury and loans.

RM verifies on a daily basis that there is a sufficient amount of collateral posted in favour of the Bank as well as the eligibility of the securities received.

In some lending contracts, the Bank requires counterparts to post securities to mitigate the credit exposure on a borrower or a guarantor. These securities are usually documented as a pledge, where the ownership of the security stays with the counterparty.

In reverse repo treasury transactions, the Bank receives financial securities as collateral. Daily margining and eligibility checks are performed by triparty agents. RM verifies daily the tasks of the triparty agent.

## EIF Treasury

EIF directly manages its short term liquidity to cover its operational needs, while the rest of EIF's treasury portfolio is managed by the EIB according to agreed guidelines. The funds are managed in such a way to ensure an adequate level of liquidity to meet foreseeable disbursements, to protect the value of the paid-in capital and to earn if possible a yield on assets invested with due regard to the level of risk authorised. Performance for each portfolio is measured in order to compare returns against appropriate indices or reference benchmarks.

EIF also manages third party funds separately from its own funds on behalf of mandate owners, according to Management agreements.

## 4.4.3. Operational risk

### Overview

Operational risk is managed pursuant to detailed internal operational guidelines. The purpose of the operational guidelines is to ensure that operational risk is managed prudently.

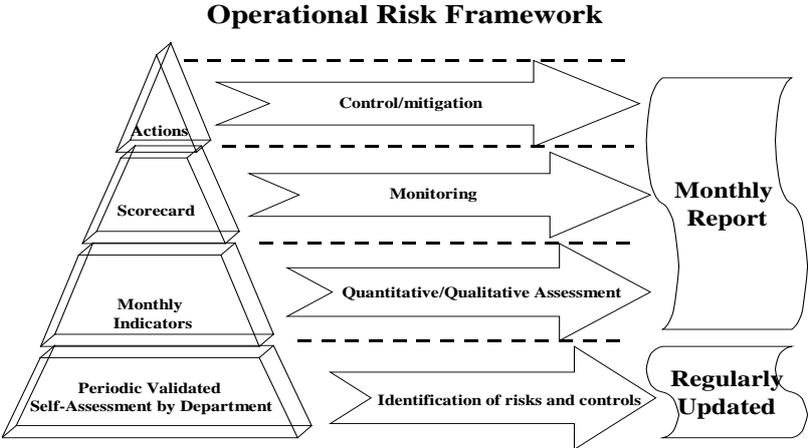
### EIB's Operational Risk Management Framework

The EIB's Operational Risk Management Framework (ORMF) is a key component of the overall bank-wide Risk Management framework, designed to effectively manage operational risk and measure the capital charge in line with the CRR.

Pursuant to the Operational Risk Policy approved by the MC, the MC is responsible for setting acceptable levels for the operational risks run by the Bank and ensuring that senior management takes the steps necessary to identify, assess, monitor and control these risks. The MC is responsible for approving and periodically reviewing the Bank's operational risk framework.

Directors General are responsible for the development and implementation of policies, procedures and systems for managing operational risk within their departments. Directors General should ensure that all relevant information related to operational risk events and related losses, if any, in their areas of competence is reported to the Operational Risk Management (ORM).

Figure 4-3: EIB's operational risk framework



The key elements of the operational risk framework are Risk identification, Risk assessment, Risk monitoring and Risk control and mitigation.

**Risk identification and assessment**

Operational Risks within each function or service are mainly being identified and assessed by Operational Risk Events, Operational Risk Scenarios as well as New Products implemented by the Bank and approved by the New Product Committee.

The Operational Risk Scenarios Analysis is a key input into the Advanced Measurement Approach ('AMA') calculation of regulatory and economic operational risk capital requirements. This analysis is performed by Operational Risk Management on an annual basis in close collaboration with all DGs, business line and risk managers to obtain expert judgement on the top operational risks that the Bank might be exposed. Through the process the assessment of the impact and the likelihood of potential Operational Risk Events (OREs) and the proactive mitigation of the identified risks are being assessed. Scenario Analysis enables EIB to gain a better understanding of the risks that it could face under extreme conditions.

**Risk monitoring, control, mitigation and reporting**

The Business Environment and Internal Control Systems (BEICFs) are monitored through Operational Risk Indicators, which include measureable thresholds and limits to monitor the top risks at EIB. The Operational Risk Indicators are reported in the monthly Operational Risk Report in order to provide an overall picture of the Operational Risk Profiles of the key processes of the Bank. The Operational Risk Indicators are reported to alert management when risk levels exceed the early warning and breach thresholds.

Operational Risk Events are reported by EIB staff to ORM, who is responsible for the collection and analysis of operational risk events (including near misses), including the identification of the root cause that has led to their occurrence. Through this process, any material exposures to losses within the Bank are closely monitored, current controls are being evaluated and new controls are proposed by services and ORM and as a result remediation plans are proposed to mitigate these risks.

## EIF's Operational Risk Management Framework

The EIF Corporate Risk Management division ("CORPRM") is responsible for the implementation and the management of the EIF operational risk management framework.

The EIF has developed a specific process-based Risk and Control Assessment methodology which takes into account both the potential financial and reputational impact of the risks inherent to its activities. On that basis, the overall operational risk profile of EIF is described in the annual Internal Control Framework report and the material residual risk exposures are mitigated through specific risk-mitigating actions where appropriate. The framework also encompasses the ongoing collection and analysis of the operational risk events reported to CORPM - Operational Risk, including the definition of action plans to address their root cause, and the coordination of an ex-ante operational risk assessment for new business initiatives, including new mandates and new products.

In 2016, EIF implemented the ISAE-3402 Type 1 report and during 2017 has established the Type 2 report. ISAE-3402 is the internationally recognised standard to provide assurance on the design and operating effectiveness of the control environment of service organisations.

The Fund uses a Basic Indicator Approach "BIA" for capital calculations and the calculated capital is used in the Group's regulatory calculations.

# 5. Capital adequacy and risk weighted assets

## 5.1. Capital management

Maintaining a strong capital position is one of the major objectives of EIB Group’s risk management.

The Group’s own funds for capital adequacy purposes comprise paid-in capital plus reserves, net of expected losses and provisions. In addition, the Group benefits from subscribed unpaid capital, which can be called by the Bank to the extent needed for EIB to meet its obligations.

The Group plans its capital on a forward looking basis in accordance with its Operational Plan (OP) which includes orientations of performance and summarizes the Group’s major priorities and activities and its risk appetite described in Chapter 4. This strives to ensure EIB’s risk taking activities are adequately covered by available capital. Capital projections are made based on business forecasts detailed in the Group’s Operational Plan and are also complemented by capital stress testing. In view of the exceptional circumstances related to United Kingdom’s (UK) withdrawal from E.U. membership, as explained further below, the EIB Operational Plan CAD ratio scenarios could not be reliably presented beyond 2018.

Table 5-1: CAD ratio across different stress testing scenarios

EIB operational plan CAD ratio scenarios (EIB stand-alone)	2018
Baseline OP 2018	28.4%
Downgrade scenario	25.7%
Upgrade scenario	31.1%

### Capital implications related to UK’s withdrawal from E.U. membership

On March 29, 2017 the U.K. government triggered Article 50 of the Treaty on European Union (“TEU”), which officially commenced the process of the U.K.’s withdrawal from E.U. membership. On 8 December 2017, the negotiators of the EU and the UK Government published a “Joint report from the negotiators of the European Union and the United Kingdom Government on progress during phase 1 of negotiations under Article 50 TEU on the United Kingdom’s orderly withdrawal from the European Union” (the Joint Report). According to the Joint Report, the Joint Report was put forward with a view to the meeting of the European Council (Article 50) of 14-15 December 2017. “Under the caveat that nothing is agreed until everything is agreed, the joint commitments set out in this Joint Report shall be reflected in the Withdrawal Agreement in full detail. This does not prejudice any adaptations that might be appropriate in case transitional arrangements were to be agreed in the second phase of the negotiations, and is without prejudice to discussions on the framework of the future relationship”.

In accordance with the Joint Report, the following principles with respect to the callable - and the paid in capital are included:

“The UK will provide a guarantee for an amount equal to its callable capital on the day of withdrawal” (callable capital currently amounts to EUR 35.7bn). “This guarantee will decrease in line

with the amortisation of the stock of EIB operations at the date of withdrawal, starting on the date on which the outstanding stock represents an amount equal to the total subscribed capital on the date of withdrawal and ending on the date it equals the total paid-in capital on the date of withdrawal, both as defined in the EIB Statute.

“The UK share of the paid-in capital” (amounting to EUR 3.5bn) “will be reimbursed in twelve annual instalments starting at the end of 2019. The UK remains liable for the reimbursed amount of paid-in capital until the outstanding stock of EIB operations equals the total paid-in capital on the date of withdrawal, at which point the liability will start to be amortised in line with the remaining non-amortised operations. Apart from these reimbursements, the EIB will not make any other payment, return or remuneration on account of the withdrawal of the UK from the EIB or on account of the provision by the UK of a guarantee”.

## 5.2. Own funds

The following provides comprehensive details of own funds and it provides a reconciliation of the individual items to the balance sheet of the Consolidated Financial Statements under EU Accounting Directives.

The capital composition of the Group has changed over the period mainly due to changes in retained profits, capital payments from EIB shareholders and the amount of regulatory deductions applied.

Table 5-2: Own funds disclosure

<i>EUR million</i>	31.12.2017	31.12.2016
<b>Common Equity Tier 1 (CET1) capital</b>		
Capital instruments and the related share premium accounts	21,673	21,621
of which: paid-in share capital	21,673	21,621
Retained earnings	34,640	31,854
Profit for the financial year	2,859	2,926
Other reserves	10,205	10,082
<b>Common Equity Tier 1 (CET1) capital before adjustments</b>	<b>69,377</b>	<b>66,483</b>
<b>Regulatory adjustments</b>		
Intangible assets	-21	-16
Negative amounts resulting from the calculation of expected loss	-1,596	-1,085
Additional Valuation Adjustment (AVA)	-59	-38
Deduction of securitisation exposures*	-7,648	-8,190
<b>Total regulatory adjustments to Common Equity Tier 1 (CET1)</b>	<b>-9,324</b>	<b>-9,329</b>
<b>Common Equity Tier 1 (CET1) capital</b>	<b>60,053</b>	<b>57,154</b>
<b>Total capital**</b>	<b>60,053</b>	<b>57,154</b>
<b>Total risk weighted assets</b>	<b>229,553</b>	<b>232,684</b>
<b>Capital ratios</b>		
<b>Common Equity Tier 1 (as a % of total risk exposure amount)</b>	<b>26.2%</b>	<b>24.6%</b>
<b>Total capital (as a % of total risk exposure amount)</b>	<b>26.2%</b>	<b>24.6%</b>
Institution specific buffer requirement (CET1 requirement in accordance with CRR Article 92(1)(a) plus capital conservation and countercyclical buffer requirements, plus systemic risk, plus systemically important institution buffer expressed as a % of risk exposure amount)	8.1%	8.0%
<i>of which: capital conservation buffer requirement</i>	2.5%	2.5%
<i>of which: countercyclical buffer requirement</i>	0.1%	0.0%
<i>of which: buffer for systemic relevance (self-imposed)</i>	1.0%	1.0%
<b>Common Equity Tier 1 available to meet buffers (as a % of the risk exposure amount)</b>	<b>18.1%</b>	<b>16.6%</b>

\* EIB Group deducts securitisation exposure in accordance with CRR

\*\* EIB Group's capital consists entirely of CET 1 capital

Table 5-3: Reconciliation table for own funds

<i>EUR million</i>	31.12.2017	31.12.2016
<b>Subscribed capital</b>		
a) subscribed	243,284	243,284
b) uncalled	-221,585	-221,585
<b>Subtotal</b>	<b>21,699</b>	<b>21,699</b>
Subscribed capital and reserves, called but not paid	-26	-78
<b>Total</b>	<b>21,673</b>	<b>21,621</b>
<b>Reserves</b>		
a) reserve fund	24,328	24,328
b) additional reserves	10,312	7,526
d) special activities reserve	7,504	6,776
e) general loan reserve	2,701	3,306
<b>Reserves</b>	<b>44,845</b>	<b>41,936</b>
<b>Profit for the financial year</b>	<b>2,859</b>	<b>2,926</b>

### 5.3. Regulatory capital

The Group applies the Advanced internal ratings based (AIRB) approach to calculating capital requirements for credit risk on the majority of its portfolio. The Group also makes very limited use of the Standardised Approach, in particular on its strategic equity-type investments.

The composition of risk weighted assets by risk type is provided in this section.

Table 5-4: EIB Group's CRR methodologies per risk type

Risk type	CRR methodology
Credit risk	Advanced IRB approach
	Standardised approach
Counterparty credit risk	Mark-to-market approach for OTC-derivatives
	Comprehensive approach for credit risk mitigations regarding SFTs
Securitisation positions in the banking book	Ratings Based method
	Supervisory Formula
	Deduction from capital for unrated and defaulted exposures
Market risk	Standardised approach
Operational risk	Advanced Measurement approach
	Basic Indicator approach

Table 5-5: Overview of risk-weighted assets (RWA) and regulatory capital (RGC) by exposure class

EUR million	31.12.2017		31.12.2016	
	RWA	RGC	RWA	RGC
<b>Advanced IRB approach</b>				
Central governments and central banks	2,045	164	1,741	139
Institutions	91,516	7,321	100,498	8,040
Corporates (including Specialized Lending)	78,341	6,267	82,944	6,636
Equities (simple risk-weight)	33,510	2,681	27,021	2,162
Cash and Other Assets	1,045	84	983	79
Securitisation	3,578	286	3,673	294
<b>Total Advanced IRB approach</b>	<b>210,035</b>	<b>16,803</b>	<b>216,860</b>	<b>17,350</b>
<b>Standardised approach</b>				
Strategic Investments	870	70	870	70
Corporates	570	45	368	29
<b>Total Standardised approach</b>	<b>1,440</b>	<b>115</b>	<b>1,238</b>	<b>99</b>
<b>Total Credit risk</b>	<b>211,475</b>	<b>16,918</b>	<b>218,098</b>	<b>17,449</b>
<b>Counterparty credit risk</b>				
Derivatives (Mark-to-market approach)	4,593	368	5,812	465
Securities Financing Transactions (Financial collateral comprehensive method)	65	5	70	6
CVA capital charge	4,815	385	6,103	488
<b>Total Counterparty credit risk</b>	<b>9,473</b>	<b>758</b>	<b>11,985</b>	<b>959</b>
<b>Market risk</b>				
<b>Standardised approach</b>				
Interest rate risk (general and specific)	1,040	83	0	0
Foreign exchange risk	4,853	388	0	0
<b>Total Standardised approach</b>	<b>5,893</b>	<b>471</b>	<b>0</b>	<b>0</b>
<b>Total Market risk</b>	<b>5,893</b>	<b>471</b>	<b>0</b>	<b>0</b>
<b>Operational risk</b>				
Advanced Measurement Approach	2,310	185	2,269	181
Basic Indicator Approach	402	32	332	27
<b>Total Operational risk</b>	<b>2,712</b>	<b>217</b>	<b>2,601</b>	<b>208</b>
<b>Total</b>	<b>229,553</b>	<b>18,364</b>	<b>232,684</b>	<b>18,616</b>

## 5.4. Leverage ratio

### Overview

The Bank uses its **gearing ratio**, which is defined in the Bank's Statute, to limit the excess of leverage. This ratio is defined as "the aggregate amount outstanding at any time of loans and guarantees granted by the Bank, which shall not exceed 250 % of its subscribed capital, reserves, non-allocated provisions and profit and loss account surplus. The latter aggregate amount shall be reduced by an amount equal to the amount subscribed (whether or not paid in) for any equity participation of the Bank" (Article 16.5 of the Bank's Statute). Based on the Operational Plan, the gearing ratio is simulated for future time periods and for different scenarios in order to ensure that the limit within the Statute will not be breached.

An **internal leverage ratio** measure is also calculated. It is defined as gross debt (long term and short term) divided by the adjusted shareholder's equity (own funds minus EIB participation in EIF's capital) and is monitored on an ongoing basis. Both ratios are calculated for the Bank only and are reported monthly in the internal RM Risk Report that is provided to the management of the Bank.

### CRR Leverage ratio

The **CRR (Basel III) leverage ratio** was introduced into the Basel III framework as a non-risk-based "backstop" measure, to supplement risk-based capital requirements. It aims to constrain the build-up of excess leverage in the banking sector, as well as to provide a safeguard against the risks associated with risk models (i.e. model risk and measurement errors). The ratio is a volume-based measure calculated as Basel III Tier 1 capital divided by total on and off balance sheet exposures.

The leverage ratio is calculated based on art. 429 of CRR. The CRR/CRD 4 framework currently does not provide for a mandatory minimum leverage ratio to be complied with by the relevant financial institutions, a legislative proposal published by the European Commission on November 23, 2016 suggests introducing a minimum leverage ratio of 3 %. The legislative proposal provides that the leverage ratio applies two years after the proposal's entry into force and remains subject to political discussion among EU institutions.

Table 5-6: CRR Leverage ratio common disclosure

<i>EUR million</i>	<b>31.12.2017</b>	<b>31.12.2016</b>
On-balance sheet items (excluding derivatives and SFTs and deductions)	554,979	559,243
<b>Total on-balance sheet exposures (excluding derivatives and SFTs)</b>	<b>554,979</b>	<b>559,243</b>
Replacement cost associated with derivatives transactions	44,217	64,128
Add-on amounts for PFE associated with derivatives transactions	15,747	15,876
<b>Total derivative exposures</b>	<b>59,964</b>	<b>80,004</b>
Securities financing transactions (SFTs) exposure	7,951	10,418
<b>Total securities financing transaction exposures</b>	<b>7,951</b>	<b>10,418</b>
Off-balance sheet exposures at gross notional amount	125,781	122,354
Adjustments for conversion to credit equivalent amounts	-57,872	-57,282
<b>Total off-balance sheet exposures</b>	<b>67,909</b>	<b>65,072</b>
<b>Total leverage ratio exposure</b>	<b>690,803</b>	<b>714,737</b>
<b>Tier 1 capital</b>	<b>60,053</b>	<b>57,154</b>
<b>Leverage ratio</b>	<b>8.69%</b>	<b>8.00%</b>

Table 5-7: Break-down of CRR leverage ratio exposure by type of banking book exposure

<i>EUR million</i>	<b>31.12.2017</b>	<b>31.12.2016</b>
<b>Total regulatory exposures</b>	<b>690,803</b>	<b>714,737</b>
Of which:		
<b>Trading book exposures</b>	<b>7,532</b>	<b>0</b>
<b>Banking book exposures</b>	<b>683,271</b>	<b>714,737</b>
Of which:		
Covered bonds	12,498	12,391
SFTs*	7,951	10,418
Derivatives	59,964	80,004
Exposures to central governments	156,352	155,285
Exposures to regional governments, international organisations and public sector entities not treated as sovereigns	107,908	110,650
Exposures to institutions	123,568	138,479
Exposures to corporates	124,275	127,765
Exposures in default	1,320	2,092
Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	89,435	77,653

\* Securities Financing Transactions

## 5.5. Combined CRD IV Buffer

### Capital Conservation Buffer

In accordance with CRD IV the capital conservation buffer of 2.5% of RWA (comprised of Common Equity Tier 1) is established above the regulatory minimum capital requirement of 8% of RWA.

The capital conservation buffer is phased-in starting from 1 January 2016 at 0.625% of RWA and becoming fully effective on 1 January 2019 at 2.5% of RWA. However, Member States have the discretion to impose shorter transition of the capital conservation buffer requirement.

A number of Member States have opted to frontload the capital conservation buffer requirement already in full.

The ECB has made a recommendation to the Eurozone banks urging them to build up the capital conservation buffer even if not yet implemented in the full amount in their jurisdiction.

Therefore, the Bank has prudently frontloaded the capital conservation buffer requirement in the full amount of 2.5%.

### Countercyclical buffer

The countercyclical buffer requirement is added on top of the capital conservation buffer.

The countercyclical buffer rate is set by each jurisdiction on a quarterly basis. Banks have to apply weighted-average countercyclical buffer rate based on the geographical composition of their credit portfolio.

As of December 2017, the following States have opted to activate the countercyclical capital buffer or have announced that a countercyclical buffer will be imposed beyond 2017.

Table 5-8: Countercyclical capital buffer\*

31.12.2017	Own funds requirements	Own funds requirements weights	Countercyclical capital buffer rate
<i>EUR million</i>			
Iceland	39	0.00	1.25%
Lithuania	16	0.00	not applicable
Norway	44	0.00	2.00%
Czech Republic	117	0.01	0.50%
Sweden	388	0.02	2.00%
Slovakia	30	0.00	0.50%
United Kingdom	1,767	0.10	not applicable
<b>Total risk exposure amount</b>			<b>229,553</b>
<b>Institution specific countercyclical capital buffer rate</b>			<b>0.06%</b>

\*Including jurisdictions that have announced a future deployment of the countercyclical buffer

### Buffer for systemic relevance

Although the EIB is not a global systemically important bank (G-SIB), as a matter of prudence, the EIB has decided to foresee an additional buffer for systemic relevance of 1.0 % CET. It has to be stressed that the EIB's self-imposed buffer for systemic relevance is based on an independent decision of the Bank. The buffer for systemic importance of supervised banks is in general determined by competent authorities, rather than being self-assessed.

## 6. Credit Risk

### Introduction

Credit risk is the risk of losses arising from the failure of counterparties to meet all or part of their financial obligations to the Group. Lending is the principal activity of the EIB, which offers loans, guarantees and other lending products which are subject to credit risk. The EIF is also exposed to credit risk as it invests in venture capital activities and provides guarantees in the context of securitisation transactions.

This section does not cover credit risk arising from over-the-counter (OTC) derivative transactions and securities financing transactions, which is defined as Counterparty Credit Risk in this report and is covered in Chapter 7. Credit exposures on securitisation positions are included in this chapter only when indicated, but are covered in more detail in Chapter 8.

### 6.1. Portfolio composition

#### Overview of exposure distribution

The Group grants loans and accepts credit exposure on financial transactions on terms and conditions that embed a high standard of credit quality and a low risk of loss. EIB operates with a range of counterparts that are shown below.

Information on exposures given in this chapter are exposures used for calculating regulatory capital and therefore differ to exposures for accounting purposes that are given in the Financial Statements. Differences include: i) not only current, but also future exposure (resulting e.g. from future commitments) is included, (ii) valuation adjustments made for accounting purposes do not necessarily apply here, (iii) credit risk mitigants are applied and in addition the segmentation by exposure classes used here follow the CRR and cannot be found in the Financial Statements.

