

# AXA Bank Europe



## Risk Disclosure Report 2012



redefining / standards

## Table of contents

Risk disclosure policy.....	3
List of acronyms used in this report .....	3
Executive summary.....	4
1 Risk Governance .....	5
2 Risk Appetite Framework.....	7
3 Capital adequacy .....	8
3.1 Context .....	8
3.2 AXA Bank Europe's capital measures .....	11
3.3 Capital Adequacy for 2012 .....	13
4 <i>Credit risk</i> .....	15
4.1 Retail credit risk .....	15
4.2 Non retail credit risk and large exposure .....	20
4.3 Securitisation of retail credits .....	24
5 <i>Market Risk</i> .....	26
5.1 Market Risk Banking Book.....	26
5.2 Market risk trading book .....	28
6 <i>Operational Risk</i> .....	30
6.1 Risk management governance .....	31
6.2 Capital requirement assessment .....	31
7 <i>Liquidity Risk</i> .....	32
7.1 Risk management governance .....	32
7.2 Monitoring liquidity risk .....	33
7.3 Liquidity Buffer assessment.....	34
8 <i>Other Risks</i> .....	35
8.1 Business Risk on commercial margins and fees .....	35
8.2 Model risk .....	35
8.3 Strategic risk.....	36
8.4 Reputation risk.....	37
8.5 Remuneration policy risk .....	37
8.6 Capital risk.....	38
8.7 Political and regulatory risk.....	38
8.8 Intangible assets and deferred tax assets risk.....	38
<b>Appendix</b> - Risks resulting from other AXA Bank Europe entities.....	39

## Risk disclosure policy

The Basel II accords require banks to disclose a complete risk report to the market at least once a year. This obligation is known as the “market discipline” Basel II Pillar 3 transparency obligation<sup>1</sup>. It is based on the assumption that well informed market participants will reward risk-conscious management strategies and will correspondingly penalise riskier behaviours. It is believed that this gives credit institutions additional incentives to monitor and efficiently manage their risks.

In compliance with the above transparency requirements, AXA Bank Europe’s Board of Directors and Management Board communicate to the market a complete risk disclosure report once a year, after the publication of its audited annual accounts. This yearly frequency is believed to offer sufficient information to allow third parties to form an opinion regarding AXA Bank Europe’s risk profile. However, AXA Bank Europe may publish disclosure reports more frequently if material and important changes to its financial situation, risk profile or business strategy occur and require it.

This 2012 risk report covers the period starting on 1 January 2012 and ending on 31 December 2012.

AXA Bank Europe’s management pays a special attention to the bank’s obligation of confidentiality. If a situation would arise where private clients’ information could be inferred from some element legally required to be disclosed, the bank would seek guidance from its regulators in order to omit the publication of such information.

The reports can be found on AXA Bank Europe’s corporate website at <http://www.axabank.eu/eng>.

## List of acronyms used in this report

**NBB:** Belgian National Bank  
**MB:** Management Board  
**LCR:** Basel III’s Liquidity Coverage Ratio  
**NSFR:** Basel III’s Net Stable Funding Ratio  
**V@R:** Value at Risk model  
**ABF:** AXA Bank France

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<sup>1</sup> In Belgium, this obligation is found under Title XIV of CBFA’s Circular PPB-2007-1-CPB dated 08/02/2007.

# Executive summary

## **Confirmation of strong liquidity position**

Over the past years, AXA Bank Europe liquidity has been building a solid liquidity buffer which largely exceeds the minimum requirements imposed by the Belgian regulator (the so called NBB Liquidity Indicator) and already exceeds the minimum levels of Basel III liquidity ratios (LCR and NSFR). This excess of liquidity reflects the stability of the Bank's funding sources and its conservative investment strategy. AXA Bank Europe is funding its loan portfolio by retail deposits and –to a smaller extent- by covered bonds. Thereby, the conservative investments strategy makes that the Bank is only investing in highly liquid assets and that the portfolios with less liquid assets are put on run-off. The banks liquidity risk management is covered in chapter 7 of this report.

## **Conservative investment strategy accelerated the de-risking of the Bank**

Next to the positive impact on the Banks liquidity position, the conservative investment strategy has been reducing the risk profile of the Bank's assets. In fact, the Bank is transforming the legacy portfolio of structured products and paper on financial institutions into high-quality investments. Meanwhile, during 2012, the Bank has significantly decreased its exposure to PIIGS-countries. At the end of 2012, all Greek and Irish positions were eliminated and the total exposure to the remaining countries (Portugal, Italy and Spain) was €500 million, i.e. more than 60% lower than one year before. Details on the non-retail investments of the Bank can be found in section 4.2.

## **Challenging environment for the credit loan portfolios**

The credit loans in Belgium, and especially mortgage loans are one of the core businesses of AXA Bank Europe. During 2012, a slight increase in the default rate has been observed but the overall quality of the Belgian credits remains good. More details on the exposures in the Belgian credit portfolio can be found in section 4.1.3.

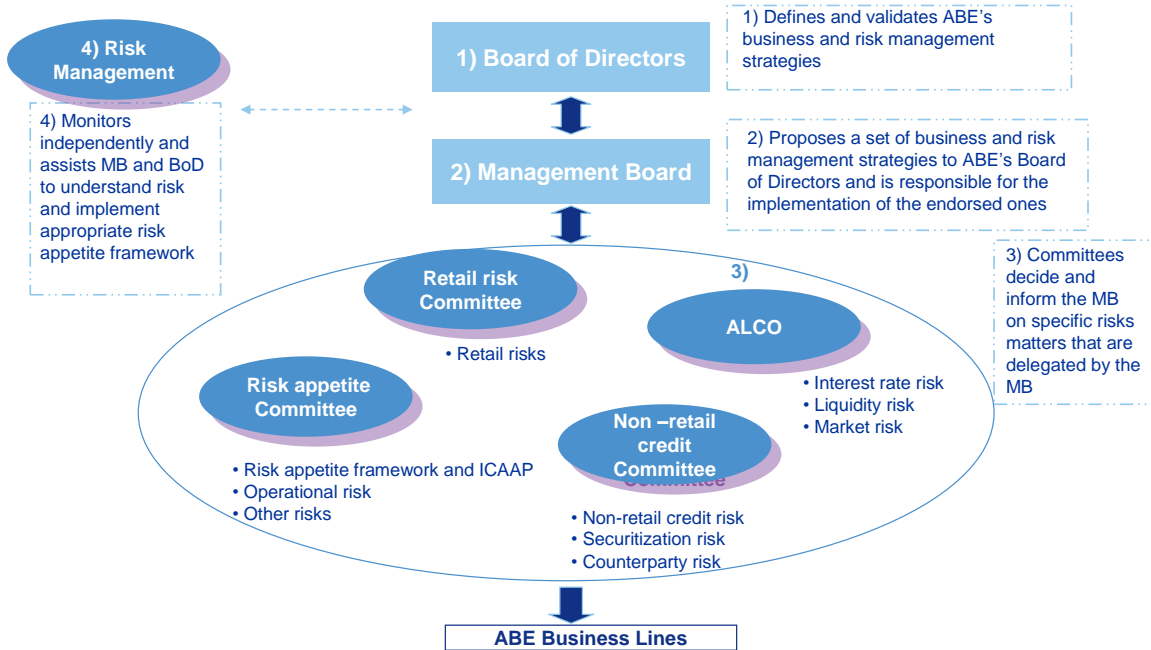
The economical and political situation in Hungary remains unstable however. Therefore, in January 2012, AXA Bank Europe has decided to stop the production of new credits in Hungary. The mix of governmental decisions and mitigation measures undertaken by the Bank has reduced the exposure of the Bank's credit portfolio in Hungary by 15% in December 2012 compared to one year earlier (section 4.1.4). The Bank is closely monitoring the legislative decisions that may impact its Hungarian activities.

## **Low risk appetite for the intermediation activities with AXA Group entities**

AXA Bank Europe is providing insurance entities of AXA Group access to the financial markets. All positions related to this activity are back-to-back, i.e. each transaction with an AXA insurance entity is closed by a mirror position with the financial market. The required capital for market risk associated with these activities is therefore close to zero and the Bank has adopted a strict limit and collateralisation framework in order to minimise the counterparty risk of this activity. More details can be found in 4.2 and 5.2.

# 1 Risk Governance

The following flow-chart provides a graphical summary of AXA Bank Europe's risk management governance and organisation:



## 1) Board of Directors

AXA Bank Europe's Board of Directors defines the strategy and the key metrics that establish the levels of acceptable risks that can be engaged by the bank's business lines and branches. It also provides the final validation for proposed organisational and reporting structures set-up for the management of risks.

## 2) Management Board

AXA Bank Europe's Management Board is responsible to ensure that risk management strategies are implemented and followed. It makes certain that the bank's risk appetite framework is respected. Although, for efficiency purposes, it needs to delegate some risk management governance tasks to certain specialized risk committees (see below), it monitors and endorses / reverses (when required) their key decisions. It also reviews consolidated risk reports.

### **3) Specific Risk Committees**

Specific risk committees are responsible to monitor and apply the specific risk strategies set by AXA Bank Europe's Management Board (in line with the plans and targets set by AXA Bank Europe's Board of Directors). The following Committees are reporting to the Management Board:

- Retail Risk Committee = Retail risks
- Non Retail Credit Committee = Non retail credit risk
- Assets & Liabilities Committee (ALCO) = Liquidity risk, interest rate risk & market risk
- Risk Appetite Committee = Operational risk, other risks and risk aggregation

These specific risk committees

- can decide within their delegated scope but must inform the MB of their decisions and need to present to the MB strategic decisions/ frameworks for validation;
- monitor and analyse consolidated risk reports;
- validate and endorse risk indicators and models;
- monitor the adequacy of AXA Bank Europe's risk infrastructure and risk models (stress testing, back testing and calibration).

Their specific roles and responsibilities are described within AXA Bank Europe's specific Risk Management Charters and in the charters of the committees (the charters of the committees are available upon request at the AXA Bank Europe Corporate Secretary working in AXA Bank Europe's Communication and HR department). The table below maps the different risk charters to the different risk committees.