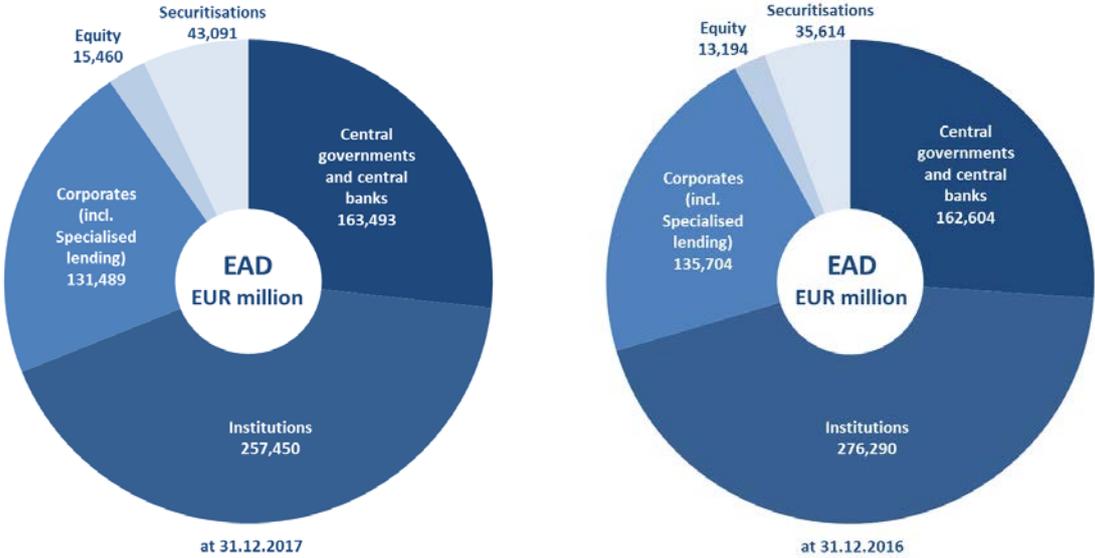
Table 6-1: CRR exposure classes mapped to EIB counterparty types

The following table provides an overview of EIB's counterparties and how these are treated for regulatory capital calculation purposes according to the CRR.

CRR exposure class	Counterparty types
Central Governments and Central Banks	Central Banks
	Governmental bodies
	Member States of the European Union
	Other sovereign entities
Institutions	Banks
	Leasing companies
	Insurance companies and financial guarantors
	Other financial institutions
	Public administrations
	Public sector entities
Corporates	Regional or local authorities
	Commercial companies
Corporate - Specialised Lending	Special purpose vehicles

Figure 6-1: Credit risk exposure by IRB exposure class

The following charts provide an overview of the Group’s credit exposure (EAD, exposure at default, post substitution of financial guarantees, including deductions) by IRB exposure class.



**Portfolio quality and credit risk adjustments**

In line with the CRR, EIB’s definition of default is such that a default is considered to have occurred with regard to a particular obligor when either one of or both of the two following conditions are met:

1. The obligor is past due more than 90 days on any material financial obligation to the Bank or
2. The Bank considers that the obligor is unlikely to pay in full its material credit obligations to the Bank. The following events are being considered as cases of unlikelihood to pay in full<sup>4</sup>:
  - a) Creation of a specific provision;
  - b) Distressed restructuring (modifications of the original contractual schedule) that is likely to result in a diminished financial obligation for the Bank;
  - c) When the EIB accelerates all or part of its loan following a contractual event of default;
  - d) The exposure (or part of it) is written off or written down;
  - e) The obligor has sought or has been placed in bankruptcy or similar protection;
  - f) The Bank realises security to avoid a potential loss, specifically:
    - The Bank proceeds with a realisation of securities or loan collaterals or call under guarantees;
    - Default on derivatives or realisation of derivative collaterals; or
  - g) The obligor is unable to provide security or collateral on terms the Bank has formally requested according to its contractual rights and after the steps foreseen in the contract.

<sup>4</sup> This list is not exhaustive, other events could also be considered as unlikelihood to pay.

The EIB keeps a manual on operational procedures which describes the procedures and responsibilities for identifying default events, monitoring and follow up of the events and input and management in the internal systems. An obligation is considered as being “past due” when a contractual payment has not been met.

For accounting purposes, a claim (meaning a loan, a commitment such as a letter of credit, a guarantee, a commitment to extend credit, or another credit product) is considered to be impaired if there is objective evidence that the Group will be unable to collect all amounts due on that claim according to the original contractual terms or an equivalent value. More precisely:

- The need to consider a loan as impaired is assessed regularly for all loans whose LG deteriorated to E-, while all loans with a LG of F are considered as impaired.
- In addition, if the Bank is not expecting to recover the original carrying amount on a loan with renegotiated payment terms (after having been on the Watch List previously), the loan will be considered as impaired and the LG will be adjusted to F accordingly in case it was not F previously.

Details about the approach adopted for determining specific credit risk adjustments for regulatory purposes based on the specific impairment charges for accounting purposes have been provided in Section 6.1. Movements in specific credit risk adjustments over the period can be found in the Financial Statements, Note D.2. All of the Bank’s exposures are assessed for impairment at least annually. Therefore no general credit risk adjustments are made.

**Table 6-2: Analysis of exposures (on and off balance sheet) and portfolio quality by product at 2017**

*The following tables provide an overview of the quality of the Bank’s credit exposures, on- and off- balance sheet exposures before application of credit conversion factors (‘CCF’), EAD pre-CCF. The tables present a break-down of defaulted and non-defaulted exposures against specific provisions. Synthetic securitisations are not included under Securitisations; instead the underlying (securitised) exposures are split between Loans and Off-balance exposures. Counterparty credit risk exposures, such as OTC derivatives and securities-financing transactions, are not included.*

31.12.2017	All exposures (EAD pre-CCF)			Specific provisions			Net value
EUR million	Defaulted exposure		Non-defaulted exposure	Defaulted exposure		Non-defaulted exposure	
	Past due (more than 90 days)	Other		Past due (more than 90 days)	Other		
Loans	1,208	0	476,250	-369	0	-21	
Debt securities	0	0	42,163	0	0	0	42,163
Equity	0	0	6,865	0	0	0	6,865
Securitisations	0	0	5,576	0	0	0	5,576
Other	0	0	2,075	0	0	0	2,075
Off-balance	223	0	94,402	-63	0	-5	94,557
<b>Total</b>	<b>1,431</b>	<b>0</b>	<b>627,331</b>	<b>-432</b>	<b>0</b>	<b>-26</b>	<b>628,304</b>

31.12.2016	All exposures (EAD pre-CCF)			Specific provisions			Net value
EUR million	Defaulted exposure		Non-defaulted exposure	Defaulted exposure		Non-defaulted exposure	
	Past due (more than 90 days)	Other		Past due (more than 90 days)	Other		
Loans	1,927	0	471,154	-253	0	-23	472,805
Debt securities	0	0	59,009	0	0	0	59,009
Equity	0	0	5,714	0	0	0	5,714
Securitisations	0	0	6,751	0	0	0	6,751
Other	0	0	1,845	0	0	0	1,845
Off-balance	329	0	93,932	-246	0	-11	94,004
<b>Total</b>	<b>2,256</b>	<b>0</b>	<b>638,405</b>	<b>-499</b>	<b>0</b>	<b>-34</b>	<b>640,128</b>

Table 6-3: Changes in defaulted loans and debt securities from year-end 2016 to 2017

*This table analyses the recent evolution of defaulted credit risk exposures and in particular the movements between non defaulted and defaulted status and the reductions of defaulted exposures due to write-offs. It does not include defaults on securitised exposures.*

	EUR million
<b>Defaulted loans and debt securities at the beginning of the reporting period (1.1.2017)</b>	<b>2,256</b>
Loans and debt securities that have defaulted or impaired since the last reporting period	162
Returned to non-defaulted status	-770
Amounts written off	0
Other changes	-217
<b>Defaulted loans and debt securities at the end of the reporting period (31.12.2017)</b>	<b>1,431</b>

The total amount of defaulted loans and debt securities remains a small portion of the Group's overall portfolio. For details on the forborne exposures see Note U.2.1 "Loans" of the Financial Statements.

Table 6-4: Specific credit risk adjustments by IRB exposure class

*The following table provides an overview of EIB's specific provisions for impaired loan and equity-type exposures.*

Specific provisions EUR million	31.12.2017	31.12.2016	Change
Corporates	434	517	-83
Institutions	19	5	14
<b>Total specific provisions on loans</b>	<b>453</b>	<b>522</b>	<b>-69</b>
Equity	5	11	-6
<b>Total specific provisions</b>	<b>458</b>	<b>533</b>	<b>-75</b>

Table 6-5: Defaulted exposures and specific provisions on loans

The following table provides an overview of EIB's defaulted exposures post collateral and guarantees. It also provides a geographical and economic sector break-down of specific provisions for impaired loans. This table does not include defaults on securitised exposures.

31.12.2017 <i>EUR million</i>	Defaulted exposure		Specific provisions	Change in 2017
	Past due (more than 90 days)	Other		
Air transport	96	0	28	(23)
Bank-intermediated loans	2	0	0	0
Basic material and mining	25	0	0	0
Chemicals, plastics and pharmaceuticals	193	0	101	74
Electricity, coal and others	268	0	28	13
Infrastructure funds	0	0	0	(11)
Investment goods/consumer durables	39	0	5	4
Roads and motorways	744	0	274	(137)
Social infrastructure: education, health	47	0	13	5
Urban dev., renovation and transport	8	0	2	0
Waste recuperation, recycling	9	0	7	0
<b>Total by sector</b>	<b>1,431</b>	<b>0</b>	<b>458</b>	<b>(75)</b>
Belgium	0	0	0	(11)
Finland	0	0	5	5
France	92	0	29	0
Germany	340	0	123	(2)
Greece	156	0	37	(1)
Ireland	98	0	5	0
Italy	83	0	2	(1)
Poland	0	0	0	(3)
Portugal	224	0	79	(124)
Spain	119	0	11	(3)
United Kingdom	0	0	10	(19)
Non-EU	319	0	157	84
<b>Total by geographical area</b>	<b>1,431</b>	<b>0</b>	<b>458</b>	<b>(75)</b>

31.12.2016	Defaulted exposure		Specific provisions	Change in 2016
	Past due (more than 90 days)	Other		
<i>EUR million</i>				
Air transport	126	0	51	1
Bank-intermediated loans	0	0	0	(1)
Basic material and mining	29	0	0	0
Chemicals, plastics and pharmaceuticals	199	0	27	27
Electricity, coal and others	650	0	15	(36)
Infrastructure funds	0	0	11	11
Investment goods/consumer durables	20	0	1	1
Roads and motorways	1,050	0	411	(92)
Social infrastructure: education, health	163	0	8	(2)
Treasury	4	0	0	0
Urban dev., renovation and transport	8	0	2	(1)
Waste recuperation, recycling	7	0	7	0
<b>Total by sector</b>	<b>2,256</b>	<b>0</b>	<b>533</b>	<b>(92)</b>
Belgium	0	0	11	11
France	92	0	29	5
Germany	661	0	125	(10)
Greece	159	0	38	(107)
Ireland	101	0	5	0
Italy	50	0	3	0
Netherlands	0	0	0	(4)
Poland	128	0	3	3
Portugal	520	0	203	1
Spain	182	0	14	(5)
United Kingdom	112	0	29	(6)
Non-EU	251	0	73	20
<b>Total by geographical area</b>	<b>2,256</b>	<b>0</b>	<b>533</b>	<b>(92)</b>

## Portfolio composition

The exposure values provided in this section are Exposure at Default ('EAD'), post-substitution and pre-mitigation by collateral, unless otherwise stated. Also securitisation activities have been included to provide their respective breakdown by geography and sector, although their RWA will be included only in Chapter 8 below.

Table 6-6: Average credit risk exposures over the year

*This table shows the Group's average exposures over the period ending December 2017 and December 2016 by exposure class, excluding derivatives, SFT, and other credit non-obligation assets.*

EUR million	Average EAD		Year end EAD	
	2017	2016	2017	2016
Central governments and central banks	158,067	157,845	163,493	162,604
Institutions	261,138	265,848	257,450	276,290
Corporates (incl. Specialised lending)	134,307	135,361	131,489	135,704
Equity	12,539	11,973	15,460	13,194
Items representing securitisation positions	36,267	34,397	43,091	35,614
<b>Total</b>	<b>602,318</b>	<b>605,424</b>	<b>610,983</b>	<b>623,406</b>

Table 6-7: Geographical distribution of credit risk exposures

31.12.2017 EAD, EUR million	Central governments and central banks	Institutions	Corporates (including specialised lending)	Equity	Items representing securitisation positions	Cash and other assets	Total	Exposure as % of GDP
Austria	148	12,059	2,452	26	291	0	14,976	4.2%
Belgium	1,266	12,967	1,392	191	0	0	15,816	3.7%
Bulgaria	1,148	406	0	0	0	0	1,554	3.2%
Croatia	3,445	408	105	0	0	0	3,958	8.5%
Cyprus	2,457	56	50	0	0	0	2,563	14.1%
Czech Republic	2,862	3,856	838	25	0	0	7,581	4.3%
Denmark	599	1,707	1,825	470	0	0	4,601	1.7%
Estonia	706	187	316	13	0	0	1,222	5.8%
Finland	467	5,607	2,319	310	0	0	8,703	4.0%
France	6,744	45,770	12,008	2,650	0	0	67,172	3.0%
Germany	2,483	30,018	15,610	816	496	0	49,423	1.6%
Greece	16,171	791	575	20	0	0	17,557	10.1%
Hungary	8,294	608	329	0	0	0	9,231	8.1%
Ireland	2,184	1,883	1,805	323	929	0	7,124	2.6%
Italy	10,477	34,251	17,408	565	1,887	0	64,588	3.8%
Latvia	596	0	263	12	0	0	871	3.5%
Lithuania	1,455	36	214	0	0	0	1,705	4.4%
Luxembourg	10,793	1,201	536	3,751	34,690	1,990	52,961	99.9%
Malta	327	12	58	0	0	0	397	4.0%
Netherlands	139	9,773	9,289	764	331	5	20,301	2.9%
Poland	25,000	9,290	5,316	0	120	0	39,726	9.3%
Portugal	6,590	6,730	4,709	51	173	0	18,253	9.9%
Romania	3,514	1,060	138	0	0	0	4,712	2.8%
Slovakia	2,673	445	313	0	0	0	3,431	4.2%
Slovenia	2,999	34	226	0	0	0	3,259	8.1%
Spain	36,756	42,111	12,107	736	2,491	0	94,201	8.4%
Sweden	402	8,063	4,195	256	0	0	12,916	2.8%
United Kingdom	3,884	14,376	25,535	3,709	287	0	47,791	2.0%
<b>Total EU</b>	<b>154,579</b>	<b>243,705</b>	<b>119,931</b>	<b>14,688</b>	<b>41,695</b>	<b>1,995</b>	<b>576,593</b>	
<b>Non EU</b>	<b>8,914</b>	<b>13,745</b>	<b>11,558</b>	<b>772</b>	<b>1,396</b>	<b>0</b>	<b>36,385</b>	
Not applicable	0	0	0	0	0	0	0	
<b>Total</b>	<b>163,493</b>	<b>257,450</b>	<b>131,489</b>	<b>15,460</b>	<b>43,091</b>	<b>1,995</b>	<b>612,978</b>	

31.12.2016								
<i>EAD, EUR million</i>	Central governments and central banks	Institutions	Corporates (including specialised lending)	Equity	Items representing securitisation positions	Cash and other assets	Total	Exposure as % of GDP
Austria	1,353	12,614	2,593	53	291	0	16,904	5.0%
Belgium	1,839	11,045	1,862	202	0	0	14,948	3.6%
Bulgaria	1,387	564	6	0	0	0	1,957	4.3%
Croatia	3,260	334	90	0	0	0	3,684	8.4%
Cyprus	2,448	89	63	0	0	0	2,600	14.7%
Czech Republic	2,955	3,979	884	60	0	0	7,878	4.7%
Denmark	159	3,117	1,696	353	0	0	5,325	2.0%
Estonia	730	88	462	0	0	0	1,280	6.3%
Finland	497	5,564	2,555	202	0	0	8,818	4.2%
France	7,531	49,411	12,512	2,159	26	0	71,639	3.3%
Germany	6,001	35,185	15,548	557	408	0	57,699	1.9%
Greece	15,976	622	653	14	0	0	17,265	9.8%
Hungary	8,300	748	394	0	0	0	9,442	8.6%
Ireland	1,697	1,960	1,747	333	452	0	6,189	2.4%
Italy	14,205	33,904	20,264	438	2,492	0	71,303	4.3%
Latvia	592	0	279	10	0	0	881	3.6%
Lithuania	1,554	30	228	0	0	0	1,812	4.9%
Luxembourg	249	1,453	601	2,203	26,134	1,684	32,324	63.1%
Malta	339	9	60	0	0	0	408	4.4%
Netherlands	1,392	10,605	8,974	652	331	0	21,954	3.2%
Poland	24,760	8,957	5,681	119	87	0	39,604	9.2%
Portugal	7,668	6,154	5,740	45	444	0	20,051	11.2%
Romania	3,233	1,052	227	0	0	0	4,512	2.8%
Slovakia	2,875	638	248	0	0	0	3,761	4.8%
Slovenia	3,235	98	253	0	0	0	3,586	9.3%
Spain	36,969	43,787	12,156	544	3,051	0	96,507	9.0%
Sweden	501	7,874	4,089	265	0	0	12,729	2.8%
United Kingdom	2,180	14,634	28,575	3,294	341	0	49,024	1.9%
<b>Total EU</b>	<b>153,885</b>	<b>254,515</b>	<b>128,440</b>	<b>11,503</b>	<b>34,057</b>	<b>1,684</b>	<b>584,084</b>	
<b>Non EU</b>	<b>8,719</b>	<b>21,775</b>	<b>7,264</b>	<b>821</b>	<b>1,557</b>	<b>0</b>	<b>40,136</b>	
Not applicable	0	0	0	870	0	273	1,143	
<b>Total</b>	<b>162,604</b>	<b>276,290</b>	<b>135,704</b>	<b>13,194</b>	<b>35,614</b>	<b>1,957</b>	<b>625,363</b>	

Figure 6-2: Credit risk exposure by geography (>15 EUR billion of EAD) in %

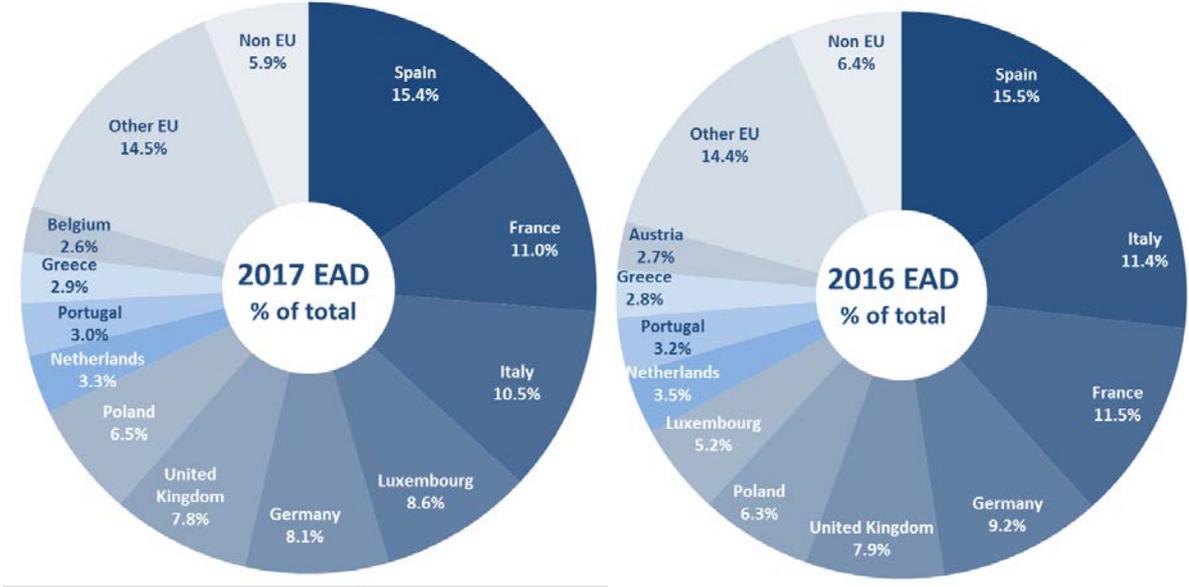


Table 6-8: Distribution of credit risk exposures by economic sector at year-end

31.12.2017 <i>EAD, EUR million</i>	Central governments and central banks	Institutions	Corporates (including specialised lending)	Equity	Items representing securitisation positions	Cash and other assets	Total
Air transport	5,087	1,209	6,743	4	0	0	13,043
Automobiles	65	504	4,417	0	0	0	4,986
Bank-intermediated loans	7,253	6,350	595	739	0	26	14,963
Basic material and mining	0	112	906	0	0	0	1,018
Chemicals, plastics and pharmaceuticals	95	248	2,949	106	0	0	3,398
Consumer goods	10	84	257	113	0	0	464
Drinking water, water treatment	5,060	11,162	8,038	18	0	0	24,278
Electricity, coal and others	5,789	12,300	37,427	881	227	0	56,624
Food chain	2,051	321	850	25	0	0	3,247
Investment goods/consumer durables	60	358	5,917	281	0	0	6,616
Marine transport	1,866	2,539	2,074	0	0	0	6,479
Materials processing, construction	118	4,542	936	121	0	0	5,717
Oil, gas and petroleum	480	1,003	13,857	20	0	0	15,360
Paper chain	675	932	685	65	0	0	2,357
Roads and motorways	22,311	9,318	14,364	100	0	0	46,093
Social infrastructure: education, health	12,152	34,602	5,491	99	0	0	52,344
Telecommunications	679	2,414	9,133	238	0	0	12,464
Traditional and high speed railways	26,844	12,449	5,293	73	0	0	44,659
Treasury	29,516	26,069	1,996	0	0	979	58,560
Urban dev., renovation and transport	16,547	42,458	2,078	172	0	0	61,255
Venture Capital	0	0	0	11,374	0	0	11,374
Waste recuperation, recycling	2,955	1,958	4,015	37	0	0	8,965
Other	23,880	86,518	3,468	994	42,864	990	158,714
<b>Total</b>	<b>163,493</b>	<b>257,450</b>	<b>131,489</b>	<b>15,460</b>	<b>43,091</b>	<b>1,995</b>	<b>612,978</b>

<b>31.12.2016</b> <b>EAD,</b> <b>EUR million</b>	<b>Central governments and central banks</b>	<b>Institutions</b>	<b>Corporates (including specialised lending)</b>	<b>Equity</b>	<b>Items representing securitisation positions</b>	<b>Cash and other assets</b>	<b>Total</b>
Air transport	5,766	1,806	6,583	0	0	0	14,155
Automobiles	97	737	5,786	0	0	0	6,620
Bank-intermediated loans	5,317	3,246	349	0	0	0	8,912
Basic material and mining	0	241	958	0	0	0	1,199
Chemicals, plastics and pharmaceuticals	418	421	3,281	0	0	0	4,120
Consumer goods	100	125	270	0	0	0	495
Drinking water, water treatment	11,106	12,101	9,751	0	0	0	32,958
Electricity, coal and others	8,528	14,190	37,928	0	275	0	60,921
Food chain	2,253	431	518	0	0	0	3,202
Infrastructure funds	242	0	0	2,003	0	69	2,314
Investment goods/consumer durables	5	270	6,992	0	0	0	7,267
Marine transport	2,093	2,943	2,156	0	0	0	7,192
Materials processing, construction	0	1,304	693	0	0	0	1,997
Oil, gas and petroleum	552	1,294	13,855	0	0	0	15,701
Paper chain	305	1,051	560	0	0	0	1,916
Roads and motorways	24,292	10,150	15,891	0	0	0	50,333
Social infrastructure: education, health	12,007	36,452	5,278	0	0	0	53,737
Telecommunications	58	2,250	9,769	0	0	0	12,077
Traditional and high speed railways	23,726	11,858	6,007	0	0	0	41,591
Treasury	28,184	42,569	2,776	0	0	312	73,841
Urban dev., renovation and transport	10,032	38,117	2,517	0	0	0	50,666
Venture Capital	0	0	0	10,320	0	0	10,320
Waste recuperation, recycling	149	1,302	3,116	0	0	0	4,567
Other	27,374	93,432	670	871	35,339	1,576	159,262
<b>Total</b>	<b>162,604</b>	<b>276,290</b>	<b>135,704</b>	<b>13,194</b>	<b>35,614</b>	<b>1,957</b>	<b>625,363</b>

Table 6-9: Distribution of credit risk exposures by residual maturity

<b>31.12.2017</b>				
<i>EAD, EUR million</i>	< 1 year	1-5 years	> 5 years	Total
Central governments and central banks	12,199	53,819	97,475	163,493
Institutions	22,687	90,848	143,915	257,450
Corporates	4,302	49,992	77,195	131,489
Equity	0	870	14,590	15,460
Securitisation	0	43,091	0	43,091
Cash and other assets	1,041	954	0	1,995
<b>Total</b>	<b>40,229</b>	<b>239,574</b>	<b>333,175</b>	<b>612,978</b>

<b>31.12.2016</b>				
<i>EAD, EUR million</i>	< 1 year	1-5 years	> 5 years	Total
Central governments and central banks	1,851	60,381	100,372	162,604
Institutions	34,954	97,566	143,770	276,290
Corporates	4,796	52,393	78,515	135,704
Equity	0	0	13,194	13,194
Securitisation	0	35,448	166	35,614
Cash and other assets	1,021	936	0	1,957
<b>Total</b>	<b>42,622</b>	<b>246,724</b>	<b>336,017</b>	<b>625,363</b>

## 6.2. Credit risk mitigation

The Bank details its approach to credit risk mitigation in its credit risk operational guidelines, which include the type of collateral and guarantees the Bank accepts. Credit risk mitigation used to limit the exposure of derivatives and securities financing transactions is presented in Chapter 7.

The Bank follows a detailed security classification to differentiate the quality of the security provided by a guarantor or collateral provider. The Bank accepts various types of credit enhancements and has defined requirements on the security's quality. The credit enhancements include guarantees, assignment of financial rights (e.g. claim on underlying loan exposures or revenues), pledge of assets like government securities or mortgages on fixed assets and financial collateral such as cash, bank accounts held with an independent bank, bonds and, on an exceptional basis, shares. The Bank does not use credit derivatives as a means of mitigating credit risk.

If a loan is guaranteed by a bank, the guarantor bank is subject to a minimum internal rating requirement, or minimum qualifying status ('MQS'). The minimum requirement also depends on the credit quality of the borrower. EIB's policies stipulate remedial actions when the minimum qualifying status is lost.

For financial collateral, the policy defines eligible types that take into account nature, currency, credit quality, maturity, liquidity and amount of such collateral. Internal haircuts that are at least as conservative as the regulatory haircuts are defined for each type of financial collateral.

Financial collateral received is subject to regular monitoring, which includes valuation and calculation of coverage ratios between loan and collateral and assessment of credit risk concentrations. For further information on collateral received, refer to Note S.2.5.1 (financial collateral for derivatives), Note S.2.3.4 (collateral on loans) and Note S.2.3.3 (guarantees received by the Group) of the Consolidated Financial Statements under IFRS. Financial monitoring guidelines exist to detail the security and collateral monitoring and guarantee renewal and the responsibilities within the Bank.

The following tables provide an overview of the extent of credit risk mitigation used by the Group, as well as information on the quality of the guarantor and the coverage ratio of secured exposures.

**Table 6-10: Overview of protections against credit risk**

*The following tables disclose the extent of reduction of credit risk exposure due to the use of collateral, financial guarantees as credit risk mitigation techniques. EIB currently does not use any credit derivatives as credit risk mitigants. Defaults on securitised exposures are not included.*

<i>EAD, EUR million</i>	31.12.2017			31.12.2016		
	Exposure Unsecured	Exposure secured by financial collateral	Exposure secured by financial guarantees	Exposure Unsecured	Exposure secured by financial collateral	Exposure secured by financial guarantees
Central governments and central banks	83,252	0	80,241	75,901	0	86,703
Institutions	191,734	14,854	50,862	216,385	17,803	42,102
Corporates (including Specialised lending)	106,307	2,536	22,646	126,738	4,324	4,642
Equity	15,460	0	0	13,194	0	0
Items representing securitisation positions	43,091	0	0	35,614	0	0
Cash and other assets	1,995	0	0	1,957	0	0
<b>Total</b>	<b>441,839</b>	<b>17,390</b>	<b>153,749</b>	<b>469,789</b>	<b>22,127</b>	<b>133,447</b>
Of which, defaulted	1,385	29	0	2,065	155	0

**Table 6-11: Credit exposure secured by financial collateral and coverage ratio break-down**

*Following table provides a break-down of protected and unprotected exposures.*

<i>EUR million</i>	31.12.2017	31.12.2016
<b>Secured by collateral</b>	<b>17,390</b>	<b>22,127</b>
<b>Break-down by protection/exposure ratio</b>		
less than 25%	227	1,165
25% to 50%	670	2,569
50% to 75%	899	2,800
75% to 90%	2,974	4,465
90% to 100%	12,620	11,128
<b>Residual exposure, not secured by financial</b>	<b>595,588</b>	<b>603,236</b>
<b>Total</b>	<b>612,978</b>	<b>625,363</b>

Table 6-12: Protected exposure by guarantor rating class

This table provides a view on the credit quality of the guarantors used by the Group to reduce its credit risk exposures. The break-down is based on external ratings.

EUR million	31.12.2017	31.12.2016
AAA	11,510	6,328
AA	13,130	13,841
A	31,541	29,078
BBB	58,607	42,715
BB	13,257	18,974
B	7,811	300
CCC	143	7,614
Unrated	17,750	14,597
<b>Total</b>	<b>153,749</b>	<b>133,447</b>

### 6.3. Standardised approach

The Group treats a small portion of its assets under the Standardised approach. This portfolio includes the Bank's strategic equity investment in the EBRD.

Table 6-13: Standardised approach

EUR million	31.12.2017						
	Exposures before CCF and credit risk mitigation ('CRM')		Exposures post CCF and CRM		RWA	RWA density	RGC
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount			
Strategic investments	158	713	158	713	870	100%	70
Corporates	85	969	85	484	570	100%	45
<b>Total</b>	<b>243</b>	<b>1,682</b>	<b>243</b>	<b>1,197</b>	<b>1,440</b>		<b>115</b>

EUR million	31.12.2016						
	Exposures before CCF and CRM		Exposures post CCF and CRM		RWA	RWA density	RGC
	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount			
Strategic investments	158	713	158	713	870	100%	70
Corporates	47	639	47	319	368	100%	29
<b>Total</b>	<b>205</b>	<b>1,352</b>	<b>205</b>	<b>1,032</b>	<b>1,238</b>		<b>99</b>

## 6.4. Internal Ratings Based approach

The Internal Ratings Based ('IRB') approach allows banks to use their own risk parameters to quantify required capital for credit risk. After the Basel II Accord was published, EIB Group made the decision to use internal credit risk models and processes to be able to apply the IRB approach and therefore developed models for the Probability of Default ('PD'), Loss Given Default ('LGD') and Exposure at Default ('EAD'). PD, LGD and EAD models exist for all material exposure classes of the Bank and the Bank uses an "Advanced IRB" approach for the majority of its book. Strategic equity participations, such as the investment in the EBRD, are treated under the Standardised approach. The slotting approach has been applied to unsecured specialised lending exposures until the end of 2016 since when it has been replaced by AIRB. The simple risk-weight approach is used for equity exposures.

Internal credit risk parameter estimates are not only used for regulatory, but also for economic capital calculations. Internal ratings are a key driver of loan grading and therefore of loan pricing and provisioning. The Group have set up a stress testing framework, in which the internal credit risk parameters and how they will change for different macroeconomic scenarios plays a major role.

### Internal ratings

EIB developed an Internal Rating methodology ('IRM') to determine the Internal Ratings of all its counterparts. The methodology is based on scorecards for all counterparty types. The table below sets out the relationship between internal ratings, equivalent external ratings and the ratings' definitions. Internal Ratings are updated and reviewed by OPS/TMR at least on a yearly basis and validated by the Credit Risk Department.

Table 6-14: EIB's internal ratings

Internal Rating	Equivalent Moody's rating	Rating definition
1	Aaa	Counterpart of prime credit quality, with minimal credit risk
2+	Aa1	High credit quality counterpart and subject to very low credit risk. Considerable stability of earnings, strong position in a non-cyclical sector and moderate leverage. Long-term prospects quite solid.
2	Aa2	
2-	Aa3	
3+	A1	Good credit quality counterpart and subject to low credit risk. Capacity to repay all obligations in the normal course of business is undoubted, but operating in a cyclical sector (or not having a strong position in a non-cyclical one), and therefore potentially showing a degree of vulnerability to downturns. Long-term prospects remain, however, solid.
3	A2	
3-	A3	
4+	Baa1	Acceptable credit quality counterpart subject to moderate credit risk but with an exposure to economic or industry cycles that could well lead, in the medium term, to a material deterioration in the borrower's financial performance.
4	Baa2	Minimum acceptable credit quality counterpart subject to increased credit risk.
4-	Baa3	Counterpart is financially vulnerable to external or internal factors such as high leverage, highly cyclical and competitive industries, or where event risk is a major consideration. Short-term solvency is not in question, but long-term prospects are uncertain.
5+	Ba1	Financially weak counterpart, whose capacity to repay obligations on a timely basis may be in question.
5	Ba2	
5-	Ba3	
6+	B1	Counterpart subject to high credit risk; capacity to repay questionable.
6	B2	
6-	B3	
7	Caa2	Counterpart judged to be of very poor credit standing and subject to very high credit risk.
8	D	Counterpart in default.

## Internal ratings process

In order to ensure independence of the rating assignment, there is a clear division of responsibilities between OPS (Loan Officers), TMR (post signature monitoring) and OPE (Credit Officers) regarding the due diligence and internal rating exercise. While OPS/TMR have direct contact with the counterparty, are responsible for the detailed financial analysis, gather all information required for the scoring sheet and propose an initial counterparty rating, it is OPE's responsibility to validate the rating and perform adjustments/overrides to determine the final rating. The final rating decision is communicated and discussed between OPS/TMR and OPE and in case of material disagreements it is the decision of the OPE. Each counterparty is rated individually.

Several control mechanisms of the internal ratings system were established to ensure the internal ratings are robust:

- As EIB's internal rating system is "expert-based", OPE is responsible for the design and subsequent refinements of the internal ratings methodology, when needed. Review, maintenance and validation of the model's performance are performed regularly by OPE.
- A separate validation team within RM ensures the internal models' compliance with the applicable regulations.
- The Internal Rating Models Maintenance Committee has oversight over regular validation of the IRMs.
- The internal audit function is responsible for checking annually the integrity of the internal rating system and its adherence to all applicable minimum requirements.

All internal rating models at EIB follow an expert system approach, meaning the ratings are primarily based on scorecards, which rely on quantitative factors and an analyst's opinion for qualitative factors, but also allow adjustments to the rating based on judgmental factors to an explicitly limited degree. EU and non-EU counterparts generally use the same rating approach, although the scores are partially weighted differently, such that for non-EU counterparties e.g. business risk factors are more heavily weighted than financial criteria.

The internal rating model for corporate counterparts (excluding Project Finance counterparts) assesses business risk and financial risk factors (including industry risks, company specifics, corporate governance, capital structure and debt service capacity) on a quantitative and qualitative basis by taking into account sector and country specific factors to determine an initial rating. Expert adjustments are made by considering the legal entities parental or government support. Before the final rating is determined, overriding tools assist in providing information that was not considered in the scoring sheet, or market pricing information.

Most Financial Institution counterparties are rated by external rating agencies; nevertheless an internal rating will be derived for all such counterparties. The internal ratings process is very much similar to that of Corporates, although the rating criteria used differ and measure on the one hand qualitative criteria such as economic environment, regulatory and legal framework or competitive

position and on the other hand financial criteria are assessed to evaluate the institution's financial soundness. The final rating allows for judgemental overrides as seen above.

EU and non-EU sovereigns are rated by the Economics department.

The internal rating model for sub-sovereign public authority ('SSPA') counterparties assesses the two main areas operating environment and financial position/risk to derive an initial rating from the scorecard. Subsequently model driven adjustments including a country test (to ensure the rating in line with the rating of the sovereign) and overriding adjustments (expert-based) and market information are made.

A specific internal rating model exists for public sector entities ('PSE') that are neither sovereign nor sub-sovereign public authorities, nor corporates. They are considered within the institutions IRB exposure class though for capital calculation purposes. For the initial scorecard rating the business risk profile as well as financial risk profile is assessed. For potential adjustments the degree and likelihood of extraordinary support from the sponsoring sovereign or sub-sovereign is assessed through specific criteria.

### Internal rating models

Due to the shortage of statistically relevant historical default data, the Bank relies on external estimates of PDs for its internal ratings. For EU counterparts, internal rating grades are mapped to Moody's rating grades taking into account the criteria of the internal and external rating. The calibration method for PDs then relies on Moody's published data and loss experience, adjusted for differences in the definition of default. For non-EU counterparties, default data history is provided through the GEMs (Global Emerging Markets Risk) database, which allows for statistical modelling. The calibration of PDs relies on GEMs and Moody's data.

The LGD model also relies mainly on external data and expert judgement given the lack of default data and a downturn LGD is used for regulatory capital purposes. The LGD model differentiates between EU and non-EU sovereigns, corporates (including Project Finance), financial and public institutions. Credit risk mitigation clauses have a considerable impact on LGD and are taken into account for determining the LGD of a transaction. For non-EU counterparties the LGD is statistically estimated and annually reviewed on the basis of GEMs data.

On the basis of the protection provided by its Preferred Creditor Status (PCS) and Statute (Article 26.2, exemption from all forms of requisition or expropriation), the Bank deems full recovery of its EU sovereign assets upon maturity. Hence, the Bank assumes no credit risk on direct and guaranteed exposures to MS<sup>5</sup>.

To obtain own estimates of Credit Conversion Factors ('CCFs') for the EAD calculation, the Bank uses a CCF model that takes into consideration the type and maturity of the credit exposure, including especially the extent to which details on future disbursements are known or unknown. The model differentiates between the counterparty type and whether the counterparty is located in or outside the EU.

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<sup>5</sup> The EIB exposure to EU member states, except for exposure in form debt instruments with collective action clauses

## Credit exposures and RWA

Table 6-15: Estimation of weighted average risk parameters by IRB portfolio and PD range at year-end

This table provides averages of risk parameters used as input to the calculation of IRB capital requirements.

31.12.2017

PD scale	On balance sheet exposure	Un-drawn commitments (pre-CCF)	WA-CCF	EAD (post CCF)	WA-PD	Number of counter-parties	Avg-EAD	WA-LGD	WA-M	RWA	RWA density	RGC	EL
(%)	(EURm)	(EURm)	(%)	(EURm)	(%)		(EURm)	(%)	(years)	(EURm)	(%)	(EURm)	(EURm)
<b>Central governments and central banks</b>													
0 to 0.15	94,578	14,865	79.0	106,318	0.1	27	3,938	0.6	12.6	434	0.4	35	1
0.15 to 0.25	10,128	1,859	80.5	11,624	0.2	2	5,812	0.0	10.3	0	0.0	0	0
0.25 to 0.35	15,188	4,104	79.0	18,430	0.3	4	4,608	0.0	11.2	13	0.1	1	0
0.35 to 0.5	490	650	75.0	978	0.5	1	978	22.5	18.8	506	51.8	41	1
0.5 to 0.75	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
0.75 to 1.35	8,471	1,553	82.7	9,755	1.0	4	2,439	4.3	11.6	1,050	10.8	84	4
1.35 to 2.5	176	0	n.a.	176	1.7	2	88	10.6	3.7	42	24.1	3	0
2.5 to 5.5	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
5.5 to 10.0	15,139	1,250	82.5	16,171	6.2	1	16,171	0.0	14.2	0	0.0	0	0
10.0 to 20.0	0	0	n.a.	0	n.a.	1	0	n.a.	n.a.	0	n.a.	0	0
20.0 to 100.0	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
100.0 (Default)	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
Unrated	42	0	n.a.	41	100.0	1	42	0.0	0.0	0	0.0	0	0
<b>Sub-total</b>	<b>144,212</b>	<b>24,281</b>	<b>79.4</b>	<b>163,493</b>	<b>0.8</b>	<b>43</b>	<b>3,802</b>	<b>0.8</b>	<b>12.4</b>	<b>2,045</b>	<b>1.3</b>	<b>164</b>	<b>6</b>
<b>Institutions</b>													
0 to 0.15	174,944	34,061	82.2	202,954	0.1	679	299	30.7	12.2	50,903	25.1	4,072	42
0.15 to 0.25	16,236	4,288	80.2	19,674	0.2	96	205	43.6	12.3	13,840	70.3	1,107	16
0.25 to 0.35	14,792	1,764	79.3	16,191	0.3	71	228	33.0	8.4	11,184	69.1	895	17
0.35 to 0.5	66	128	75.0	162	0.5	4	41	31.2	19.0	151	93.1	12	0
0.5 to 0.75	2,796	661	89.1	3,385	0.6	40	85	33.7	11.2	3,078	90.9	246	6
0.75 to 1.35	6,409	1,253	86.6	7,494	1.0	60	125	15.7	7.3	3,358	44.8	269	11
1.35 to 2.5	3,524	480	83.8	3,927	1.6	38	103	31.5	6.6	4,411	112.3	353	21
2.5 to 5.5	131	80	95.0	208	3.6	8	26	33.3	6.9	261	125.8	21	2
5.5 to 10.0	1,837	1	95.8	1,838	6.2	12	153	29.8	6.2	2,308	125.6	184	34
10.0 to 20.0	460	294	96.3	743	10.7	23	32	47.2	5.8	1,912	257.3	153	37
20.0 to 100.0	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
100.0 (Default)	158	0	n.a.	158	100.0	1	158	10.5	11.0	110	69.5	9	8
Unrated	138	737	78.4	716	100.0	19	38	62.8	5.6	0	0.0	0	450
<b>Sub-total</b>	<b>221,491</b>	<b>43,747</b>	<b>82.2</b>	<b>257,450</b>	<b>0.6</b>	<b>1,051</b>	<b>245</b>	<b>31.6</b>	<b>11.6</b>	<b>91,516</b>	<b>35.5</b>	<b>7,321</b>	<b>644</b>
<b>Corporates (including Specialised lending)</b>													
0 to 0.15	61,668	7,725	87.1	68,393	0.1	272	251	49.0	9.6	31,361	45.9	2,509	33
0.15 to 0.25	26,036	3,212	82.0	28,670	0.2	146	196	44.2	10.7	17,359	60.5	1,389	24
0.25 to 0.35	11,271	1,418	87.0	12,504	0.3	137	91	44.8	10.5	9,425	75.4	754	18
0.35 to 0.5	112	200	75.0	262	0.5	6	44	32.3	10.0	228	86.9	18	0
0.5 to 0.75	8,756	931	82.4	9,524	0.6	139	69	35.9	13.5	7,342	77.1	587	19
0.75 to 1.35	2,036	658	80.9	2,569	0.9	58	44	31.4	12.2	2,149	83.6	172	8
1.35 to 2.5	2,045	388	84.5	2,373	1.9	66	36	28.6	14.9	2,152	90.7	172	12
2.5 to 5.5	1,446	596	77.6	1,908	3.3	45	42	39.7	10.6	2,921	153.1	234	26
5.5 to 10.0	1,116	56	87.4	1,165	6.3	51	23	21.2	11.0	1,079	92.7	86	16
10.0 to 20.0	635	601	76.0	1,091	12.9	43	25	31.2	7.9	2,036	186.5	163	44
20.0 to 100.0	95	40	75.0	125	26.0	7	18	13.7	5.6	108	86.9	9	4
100.0 (Default)	1,050	223	92.5	1,257	100.0	25	50	32.8	8.4	2,181	173.6	174	361
Unrated	238	878	95.8	1,079	100.0	17	63	62.6	11.9	0	0.0	0	676
<b>Sub-total</b>	<b>116,504</b>	<b>16,926</b>	<b>85.2</b>	<b>130,920</b>	<b>2.24</b>	<b>1,012</b>	<b>129</b>	<b>45.2</b>	<b>10.4</b>	<b>78,341</b>	<b>59.8</b>	<b>6,267</b>	<b>1,241</b>