<b>Committees</b>	<b>Risk Scope</b>	<b>Risk Charters</b>
Retail Risk Committee	Retail risks (linked to credit, savings etc)	Retail Risk Management Charter
Non Retail Credit Committee	Non retail credit risk, Securitization risk Counterparty risk	Non Retail Credit Risk Management Charter
Risk Appetite Committee	Risk Appetite Framework, Operational risk, Other risks	Operational Risk Management Charter, Other Risk Management Charter
ALCO	Interest rate risk, Market risk, FX Risk & Liquidity risk	Interest Rate Risk Management Charter (for the description and responsibility of the committee), Market Risk Management Charter and Liquidity Risk Management Charter

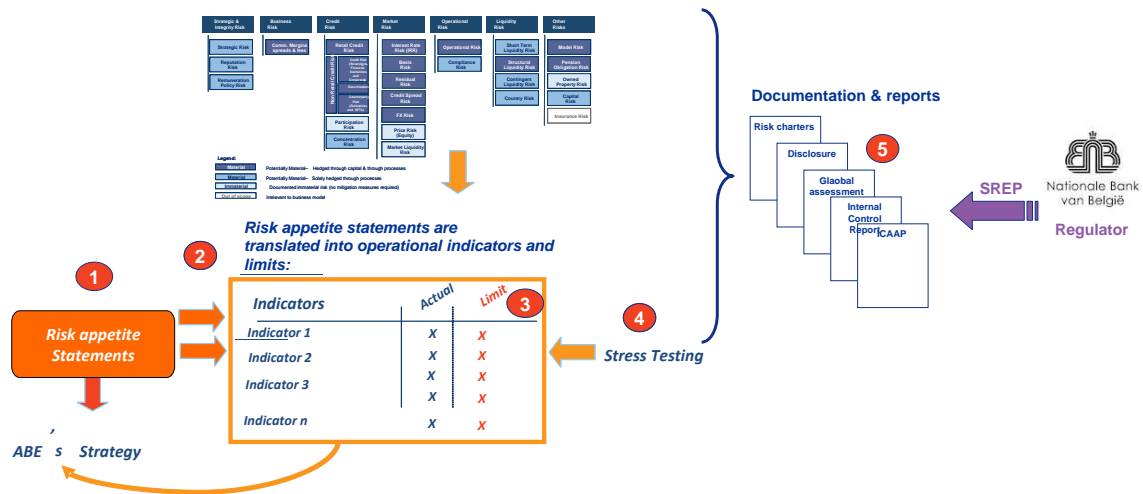
### **4) Risk Management**

As an independent control function (independent from the business lines) sitting on AXA Bank Europe's Management Board and reporting to its CEO, AXA Bank Europe's Risk Management department assists AXA Bank Europe's Board of Directors, Management Board and specialized risk committees to manage the bank's risks. It acts as the second line of defence in terms of risk management, after the business lines who are frontline and therefore first responsible to manage their risks.

## 2 Risk Appetite Framework

AXA Bank Europe's Risk Appetite Framework implements AXA Group's risk appetite approach, although making the required amendments to cater for banking specificities.

The process is depicted in the chart below:



**1. Risk appetite:** AXA Bank Europe's risk appetite is integrated into AXA Bank Europe's strategic plan process and is reviewed over the year. AXA Bank Europe's risk appetite is expressed in terms of risk appetite statements. Statements cover for the moment two dimensions: Solvency and Liquidity.

ABE Risk Statements		
Solvency	K1	The Economic Capital consumption x 125% should always be lower than the Basel III eligible capital (Tier 1 + Tier 2)
Liquidity	L1	The available liquidity resources for the internal liquidity indicator under <b>1 month</b> time horizon should always be higher than the stressed requirements + €500 MIO
	L2	The available liquidity resources for the internal liquidity indicator under <b>1 year</b> time horizon should always be higher than the stressed requirements + €500 MIO

**2-3. Operational indicators and limits:** AXA Bank Europe's risk appetite is further translated into operational indicators and limits which are used to keep identified risks at desired levels. Operational indicators and limits differ from risk to risk.

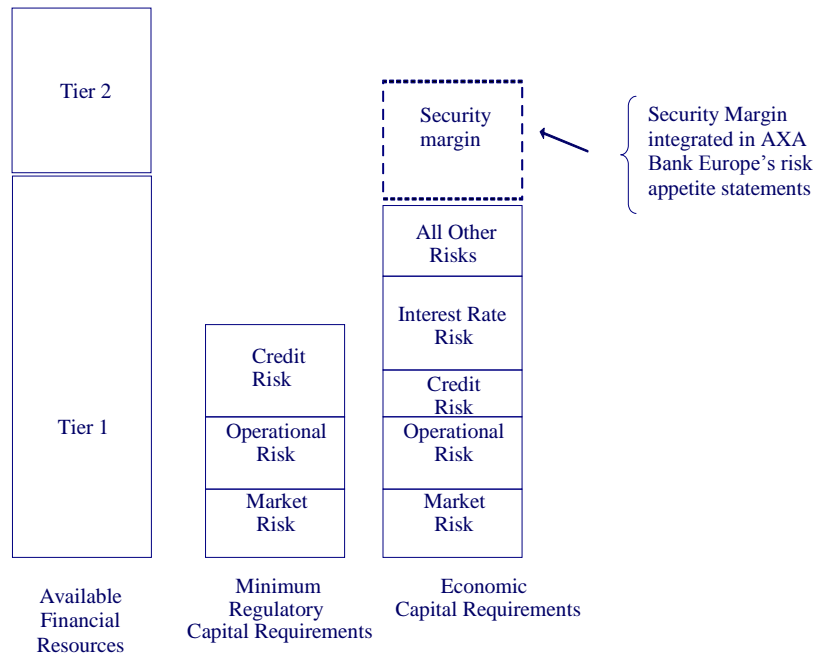
**4. Stress testing:** AXA Bank Europe is performing a global stress testing under Pillar 2. Its purpose is to assess the effects of exceptional (but plausible) events on an institution's financial condition. More details are provided under the stress-testing section of this report.

**5. Documentation:** AXA Bank Europe's risk appetite and risk management processes are documented and reported in various reports for internal and external use (regulator, external and internal audit).

# 3 Capital adequacy

## 3.1 Context

Under the EU Capital Requirements Directive (CRD), Capital Adequacy Directive (CAD) as well as the international Basel accords, banks such as AXA Bank Europe must maintain a minimum level of own funds to cover their credit, market and operational risks. This obligation is known as the (Pillar 1) “minimum regulatory capital requirement”. Banks must also have in place sound, effective and complete strategies and processes to assess and maintain on an ongoing basis the amounts, types and distribution of internal capital that they consider adequate to cover the nature and level of the risks to which they are or might be exposed to. This obligation is known as the (Pillar 2) “economic capital requirement”.



Under each pillar, the “available financial resources<sup>2</sup>” of the bank are compared to measured “capital requirements”. The differences between the two pillars are due to their measurements methodologies<sup>3</sup> and the scope of the risks that are covered<sup>4</sup>.

<sup>2</sup> There is a difference in available financial resources measured in BGAAP and in IFRS. In fact, Tier 1 capital is lower in BGAAP, than in IFRS. The major reason for the difference is due to the Front-end commissions paid to the agents: In BGAAP these are part of intangible assets and have to be amortized in maximum 5 years. In IFRS there are part of credit and are amortized during the life cycle of the loan.

<sup>3</sup> Under Pillar 1, the methods are defined by the regulator whilst the methods are defined by AXA Bank Europe under Pillar 2.

<sup>4</sup> Only three risks are covered under Pillar 1, whilst the material risks with capital buffer are covered under Pillar 2.



### 3.1.1 AXA Bank Europe's capital adequacy objectives

In terms of risk management, AXA Bank Europe's capital objectives are the following:

- Pillar 1 - Minimum Capital Requirement (regulatory capital vs. own funds)

AXA Bank Europe's Pillar 1 objective is to maintain sufficient own funds to exceed Pillar 1's minimum regulatory capital requirements by a sufficient margin. Basel III introduced a series of stricter capital requirements (see *BIS publication Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010*) and some of them have entered into force starting on January 1st 2013. In its capital planning, AXA Bank Europe is fully integrating the upcoming Basel III requirements to assure the compliance to the stricter regulation in the coming years.

Below is a table of Basel III regulatory requirements and its evolution:

(shading indicates transition periods - all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio		Supervisory monitoring	Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials )				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						

➤ Pillar 2 – Economic Capital Requirement (economic capital vs. available capital)

AXA Bank Europe’s main Pillar 2 objective is to remain sufficiently capitalized to be able to cover all of its material risks at all times calculated with a 99.90% confidence interval over a one year period<sup>5</sup>. This obligation is above AXA Group SA’s requirements (99.5%).

Usually, a 99.90% level is roughly equivalent to the default risk between a ‘A-’ and ‘BBB+’ rated bond. Nevertheless, because AXA Bank Europe belongs to AXA Group SA, it benefits from a higher target rating equivalent to the default risk of an ‘A’ rated bond. AXA Bank Europe’s rating primarily reflects its status as a core member of the AXA insurance group. AXA Bank Europe belonging to a conglomerate, capital management issues are primarily addressed at holding level (AXA SA). Debt holders, policyholders, regulators and rating agencies are primarily concerned with the solvency of the institution (AXA SA).

AXA Bank Europe has integrated a security buffer in its risk appetite statement on economic solvency. As such, AXA Bank Europe’s Pillar 2 economic capital requirements, defined through Pillar 2 methodologies plus the security buffer of 25%, must, at all times, be less than internal available capital.

### 3.1.2 Available Capital Resources

Under Basel II, AXA Bank Europe’s available capital can be defined from a (Pillar 1) regulatory perspective and from a (Pillar 2) economic perspective.

- Pillar 1 Capital is named “Regulatory Own Funds”.
- Pillar 2 Capital is named “Internal Available Capital”.

The main difference is that Pillar 1 capital is measured through regulatory given methodologies while Pillar 2 capital requires an internal definition.

Regulatory own funds	Pillar 1	Capital measured through regulatory defined methodologies that banks maintain and which must exceed regulatory capital requirements. AXA Bank Europe measures its capital requirements in compliance with NBB circulars.
Internal available capital	Pillar 2	Capital measured through internally defined methodologies that banks maintain and which must exceed current and forecasted economic capital requirements. Some capital which does not qualify as “own funds under Pillar 1” can be added to cover economic capital requirements if it can be demonstrated that it is of sufficient quality.