31.12.2016

PD scale	On balance sheet exposure	Un-drawn commitments (pre-CCF)	WA-CCF	EAD (post CCF)	WA-PD	Number of counterparties	Avg-EAD	WA-LGD	WA-M	RWA	RWA density	RGC	EL
(%)	(EURm)	(EURm)	(%)	(EURm)	(%)		(EURm)	(%)	(years)	(EURm)	(%)	(EURm)	(EURm)
<b>Central governments and central banks</b>													
0 to 0.15	89,346	14,533	80.5	101,052	0.1	28	3,609	0.5	13.2	314	0.3	25	0
0.15 to 0.25	13,449	1,008	75.0	14,205	0.2	1	14,205	0.0	7.6	0	0.0	0	0
0.25 to 0.35	9,777	3,971	79.1	12,920	0.3	3	4,307	0.0	12.8	0	0.0	0	0
0.35 to 0.5	211	405	81.5	541	0.5	1	541	15.2	18.9	190	35.1	15	0
0.5 to 0.75	7,412	323	79.3	7,668	0.6	1	7,668	0.0	9.7	0	0.0	0	0
0.75 to 1.35	6,065	1,500	85.3	7,345	1.0	3	2,448	6.1	10.2	1,165	15.9	93	4
1.35 to 2.5	2,100	753	80.6	2,707	1.6	3	902	1.0	16.2	72	2.7	6	1
2.5 to 5.5	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
5.5 to 10.0	0	0	n.a.	0	n.a.	1	n.a.	n.a.	n.a.	0	n.a.	0	0
10.0 to 20.0	14,425	1,910	81.2	15,976	10.7	1	15,976	0.0	14.7	0	0.0	0	0
20.0 to 100.0	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
100.0 (Default)	0	0	n.a.	0	n.a.	0	n.a.	n.a.	n.a.	0	n.a.	0	0
Unrated	190	0	n.a.	190	100.0	1	190	0.0	0.1	0	0.0	0	0
<b>Sub-total</b>	<b>142,975</b>	<b>24,403</b>	<b>80.4</b>	<b>162,604</b>	<b>1.4</b>	<b>43</b>	<b>3,781</b>	<b>0.7</b>	<b>12.5</b>	<b>1,741</b>	<b>1.1</b>	<b>139</b>	<b>5</b>
<b>Institutions</b>													
0 to 0.15	185,552	35,079	81.9	214,276	0.1	664	323	32.5	11.2	52,793	24.6	4,222	45
0.15 to 0.25	20,934	4,708	83.6	24,872	0.2	95	262	45.8	10.4	18,286	73.5	1,463	21
0.25 to 0.35	5,993	1,188	84.8	7,000	0.3	62	113	25.4	11.1	3,335	47.6	267	6
0.35 to 0.5	428	1,052	86.3	1,336	0.5	11	121	33.2	9.1	1,186	88.8	95	2
0.5 to 0.75	12,310	1,229	82.0	13,318	0.6	68	196	21.1	7.8	7,546	56.7	604	16
0.75 to 1.35	5,291	690	80.4	5,846	1.0	42	139	15.7	6.5	2,819	48.2	225	9
1.35 to 2.5	4,714	458	91.0	5,131	1.9	58	88	43.3	6.7	8,110	158.1	649	43
2.5 to 5.5	294	150	86.0	423	3.5	30	14	34.2	7.1	539	127.4	43	5
5.5 to 10.0	2,389	82	93.9	2,466	6.3	22	112	30.0	6.9	3,121	126.6	250	47
10.0 to 20.0	691	198	91.9	873	11.0	26	34	42.5	6.8	2,169	248.5	174	41
20.0 to 100.0	5	260	75.0	200	26.0	2	100	35.2	5.0	447	223.5	36	18
100.0 (Default)	113.0	51.0	80.4	154.0	100.0	3.0	51	11.1	11.2	147	95.5	12	5
Unrated	116	320	87.2	395	100.0	17	23	66.7	5.1	0	0.0	0	264
<b>Sub-total</b>	<b>238,830</b>	<b>45,465</b>	<b>82.4</b>	<b>276,290</b>	<b>0.5</b>	<b>1,100</b>	<b>251</b>	<b>32.9</b>	<b>10.7</b>	<b>100,498</b>	<b>36.4</b>	<b>8,040</b>	<b>522</b>
<b>Corporates (including Specialised lending)</b>													
0 to 0.15	63,491	8,028	85.9	70,387	0.1	220	320	49.2	9.9	32,529	46.2	2,602	33
0.15 to 0.25	25,699	3,872	86.7	29,055	0.2	121	240	44.8	10.4	17,278	59.5	1,382	24
0.25 to 0.35	11,137	601	88.5	11,669	0.3	102	114	44.0	10.6	8,657	74.2	693	16
0.35 to 0.5	240	0	n.a.	240	0.5	5	48	33.5	7.6	162	67.5	13	0
0.5 to 0.75	9,011	2,601	88.6	11,315	0.6	139	81	35.8	13.4	8,658	76.5	693	22
0.75 to 1.35	3,047	94	81.9	3,124	1.0	63	50	44.7	10.3	3,335	106.8	267	13
1.35 to 2.5	3,816	275	77.5	4,029	2.0	72	56	40.3	12.6	4,979	123.6	398	32
2.5 to 5.5	939	103	82.5	1,024	3.7	30	34	26.2	14.1	999	97.6	80	10
5.5 to 10.0	1,133	47	95.7	1,178	6.3	34	35	18.3	12.5	970	82.3	78	14
10.0 to 20.0	759	70	74.3	811	11.4	18	45	24.5	7.8	1,022	126.0	82	22
20.0 to 100.0	134	5	80.0	138	26.0	6	23	17.6	8.6	153	110.9	12	6
100.0 (Default)	1,814	278	90.6	2,066	100.0	25	83	32.7	10.5	4,202	203.4	336	629
Unrated	136	207	79.7	301	100.0	29	10	43.0	8.0	0	0.0	0	129
<b>Sub-total</b>	<b>121,356</b>	<b>16,181</b>	<b>86.4</b>	<b>135,337</b>	<b>2.2</b>	<b>864</b>	<b>157</b>	<b>45.4</b>	<b>10.5</b>	<b>82,944</b>	<b>61.3</b>	<b>6,636</b>	<b>950</b>

Table 6-16: Back-testing the internal rating process and PD per portfolio

These tables include information on estimates of losses against actual losses per exposure class and provide an analysis of PD. The number of defaulted obligors in the year is based on the internal default definition.

PD Range	External Rating equivalent	Weighted average PD	Arithmetic Average PD by obligors	Number of obligors		Obligors defaulted in the year	of which new obligors
				31.12.2017*	31.12.2016		
<b>Central Governments and Central Banks</b>							
0.00% - 0.01%	Aaa	0.01%	0.01%	8	8	0	0
0.02% - 0.03%	Aa	0.02%	0.02%	5	6	0	0
0.04% - 0.09%	A	0.07%	0.06%	13	12	0	0
0.09% - 0.33%	Baa	0.18%	0.23%	7	6	0	0
0.33% - 1.50%	Ba	0.85%	0.99%	6	7	0	0
1.50% - 6.30%	B	2.33%	2.33%	2	1	0	0
6.30% - 99%	C	10.67%	8.92%	1	2	0	0
100%	D	n.a.	n.a.	0	0	0	0
<b>Institutions</b>							
0.00% - 0.01%	Aaa	0.01%	0.01%	6	2	0	0
0.02% - 0.03%	Aa	0.02%	0.02%	67	5	0	0
0.04% - 0.09%	A	0.04%	0.05%	498	547	0	0
0.09% - 0.33%	Baa	0.16%	0.19%	275	267	0	0
0.33% - 1.50%	Ba	0.76%	0.84%	131	150	0	0
1.50% - 6.30%	B	4.18%	3.55%	31	73	0	0
6.30% - 99%	C	12.55%	11.16%	23	36	0	0
100%	D	100%	100%	1	3	0	0
<b>Corporates</b>							
0.00% - 0.01%	Aaa	n.a.	n.a.	0	0	0	0
0.02% - 0.03%	Aa	n.a.	n.a.	0	0	0	0
0.04% - 0.09%	A	0.07%	0.06%	155	134	0	0
0.09% - 0.33%	Baa	0.18%	0.21%	400	309	0	0
0.33% - 1.50%	Ba	0.71%	0.78%	232	238	0	0
1.50% - 6.30%	B	3.50%	3.88%	118	103	1	0
6.30% - 99%	C	12.83%	14.62%	65	26	3	0
100%	D	100%	100%	25	25	0	0

\* Mapped to the External Rating equivalent

Table 6-17: Changes in IRB Credit risk RWA during 2017

<i>EUR million</i>	
<b>RWA as at 1.1.2017</b>	<b>213,187</b>
Asset size	(7,268)
Asset quality	557
Model updates	(86)
Methodology and policy	(4)
Other (including foreign exchange movements)	71
<b>RWA as at 31.12.2017</b>	<b>206,457</b>

Table 6-18: Credit risk mitigation effect on RWA

*This table shows the effect of CRM on the IRB capital requirements for the loan and equity portfolios.*

<b>31.12.2017</b>			
<i>EUR million</i>	RWA before CRM	After application of financial collateral	After application of financial guarantees
Cash and other assets	1,045	1,045	1,045
Central governments and central banks	55,132	55,132	2,045
Institutions	149,189	125,642	91,516
Corporates (including Specialised lending)	83,633	80,688	78,341
Equity	33,510	33,510	33,510
<b>Total</b>	<b>322,509</b>	<b>296,017</b>	<b>206,457</b>

<b>31.12.2016</b>			
<i>EUR million</i>	RWA before CRM	After application of financial collateral	After application of financial guarantees
Cash and other assets	983	983	983
Central governments and central banks	70,032	70,032	1,741
Institutions	148,069	123,984	100,498
Corporates (including Specialised lending)	89,016	84,769	82,944
Equity	27,021	27,021	27,021
<b>Total</b>	<b>335,121</b>	<b>306,789</b>	<b>213,187</b>

Table 6-19: Exposure weighted-average risk parameters by relevant geographical region

31.12.2017	On balance sheet exposure	Off balance sheet exposure pre-CCF	WA-CCF	EAD post CCF	WA-PD	WA-LGD	WA-Maturity
	(EURm)	(EURm)	(%)	(EURm)	(%)	(%)	(years)
Austria	12,920	2,059	84.5	14,660	0.1	26.6	14
Belgium	11,700	4,352	87.6	15,512	0.2	19.3	14
Bulgaria	1,221	436	76.3	1,554	0.2	3.6	20
Croatia	3,312	774	83.4	3,958	1.1	6.2	13
Cyprus	2,053	658	77.5	2,563	1.3	1.3	16
Czech Republic	7,081	587	80.9	7,556	0.1	16.8	8
Denmark	3,075	1,194	88.3	4,130	0.1	41.7	7
Estonia	984	299	75.4	1,210	0.1	13.5	10
Finland	6,600	2,205	81.3	8,393	0.2	25.5	16
France	55,317	11,403	80.7	64,522	0.2	33.8	13
Germany	42,195	6,874	84.3	47,989	0.8	33.7	9
Greece	15,882	1,965	84.2	17,536	8.9	3.8	14
Hungary	7,709	1,828	83.3	9,231	0.4	2.3	11
Ireland	4,878	1,274	78.1	5,873	3.5	15.8	14
Italy	53,905	9,948	82.7	62,136	0.7	40.3	11
Latvia	689	200	84.6	859	0.1	12.2	12
Lithuania	1,615	110	81.5	1,705	0.1	7.1	18
Luxembourg	12,225	370	82.4	12,530	0.1	7.3	1
Malta	320	101	75.9	397	0.1	11.0	17
Netherlands	16,998	2,668	82.5	19,200	0.3	53.3	10
Poland	30,931	10,957	79.2	39,606	0.1	13.0	17
Portugal	17,142	1,026	86.4	18,028	2.4	22.4	9
Romania	2,771	2,528	76.8	4,712	0.4	5.1	14
Slovakia	2,713	957	75.1	3,431	1.3	9.0	11
Slovenia	2,869	496	78.7	3,259	0.1	3.8	17
Spain	86,437	5,460	83.1	90,974	0.3	14.6	11
Sweden	10,032	3,104	84.7	12,660	0.1	38.4	8
United Kingdom	39,680	5,072	81.1	43,795	0.9	31.0	15
Non EU	28,950	6,049	81.5	33,882	4.4	33.7	6
<b>Total</b>	<b>482,204</b>	<b>84,954</b>	<b>82.0</b>	<b>551,861</b>	<b>1.0</b>	<b>25.7</b>	<b>12</b>

31.12.2016	On balance sheet exposure	Off balance sheet exposure pre-CCF	WA-CCF	EAD post CCF	WA-PD	WA-LGD	WA-Maturity
	(EURm)	(EURm)	(%)	(EURm)	(%)	(%)	(years)
Austria	14,999	1,936	80.6	16,560	0.1	24.6	13
Belgium	12,001	3,144	83.7	14,632	0.1	25.5	13
Czech Republic	7,590	284	80.6	7,819	0.1	19.1	9
Finland	6,813	2,248	80.2	8,616	0.5	30.8	14
France	58,830	12,798	83.0	69,454	0.2	33.3	12
Germany	49,495	8,316	85.7	56,620	1.3	32.6	8
Greece	15,317	2,347	82.4	17,252	12.6	3.6	14
Hungary	7,897	1,999	77.2	9,441	0.4	3.1	11
Italy	60,930	8,782	84.8	68,373	0.4	37.5	10
Netherlands	18,535	2,888	84.4	20,972	0.2	52.0	9
Poland	32,280	8,823	80.7	39,398	0.4	13.2	16
Portugal	18,473	1,252	87.1	19,563	3.9	21.4	9
Spain	88,699	5,120	82.3	92,912	0.4	14.8	11
Sweden	10,306	2,621	82.3	12,464	0.1	39.2	8
United Kingdom	38,573	8,293	82.2	45,389	0.7	33.4	15
Other EU	29,513	9,423	81.0	37,148	1.8	15.8	13
Non EU	32,909	5,777	81.5	37,619	1.6	35.5	5
<b>Total</b>	<b>503,160</b>	<b>86,050</b>	<b>82.6</b>	<b>574,231</b>	<b>1.1</b>	<b>26.7</b>	<b>11</b>

Table 6-20: Equities under the simple risk weight method

*This table provides an overview of the main types of equities and the risk weights applied.*

31.12.2017

EUR million

Regulatory categories	On Balance sheet exposure	Off Balance sheet exposure	RW	EAD	RWA	RGC	EL
Other equity exposures	1,124	2,092	370%	3,216	11,901	952	77
Private equity exposures	5,477	5,897	190%	11,374	21,609	1,729	91
<b>Total</b>	<b>6,601</b>	<b>7,989</b>		<b>14,590</b>	<b>33,510</b>	<b>2,681</b>	<b>168</b>

31.12.2016

EUR million

Regulatory categories	On Balance sheet exposure	Off Balance sheet exposure	RW	EAD	RWA	RGC	EL
Other equity exposures	876	1,127	370%	2,003	7,412	593	48
Private equity exposures	4,589	5,731	190%	10,320	19,608	1,569	83
<b>Total</b>	<b>5,465</b>	<b>6,858</b>		<b>12,323</b>	<b>27,021</b>	<b>2,162</b>	<b>131</b>

Table 6-21: Cash and other non-credit obligation exposures

*This table provides an overview of other assets, such as cash, property, plant and equipment. It shows all such exposures, the risk weight and RWA.*

EUR million	Risk Weight	31.12.2017			31.12.2016		
		Exposure	RWA	RGC	Exposure	RWA	RGC
Cash	0%	990	0	0	1,078	0	0
Other	104%	1005	1045	84	879	983	79
<b>Total</b>		<b>1,995</b>	<b>1045</b>	<b>84</b>	<b>1,957</b>	<b>983</b>	<b>79</b>

## 7. Counterparty credit risk

### 7.1. Counterparty credit risk management

#### Introduction

Counterparty credit risk is defined as the risk that the counterparty of an OTC derivatives transaction or securities-financing transaction ('SFT') defaults before the final settlement of the transaction's cash flows and the counterparty will not be able to fulfil present and future payment obligations. The exposure at risk changes over time as market parameters change and it is of bilateral nature. SFTs, such as reverse repurchase and repurchase agreements are calculated under the Financial Collateral Comprehensive Method and information about these transactions is included in this chapter.

The Basel III framework materially changed the counterparty credit risk regime leading to a significant increase in own funds requirements: EIB is now calculating the CVA Capital Charge for derivatives, while the new requirements in relation to the Internal Model Method ('IMM') are not yet relevant for regulatory capital purposes and the lower risk weights for central counterparties ('CCPs') do not apply to the Group as CCPs are not used for OTC derivatives transactions.

EIB uses derivatives, mainly currency and interest rate swaps, but also structured swaps, forward rate agreements and currency forwards, as part of its ALM activities to manage exposures to interest rate and foreign currency risk and as part of its treasury operations. The Fund does not hold derivatives.

EIB enters into SFT transactions, mostly in the form of triparty reverse repos with banking counterparties. Such transactions are used as part of its treasury management activities to place liquidity not immediately needed for disbursement of loans. The Fund does not engage in SFT transactions.

#### Management, monitoring and reporting

EIB's counterparty credit risk is governed by its financial risk guidelines. The Derivatives division within RM is responsible for monitoring and measuring counterparty credit risk on derivatives and the Treasury & Liquidity division for monitoring and measuring counterparty credit risk on SFT transactions. Changes to models and methodology in relation to counterparty credit risk for derivatives are approved by the Derivatives Strategy and Model Committee, which meets quarterly and has the mission to analyse and discuss possible improvements in policies, procedures, models, methods and tools that constitute the operational framework for derivatives transactions at EIB.

EIB uses internal credit limits for derivatives and SFT transactions, which are approved by the Management Committee, and which are monitored on a daily basis. Corrective actions will be taken in case there are limit breaches and a dedicated daily reporting about limit usage is in place. Credit limits for derivatives are set on the Potential Future Exposure computed in a simulation engine on multiple time points and under various rating scenarios. For what concerns SFT, due to their short term nature, fixed percentages of the underlying nominal exposures are taken into account.

Exposures and limits for derivatives and SFTs are consolidated with general credit risk exposures in the global limit system to manage these within the overall credit processes.

A number of credit risk mitigants are used to limit EIB's counterparty credit risk. To be able to trade derivatives with EIB, commercial banks need to enter into an ISDA Master Agreement with a Credit Support Annex ('CSA') that has rating dependent thresholds and the counterparty also needs to satisfy a minimum rating requirement. In order to trade repos with EIB, commercial banks need to enter into a GMRA. The GMRA agreements currently in place do not have rating-dependent parameters. Eligibility criteria for derivatives and repo counterparties as well as risk limits are approved by the Management Committee. All derivative exposures are priced on a daily basis and if applicable collateralised by cash or bonds under a CSA which allow for daily margin calls in nearly all the cases. EIB does not post collateral under any CSA. Collateral received is monitored and valued regularly and an internal haircut that is at least as conservative as the regulatory haircut is applied for internal and external exposure measurement purposes. Margining for SFTs is largely outsourced to triparty repo agents that calculate exposure and administer margin calls on an intraday basis. Wrong way risk occurs if the likelihood of default of a counterparty is positively correlated with the exposure EIB has to this counterparty.

EIB manages this risk within the derivatives limit framework by applying conservative assumptions on market risk factor volatilities producing a strong positive correlation between the counterparty default and the Bank's potential future exposure to that counterparty.

### Measurement

The Bank currently uses the Mark-to-market method for calculating regulatory derivative exposures for capital adequacy purposes. This approach is based on the current market value of a derivative plus an add-on that is supposed to cover future changes in value and netting as well as collateral can be incorporated. Collateral applied in this calculation receives the regulatory risk haircut.

The own funds requirements for Credit Valuation Adjustment ('CVA') risk is calculated in accordance with the Standardised method and includes both OTC derivatives and securities financing transactions.

## 7.2. Quantitative disclosure

This section provides an overview of the exposures, RWA and capital requirements the Bank assumes with regards to counterparty credit risk. The bank has neither exposure on derivatives to a central counterparty clearing house (CCP), nor does it have any credit derivatives transactions. In terms of SFTs it transacts cleared reverse repos and repos with one qualifying CCP, the rest being dealt with non-qualifying CCPs or with banking counterparts.

Table 7-1: Analysis of counterparty credit risk exposure (CCR) by approach

*This table provides an overview of counterparty credit risk regulatory requirements and the methods used to calculate it.*

<b>31.12.2017</b>						
<i>EUR million</i>	<b>Replacement Cost</b>	<b>Potential Future Credit Exposure</b>	<b>EAD post CRM</b>	<b>RWA</b>	<b>RGC</b>	<b>EL</b>
Mark-to-market method (OTC derivatives)	44,217	15,747	7,198	4,593	368	2
Financial collateral comprehensive method (SFTs)	n.a.	n.a.	369	65	5	0
<b>Total</b>	<b>44,217</b>	<b>15,747</b>	<b>7,567</b>	<b>4,658</b>	<b>373</b>	<b>2</b>

<b>31.12.2016</b>						
<i>EUR million</i>	<b>Replacement Cost</b>	<b>Potential Future Credit Exposure</b>	<b>EAD post CRM</b>	<b>RWA</b>	<b>RGC</b>	<b>EL</b>
Mark-to-market method (OTC derivatives)	64,128	15,876	8,979	5,812	465	5
Financial collateral comprehensive method (SFTs)	n.a.	n.a.	535	70	6	3
<b>Total</b>	<b>64,128</b>	<b>15,876</b>	<b>9,514</b>	<b>5,882</b>	<b>471</b>	<b>8</b>

Table 7-2: IRB - CCR exposures by portfolio and PD scale

All CCR exposures are treated under IRB for credit risk capital calculations. The below table provides a detailed analysis of exposures by portfolio and PD scale, equivalent to Table 6 15 , where non-derivatives exposures were captured. "WA-"refers to exposure weighted averages of respective risk parameters.

31.12.2017										
Portfolio	PD scale	EAD post CRM	WA-PD	Number of obligors	WA- LGD	WA-maturity	RWA	RWA density	RGC	EL
	(%)	(EUR m)	(%)		(%)	(%)	(EUR m)	(%)	(EUR m)	(EUR m)
OTC-Derivatives	0 to 0.15	7,196	0.05	54	64.8	20.6	4,590	63.8	368	2
	0.25 to 0.35	2	0.32	2	75.0	8.1	3	145.1	0	0
	Unrated	0	n.a.	n.a.	n.a.	n.a.	0	n.a.	0	0
SFTs	0 to 0.15	369	0.07	10	69.4	0.1	65	17.6	5	0
	Unrated	0	n.a.	n.a.	n.a.	n.a.	0	n.a.	0	0
<b>Total</b>		<b>7,567</b>	<b>0.05</b>	<b>60</b>	<b>65.1</b>	<b>19.6</b>	<b>4,658</b>	<b>61.6</b>	<b>373</b>	<b>2</b>

31.12.2016										
Portfolio	PD scale	EAD post CCF	WA-PD	Number of obligors	WA- LGD	WA-maturity	RWA	RWA density	RGC	EL
	(%)	(EUR m)	(%)		(%)	(%)	(EUR m)	(%)	(EUR m)	(EUR m)
OTC-Derivatives	0 to 0.15	8,976	0.05	0	66.2	6.0	5,811	64.7	465	3
	0.25 to 0.35	1	0.32	0	75.0	20.5	1	100.0	0	0
	Unrated	3	100	0	75.0	9.6	0	0.0	0	2
SFTs	0 to 0.15	530	0.04	0	62.3	0.6	70	13.2	6	0
	Unrated	4	100	0	54.0	0.1	0	0.0	0	3
<b>Total</b>		<b>9,514</b>	<b>0.12</b>	<b>0</b>	<b>66.0</b>	<b>5.7</b>	<b>5,882</b>	<b>61.8</b>	<b>471</b>	<b>8</b>

Table 7-3: Credit valuation adjustment (CVA) overview

This table provides an overview of the CVA Capital Charge at EIB, which is calculated according to the Standardised Approach.

EUR million	EAD post CRM	CVA RWA	CVA RGC
31.12.2017	7,567	4,815	385
31.12.2016	9,514	6,103	488

Table 7-4: Impact of netting and collateral held on exposure values

*This table provides an overview of the impact of netting and collateral held on counterparty credit risk exposures.*

31.12.2017					
<i>EUR million</i>	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held (after haircut)	Net credit exposure
Mark-to-market method (OTC derivatives)	44,217	31,706	12,511	15,127	653
Financial collateral comprehensive method (SFTs)	7,950	0	7,950	7,942	69
<b>Total</b>	<b>52,167</b>	<b>31,706</b>	<b>20,461</b>	<b>23,069</b>	<b>722</b>

The Group receives a material amount of collateral for derivatives covered by a CSA and as part of reverse repurchase transactions. A comprehensive overview of the composition of collateral received for derivatives under an ISDA Master Agreement can be found in Note S.2.5.1, while a summary of collateral received in reverse repos is given in Note S.2.4.2 of the Consolidated Financial Statements under IFRS. Not all such collateral is eligible for regulatory calculations.

## 8. Securitisation

### 8.1. Securitisation management

#### Introduction

In a broad sense securitisation refers to a transaction or scheme, where the credit risk associated with an exposure or pool of exposures is tranching and has the following characteristics: payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures and the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme. A “traditional securitisation” is one where there is an economic transfer of the exposures being securitised from the originator institution to a special purpose vehicle (“SPV”) while in a “synthetic securitisation” the transfer of risk is achieved by use of credit derivatives or guarantees.

The Group has exposure to both synthetic and traditional securitisations as investor and is originator of synthetic securitisation structures. At a high level, the Group is involved in the following transactions, more details are provided below:

- The Bank invests in Loan Substitutes, which are typically ABS or Covered Bonds<sup>6</sup>;
- The Bank has exposure to several facilities that focus on debt based financing via loans and guarantees, where a part of the first loss is taken by a third party and the Bank is the originator of these synthetic securitisations;
- Under its Guarantees, Securitisation and Innovation Finance (“GS&IF”) business, EIF provides guarantees to financial intermediaries, credit enhancement to SME securitisation transactions and can purchase tranches of SME securitisation transactions.

#### Securitisation activities and the Group’s objectives

EIB Group uses so called Loan Substitutes as alternative financing structures to reach new clients, enhance value added and to improve the Group’s risk profile. The following types of Loan Substitute transactions are used at the Group:

- Acquisition of Asset Backed Securities (‘ABS’), which are structured debt securities issued by a bankruptcy-remote SPV and backed by a pool of financial assets.
- Purchase of Covered Bonds, which are ultimately backed by a pool of mortgages or by public sector claims. Although structured in a similar way to ABS, the issuer of a covered bond is a financial institution and it is liable for the repayment of the covered bond. Although mentioned here to provide a complete picture of the Group’s activities, it should be noted that covered bonds are not treated as securitisation exposure for regulatory capital purposes, but under the IRB approach for general credit risk in Chapter 8 above, i.e. the quantitative section below will exclude covered bonds.
- Investments in Structured Public Sector Bonds, which are obligations of public sector issuers, in which securitisation techniques are used to enhance the credit profile, e.g. through segregation or ring-fencing of certain of the issuer’s assets. The credit risk has to be

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<sup>6</sup> Covered Bonds are not treated as Securitisation for regulatory capital treatments though and are only mentioned here as they constitute part of the loan substitute portfolio.

equal to a public sector loan and these products were therefore included in the quantitative disclosures.

By utilising capital market instruments, such as covered bonds and ABS as a substitute for loans, the Bank significantly increases its ability to diversify the nature of its lending activity. In the field of SME securitisations, EIB and EIF closely cooperate to ensure a consistent risk assessment approach within the Group.

In November 2014 the EIB Group and the European Commission jointly announced the Investment Plan for Europe ('IPE'), to tackle the investment gap that is hampering economic growth and competitiveness in the European Union. Next to economic reforms, fiscal responsibility of the Member States and the removal of barriers to complete the Single Market, the European Fund for Strategic Investments ('EFSI') is the key financial component of the IPE, aiming to address existing market failures and sub-optimal investment conditions. EFSI, based on a total of EUR 21 billion risk capital contributions from the EC (EUR 16 billion) and the EIB (EUR 5 billion) is expected to raise more than EUR 60 billion of additional financing by EIB Group, to crowd-in other investors for a targeted additional EUR 315 billion of investment activity catalysed throughout Europe by 2018. Importantly, EFSI is not a separate legal entity but covers a portfolio of financings on EIB Group's balance sheet which is supported by the EU budget.

Notwithstanding the special eligibility rules as defined in the EFSI legislation and the innovative financing instruments facilitated by EFSI, all EFSI operations are EIB operations and fully comply with the Bank's general standards. The EFSI is deployed by both the EIB and the EIF through the Infrastructure and Innovation Windows ("IIW") and the SME Window, respectively.

The Bank also has exposure to several similar programmes, which are all structured in a similar way, such that EIB is the originator and the risk transfer is done synthetically through guarantees. These include the Guarantee Fund Greece, the Connecting Europe Facility ('CEF') and the InnovFin. Details on the exact objectives can be found in the EIB Group Financial Statements.

Through its Guarantees and Securitisation ('G&S') business, EIF is a major provider of guarantees on SME financing and its aim is to catalyse bank lending to support SMEs and small mid-caps. EIF cooperates with financial intermediaries to provide guarantees on specific tranches of securitisation of SME loan/leases portfolios. The guarantee activities are split into own and mandate activities:

- EIF uses its own capital to credit enhance tranches of securitisations, which transfers risk from the financial institution providing the loan or lease and enables funding, and
- EIF manages resources on behalf of the European Commission or Member States in mandate activities that facilitate granting of loans and leases to SMEs, where EIF acts as guarantor or counter-guarantor. One such mandate from EC is the Risk Sharing Instrument ('RSI/InnovFin'), which targets SMEs and mid-caps in research, development and innovation and is managed by EIF. RSI/InnovFin is a guarantee facility, in which the EU takes the first loss tranche and EIB/EIF the second loss tranche.

The different programmes are described further in the annual report of EIF. By providing guarantees (i.e. synthetic risk transfer), EIF can be seen as the investor in a synthetic securitisation. The nature of the activities expose the Group not only to credit risk and counterparty credit risk, but also to

concentration risk, liquidity risk arising from liquidity needs to cover potential guarantee calls, foreign exchange risk if guarantees are not in EUR and potentially prepayment risk.

EIB Group does not have exposure to re-securitisations.

### Management, monitoring and reporting

In relation to Loan Substitute transactions, the EIB Group attempts to minimise financial losses. This requires:

- An appropriate financial structure, allocation and mitigation of risks, including an appropriate limit system also addressing EIB Group exposures;
- Consistency with the Bank's general approach, the application of the four-eyes-principle;
- Appropriate and enforceable documentation;
- Monitoring of the transaction after purchase;
- Timely and active response and management of transactions in distress.

Credit risk of loan substitutes is managed through an individual analysis of all inherent risks of a transaction, detailed analysis of new transactions and monitoring of the loan substitute portfolio mainly relying on external ratings. Due to its importance, there is no cap on the overall volume of loan substitutes, unless they do not fulfil minimum acceptable criteria. TMR monitors loan substitutes on a continuous basis and actions are taken in respect to any deterioration of credit quality.

Due to the complex structure of securitisations, the credit performance during times of stress can only be approximated. Therefore EIB's credit review is prompted to identify the ability of the originator to cover high quality assets, to understand the nature and potentials of the risks, which arise of the underlying asset pool.

Loans under the EFSI IIW or similar structures are subject to the same approval, management, monitoring and reporting procedures as conventional lending transactions, i.e. the information provided in Chapter 8 applies. The residual risk of these loans is significantly reduced by the EU guarantee. In addition, for operations under the IIW, projects are submitted to the EFSI Investment Committee for the inclusion in the EFSI portfolio partially guaranteed by the EU budget.

The Group manages the credit risk arising from guarantee and securitisation transactions of the Fund that are funded by own resources by risk management policies (covered by the Statutes) and EIF's internal risk operational guidelines.

Each new transaction is reviewed in detail to analyse the risks, the methodologies that should be applied and an internal rating assessment is performed. The performance of each transaction is reviewed regularly, at least on a quarterly basis but more frequently for transactions not performing to EIF's expectations, and discussed at a quarterly IRC (Investment Risk Committee) meeting. Semi-annual risk reports and quarterly surveillance reports are also submitted to the IRC on a quarterly basis. Monthly internal risk reporting is performed by Risk Management, Credit Risk ('RM CRM'), which is submitted to the Chief Executive. Further information in respect to EIF's guarantee activities and its management, monitoring and reporting can be found in both the Group Financial Statements as well as in the Fund's Annual Report.

## Measurement

The securitisation activities in which EIB is the originator, i.e. EFSI and other mentioned facilities, are not externally rated and the Supervisory Formula Method ('SFM') is used to calculate capital requirements. All such securitised assets remain on balance sheet at EIB.

The majority of loan substitutes are externally rated and therefore the Ratings Based Method ('RBM') is used to calculate regulatory capital. Ratings from all three major external rating agencies (Moody's, S&P and Fitch) are obtained, when available, and the risk weights are determined according to the second best external rating. Investments in securitisations without an external rating are deducted from capital.

## 8.2. Quantitative disclosure

Table 8-1: Securitisation activities - Balance of securitised product exposure and their type at the end of each reporting period

This table presents EIB's securitised exposure as originator of securitisation activities in the banking book during the reporting period.

31.12.2017	Bank acts as originator or sponsor			Bank acts as investor		
EUR million	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
Loans	0	30,030	30,030	5,576	7,485	13,061
Commercial mortgage	0	0	0	0	0	0
Lease and receivables	0	0	0	0	0	0
Re-securitisation	0	0	0	0	0	0
<b>Wholesale (total)</b>	<b>0</b>	<b>30,030</b>	<b>30,030</b>	<b>5,576</b>	<b>7,485</b>	<b>13,061</b>

31.12.2016	Bank acts as originator or sponsor			Bank acts as investor		
EUR million	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
Loans	0	22,537	22,537	6,751	6,326	13,077
Commercial mortgage	0	0	0	0	0	0
Lease and receivables	0	0	0	0	0	0
Re-securitisation	0	0	0	0	0	0
<b>Wholesale (total)</b>	<b>0</b>	<b>22,537</b>	<b>22,537</b>	<b>6,751</b>	<b>6,326</b>	<b>13,077</b>

Table 8-2: Securitisation positions and associated regulatory capital - Bank acting as originator

This table presents securitisation banking book positions when the Group acts as originator with the associated capital requirements by regulatory approach applied. Note that all exposures treated with 1250% risk weight are deducted from capital and therefore no RWA or capital requirement is given here.

31.12.2017																
EUR million	Long term external rating				EAD				RWA				Regulatory capital			
	AA- or better	A+ to BBB-	BB+ to CCC-	Unrated	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction	IRB RBA	IRB SFA	SA / SSFA	1250%	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction
Traditional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Synthetic	1,994	146	0	27,890	2,140	27,161	0	729	269	2,428	0	0	21	194	0	729
<b>Total</b>	<b>1,994</b>	<b>146</b>	<b>0</b>	<b>27,890</b>	<b>2,140</b>	<b>27,161</b>	<b>0</b>	<b>729</b>	<b>269</b>	<b>2,428</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>194</b>	<b>0</b>	<b>729</b>

31.12.2016																
EUR million	Long term external rating				EAD				RWA				Regulatory capital			
	AA- or better	A+ to BBB-	BB+ to CCC-	Unrated	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction	IRB RBA	IRB SFA	SA / SSFA	1250%	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction
Traditional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Synthetic	0	184	58	22,294	243	20,146	0	2,148	462	2,092	0	0	37	167	0	2,148
<b>Total</b>	<b>0</b>	<b>184</b>	<b>58</b>	<b>22,294</b>	<b>243</b>	<b>20,146</b>	<b>0</b>	<b>2,148</b>	<b>462</b>	<b>2,092</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>167</b>	<b>0</b>	<b>2,148</b>

All securitised assets are retained on balance sheet and no facilities are subject to the early amortisation treatment.

Table 8-3: Securitisation positions and associated regulatory capital - Bank acting as investor

The table presents securitisation banking book positions when the Group acts as investor with the associated capital requirements according to regulatory approach applied.

31.12.2017																
EUR million	Long term external rating				EAD				RWA				Regulatory capital			
	AA- or better	A+ to BBB-	BB+ to CCC-	Unrated	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction	IRB RBA	IRB SFA	SA / SSFA	1250%	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction
Traditional	3,127	1,675	0	775	4,801	0	0	775	633	0	0	0	51	0	0	775
Synthetic	415	926	0	6,144	1,341	0	0	6,144	248	0	0	0	20	0	0	6,144
<b>Total</b>	<b>3,542</b>	<b>2,601</b>	<b>0</b>	<b>6,919</b>	<b>6,142</b>	<b>0</b>	<b>0</b>	<b>6,919</b>	<b>881</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>6,919</b>

31.12.2016																
EUR million	Long term external rating				EAD				RWA				Regulatory capital			
	AA- or better	A+ to BBB-	BB+ to CCC-	Unrated	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction	IRB RBA	IRB SFA	SA / SSFA	1250%	IRB RBA	IRB SFA	SA / SSFA	1250% / Deduction
Traditional	4,314	1,273	0	1,164	5,587	0	0	1,164	655	0	0	0	52	0	0	1,164
Synthetic	179	1,241	4,036	870	1,449	0	0	4,877	464	0	0	0	37	0	0	4,877
<b>Total</b>	<b>4,493</b>	<b>2,514</b>	<b>4,036</b>	<b>2,034</b>	<b>7,036</b>	<b>0</b>	<b>0</b>	<b>6,041</b>	<b>1,119</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>89</b>	<b>0</b>	<b>0</b>	<b>6,041</b>

All securitisation exposures are classified as held-to-maturity. Therefore, any gains or losses from sale are immaterial as they only occur when significant deterioration of the asset allows for a sale.

Table 8-4: Summary of capital requirements (RGC) for securitisation activities

This table summarises the overall capital requirements and capital to be deducted from CET1 for securitisation activities of the Group.

EUR million	31.12.2017				31.12.2016			
	EAD	RWA	RGC	Capital deduction	EAD	RWA	RGC	Capital deduction
Bank acts as originator	30,030	2,697	215	729	22,537	2,554	204	2,148
Bank acts as investor	13,061	881	71	6,919	13,077	1,119	90	6,042
<b>Total</b>	<b>43,091</b>	<b>3,578</b>	<b>286</b>	<b>7,648</b>	<b>35,614</b>	<b>3,673</b>	<b>294</b>	<b>8,190</b>

Table 8-5: Assets securitised: Impaired or past due and recognised losses over the period  
 The following table provides a view on the impaired/past due assets that are securitised and the losses recognised over the year 2017.

31.12.2017	Impaired / past due assets			Losses recognised over the period		
EUR million	Traditional	Synthetic	Total	Traditional	Synthetic	Total
Loans	0	1,014	1,014	0	0	0
<b>Wholesale (total)</b>	<b>0</b>	<b>1,014</b>	<b>1,014</b>	<b>0</b>	<b>0</b>	<b>0</b>

31.12.2016	Impaired / past due assets			Losses recognised over the period		
EUR million	Traditional	Synthetic	Total	Traditional	Synthetic	Total
Loans	0	1,033	1,033	0	0	0
<b>Wholesale (total)</b>	<b>0</b>	<b>1,033</b>	<b>1,033</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 9. Market risk

### 9.1. Own funds requirements for market risk by approach

Table 9-1: Market risk under standardised approach

EUR million	31.12.2017		31.12.2016	
	RWA	RGC	RWA	RGC
<b>Outright products</b>				
Interest rate risk (general and specific)	1,040	83	0	0
Foreign exchange risk	4,853	388	0	0
<b>Total Standardised approach</b>	<b>5,893</b>	<b>471</b>	<b>0</b>	<b>0</b>

Further information on the respective own funds requirements is provided in Section 9.2 regarding the interest rate risk generated by the trading book and 9.3.3 on foreign exchange risk.

### 9.2. Traded market risk

#### Introduction

Traded market risk is limited to the Securities Liquidity Portfolio (SLP), which has been classified as trading book for regulatory purposes in 2017.

The portfolio consists of medium and long term securities and is managed with the following objectives:

- To strengthen the banks liquidity buffer
- To contain mark-to-market volatility
- To cover and generate some return over the applicable internal transfer price

Traded market risk may arise from activities such as buying and selling securities as well as hedging positions via interest rate swaps and bond futures. The SLP is exposed to interest rate risk and credit spread risk.

#### Management, monitoring and reporting

The Securities Liquidity Portfolio is managed by the Finance Directorate (FI). The Bank's financial risk guidelines applicable to the Securities Liquidity Portfolio relate to financial risk identification, measurement and monitoring, including limit setting, compliance and reporting. They are approved by the Management Committee and any amendments must be sent to the Management Committee for approval after consultation with the Finance Directorate.

Interest rate risk is mitigated through active management of the portfolio through buying and selling positions as well as through hedging via interest rate swaps and bond futures. The portfolio

managers receive a dedicated reporting in terms of interest rate risk exposure by time bucket on a daily basis. Credit spread risk is mitigated through active management of positions.

The Middle Office function of the Finance Directorate provides regular reporting on the risk exposure of the portfolio. A dedicated function of the Risk Management Directorate independently measures the risk exposure of the portfolio and ensures its compliance with all the formal limits set out in the financial risk guidelines. Risk Management also monitors the targets defined in the annual investment strategy, in terms of asset allocation, interest rate and credit spread duration.

As of 31.12.2017, the modified duration of the Securities Liquidity Portfolio was 0.36 years and the credit spread duration was 2.35 years.

The Risk Management Directorate calculates on a regular basis interest rate VaR which stood at EUR 0.9m as of 31.12.2017 (95% confidence, 1-day holding period) and credit VaR which stood at EUR 450.8m respectively (99.98% confidence, 1 year horizon).

## Measurement

The Bank applies standardized approach for calculating the own funds requirement on its trading book positions in non-securitisation debt instruments (interest rate risk in the trading book), composed of the Securities Liquidity Portfolio.

As per art. 326 of CRR, the Bank's own funds requirement for interest rate risk in the trading book shall be the sum of the own funds requirements for specific and general risk. The specific and general risk components are calculated in accordance with, respectively art. 336 and art. 340 of CRR.

Table 9-2: Interest Rate Risk in the Trading Book: Basis Point Value

*This table provides the economic value sensitivity to changes in interest rates based on a BPV and credit spread BPV measure. The sensitivities are provided for the Bank only.*

December 2017 BPV exposures (in '000 EUR)						
	Less than 1 year	Between 2-3 years	Between 4-6 years	Between 7-11 years	Between 12-20 years	
EUR	-65	-34	-211	53	-10	
GBP	-18	-1	-7	14	0	
USD	-54	-8	50	0	0	

December 2017 CS BPV exposures (in '000 EUR)						
	Less than 1 year	Between 2-3 years	Between 4-6 years	Between 7-11 years	Between 12-20 years	
EUR	-51	-176	-574	-23	-10	
GBP	-18	-92	-82	-186	0	
USD	-35	-272	-281	0	0	

## 9.3. Non-traded market risk

### Introduction

Non-traded market risk covers the risks that may arise from banking book activities, such as interest rate risk, cross currency basis risk, funding spread risk, equity risk or foreign exchange ('FX') risk.

Information on liquidity and funding risks can be found in the following chapter. Based on the Group’s business model, the bulk of its non-traded market risk arises from the Group’s ALM, treasury (apart from the EIB’s SLP which has been classified as Trading Book) and the Group’s Equity Investment activities. The Fund’s interest rate risk is driven by cash or cash equivalent positions as well as investments in debt securities. The most part of the Fund’s treasury management has been fully outsourced to the Bank under a treasury management agreement.

No regulatory capital is required to be allocated to non-traded market risk, except for FX risk.

**Management**

Management of market risks of the Bank is undertaken by RM/FIN and by the Fund’s Risk Management for the Fund’s activities. The Bank’s financial risk guidelines relate to financial risk identification, measurement and monitoring, including limit setting, compliance and reporting. They are approved by the Management Committee and any amendments must be sent to the Management Committee for approval after consultation with the Finance Directorate and discussion within ALCO, when appropriate. They do not explicitly address the risks arising from the management by the Bank of financial resources entrusted to it neither by the EIF nor, in general, third parties.

The Group’s key market risks are interest rate risk (including cross-currency basis and funding spread risk), FX risk and equity risk, which are considered in the following sections.

**Measurement**

The Financial Statements provide a good overview on market risks in Note S.4. Interest rate and FX risk is quantified by a VaR of own funds, which is summarised here. Further information including methodology is provided in the Financial Statements. With respect to the Group, for the VaR of own funds computation, the following assumptions are made:

- Cross currency basis spreads and funding spread are not considered as risk factors, only swap curve and FX rates
- Positions arising from EIF’s treasury investments managed by EIB are included in the Group’s EVE, i.e. the Fund’s equity investment activities are not included in the VaR measure. EIB’s investments into venture capital and infrastructure funds are considered at their accounting value, i.e. no look-through approach was applied.

Table 9-3: Interest rate and foreign exchange risk measurement at the EIB Group

Figures are based on a one-day VaR using a 99% confidence level and include the trading portfolio.

EUR million	31.12.2017	31.12.2016
Group VaR	186	258

In addition to the VaR measure presented above, EIB performs stress testing of market risks on a regular basis and reports the results in the ICAAP report.

**Table 9-4: Market risk stress testing results for EIB**

The table provides an overview of the main market risks at EIB through the impact on the economic value of own funds of stress tests. The underlying scenarios are as follows:

- Interest rate risk: 200 basis point upward parallel shift of interest rate curve (additional stress testing scenarios are available in Table 9-5).
- Funding Spread risk: 50 basis point increase in the Bank's funding cost (measured in terms of swap spreads) on all future funding requirements relating to the refinancing of outstanding assets.
- FX risk: 20% value reduction for the Bank's positions denominated in FX currencies.

Impact on economic value of own funds EUR million	31.12.2017*	31.12.2016
Interest rate risk	-7,787	-7,578
Funding spread risk	-2,230	-1,809
FX risk	-419	-457

\* In 2017 the SLP portfolio was defined as trading book. Therefore it is excluded from the scope of the non-traded risk stress test results in the table.

### 9.3.1. Interest rate risk in the banking book

#### Introduction

Interest rate risk is defined as the volatility in the economic value of, or in the income derived from, the Group's positions due to adverse movements in market yields or the term structure of interest rates. Exposure to interest rate risk occurs due to differences in repricing and maturity characteristics of the different assets, liabilities and hedge instruments.

#### Management, monitoring and reporting

The Group follows relevant key principles of BCBS<sup>7</sup> and EBA<sup>8</sup> in its management and monitoring of interest rate risk. The Bank measures and reports IRRBB on a monthly basis in two ways. Firstly an aggregated version of value-at-risk ('VaR') figures is included in the RM internal risk reports, which are presented to the MC. Moreover, a Global Interest Rate Risk report and a Cross-Currency Basis Risk report are published internally for limits monitoring in the context of the operational ALM activities. There is a permanent working group on interest rate risk monitoring, which was established within the ALCO. The working group's activities include review and analysis of interest rate risk exposure and reporting to ALCO on operational actions and consequences.

Considering the nature of the activities of the EIF compared to the ones of the Bank, the main source of IR risk for the EIF comes from its treasury investments. In this respect, the duration of the

<sup>7</sup> See Principles for the Management and Supervision of Interest Rate Risk, July 2004 and Standards for Interest Rate Risk in the Banking Book (IRRBB), April 2016

<sup>8</sup> EBA guidelines on the management of interest rate risk arising from non-trading activities - EBA/GL/2015/08.

Fund’s treasury portfolios is monitored on a weekly basis. Based on a materiality assessment<sup>9</sup>, Interest rate risk disclosures may focus solely on the Bank in the following sections.

**Measurement**

The EIB applies a duration of own funds as a primary interest rate risk metric, with a target duration of 5 years, with a tolerated operational deviation of plus or minus 0.5 years. The relevance of this strategy is reassessed on a triannual basis at the occasion of the ALM strategy review process.

EIB uses a VaR approach to quantify interest rate and foreign exchange risk on own funds. In addition, it performs stress tests to understand the impact on the economic value of own funds using interest rate shocks<sup>10</sup> and performs analysis on the Bank’s sensitivity of earnings. For additional details, refer to the Financial Statements, Note S.4.2 “Interest rate risk”.