Due to the simplicity of its capital structure, AXA Bank Europe’s definition of internal available capital is based on the “regulatory own funds definition”. This means that Basel II (and gradually as from 2013 Basel III) requirements are applied on both Pillar 1 and Pillar 2 available capital definitions.

<sup>5</sup> AXA Bank Europe does not use a one year time horizon to measure all of its risks. Some risks are evaluated on a shorter horizon since their exposures are easier to hedge or sell in time of stress.

### 3.2 AXA Bank Europe's capital measures

**Regulatory capital requirements:** AXA Bank Europe measures its regulatory capital requirements using the following methods more specifically described in the following specific risk management charters:

Risks:	Method:	Method defined in:
Retail Credit – Belgium	IRB	Retail Risk Management Charter
Retail Credit – Hungary	SA	Retail Risk Management Charter
Securitization (Residential Mortgage Backed Securities)	IRB	Non Retail Credit Risk Management Charter
Securitization (Not Residential Mortgage Backed Securities)	SA	Non Retail Credit Risk Management Charter
Non Retail Credit (Sovereigns, Financial Institutions, Corporate)	SA	Non Retail Credit Risk Management Charter
Counterparty	SA	Non Retail Credit Risk Management Charter
Market	SA	Market Risk Management Charter
Operational	BIA	Operational Risk Management Charter

Note: IRB is the Internal Rating Based Approach. SA is Standardised Approach and the BIA is the Basic Indicator Approach.

**Economic capital requirements:** Under Basel II principles, the measurement of economic capital requirements must take into account ① all identified material risks. It must also take into account ② planned (expected) business growth. As some risks are correlated to others, the measurement of economic capital requirements may also be reduced for ③ diversification benefits. AXA Bank Europe may also adjust (increase when relevant) its capital requirements based on its analysis of ④ stress testing exercises. Under some rare (but possible) circumstances, AXA Bank Europe could be required to take a ⑤ “Pillar 2 buffer” under Pillar 1.

From a Pillar 2 perspective, AXA Bank Europe's excess capital can be measured by subtracting from AXA Bank Europe's available internal capital, its total economic capital requirement as defined above. The available capital must always exceed AXA Bank Europe's total economic capital requirements.

AXA Bank Europe measures its economic capital requirements by using the methods described in the table below:

Risks:	Method:
Retail Credit – Belgium	Asymptotic Single Risk Factor model
Retail Credit – Hungary	Compounded V@R at 99.9% (Direct credit risk) + Indirect credit risk (Stress scenario)
Non Retail Credit AXA Bank Europe HO	Approach similar to SA
Market Risk Trading Book	Montecarlo V@R 99,9%
Operational Risk	Montecarlo V@R 99,9%
Market Risk Banking Book	Montecarlo V@R at 99.9%
Business Risk	Parametrical V@R at 99,9%
Credit Risk – Other branches	Basel II Standardised approach

In order to assess capital requirements on a forward looking basis, AXA Bank Europe's risk appetite capital allocation process is done in coordination with the strategic plan (in the last quarter of the year) during the yearly budget process. Capital requirements are forecasted for every business line/activity by using the assumptions embedded in the strategic plan figures. The final figures are allocated to the business lines.

Under Basel II, economic capital requirements must be adjusted (and reduced) for diversification benefits between risks. AXA Bank Europe's correlation matrix aims at estimating correlations between business lines (currently between retail Belgium, retail Hungary and non retail) as well as correlations between risk types (currently credit, market & operational). Once defined, diversification benefits are allocated by AXA Bank Europe's Risk Appetite Committee and/or AXA Bank Europe's Management Board to AXA Bank Europe's activities.

In compliance with ICAAP requirements, AXA Bank Europe may adjust (increase when relevant) its Pillar 2 economic capital requirements based on its analysis of stress testing exercises (see previous section).

### 3.3 Capital Adequacy for 2012

AXA Bank Europe is sufficiently capitalised both from a regulatory and economic point of view. The Bank is having a comfortable excess above the regulatory capital requirements and above the internal economic capital limit.

#### 3.3.1 Regulatory Capital Requirements

The regulatory requirements are based on the concept of Risk Weighted Assets (RWA). The RWA for AXA Bank Europe under the Basel II rules are €4 460 million on December 2012. By taking 8% of the RWA, the Basel II rules impose a minimum level of €356 million available capital. Having €1.068 million of available capital<sup>6</sup>, AXA Bank Europe largely exceeds this minimum level.

In the European Requirements Directive, a minimum solvency requirement has been imposed on institutions that are using an internal model for credit and/or market risk. This floor is based on the old Basel I framework and implies that the RWA can not be lower than 80% of the Basel I rules. The rigid Basel I framework is not recognising for instance the specific strong creditworthiness of mortgage loan owners. Therefore, the low risk profile of AXA Bank Europe's portfolio of Belgian mortgage loans is not recognised in the Basel I requirements while the internal Basel II model of the bank takes specific risk profile of its client into account. This explains why the RWA of the Basel I Floor are more than 2 times higher than the RWA Basel II. The Basel I Floor will disappear in 2018.

Table 1 depicts the Bank's Basel II capital requirements. Even taking this conservative Basel I floor into account, the bank is still having a capital excess of €269 million.