Table 9-5: Interest Rate Risk in the Banking Book: standardized stress test scenarios

The below table gives a stress test analysis of the Group, which measures the impact of the regulatory standardized shocks on the economic value of own funds, measured in EUR million.

Scenario EUR million	31.12.2017
Parallel up	-7,858
Parallel down	9,521
Steeper	-1,459
Flattener	237
Short rate up	-2,277
Short rate down	2,369

<sup>9</sup> For an impact of a 200 basis point upward parallel shift of the interest rate curves on economic value of own funds of the whole Group, refer to Note S.4.2.1 in the Consolidated Financial Statements under IFRS. This was EUR 7.9 billion for end of 2017 (2016: EUR 7.7bn). For the EIF, the impact was EUR 0.1bn for the end of 2017 (2016: EUR 0.1bn).

<sup>10</sup> In 2017, EIB has introduced the six new standardized stress scenarios prescribed by BCBS.

Table 9-6: Interest Rate Risk in the Banking Book: standardized stress test on +200bp shift scenario

The below table gives a stress test analysis of the Bank only, which measures the impact of the +200bp standardized shock on the economic value of own funds, drilled down by currency<sup>11</sup>. In 2017 the SLP portfolio was defined as trading book. Therefore it is excluded from the scope of the non-traded risk stress test results in the table.

	31.12.2017	31.12.2016
<i>EUR million</i>	<i>+200bp IR Scenario</i>	<i>+200bp IR Scenario</i>
CHF	2	1
CZK	-5	-5
DKK	-3	0
EUR	-7,608	-7,459
GBP	-76	-38
HUF	-2	-2
JPY	5	6
PLN	-5	-7
SEK	-9	0
USD	-86	-73
ZAR	0	-1
<b>Total own funds</b>	<b>-7,787</b>	<b>-7,578</b>

The Bank considers a Basis Point Value ('BPV') measure as another key metric that is monitored and reported regularly. The BPV is the gain or loss in the net present value of a position due to a one basis point (0.01%) increase in interest rates (swap curves) on tenors ranging within a specified time segment. The BPV exposures in EUR are subject to a different interpretation as they measure the deviations between the interest rate risk sensitivity of the Bank's positions denominated in EUR vis-à-vis the NOPOF (Notional Portfolio of Own funds) which is the Bank's benchmark portfolio representing the level of interest rate risk targeted by the Bank.

<sup>11</sup> Currencies for which all stress tests had an immaterial impact of less EUR 500,000 were excluded from this table.

Table 9-7: Interest Rate Risk in the Banking Book: Basis Point Value

This table provides the economic value sensitivity to changes in interest rates based on a BPV measure. The sensitivities are provided for the Bank only<sup>12</sup>.

December 2017 BPV exposures (in '000 EUR)							
	Less than 1 year	Between 2-3 years	Between 4-6 years	Between 7-11 years	Between 12-20 years	Between 21-30 years	More than 30 years
CHF	-4	-4	-3	8	14	-	-
CZK	-18	-2	-2	-2	-1	-	-
DKK	-9	-2	-3	-2	0	0	-
EUR	-425	-28	71	-235	-384	179	-351
GBP	37	2	62	-127	-203	-261	14
HUF	-4	-3	-1	0	0	-	-
JPY	8	1	16	0	0	0	-
NOK	3	-1	-2	-2	0	0	-
PLN	-39	10	-1	6	-2	0	-
SEK	-19	-6	-12	-16	7	2	-
USD	-139	-24	-94	-98	-151	60	-11
ZAR	11	-2	-3	-5	-2	0	-

December 2016 BPV exposures (in '000 EUR)							
	Less than 1 year	Between 2-3 years	Between 4-6 years	Between 7-11 years	Between 12-20 years	Between 21-30 years	More than 30 years
CHF	-4	-6	-9	7	19	0	0
CZK	-17	-3	-4	-3	-1	0	0
DKK	2	-1	-1	-1	0	0	0
EUR	-143	72	87	-56	-75	-166	-193
GBP	-75	100	121	-112	-147	-139	16
HUF	-3	-4	-1	0	0	0	0
JPY	10	1	22	-1	0	0	0
NOK	6	0	-1	-2	0	0	0
PLN	-53	-8	23	5	-3	0	0
SEK	-1	-4	-5	2	9	1	0
USD	-24	-38	-109	-12	-150	73	-13
ZAR	4	-1	-3	-5	-3	0	0

### 9.3.2. Equity exposure in the banking book

#### Introduction

Non-traded equity risk refers to the potential loss that may be incurred as a result of reduction in the fair value of an equity investment in the EIB Group banking book.

The Group is exposed to equity risk from the following sources:

<sup>12</sup> Currencies for which the BPV sensitivity had an immaterial impact of less EUR 500 for all time buckets were excluded from this table.

- EIB's participations in the European Bank of Reconstruction and Development ('EBRD') and in the EIF (which is consolidated for the purpose of this report),
- Equity-type investments including investments in infrastructure funds and in the Structured Finance Facility ('SFF'), and
- Venture capital and Growth Capital operations made by EIF on behalf of EIB under the RCR and the EREM mandates and under own resources (usually as co-investments with Mandates), and
- Shares that have been received in the context of a financial restructuring of a publicly quoted or privately held company the Bank has lent to.

Detailed information on the size of the equity portfolio broken down by the above exposure type is provided in the Financial Statements for EIB Group under EU Directives in Note E, including further information on off-balance sheet exposures.

### **Management, monitoring and reporting**

The EIB's Equity Risk Guidelines ("ERG") address risk issues and related risk mitigating measures associated with direct and indirect equity investments irrespective of their geographical focus and origin of funds.

Periodic scoring of equity-type investments is performed by the first line of defence functions and validated by RM Operations Department. Equity-type investments are fair valued periodically and set against their carrying value to calculate performance.

The Bank's exposure to equity risk is included in aggregate in the monthly Risk Report.

The Fund established specific risk management practices and measurement methodologies, which are detailed in the EIF Financial Statements. This Report provides some general information about the management practice in the following paragraphs.

The core is a structured and regular fund manager review process, in which the financial performance of each fund manager and fund in the portfolio is assessed, operational issues at the level of fund managers are identified, and remedy actions are agreed. This process is run by Risk Management and involves the various front offices of the Fund.

Considering equity risk arising from venture capital and middle market investments under the RCR and EREM mandates, EIF monitors the exposures and reports to the Management Committee of the EIB on a quarterly basis. This report includes key performance indicators, the RCR headroom, allowed investments, details on portfolio diversification as well as expected investment performance.

For more quantitative details concerning equity exposures in the banking book, refer to Section 3.2. of the EIF Financial Statements. Private equity investments are especially important to the Fund, therefore further information about the private equity portfolio composition can be found in its Financial Statements.

### **Measurement**

Investments in venture capital operations, infrastructure and investment funds are valued in line with accounting policies, for which we refer to Note A.4.7.3 of the Financial Statements.

The Group assesses the impact on own funds due to reasonable possible changes in equity indices on a regular basis. The impact of such an assessment as well as more information on the measurement is provided in the Financial Statements, Note S.4.4.

As for EIF, the measurement of the quality and performance of the EIF equity portfolio is grounded in the fund manager review process described above, and is performed on the basis of the grades assigned to the fund managers (“Operational Grade”) on the one hand and to the fund (“Performance Grade”) on the other. In addition, Risk Management exploits the breadth and depth of data accumulated on the past experience of the portfolio, in order to derive simulations and scenarios as to future expected returns and performance.

The EIF quantifies equity risk arising from private equity investments via a Capital Asset Pricing Model (‘CAPM’). Deriving reasonable statistics, which could then be used for a private equity CAPM, is challenging due to the lack of historical data concerning aforementioned investments. That is why EIF’s risk management incorporates a conservative beta, i.e. a measure of risk relative to the market, derived from different private equity indices, to estimate the sensitivity of the value of its equity portfolio towards a change in value in the overall market where the respective positions are traded. For further information refer to Section 3.2.4.1 of EIF’s Financial Statements.

### 9.3.3. Foreign exchange risk

#### Introduction

The Foreign Exchange (FX) risk is the volatility in the economic value of, or in the income derived from, the Group’s positions due to adverse movements of foreign exchange rates.

The members of the Group have different business models and separate governing frameworks (the principles of which are laid down in their respective Statutes and Rules & Procedures) and follow thus different day to day management approaches with respect to FX risk.

In compliance with its Statute, the Bank does not engage in operations denominated in foreign currency not directly required to carry out its lending operations or fulfil commitments arising from loans or guarantees granted by it.

The Bank is exposed to FX risk whenever there is a currency mismatch between its assets and liabilities. FX risk also comprises the effect of unexpected and unfavourable changes in the EUR value of future cash flows caused by currency movements, such as the impact of FX rate changes on the Bank’s future margins revenue.

The main objective of the Bank’s FX management is to minimize to the extent possible the effect of variation of FX rates on earnings in non-reporting currencies (i.e. non-EUR currencies).

EIB's primary FX position is defined for each non-reporting currency as the balance between accounting value of assets and liabilities under EU-GAAP and measured on a daily basis in EUR equivalent.

### **Management, monitoring and reporting**

The key bodies which are involved in the management of FX risk in the Bank are the Management Committee, the Asset/Liability Committee (ALCO) and the Permanent Working Group on FX, which is a sub-ALCO committee.

For this purpose, the FX position for each non-reporting currency is monitored on a daily and monthly basis. On a daily basis, the Bank's primary FX positions are impacted by transactions that create a mismatch between assets and liabilities. The P&L impact on the FX position is taken into account and appropriately hedged on a monthly basis.

The Bank hedges its FX risk by keeping its primary FX position for each non-reporting currency within authorised limits. In the case of a limit breach, the position is reduced by FX spot or forward deals within the same day.

In parallel, in order to protect its P&L from the fluctuations of its future revenues due to changes in FX rates, the Bank hedges twice per year the future interest rate margins in GBP and USD, expressed in accrual terms over a 3 years horizon.

Risk Management is in charge of the calculation of the daily primary FX position and the Finance Directorate Treasury monitors and managed the position on a daily basis.

### **Measurement**

The capital requirement is computed based on the net FX position, defined according to the CRD IV/CRR (Articles 351 to 354), and therefore including FX risk arising from any gold position and Collective Investment Undertakings (CIUs).

The net FX position calculated for this purpose differs from the Bank's accounting based primary FX position where Investment Funds/CIUs are funded by liabilities denominated in the same currencies.

The FX risk management framework is complemented by additional metrics. In particular, the Bank uses a VaR approach to quantify foreign exchange risk on its own funds and performs stress tests to understand the impact of FX rates on the economic value of own funds and on earnings.

## 10. Liquidity risk

### 10.1. Internal framework for liquidity risk management

#### Introduction

Liquidity risk is the risk that the entities of the Group have insufficient capacity to fund increases in assets and meet obligations as they come due, without occurring unacceptable losses. It can be further split into funding liquidity risk and market liquidity risk. Funding liquidity risk is the risk of being unable to refinance the asset side of its balance sheet and to meet payment obligations punctually and in full out of readily available liquid resources. Market liquidity risk is the volatility in the economic value of, or in the income due to the potential inability to execute a transaction to offset, eliminate or reduce outstanding positions at reasonable market prices.

The liquidity management and liquidity risk management functions are currently separated for the various entities of the Group and their main objective is to ensure that each entity can always meet its payment obligations punctually and in full.

Liquidity management at the Bank is carried out by the Finance Directorate.

Given the Bank's business model, long term funding is the prevailing source of funding for its lending activities. To raise liquidity on the capital markets, the Bank uses large, liquid benchmark bonds denominated both in its main operating currencies (EUR, GBP and USD) as well as in other currencies. The Bank has a specific policy in place to make sure that funding and liquidity costs are transferred to the client and that issuance is adequately diversified by tenor and currency. Furthermore, in defining its funding programme, the Bank pays due regard to the control of the structural maturity mismatch between its lending and borrowing activities.

In order to manage its liquid assets, the Bank holds a liquidity buffer composed by several treasury portfolios with short, medium and long term investment horizons, each of them managed according to risk guidelines approved by the Management Committee. Further to this, the Bank can participate to the monetary refinancing operations of the Eurosystem, through its access to the Banque Centrale de Luxembourg.

The Bank uses derivative instruments as part of its asset and liability management activities, to manage interest rate, cross-currency basis and foreign currency risks and reduce the exposures to such risks.

The exposure of the Bank to derivative counterparts is mitigated through Credit Support Annexes (CSA) to the ISDA Master Agreements, signed with all derivative counterparties, which provide for daily collateralization of exposures. The CSAs signed by the Bank are unilateral (or 1-way), meaning that the EIB is not obliged to post collateral – neither in form of cash, nor securities - as it would be under an ordinary bilateral CSA. Within the unilateral CSA framework, the Bank is executing Mark to Market swaps which are standard cross currency swaps with quarterly resets of their nominal to match the changes in the relevant FX rate over the period. These resets are settled in cash on a quarterly basis.

For further information of the current funding programme and its currencies and maturities, as well as of the treasury assets portfolios and the use of derivatives, please refer to of the related disclosures in the Financial Statements.

The Risk Management Directorate of the Bank independently monitors and controls the liquidity risk of the Bank, according to the Principles for Sound Liquidity Management of BCBS, on which the overall liquidity risk policy is based.

EIF does not fund itself on the capital markets. Liquid assets are managed by EIF in such a way as to, ensure that guarantee calls, private equity commitments and administrative expenditures can be regularly met, while earning a reasonable return on the assets invested, compatible with the protection of the value of the paid-in capital.

An independent Risk Management function monitors and controls liquidity risk at the EIF. A part of the treasury assets of the EIF are managed by Finance Directorate of the Bank under specific guidelines agreed with the EIF.

### **Management, monitoring and reporting**

The Bank has in place sound internal processes for identifying, measuring, monitoring and controlling liquidity risk.

On a daily basis, information about the daily cashflows in all the operating currencies are available to the Finance Department for purposes of short-term liquidity planning and investment.

Further to this, on a weekly basis, all cash flows arising from assets, liabilities and off-balance sheet items are projected over several time horizons, under both “base-case” as well as under internally determined “stressed” conditions. The latter take into account severe lending and funding forecasts as well as stressed loan repayments, liquid assets and contingent outflows. Both market and funding liquidity risks are covered by these scenarios.

The cash flow projections contribute to determine the appropriate size of the Bank’s liquidity buffer, by ensuring that it is sufficient to cover the Bank’s future net cash outflows under all conditions, “base-case” and “stressed” alike.

Further to the aforementioned cash flow projections, the Bank uses a structural cumulative liquidity gap analysis to ensure that the structural mismatches between long-term funding and lending activities are sustainable, both from a liquidity and spread risk standpoint.

Tolerance levels and limits for the main internal liquidity risk indicators are specified in the Risk Appetite Framework with the aim of ensuring that the Bank holds an adequate liquidity buffer to cover its future net cash outflows. Such indicators are calculated by the Risk Management Directorate on a daily and weekly basis, are approved by the Board of Directors through the Risk Appetite Framework and are subject to regular updates to ensure their ongoing adherence with the business model of the Bank.

The Risk Management Directorate regularly reports the level of the liquidity risk indicators to the senior management. During 2017 all liquidity risk indicators were well in line with the approved risk tolerance.

The Bank has in place a Contingency Liquidity Plan (CLP) that defines the escalation procedures and course of actions in case of a liquidity crisis. The CLP may be activated as a result of extraordinary

market conditions and/or as a result of the internal liquidity indicators reaching pre-defined crisis levels. The contingency processes are updated and tested within the approved Contingency Liquidity Plan on an annual basis.

Further information on the Group's liquidity risk management is provided in the Financial Statements, Note S.2. These also provide the maturity profile for derivative and non-derivative financial liabilities.

## 10.2. Internal Liquidity Assessment Process (ILAAP)

As an integral part of its risk management framework, the Bank has in place an Internal Liquidity Adequacy Assessment Process (ILAAP), which is tailored to its public function and to its specific business model. The ILAAP is a key element of the Basel III framework, as transposed in European legislation by CRD IV (Directive 2013/36/EU).

According to the ILAAP 2016, approved by the Board of Directors:

- the Bank has established robust liquidity and liquidity risk management frameworks and liquidity risk is managed prudently in order to ensure the regular functioning of the Bank's core activities under both normal and stressed conditions.
- relevant policies and practices are in place and in line with the identified liquidity risk tolerance levels and are communicated to the Bank's senior management through internal reporting tools, in order to facilitate the robust measurement, monitoring and control of liquidity risk.

## 10.3. Liquidity coverage ratio

The Bank implemented the LCR in line with the requirements of the Delegated Regulation (EU) No 2015/61 of 10 October 2014 by the European Commission.

The Bank calculates LCR on a daily basis, both in its functional currency (EUR) as well as in the other significant currencies (GBP and USD). Consistency of the currency denomination of its liquid assets with its net liquidity outflows is ensured by the Bank on an ongoing basis, in order to prevent an excessive currency mismatch.

The Bank includes stressed contingent outflows linked to the guarantee portfolio in its LCR calculations on top of the standard regulatory outflows foreseen by the CRR and applies an appropriate representation of contingent outflows from derivative collateralization to take into account the specificities of its 1-way CSA agreements.

## Quantitative disclosure on LCR

The following table reports the average LCR over 2017 and its composition by main items.

Table 10-1: Liquidity coverage ratio

Scope of consolidation (solo)		Total unweighted value	Total weighted value
EUR million			
Year ending on		31.12.2017	31.12.2017
Number of data points used in the calculation of averages		12	12
<b>HIGH-QUALITY LIQUID ASSETS</b>			
1	Total high-quality liquid assets (HQLA)		47,258
<b>CASH-OUTFLOWS</b>			
2	Retail deposits and deposits from small business customers, of which:	-	-
3	<i>Stable deposits</i>	0	0
4	<i>Less stable deposits</i>	0	0
5	Unsecured wholesale funding	6,661	5,737
6	<i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i>	0	0
7	<i>Non-operational deposits (all counterparties)</i>	1,541	617
8	<i>Unsecured debt</i>	5,120	5,120
9	Secured wholesale funding		-
10	Additional requirements	111,581	22,715
11	<i>Outflows related to derivative exposures and other collateral requirements</i>	12,431	12,431
12	<i>Outflows related to loss of funding on debt products</i>	0	0
13	<i>Credit and liquidity facilities</i>	99,149	10,284
14	Other contractual funding obligations	7,405	7,405
15	Other contingent funding obligations	8,171	2,463
16	<b>TOTAL CASH OUTFLOWS</b>		38,319
<b>CASH-INFLOWS</b>			
17	Secured lending (eg reverse repos)	5,423	5,423
18	Inflows from fully performing exposures	11,818	10,616
19	Other cash inflows	4,987	4,987
EU-19a	(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-19b	(Excess inflows from a related specialised credit institution)		-
20	<b>TOTAL CASH INFLOWS</b>	22,228	21,026
EU-20a	<b>Fully exempt inflows</b>	0	0
EU-20b	<b>Inflows Subject to 90% Cap</b>	0	0
EU-20c	<b>Inflows Subject to 75% Cap</b>	22,228	21,026
21	<b>LIQUIDITY BUFFER</b>		47,258
22	<b>TOTAL NET CASH OUTFLOWS</b>		17,411
23	<b>LIQUIDITY COVERAGE RATIO (%)</b>		298%

## 10.4. Net stable funding ratio

The Basel III framework proposed significant enhancements to liquidity risk management, which include the Net Stable Funding Ratio ('NSFR'). The NSFR is expected to be binding from January 2019.

The Group follows these developments closely and will disclose additional information on this ratio when it comes into force.

## 10.5. Asset encumbrance

An asset is considered to be encumbered if it has been pledged or if it is used to secure, collateralise or credit enhance a transaction such that it cannot be freely withdrawn by the Bank. Marketable, high-quality assets that are unencumbered are part of a liquid asset portfolio as they can generally help to obtain emergency liquidity in stress situations.

Supervisors have started focusing more on monitoring levels of asset encumbrance and emphasise that this topic should be considered in a bank's risk management process. The Group monitors its encumbered assets through its Finance Directorate and is in the process of setting up a robust methodology to ensure the level of encumbered and unencumbered assets is consistently monitored within the Group risk management.

At end-2017, the only assets which may be classified as encumbered according to EBA's guidelines<sup>13\*</sup> on encumbered assets are EIB's assets deposited at the BCL. The deposited assets are in the form of debt securities, which may be potentially used for refinancing operations with the central bank. However, the assets are not encumbered from a legal perspective because any refinancing operation would be executed in the form of a repo, which involves full title transfer. As at 31.12.2017 the Bank had engaged in repo transactions in GC Pooling platform of EUREX AG.

The EIB Group does not accept encumbered securities as financial collateral. No third party could encumber EIB's loan collateral unless EIB would re-pledge the collateral voluntarily. However, as at 31.12.2017 there was no recognized reuse of collateral.

Derivatives collateral is in the form of debt securities and cash. It is fully available for encumbrance because it is received under English law CSAs which involve full title transfer. However, as at 31.12.2017 there was no recognized reuse of collateral.

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<sup>13</sup> EBA/GL/2014/03: Guidelines on disclosure of encumbered and unencumbered assets.

The following disclosures follow EBA's disclosure templates on asset encumbrance.

Table 10-2: Encumbered and unencumbered assets of EIB Group

The below table provides an overview of the amount and type of accounting values of on balance sheet assets that are encumbered and unencumbered at EIB Group.

31.12.2017	Encumbered Assets		Unencumbered assets	
	Carrying amount of encumbered assets	Fair value of encumbered assets	Carrying amount of unencumbered assets	Fair value of unencumbered assets
<i>EUR million</i>				
<b>Assets of the reporting institution</b>	<b>0</b>	<b>0</b>	<b>551,006</b>	<b>612,044</b>
Loans	0	0	471,293	502,432
Equity instruments	0	0	5,299	7,245
Debt securities	0	0	57,180	57,578
Other assets	0	0	17,234	44,789

Table 10-3: Encumbrance of collateral received by EIB Group

This table shows the amount and type of collateral received by the Group that is encumbered or available for encumbrance.

31.12.2017	Fair value of encumbered collateral received or own debt securities issued	Fair value of collateral received or own debt securities issued available for encumbrance
<i>EUR million</i>		
<b>Collateral received by the reporting institution</b>	<b>0</b>	<b>50,834</b>
Equity instruments	0	0
Debt securities	0	45,387
Other collateral received	0	5,447
<b>Own debt securities issued other than own covered bonds or ABSs</b>	<b>0</b>	<b>0</b>

Table 10-4: Sources of encumbrance

The below table provides information on liabilities associated with encumbered assets and collateral.

31.12.2017	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
<i>EUR million</i>		
<b>Carrying amount of selected financial liabilities</b>	<b>0</b>	<b>0</b>

## 11. Operational risk

### Introduction

The Group aims to systematically identify, assess and monitor operational risks on a regular basis and ensure that sufficient controls and risk mitigants are in place to limit the operational risk exposure the Group has. The approach to operational risk is defined through an Operational Risk Framework separately for EIB and EIF.

EIB uses an Advanced Measurement Approach ('AMA') to measure economic and regulatory capital requirements for operational risk for the Bank, while EIF applies the Basic Indicator Approach.

### EIB's AMA model

EIB has developed an operational risk model following the AMA, which is both used for economic capital as well as regulatory capital calculations. The Bank's AMA model relies on four data sources, which are all defined through the above provided information on the operational risk framework:

- Internal loss data, which has been collected since 2002. Each event is documented in the SAS (Statistical Analysis System). The AMA model obtains its data from SAS where each event is documented.
- External loss data, which is sourced from an external database (British Bankers Association - Global Operational Loss Database ('GOLD').) on a quarterly basis.
- Scenario analysis, which is performed annually to obtain expert opinion of all DGs and business line and risk managers on high impact operational risk scenarios.
- The business environment and internal control systems, which are monitored through Operational Risk Indicators ('ORIs'), which include measurable thresholds and limits to monitor the identified risks. The ORIs are reported in the Monthly Operational Risk Report to alert management when risk levels exceed acceptable ranges.

Through a combination of above data, statistical distributions reflecting the Bank's severity and frequency of losses due to operational risks are created, which are then adjusted by ORIs. The AMA model used in the Bank is also validated by independent expert third parties. The Group does not use insurance or similar risk control elements for mitigating operational risks within their AMA model.

### Internal risk reporting

Reports are used by the Operational Risk Management to assist business line and risk managers in understanding, monitoring, managing and controlling risks and losses. The Operational Risk Management produces the Operational Risk Monthly Report in order to reflect the up-to-date status of operational risk elements within the Bank. The reports includes: internal loss data, NPC, monitoring of actions, ORIs, , as well as the quarterly VaR results calculated by the AMA model. The reports are distributed to appropriate levels of management and to areas of the Bank, which might be impacted by the report.

Since 2016, EIF has implemented the ISAE-3402 Report, which is the most recognised standard to provide assurance on the design and operating effectiveness of the control environment of service organisations.

### Cyber risk and data security

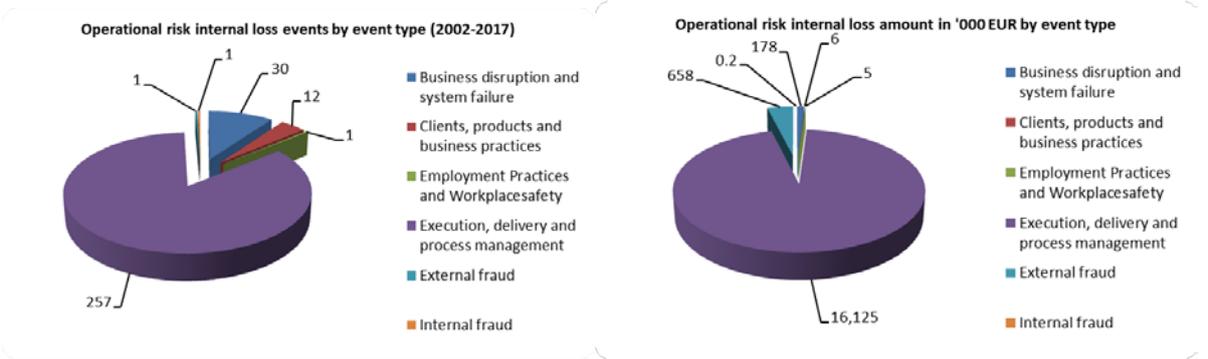
Cyber risk and data security is one of the top operational risks in the industry. As a response to the increasing complexity and intensity of external threats, and in view of the reliance of the Bank's operations on Information Technology, the EIB is constantly reinforcing both its technical defences (IT Security) and procedural and people capabilities (Information Security), and will continue to do so in line with ISO 2700x standards. On the Information Security side, the Bank is focused on increasing user awareness of cyber threats and is addressing this need through various events, communication campaigns and training. An information classification scheme is in place, and users are informed of associated best practices with regard to data leakage, prevention of malware and general sound information management. EIB IT Security devotes significant resources to protect the security of the Bank's computer systems, software, networks and other technology assets. These security efforts are intended to protect against cybersecurity attacks by unauthorized parties to obtain access to confidential information, destroy data, disrupt service, sabotage systems or cause other damage. The EIB continues to make significant investments in enhancing its cyber defence capabilities and to strengthen its partnerships with the appropriate agencies in order to understand the full spectrum of cybersecurity risks in the environment, enhance defences and improve resiliency against cybersecurity threats. Third parties with which the EIB does business or that facilitate the EIB's business activities could also be sources of cybersecurity risk to the EIB. Third party cybersecurity incidents such as system breakdowns or failures, misconduct by the employees of such parties, or cyberattacks could affect their ability to deliver a product or service to the Bank or result in lost or compromised information. To protect the confidentiality, integrity and availability of the EIB's infrastructure, resources and information, the EIB ensures that risks are identified and managed and prepares for the new Data Protection Regulation (New 45/2001) applicable to all EU Institutions and Bodies, which aligns the data protection requirements with the provisions of the General Data Protection Regulation (GDPR), which comes into force in May 2018. Nevertheless, the New 45/2001 has not been adopted yet and till then, Regulation EC No 45/2001 will be the applicable legal framework. The EIB's relevant Committees are regularly briefed on the EIB's cybersecurity policies and practices as well as its efforts regarding significant cybersecurity events.

### 11.1. Quantitative disclosure

To provide a better understanding of the operational risk losses the Bank has incurred, an overview is provided in Figure 11-1 by type of operational risk event and by business line:

Figure 11-1: Overview of internal losses of EIB (2002 - 2017)

These charts provide an overview of internal losses from 2002 to 2017 of EIB. Information on the number of loss events as well as the total loss amounts are provided by internal loss event type. Only events that lead to losses have been included.



## 12. Remuneration policy

The EIB web site publishes detailed information on the remuneration and other benefits applicable to members of its decision-making and supervisory bodies and to the members of its staff, in particular salary scales and performance award applicable to staff members.

Information is also provided on, for instance, the remuneration of members of the Board of Directors and the Audit Committee (attendance fees), the rules for determining the bonuses awarded to senior management and the Bank's pension schemes.

The Board of Governors is a non-remunerated governing body, but it sets the compensation of the Board of Directors, the Management Committee and the Audit Committee. The members of the Board of Directors do not receive remuneration from the Bank but do receive an attendance allowance of EUR 600.00 for each meeting day of the Board in which they participate and a daily allowance to cover expenses if they have to stay overnight at the place of the meeting. The Bank also reimburses the travel expenses incurred by members of the Board of Directors. The attendance allowance amount has been kept constant in nominal terms (i.e. no increase for inflation) since 2002. Some Board members are civil servants and may be required by national rules to pay the attendance allowance received to their national administration. The members of the Board of Directors do not receive a bonus.

The remuneration of the Management Committee members is set by the Board of Governors and does not include individual rewards nor Bank's performance objectives. The emoluments of the members of the Management Committee (President and Vice-Presidents of the EIB) are aligned with those of the President and Vice-Presidents of the European Commission respectively.

The Audit Committee members and observers are not remunerated by the Bank. For each meeting day in which they participate, members and observers of the Audit Committee receive an attendance allowance of EUR 1,050.00, an amount which is set by the Board of Governors and has not changed since 2002. In addition, the Bank pays a per diem of EUR 200.00 as a lump-sum reimbursement for hotel and related expenses incurred by individual Audit Committee members and also reimburses their travel expenses.

## 13. Appendix

### 13.1. Appendix I - Risk terminology

Main Risk Category	Sub Risk Category	Definition
Credit Risk	Credit default risk (including country, transfer and convertibility risk)	The risk that a borrower or counterparty will fail to meet its obligations in accordance with agreed-upon terms. On EIB's definition this sub-risk type includes country, transfer and convertibility risk.
	Issuer credit risk	The potential loss in terms of a decrease in asset values or the default of payments that the Bank may incur due to the decrease in the quality of the respective counterparts;
	Counterparty credit risk (including CVA)	The potential loss with respect to derivatives and SFT which the Bank would incur in the event where the counterparty is unable to honour its contractual obligations (counterparty credit risk) and from potential fair value losses due to credit valuation adjustments (CVA risk).
	Credit risk in loan substitutes (banking book)	The bank provides long-term financing in the form of loan substitutes (i.e. asset backed securities, covered bonds) which pose risk of losses due to a failure of interest/principal payment by the issuer. It also relates to the risk that the economic substance of the securitisation transaction is not fully reflected in the risk assessment and management decisions (i.e. ineffective risk transfer).
	Credit concentration risk	The potential loss resulting from excessive concentration of exposure to a single client or a specific sector or geographical location.
Market risk in the banking book	Interest rate risk in the banking book	The volatility in the economic value of, or in the income derived from, the Bank's positions due to adverse movements in market yields or the term structure of interest rates. Exposure to interest rate risk occurs due to differences in repricing and maturity characteristics of the different asset, liability and hedge instruments.
	Cross currency basis risk	Cross currency basis risk is the risk that the Bank incurs when its lending and funding activities in foreign currency do not match in terms of maturity and/or currency.
	FX risk	The volatility in the economic value of, or in the income derived from, the Bank's positions' due to adverse movements of FX rates.
	Funding spread risk	The volatility in the economic value of, or in the income derived from, the Bank's positions due to movements in the funding or lending spread of the Bank.
	Equity risk	Equity type risks result from the Bank's investments (direct or indirect and irrespectively of its legal form) that de facto expose the Bank to the risk of the performance of the investee's business.
Market risk in the trading book	Position risk related to non-securitisation debt instruments (interest rate risk in the trading book)	As per art. 326 of CRR, the Bank's own funds requirement for position risk shall be the sum of the own funds requirements for specific and general risks of its positions in debt instruments held in the trading portfolio. The specific risk component of the position risk on a traded debt instrument is the risk of a price change in the instrument concerned due to factors related to its issuer or, in the case of a derivative, the issuer of the underlying instrument. The general risk component of the position risk on a traded debt instrument is the risk of a price change in the instrument due to a change in the level of interest rates.
Liquidity risk	Funding liquidity risk	The risk for the Bank to be unable to refinance the asset side of its balance sheet and to meet payment obligations punctually and in full out of readily available liquid resources.
	Market liquidity risk	The volatility in the economic value of, or in the income derived from, the Bank's positions due to potential inability to execute a transaction to offset, eliminate or reduce outstanding positions at reasonable market prices.

Main Risk Category	Sub Risk Category	Definition
Operational risk	Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk.
Settlement risk	Settlement risk	The Bank defines settlement risk as the risk of losses due to unsettled transactions after their due delivery dates in line with article 378 of Regulation EU 575/2013: "In the case of transactions in which debt instruments, equities, foreign currencies and commodities excluding repurchase transactions and securities or commodities lending and securities or commodities borrowing are unsettled after their due delivery dates, an institution shall calculate the price difference to which it is exposed."
Pension risk	Pension risk	Pension and health insurance risks are defined as the risks of losses due to the volatility of the Bank's pension and health insurance liabilities. Pension and health insurance risks primarily derive from a potential increase of the Bank's obligations under adverse conditions impacting either the future benefits to be served to the members of the pension and health insurance schemes or the (net present) valuation of such benefits. In funded schemes (i.e. when a bank's obligations are funded with a portfolio of segregated assets), pension and health insurance risks relate to the residual unfunded exposure of the bank and therefore also incorporate investment risks.
Reputational Risk	Reputational Risk	The risk arising from negative perception on the part of customers, counterparties, shareholders, investors, debt-holders, market analysts other relevant parties (including EU institutions such as EC, EP and EO as well as NGOs and the public at large) or regulators that can adversely affect a Bank's ability to maintain existing, or establish new, business relationships and continues access to sources of funding. Furthermore, reputational risk may also stem from the failure to comply with applicable laws, rules and regulations as well as EIB Policies and standards. Reputational risk may arise in all of the Bank's activities.
Custodian risk	Custodian risk	The risk of a loss that the Bank may incur due to: - due to non-asset segregation on the books of the custodian - in the case sub custodian losses are carved out from the liability of the custodian - in the case a custodian becomes insolvent and the Bank is unable to claim a right and/or recover the securities held by the custodian.
Strategic risk	Strategic risk	Strategic risk is the current or prospective risk to earnings and capital arising from changes in the business environment and from adverse business decisions, improper implementation of decisions or lack of responsiveness to changes in the business environment.
Compliance risk	Compliance risk	Compliance risk is the risk of legal or regulatory sanctions, and/or material financial loss, that a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organisation standards, and codes of conduct applicable to its banking activities.
Conduct risk	Conduct risk	The Bank defines conduct risk as the current or prospective risk of losses to an institution arising from an inappropriate supply of financial services, including cases of fraud or wilful or negligent misconduct.
Other Non-Credit Assets Obligations	Other Non-Credit Assets Obligations	The risk of losses due to fixed assets and cash.
Model risk	Model risk	Model risk refers to the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports.

## 13.2. Appendix II - Abbreviations

ABS	Asset Backed Securities
ALCO	ALM Committee
ALM	Asset Liability Management
AMA	Advanced Measurement Approach (for operational risk)
AT1	Additional Tier 1 (Capital)
BCBS	Basel Committee on Banking Supervision
BIA	Basic Indicator Approach
BPV	Basis Point Value
CAD	Capital Adequacy
CCF	Credit Conversion Factor
CET1	Common Equity Tier 1 (Capital)
CRA	Credit Risk Adjustment
CRD IV/CRR	Capital Requirements Directive IV and Regulation
CRM	Credit Risk Mitigation
CS BPV	Credit Spread Basis Point Value
CSA	Credit Support Annex
DSMC	Derivatives Strategy and Models Committee
EAD	Exposure at Default
EBA	European Banking Authority
EFSI	European Fund for Strategic Investments
EC	European Commission
EDTF	Enhanced Disclosure Task Force
EIB	European Investment Bank
EIF	European Investment Fund
EL	Expected Loss
ELM	External Lending Mandate
EU	European Union
EVE	Economic value of own funds
FI	Finance Directorate
FMGP	Financial Monitoring Guidelines and Procedures
FX	Foreign Exchange
GLR	General Loan Reserve
GRMA	Global Master Repurchase Agreement
GSM	Guarantees, Securitisations and Microfinance
ICAAP	Internal Capital Adequacy Assessment Process
IIW	Infrastructure and Innovation Window
IMM	Internal Model Method (for counterparty credit risk)
IPE	Investment Plan for Europe
IRB	Internal Ratings Based (approach for credit risk)
IRM	Internal Rating Methodology
IRMMC	Internal Rating Models Maintenance Committee
IRRBB	Interest Rate Risk in the Banking Book
ISDA	International Swaps and Derivatives Association
ITS	Implementing technical standards
LCR	Liquidity Coverage Ratio
LG	Loan Grading
LGD	Loss Given Default
LGTT	Loan Guarantee Instrument for Ten-T Projects
MC	Management Committee
NOPOF	Notional Portfolio of Own Funds
NPC	New Product Committee
NSFR	Net Stable Funding Ratio
OPS	Operational Directorates
PE	Private Equity

PBI	Project Bond Initiative
PD	Probability of Default
RCR	Risk Capital Resource
RM	Risk Management Directorate
RSFF	Risk-Sharing Finance Facility
RSI	Risk Sharing Instrument
RWA	Risk Weighted Assets
SAR	Special Activities Reserve
SFF	Structured Finance Facility
SFT	Securities Financing Transactions
SLP	Securities Liquidity Portfolio
SME	Small and Medium-Sized Enterprises
SPV	Special Purpose Vehicle
SSPE	Securitisation special purpose entity
T2	Tier 2 (Capital)
TMR	Transaction Management and Restructuring
VaR	Value-at-Risk

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## 13.5. Appendix V - Reconciliation with financial statements

The following table presents a high-level reconciliation between the EIB consolidated balance sheet prepared under EU accounting directives and regulatory exposures subject to credit risk calculation.

### Summary reconciliation of accounting assets and A-IRB regulatory exposures

31.12.2017 EUR million	On-balance sheet amounts	Off-balance sheet amounts	Fair value of derivatives	Exposure at default modelling	Assets synthetically securitised	Credit conversion factors	Regulatory EAD
Cash	162	0	0	0	0	0	162
Money market deposits and reverse repos	36,578	0	0	3	0	0	36,581
Treasury bills and debt securities (including loan substitutes)	57,181	0	0	-1,645	0	0	55,536
Loans and advances	435,181	112,928	0	46,951	-61,349	-21,829	511,882
Specific provisions	-466	0	0	466	0	0	0
Shares and variable yield securities	5,299	9,286	0	1,489	0	0	16,074
Tangible and intangible assets	287	0	0	-22	0	0	265
Other assets	162	0	-8	0	0	0	154
Subscribed capital and reserves, called but not paid	26	0	0	-26	0	0	0
Prepayments and accrued income	16,596	0	-14,042	-2,189	0	0	365
Derivatives	0	0	11,209	48,755	0	0	59,964
Guarantees issued	0	15,811	0	0	0	-8,370	7,441
<b>Total</b>	<b>551,006</b>	<b>138,025</b>	<b>-2,841</b>	<b>93,782</b>	<b>-61,349</b>	<b>-30,199</b>	<b>688,424</b>

## 13.6. Appendix VI - CRR Disclosures compliance references

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
<b>Article 431 - Scope of disclosure requirements</b>		
431 (1)	Institutions shall publicly disclose the information laid down in Part eight, Title II.	As disclosed in the current Pillar 3 report.
431 (2)	Firms with permission to use specific operational risk methodologies must disclose operational risk information.	Not applicable as the EIB uses AMA, while the EIF uses Basic Indicator Approach.
431 (3)	Institution must have a policy covering frequency of disclosures, their verification, comprehensiveness and overall appropriateness.	A formal Pillar 3 policy has been implemented during 2018.
431 (4)	Institutions shall, if requested, explain their rating decisions to SMEs and other corporate applicants for loans.	Requests for information addressed to the EIB Group are handled by the Infodesk in line with the Group's Transparency Policy. As the Group does not directly lend to SMEs, these will usually be informed that loan decisions and conditions of financing fall within the remit of the Financial Intermediaries and that the Group is not involved in the rating decision-making process.
<b>Article 432 - Non-material, proprietary or confidential information</b>		
432 (1)	Institutions may omit information that is not material if certain conditions are respected.	Qualitative disclosures with regards to EIB's fully consolidated subsidiary, EIF, are subject to the proportionality of EIF's risk in the context of the Group and may be omitted on the grounds of immateriality, as appropriate.
432 (2)	Institutions may omit information that is proprietary or confidential if certain conditions are respected.	The EIB Group does not omit any information for proprietary or confidentiality reasons.
432 (3)	Where 432 (2) apply this must be stated in the disclosures, and more general information must be disclosed.	As disclosed in the current Appendix.
432 (4)	Paragraphs 1, 2 and 3 are without prejudice to the scope of liability for failure to disclose material information.	Not applicable. The EIB Group provides all relevant disclosures in this report.
<b>Article 433 - Frequency of disclosure</b>		
433	Disclosures must be published once a year at a minimum, and more frequently if necessary.	EIB Group Pillar 3 disclosures are published once a year.
<b>Article 434 - Means of disclosure</b>		
434 (1)	Disclosures shall be provided in one medium or where information is included in another medium, it will be clearly referenced.	The majority of the disclosures are provided in the current Pillar 3 report. For those Pillar 3 disclosures that are included solely within the EIB's Annual Financial Report a specific reference is included in the current Appendix and/or within the respective Sections.
434 (2)	Equivalent disclosures made under other reporting requirements (e.g. financial statements) may be deemed to constitute compliance with Pillar 3 disclosure requirements.	Where disclosures are included solely in the EIB's Annual Financial Report (as described in the point above) the Group deems that these constitute compliance with Pillar 3 disclosure requirements.
<b>Article 435 - Risk management objectives and policies</b>		
435 (1) (a)	The strategies and processes to manage risks.	See Section 4.2 on risk management framework, which includes an overview of EIB's risk management principles and Section 4.4 on risk management guidelines and processes. The former Section also identifies risk types, presents the risk management principles of the Group, and introduces its risk identification and assessment process.  Section 4.3 outlines the Group's risk appetite framework and risk appetite statement. In addition, the risk management process for each risk type is disclosed separately (Chapters 5 to 11).

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
435 (1) (b)	The structure and organisation of the relevant risk management function.	See Section 4.1 with regards to the Group's risk management organisation, including detailed organizational structures of the EIB and the EIF.
435 (1) (c)	The scope and nature of risk reporting and measurement systems.	Along with the strategies and processes to manage risks, relevant risk reporting and measurement is also discussed (see Chapters 5 to 11). See also Section 4.2 Risk management framework on Pillar 1 and 2 reporting and oversight.
435 (1) (d)	The policies for hedging and mitigating risk, and strategies and processes of monitoring the continuing effectiveness of hedges and mitigants.	See Section 6.3 on credit risk mitigation, as well as the paragraphs under heading 'Management, monitoring and reporting' for other risk types.
435 (1) (e)	A declaration approved by the management body on the adequacy of risk management arrangements of the institution providing assurance that the risk management systems put in place are adequate with regard to the institution's profile and strategy.	See Section 4.2 'Risk management framework' and how the Group follows the principles of the "three lines of defence".
435 (1) (f)	A concise risk statement approved by the management body, succinctly describing the institution's overall risk profile associated with the business strategy.	See Chapter 2 'Executive Summary', which provides key risk metrics and an overview of the risk profile of the Group. See Section 4.3 'Risk Appetite Framework' for an overview of the Group's risk appetite and tolerance.
435 (2) (a)	Number of directorships held by members of the management body.	Individual curriculum vitae and declaration of interest of members of the Management Committee are available on the EIB's official web site. Individual curriculum vitae of members of the Board of Directors are available on the EIB's official web site. In accordance with Article 4 of the Code of Conduct for the Members of the Board of Directors, Board members shall disclose to the Ethics and Compliance Committee (ECC) any official or professional position they hold at the time of their appointment, as well as any subsequent changes thereto.
435 (2) (b)	The recruitment policy for the selection of members of the management body and their actual knowledge, skills and expertise.	In accordance with the Statute of the Bank, the EIB's Board of Directors consists of 29 directors and 19 alternate directors who shall be chosen from persons whose independence and competence are beyond doubt and appointed by the Board of Governors for a collective five years mandate that is renewable. In accordance with Article 23.a, first paragraph, of the Rules of Procedure of the Bank, the members of the Management Committee shall be persons of independence, competence and have experience in financial, banking and/or European Union matters. They shall, at all times be of high integrity and enjoy high reputation; and, possess sufficient knowledge, skills and expertise to perform their duties. By virtue of Article 23.a, second paragraph, of the Rules of Procedure, the Appointment Advisory Committee shall give non-binding opinions on candidates' suitability to perform the duties of member of the Management Committee of the European Investment Bank. Information on knowledge, skills and expertise of members of the EIB management bodies is available in their individual curriculum vitae on the EIB's official web site.
435 (2) (c)	The policy on diversity with regard to selection of members of the management body, its objectives and any relevant targets set out in that policy, and the extent to which these objectives and targets have been achieved.	In accordance with Article 23.a, second paragraph, of the Rules of Procedure of the Bank, the overall composition of the Management Committee shall aim to reflect an adequately broad range of expertise as well as gender diversity. Gender diversity in the Board of Directors is reported in the EIB Annual Corporate Governance Report available on the EIB's official web site.