Basel II Minimum Capital Requirements (Pillar 1)	31/12/2012
<i>RWA Basel II in 000s €</i>	4.916.726
<i>RWA Basel I Floor in 000s €</i>	9.986.647
Available capital in 000s € (Tier 1 + 2)	1.068.901
<b>CRD ratio</b>	<b>10,70%</b>
Regulatory capital excess in 000s €	269.970

Table 1: AXA Bank Europe's regulatory capital ratio at consolidated level

<sup>6</sup> More details on the available capital can be found in the 2013 IFRS Accounts section 4.10.

### 3.3.2 Economic Capital Requirements

At the end of December 2012, AXA Bank Europe's economic capital consumption was €531 million. AXA Bank Europe is challenging the economic capital consumption by its available capital (Tier 1 + 2) and integrates an additional conservatism in this assessment via its internal risk appetite limit. This internal risk appetite limit states that the economic capital consumption plus a buffer of 25% should always be lower than the available capital (as described in section 2). On December 2012, this upper limit for the economic capital consumption can be obtained by dividing the available capital by 125% to end up with an upper limit of €855 million. With a capital consumption of only €531 million, AXA Bank Europe is far below its internal limit (see Table 2).

Economic Capital Requirements (Pillar 2)	31/12/2012
Available Capital in 000s € (Tier 1 + 2)	1.068.901
Economic Capital consumption in 000s €	531.162
Internal limit on Economic Capital consumption in 000s € = <i>risk appetite statement on solvency</i>	855.121
Excess above internal risk appetite limit	324.059

Table 2: Economic Capital consumption

AXA Bank Europe's economic capital consists of 7 major capital buffers. The 2 most important capital buffers are those for Credit Risk in Hungary and Market Risk of the Banking book. The size of the buffer for Hungary reflects the challenging macroeconomic and political situation of the Hungarian credit loan portfolio which is put on run-off (section 4.1.4 provides more details on the exposure in Hungary). The economic capital for Market Risk Banking book covers the interest rate risk which is inherent in the Bank's retail activities (see section 5.1 for more details).

Credit Risk Belgium consumes only 16% of the Bank's total economic capital. This relatively low consumption for a portfolio of €15 billion of loans underlines the good quality of the portfolio (see section 4.1.3). Next, non-retail credit risk accounts for 14% of the economic capital buffer. As the Bank applies a conservative investment strategy which is incorporated in a strict limit framework, the bank has significantly reduced its exposure to structured products and positions in PIIGS-countries. Furthermore, derivatives and money market transactions are mitigated through a strict collateral policy, both for transactions with AXA Insurance entities and external counterparties. Section 4.2 provides a zoom on the non-retail exposures.

Operational Risk represents 8% of the economical capital consumptions. The advanced internal model for Operational Risk incorporates the mitigation actions already implemented at the different departments of the Bank (section 6). Finally, the buffer for business risk covers the potential decrease of the margins on the commercial activities.

Figure 3-1 illustrates the different components of AXA Bank Europe's economic capital buffer.

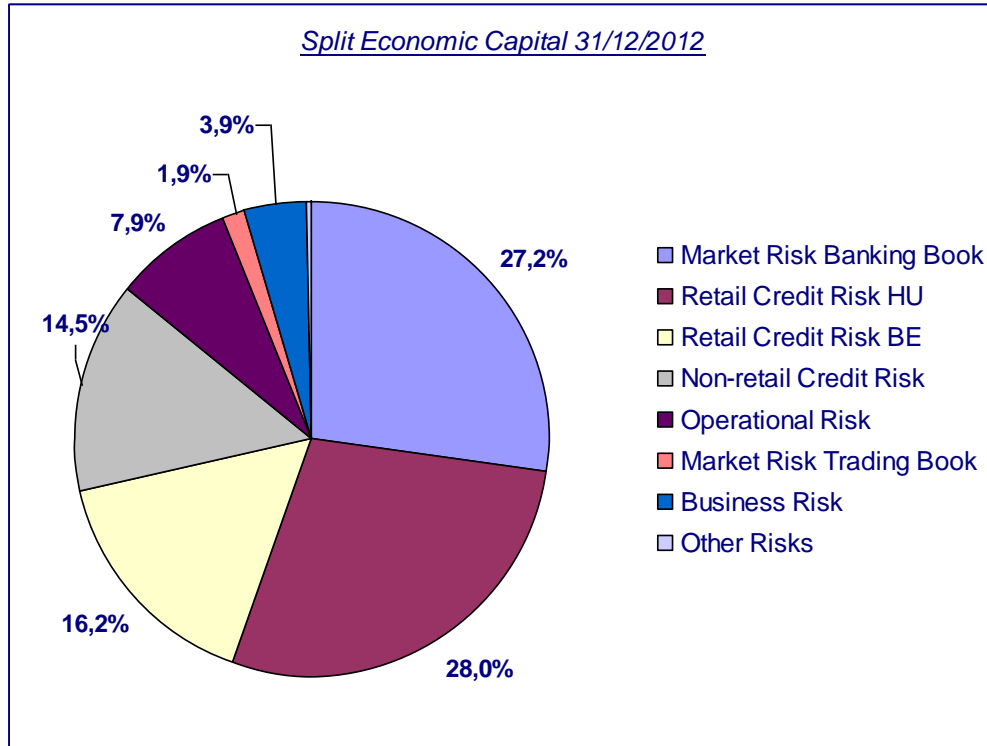


Figure 3-1: AXA Bank Europe's Economic Capital Consumption

## 4 Credit risk

AXA Bank Europe defines credit risk as the negative consequences associated with the default<sup>7</sup> or deterioration in credit quality<sup>8</sup> of counterparties in lending operations.

The goal of credit risk management is to insure that a (set of) credit event(s) would not significantly threaten the bank's solvency nor profitability. In order to reach this objective, credit risk exposures are maintained within strict boundaries. The effective management of credit risk is a critical component of a comprehensive approach to risk management and is essential to the long term success of any banking organization.

Within AXA Bank Europe, credit risks are categorized as either retail credit risks or non retail credit risks and managed accordingly.

### 4.1 Retail credit risk

AXA Bank Europe's main business is to provide retail credit facilities to private individuals, professionals and small businesses in selected European countries. In 2012, such facilities were offered in Belgium only (there was no new production in Hungary and credits in the Czech Republic were still in the starting-up phase).

<sup>7</sup> Counterparty not able to fulfil contractually agreed financial obligations.

<sup>8</sup> Potential loss due to change in the fair value of credit exposures as a result of rating transitions of counterparties.

#### 4.1.1 Risk management governance

The management of AXA Bank Europe's retail credit risk is formalized by a Retail Risk Management Charter. This charter applies to AXA Bank Europe and to all of its branches and subsidiaries. It sets the organization, risk appetite framework, product approval processes and modelling requirements that must be followed internally to mitigate AXA Bank Europe's retail credit risk exposures. It is completed by (local) business & credit policies which provide the procedures for the day to day management of retail credit risks.

The governance of AXA Bank Europe's retail credit risk management can be summarized as follows:

- **AXA Bank Europe' Board of Directors** and **AXA Bank Europe's Management Board** assume the responsibilities described in chapter 1 of this report.
- **AXA Bank Europe's Retail Committee** oversees the bank's credit strategies defined by AXA Bank Europe's Board of Directors and instructed and implemented by AXA Bank Europe's Management Board. It reviews and approves (local) retail credit risk policies. It monitors and analyses consolidated retail credit risk reports. It validates credit risk indicators and models. It monitors the adequacy of AXA Bank Europe's retail credit risk infrastructure and risk models (stress testing, back testing and calibration).
- **The management committees of local branches** ensure that AXA Bank Europe's retail credit risk management strategies are implemented and followed locally. They also ensure that the retail credit exposures taken by the branches remain within local risk appetite limits and that local retail credit risk indicators and models are properly developed and used.
- **Local credit business lines** are responsible for the acquisition, management and recovery of retail credits. They act as the first line of defence in the management of retail credit risk. They are responsible to propose (or amend) retail credit products and policies. In some branches and subsidiaries, they also maintain a local modelling team which works closely with AXA Bank Europe's (head office) modelling team to set up and maintain the appropriate risk indicators and models described below.
- As a control function (independent from the business lines), **AXA Bank Europe's Risk Management** department assumes the responsibilities described in chapter 1.



### 4.1.2 Capital requirement assessment

AXA Bank Europe measures its minimum capital requirements for retail credit risk in the following way.

In Belgium all mortgage loans, consumer loans and professional loans are measured by an Internal Rating Based (IRB) model. Some less important and rather atypical credit products in Belgium are measured by the Basel II Standardised Approach. These credits under the Standardised Approach represent less than 10% of the capital requirements of credits under IRB. The credit loan portfolio in Hungary and Czech Republic are measured by the Standardised Approach.

Retail credit risk exposures by country and approach (on 31/12/2012)	Minimum regulatory capital requirements (Consolidated in '000 €)
Belgium - Internal Rating Based Approach	141 409
Belgium - Standardised Approach	12 045
Hungary - Standardised Approach	34 169
Czech Republic - Standardised Approach	32
<b>Total:</b>	<b>187 657</b>

Table 3: Split of AXA Bank Europe regulatory capital requirements by approach and country (situation 31/12/2012)

The following three sections describe the risk exposures and risk management specificities applicable to AXA Bank Europe's retail credit exposures in Belgium and Hungary.

### 4.1.3 Retail credits in Belgium

The risks on AXA Bank Europe's Belgium mortgage credits, personal loans and professional credits are managed in four phases (acquisition, management, remedy and recovery) based on retail credit policies.

1. **Credit acquisition:** During this phase, specific proposals are made for clients based on predictive acquisition Probability of default (PD) models.
2. **Management:** During this phase, retail credit risk management models use behavioural information on a client per client basis to refine their individual scores. The credits are divided into different "pools". A "pool" is a group of contracts that are relatively homogenous in terms of Probability of default (PD) and Loss given default (LGD) compared to other contracts within the retail portfolio. This gives the bank a better visibility on the quality of its retail credit risks allowing taking better risk and business decisions.
3. **Remedy:** This phase occurs when the client does not respect its contractual obligation. The bank tries to find an agreement with the customer on how to pay their credit arrears.
4. **Recovery:** This is the last phase and specific actions are taken by the bank in order to recover the amount due.

As depicted in Table 1, almost all Belgian credit loans are measured by IRB models. These internal predictive models are developed in compliance with Basel's II Internal Rating Based Approach, which is mainly split in:

- Probability of default (PD) of retail credits (incl. acquisition and behavioural model)
- Loss given default (LGD)
- Exposure at default (EAD).