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
435 (2) (d)	Whether or not the institution has set up a separate risk committee and the number of times the risk committee has met.	EIB Group has a separate Risk policy committee. It meets quarterly or more frequently at request. During 2017 it met eight times. It gives non-binding opinions and provides recommendations to the Board of Directors in relation to Bank risk policies so as to facilitate the decision-making process of the Board. See also Section 4.1. 'Risk management organization'.
435 (2) (e)	Description of the information flow on risk to the management body.	A monthly internal risk report provides a detailed view on credit, ALM, and financial risks and is provided to the Management Committee and the Board of Directors.
Article 436 - Scope of application		
436 (a)	The name of the institution to which the requirements of the CRR apply.	See Chapter 1 'Overview of EIB Group' and Section 3.2 'Scope of application'.
436 (b)	An outline of the differences in the basis of consolidation for accounting and prudential purposes.	See Chapter 1 'Overview of EIB Group' and Section 3.2 'Scope of application'.
436 (c)	Any current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities among the parent undertaking and its subsidiaries.	Not applicable. EIF's shareholders comprise the EIB (holding sixty percent of the shares in EIF's capital), the European Union (holding thirty percent), as well as financial institutions shareholders. Together the EIB and the European Union are committed to hold more than 85% of the shares in EIF capital. EIF's members have committed themselves to provide additional capital (up to 80% of the par value of each share – callable capital) in addition to paid-in capital upon request by the EIF General Meeting and to the extent required for the EIF to meet its liabilities towards its creditors.
436 (d)	The aggregate amount by which the actual own funds are less than required in all subsidiaries not included in the consolidation, and the name or names of such subsidiaries.	Not applicable. All subsidiaries are fully consolidated.
436 (e)	If applicable, the circumstance of making use of Articles 7 'Derogation to the application of prudential requirements on an individual basis' and 9 'Individual consolidation method'.	Not applicable. EIB Group does not make use of the derogation described in Article 7 or the individual consolidation method specified in Article 9 of the CRR.
Article 437 - Own Funds		
437 (1)	Disclosure requirements regarding Own Funds.	See Chapter 5, Section 5.2 'Regulatory capital', Tables 5-2 and 5-3.
Article 438 - Capital Requirements		
438 (a)	A summary of the institution's approach to assessing the adequacy of its internal capital to support current and future activities.	Information on the Group's approach to assessing the adequacy of its internal capital is included in Section 4.2 under the heading 'Pillar 2 reporting and oversight'.
438 (b)	Upon demand from the relevant competent authority, the result of the ICAAP.	As EIB Group is not formally subject to the CRR, but complies with it on a voluntary basis, it has not received such request.
438 (c) - (d)	Disclosure of capital requirements for each regulatory exposure class calculated under Standardised Approach and Internal Ratings Based Approach.	See Chapter 5, Section 5.3 'Regulatory capital', Table 5-5.
438 (e)	Own funds requirements, calculated in accordance with points (b) and (c) of Article 92(3) of CRR, concerning position risk, large exposures exceeding the limits, foreign-exchange risk, settlement risk and commodities risk.	As disclosed in Chapter 9 'Market risk'. Own funds calculations are required solely for foreign-exchange risk and position risk related to non-securitisation debt instruments (Interest rate risk in the trading book).
438 (f)	Own funds requirements for operational risk calculated in accordance with Part Three, Title III, Chapters 2, 3 and 4 and disclosed separately.	See Chapter 5, Section 5.3 'Regulatory capital', Table 5-5.
438 (endnote)	Requirement to disclose specialised lending exposures and equity exposures in the banking book falling under the simple risk weight approach.	For equity exposures under the simple risk weight approach see Chapter 6.4 'Internal Ratings Based approach', Table 6-20. Specialised lending exposures are not subject to the simple risk weight approach.
Article 439 - Exposure to counterparty credit risk (CCR)		
439 (a)	A discussion of the methodology used to assign internal capital and credit limits for counterparty credit exposures.	Information is provided in Section 7.1 'Counterparty credit risk management'.

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
439 (b)	A discussion of policies for securing collateral and establishing credit reserves.	Information is provided in Section 7.1 'Counterparty credit risk management'.
439 (c)	A discussion of policies with respect to wrong-way risk exposures.	Information is provided in Section 7.1 'Counterparty credit risk management', but no policy currently considers wrong way risk exposures explicitly.
439 (d)	A discussion of the impact of the amount of collateral the institution would have to provide given a downgrade in its credit rating.	Under its contractual arrangements the EIB Group is not required to post collateral, neither currently, nor in case of a downgrade in its credit rating.
439 (e)	Gross positive fair value of contracts, netting benefits, netted current credit exposure, collateral held and net derivatives credit exposure.	Information is provided in Table 7-4.
439 (f)	Measures for exposure value under the methods set out in Part Three, Title II, Chapter 6, Sections 3 to 6 whichever method is applicable;	Information is provided in Table 7-1.
439 (g)	The notional value of credit derivative hedges, and the distribution of current credit exposure by types of credit exposure.	Not applicable as no credit derivatives are currently in use.
439 (h)	The notional amounts of credit derivative transactions.	Not applicable as no credit derivatives are currently in use.
439 (i)	The estimate of $\alpha$ if the institution has received the permission of the competent authorities to estimate $\alpha$ .	Not applicable as the Group is currently not using Internal Model Method (IMM).
<b>Article 440 - Capital Buffers</b>		
440 (1) (a)	Geographical distribution of exposures relevant for the calculation of the countercyclical capital buffer.	Section 5.5, 'Combined CRD IV Buffer, Table 5-8.
440 (1) (b)	Amount of institution-specific countercyclical capital buffer	Section 5.5, 'Combined CRD IV Buffer, Table 5-8.
<b>Article 441 - Indicators of global systemic importance</b>		
441 (1)	Values of the indicators used for G-SII score.	The EIB Group is neither identified, nor required to hold a G-SII buffer.
<b>Article 442 - Credit risk adjustments</b>		
442 (a)	The definitions for accounting purposes of 'past due' and 'impaired'.	The definitions of 'past due', 'default' and 'impaired' for accounting purposes is provided in Section 6.1 under the title 'Portfolio quality and credit risk adjustments'.
442 (b)	A description of the approaches and methods adopted for determining specific and general credit risk adjustments.	See Section 6.1.
442 (c)	The total amount of exposures after accounting offsets and without taking into account the effects of credit risk mitigation, and the average amount of the exposures over the period broken down by different types of exposure classes.	See Table 6-6 on the year end exposures post-substitution and pre-mitigation by collateral as well as on the average exposures over the periods.
442 (d)	The geographic distribution of the exposures, broken down in significant areas by material exposure classes, and further detailed if appropriate;	See Table 6-7.
442 (e)	The distribution of the exposures by industry or counterparty type, broken down by exposure classes, including specifying exposure to SMEs, and further detailed if appropriate.	See Table 6-8.
442 (f)	The residual maturity breakdown of all the exposures, broken down by exposure classes, and further detailed if appropriate.	See Table 6-9.
442 (g) (i-iii)	By significant industry or counterparty type, the amount of: (i) impaired exposures and past due exposures, provided separately; (ii) specific and general credit risk adjustments; (iii) charges for specific and general credit risk adjustments during the reporting period.	See Table 6-5.

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
442 (h)	The amount of the impaired exposures and past due exposures, provided separately, broken down by significant geographical areas including, if practical, the amounts of specific and general credit risk adjustments related to each geographical area.	See Table 6-5.
442 (i) (i-v)	The reconciliation of changes in the specific and general credit risk adjustments for impaired exposures, shown separately. The information shall comprise: (i) a description of the type of specific and general credit risk adjustments; (ii) the opening balances; (iii) the amounts taken against the credit risk adjustments during the reporting period; (iv) the amounts set aside or reversed for estimated probable losses on exposures during the reporting period, any other adjustments; (v) the closing balances.	See Note D.2 of the EIB's Group Consolidated Financial Statements under EU directives.
442 (endnote)	Specific credit risk adjustments and recoveries recorded directly to the income statement shall be disclosed separately.	See Note D.2 of the EIB's Group Consolidated Financial Statements under EU directives.
<i>Article 443 - Unencumbered assets</i>		
443	Disclosure on encumbered and unencumbered assets.	The EIB Group follows EBA's guidelines on disclosure of encumbered and unencumbered assets. See Section 10.4 'Asset encumbrance', Tables 10-2, 10-3, and 10-4.
<i>Article 444 - Use of ECAIs</i>		
444	Disclosures on the use of ECAIs.	See Section 6-3. Not applicable, as the EIB Group makes very limited use of the Standardised Approach, mostly on its strategic equity-type investments. For the Corporate exposures under SA there are no ECAIs credit ratings available and consequently 100% risk weight default treatment is applied.
<i>Article 445 - Exposure to market risk</i>		
445	Own funds requirements, calculated in accordance with points (b) and (c) of Article 92(3) of CRR, concerning position risk, large exposures exceeding the limits, foreign-exchange risk, settlement risk and commodities risk.	As disclosed in Chapter 9 'Market risk'. Own funds calculations are required solely for foreign-exchange risk and position risk related to non-securitisation debt instruments (Interest rate risk in the trading book).
<i>Article 446 - Operational risk</i>		
446	Institutions shall disclose the approaches for the assessment of own funds requirements for operational risk that the institution qualifies for; a description of the methodology set out in Article 312(2) of CRR, if used by the institution, including a discussion of relevant internal and external factors considered in the institution's measurement approach, and in the case of partial use, the scope and coverage of the different methodologies used.	See Section 4.4.3 and Chapter 11.
<i>Article 447 - Exposure in equities not included in the trading book</i>		
447 (a)	The differentiation between exposures based on their objectives, including for capital gains relationship and strategic reasons, and an overview of the accounting techniques and valuation methodologies used, including key assumptions and practices affecting valuation and any significant changes in these practices.	Types of equity exposures and their objectives are explained in Section 9.3.
447 (b)	The balance sheet value, the fair value and, for those exchange-traded, a comparison to the market price where it is materially different from the fair value.	The balance sheet value and the corresponding fair values are disclosed under Note T 'Fair value of financial instruments' of the EIB Group's Consolidated Financial Statements under EU directives.

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
447 (c)	The types, nature, and amounts of exchange-traded exposures, private equity exposures in sufficiently diversified portfolios, and other exposures.	See table 6-20.
447 (d)	The cumulative realised gains and losses arising from sales and liquidations.	See Note P 'Net result on financial operations' of the EIB Group's Consolidated Financial Statements under EU directives.
447 (e)	The total unrealised gains and losses and the total latent revaluation gains or losses in the period.	See Note E.2 'Shares, other variable-yield securities and participating interests' of the EIB Group's Consolidated Financial Statements under EU directives.
Article 448 - Exposure to interest rate risk on positions not included in the trading book		
448	The nature of the interest rate risk and the key assumptions and frequency of measurement of the interest rate risk.	See Section 9.3 'Non-traded market risk'.
448	The variation in earnings, economic value or other relevant measure used by the management for upward and downward rate shocks.	See Section 9.3 'Non-traded market risk'.
Article 449 - Exposure to securitisation positions		
449 (a)	A description of the institution's objectives in relation to securitisation activity.	See Section 8.1 'Securitisation management'.
449 (b)	The nature of other risks including liquidity risk inherent in securitised assets.	See Section 8.1 'Securitisation management'.
449 (c)	The type of risks in terms of seniority of underlying securitisation positions and in terms of underlying assets.	See Section 8.1 'Securitisation management'.
449 (d)	The different roles played by the institution in the securitisation process.	See Section 8.1 'Securitisation management'.
449 (e)	An indication of the extent of the institution's involvement in each of the roles referred to in point (d).	See Section 8.1 'Securitisation management'.
449 (f)	A description of the processes in place to monitor changes in the credit and market risk of securitisation exposures.	See "Management, monitoring and reporting" under Section 8.1 'Securitisation management'.
449 (g)	A description of the institution's policy governing the use of hedging and unfunded protection to mitigate the risks of retained securitisation and re-securitisation exposures.	The retained securitisation exposures are managed directly in the banking book as normal loans and no specific hedging takes places. In terms of unfunded protection the Bank has exposure to several facilities (as originator of the respective synthetic securitisations) that focus on debt based financing via loans and guarantees, where the residual risk is significantly reduced via unfunded first loss protection provided by a third party. For further information see Section 8.1 'Securitisation management'. No re-securitisation exposures exist at the Group.
449 (h)	The approaches to calculating risk weighted exposure amounts that the institution follows for its securitisation activities including the types of securitisation exposures to which each approach applies;	See Table 8-2 and 8-3, which provide an overview of used approaches and the exposure and RWA treated under the approach.
449 (i)	The types of SSPE that the institution, as sponsor, uses to securitise third-party exposures.	Not applicable, as the Group is not a sponsor of any transactions and does not manage or advice entities that invest in own originated securitisations.
449 (j)	A summary of the institution's accounting policies for securitisation activities:	See Section 8.1 'Securitisation management', as well as Notes A.2.6 of the Consolidated Financial Statements under EU directives and B.4.2 'Involvement with unconsolidated structured entities' of the EIB's Group Consolidated Financial Statements under IFRS.
449 (j) (i)	Whether the transactions are treated as sales or financings.	Not applicable, as there have been no securitisation transactions, where the Group acts as originator, that were transferred to third parties.
449 (j) (ii)	The recognition of gains on sales.	Not applicable, as: <ul style="list-style-type: none"> <li>a) there have been no securitisation transactions, where the Group acts as originator, that were transferred to third parties;</li> <li>b) the loan substitutes are classified as held to maturity.</li> </ul>

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
449 (j) (iii)	The methods, key assumptions, inputs and changes from the previous period for valuing securitisation positions.	See Note A.2.6 of the Consolidated Financial Statements under EU directives, as well as Note R 'Fair value of financial assets and liabilities' of the EIB's Group Consolidated Financial Statements under IFRS.
449 (j) (iv)	The treatment of synthetic securitisations if not covered by other accounting policies.	See Section 8.1 'Securitisation management'.
449 (j) (v)	How assets awaiting securitisation are valued and whether they are recorded in the institution's non- trading book or the trading book.	Not applicable.
449 (j) (vi)	Policies for recognising liabilities on the balance sheet for arrangements that could require the institution to provide financial support for securitised assets.	See Section 8.1 'Securitisation management'.
449 (k)	The names of the ECAs used for securitisations and the types of exposure for which each agency is used.	The ECAs used for external ratings is described in Section 8.1.
449 (l)	Description of the Internal Assessment Approach.	Not applicable as the Internal Assessment Approach is not used.
449 (m)	An explanation of significant changes to any of the quantitative disclosures in points (n) to (q) since the last reporting period.	See section 8.2 'Quantitative disclosures'.
449 (n) (i)	Total amount of outstanding exposures securitised by the institution, separately for traditional and synthetic securitisations and securitisations for which the institution acts only as sponsor.	See Tables 8-1 and 8-3.
449 (n) (ii)	The aggregate amount of on-balance sheet securitisation positions retained or purchased and off-balance sheet securitisation exposures.	See Table 8-1.
449 (n) (iii)	The aggregate amount of assets awaiting securitisation.	Not applicable.
449 (n) (iv)	Disclosures for securitised facilities subject to the early amortisation treatment.	Not applicable.
449 (n) (v)	The amount of securitisation positions that are deducted from own funds or risk-weighted at 1 250 %.	See Tables 8-2 and 8-3.
449 (n) (vi)	A summary of the securitisation activity of the current period, including the amount of exposures securitised and recognised gain or loss on sale.	See Section 8.1 'Securitisation management'. There were no gains or losses on sale recognised, as described under the line for CRR article 449 (j) (ii) above.
449 (o) (i)	Aggregate amount of securitisation positions retained or purchased and the associated capital requirements.	See Table 8-4.
449 (o) (ii)	The aggregate amount of re-securitisation exposures retained or purchased.	Not applicable, since there are no re-securitisation exposures.
449 (p)	Amount of impaired/past due assets securitised and the losses recognised by the institution during the current period, both broken down by exposure type.	See Table 8-5.
449 (q)	For the trading book, the total outstanding exposures securitised by the institution and subject to a capital requirement for market risk, broken down into traditional/ synthetic and by exposure type.	Not applicable, since there are no securitised exposures in the trading book.
449 (r)	Where applicable, whether the institution has provided support within the terms of Article 248(1) and the impact on own funds.	Not applicable.
<i>Article 450 - Remuneration disclosures</i>		
450 (1)	Disclosures regarding the remuneration policy and practices of the institution for those categories of staff whose professional activities have a material impact on its risk profile.	See Chapter 12.
<i>Article 451 - Leverage</i>		

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
451 (1) (a)	The leverage ratio and how the institution applies Article 499(2) and (3).	EIB Group makes use of Article 499 (3) and calculates an end-of quarter leverage ratio.
451 (1) (b)	A breakdown of the total exposure measure as well as a reconciliation of the total exposure measure with the relevant information disclosed in published financial statements.	See Section 5.4 'Leverage ratio', Tables 5-6 and 5-7
451 (1) (c)	Where applicable, the amount of derecognised fiduciary items in accordance with Article 429(11).	Not applicable, there are no derecognised fiduciary items.
451 (1) (d)	A description of the processes used to manage the risk of excessive leverage.	See Section 5.4 'Leverage ratio'.
451 (1) (e)	A description of the factors that had an impact on the leverage ratio during the period to which the disclosed leverage ratio refers.	See Section 5.4 'Leverage ratio' and Chapter 2 'Executive Summary'.
451 (2)	Apply EBA' ITS.	EIB Group follows EBA's ITS.
<i>Article 452 - Use of IRB approach to credit risk</i>		
452 (a)	The competent authority's permission of the approach or approved transition.	Not applicable, EIB Group is committed to applying best banking practice and thus applies the A-IRB approach voluntarily. A-IRB models are validated internally.
452 (b) (i)	The structure of internal rating systems and relation between internal and external ratings.	See Section 6.4 'Internal Ratings Based approach'.
452 (b) (ii)	The use of internal estimates other than for calculating risk-weighted exposure amounts in accordance with IRB approach.	See Section 6.4 'Internal Ratings Based approach'.
452 (b) (iii)	The process for managing and recognising credit risk mitigation.	See Section 6.2 'Credit risk mitigation'.
452 (b) (iv)	The control mechanisms for rating systems including a description of independence, accountability, and rating systems review.	See Section 6.4 'Internal Ratings Based approach'.
452 (c)	A description of the internal ratings process, provided separately for the following exposure classes:	See below:
452 (c) (i)	Central governments and central banks;	See Section 6.4 'Internal Ratings Based approach'.
452 (c) (ii)	Institutions;	See Section 6.4 'Internal Ratings Based approach'.
452 (c) (iii)	Corporate, including SMEs, specialised lending and purchased corporate receivables;	See Section 6.4 'Internal Ratings Based approach'.
452 (c) (iv)	Retail	Not applicable, as EIB Group has no retail exposures.
452 (c) (v)	Equities	Not applicable, as EIB applies the simple risk weight approach for equity exposures.
452 (d)	The exposure values for each exposure class.	See Section 6.4 'Internal Ratings Based approach', Table 6-15 and Chapter 7 'Counterparty credit risk', Table 7-2.
452 (e)	For each exposure class, and across a sufficient number of obligor grades (including default) to allow for a meaningful differentiation of credit risk:	See below:
452 (e) (i)	The total exposures, including for the exposure classes central governments and central banks, institutions and corporate, the sum of outstanding loans and exposure values for undrawn commitments; and for equities the outstanding amount.	See Section 6.4 'Internal Ratings Based approach', Table 6-15 and Chapter 7 'Counterparty credit risk', Table 7-2. Not applicable for equities, as EIB applies the simple risk weight approach for those exposures.
452 (e) (ii)	Exposure-weighted average risk weight.	See Section 6.4 'Internal Ratings Based approach', Table 6-15, column 'RWA density' and Chapter 7 'Counterparty credit risk', Table 7-2, column 'RWA density'.
452 (e) (iii)	For the institutions using own estimates of conversion factors for the calculation of risk-weighted exposure amounts, the amount of undrawn commitments and exposure-weighted average exposure values for each exposure class.	See Section 6.4 'Internal Ratings Based approach' Table 6-15.

<i>CRR article</i>	<i>Disclosure requirement</i>	<i>Compliance reference</i>
452 (f)	Disclosure on retail exposures.	Not applicable, as EIB Group has no retail exposures.
452 (g)	The actual specific credit risk adjustments in the preceding period for each exposure class and how they differ from past experience.	See Table 6-4 in conjunction with Table 6-15.
452 (h)	A description of the factors that impacted on the loss experience in the preceding period.	See Section 6.4 'Internal Ratings Based approach' Table 6-16.
452 (i)	The institution's estimates against actual outcomes over a longer period. At a minimum, this shall include information on estimates of losses against actual losses in each exposure class over a period sufficient to allow for a meaningful assessment of the performance of the internal rating processes for each exposure class.	See Section 6.4 'Internal Ratings Based approach' Table 6-16.
452 (j) (i)-(ii)	For all IRB exposure classes and for the institutions using own LGD estimates for the calculation of risk-weighted exposure amounts, the exposure-weighted average LGD and PD in percentage for each relevant geographical location of credit exposures.	See Section 6.4 'Internal Ratings Based approach' Table 6-19.
<b>Article 453 - Use of credit risk mitigation techniques</b>		
453 (a)	The policies and processes for, and an indication of the extent to which the entity makes use of, on- and off-balance sheet netting;	See Sections 4.4.2. 'Financial risk', 6.2 'Credit risk mitigation', 7.1 'Counterparty credit risk management', as well as Note R, part 'Offsetting financial assets and financial liabilities' of the EIB's Group Consolidated Financial Statements under IFRS.
453 (b)	The policies and processes for collateral valuation and management;	See Section 6.2 'Credit risk mitigation'.
453 (c)	A description of the main types of collateral taken by the institution;	See Section 6.2 'Credit risk mitigation'.
453 (d)	The main types of guarantor and credit derivative counterparty and their creditworthiness;	See Section 6.2 'Credit risk mitigation'.
453 (e)	Information about market or credit risk concentrations within the credit mitigation taken;	See Section 6.2 'Credit risk mitigation'.
453 (f)-(g)	Separately for each exposure class, the total exposure that is covered by guarantees or credit derivatives.	See Section 6.2 'Credit risk mitigation' Table 6-10.
<b>Article 454 - Use of Advanced Measurement Approaches to operational risk</b>		
454	Disclosures on use of AMA to operational risk	See Section 11 'Operational risk'.
<b>Article 455 - Use of internal market risk models</b>		
455	Disclosure on use of Internal Market Risk Models	Not applicable, as EIB Group does not calculate capital requirements for market risk using Internal Market Risk Models.



EUROPEAN INVESTMENT BANK GROUP

# Risk Management Disclosure

## Report 2017



European  
Investment  
Bank

*The EIB bank*



European Investment Bank  
98-100, boulevard Konrad Adenauer  
L-2950 Luxembourg  
☎ +352 4379-22000  
✉ +352 4379-62000  
[www.eib.org](http://www.eib.org) – [info@eib.org](mailto:info@eib.org)