The input data of these models consist of product characteristics, demographic data, financial data and external data that must meet certain quality criteria, as well as historical data concerning the actual annual loss.

In compliance with regulatory expectations, AXA Bank Europe performs stress testing for retail credit risk. It does so mostly to assess how robust AXA Bank Europe's IRB predictive models (used for regulatory capital purposes) react under stressed situations.

The evolution of the credit risk is actively tracked as part of the reporting for the Retail Risk Committee which reviews the risk on a regular basis. All these principles lead to a highly effective risk management system with control processes that prevent undesired manipulations. This system is strongly integrated into the operations of the "Retail Credits" division and is subject to continuous monitoring.

The observed default rate (over a one year horizon) in the Belgian portfolio has slightly increased from 1,20% on December 2011 to 1,47% on December 2012. Therefore, AXA Bank Europe has implemented measures to counter any risk deterioration like for instance the tightening of the credit acceptance policy on mortgage loans and a review of the credit product range.

#### Zoom on the exposures in Belgian credit portfolio

The following two tables provide quantitative information concerning the nature and performance of AXA Bank Europe's retail credit exposures in Belgium.

Table 4 provides information concerning those exposures measured through AXA Bank Europe (Belgium Branch)'s Internal Rating Based approach. Within this approach, it should be noted that AXA Bank Europe categorizes its exposures through 10 buckets. Exposures in buckets 1 to 9 are considered performing while exposures in buckets 10 are considered non-performing.

Loan Types by IRB Approach	Buckets	EAD (in '000€)		RWA (in '000€)		Provisions (in '000€)	
		31/12/2011	31/12/2012	31/12/2011	31/12/2012	31/12/2011	31/12/2012
		Mortgage	1-9	11.778.630	13.056.650	846.356	1.142.272
10	116.988		150.698	16.942	37.343	16.196	22.339
Consumer	1-9	1.013.121	1.012.897	342.300	342.943	2.574	1.993
	10	29.866	37.220	0	0	11.833	17.302
Commercial	1-9	1.437.666	1.410.870	235.972	232.320	1.230	1.236
	10	44.788	45.393	9.452	12.738	14.126	15.678

Table 4: Split of Belgian retail credit risk exposures measured by Basel IRB Approach

The second table provides details on those retail credit exposures in Belgium that remain measured by Basel II Standardised Approach.

Loan Types by Standard Approach	EAD (in '000€)		RWA (in '000€)		Provisions (in '000€)	
	31/12/2011	31/12/2012	31/12/2011	31/12/2012	31/12/2011	31/12/2012
Mortgage	14.615	-	5.155	-	-	-
Commercial	112.407	121.454	99.693	108.340	5.180	5.992
Current Accounts	61.236	61.925	41.455	42.224	7.556	6.891
Consumer	10	-	8	-	-	-

Table 5: Split of retail Belgian credit risk exposures measured by Basel II Standardised Approach

A total of €153 million required capital for a credit portfolio of €15 146 million, from which 83% mortgage loans measured by IRB models, shows that the Belgian credit portfolio has a low risk profile.

Loans per Approach	EAD (in '000€)		RWA (in '000€)		Required capital (in '000€)	
	31/12/2011	31/12/2012	31/12/2011	31/12/2012	31/12/2011	31/12/2012
IRB	14.421.059	15.713.728	1.451.022	1.767.616	116.082	141.409
Standard	188.268	183.379	146.311	150.564	11.705	12.045
<b>Total</b>	<b>14.609.327</b>	<b>15.897.107</b>	<b>1.597.333</b>	<b>1.918.180</b>	<b>127.787</b>	<b>153.454</b>

Table 6: Credit risk exposure, RWA and required capital per approach

#### 4.1.4 Retail credits in Hungary

Due to the run-off situation of the mortgage portfolio in Hungary, the Hungarian branch of AXA Bank Europe manages its retail credit risk through daily management and recovery phases. The daily management has the objective to develop mitigation

measures to help debtors in difficulties. First, AXA Bank Europe proactively promotes the new government program that reduces the monthly instalments for the next 5 years by fixing the exchange rate between Swiss Franc and Forint at 180. Second, the Bank encourages the debtors to convert their combined loans into annuity loans. Last, the Bank is proposing specific solutions to help debtors in default (e.g. review of payment scheme) and to maximise the value of the collaterals that must be sold (e.g. involvement of the debtors in the sale).

AXA Bank Hungary's retail credits are measured through the Basel II Standardised Approach. AXA Bank Europe planned to implement the IRB approach for its Hungarian credits but this project was cancelled, since AXA Bank Europe decided to put retail credit activities in run-off in December 2011. The regulator agreed to stop the project by considering the standardised approach more appropriate to the current situation in Hungary.

#### Zoom on the exposures in Hungarian credit portfolio

On the 31 December 2012, the outstanding portfolio amounts to € 1.249 million. The largest part of this exposure is denominated in Swiss franc (€849 million).

Currency of loan	Exposure in € million
Loans in EUR	12
Loans cancelled and converted in HUF	126
Loans in HUF	262
Loans in CHF	849
<b>Total loans in Hungary</b>	<b>1.249</b>

Table 7: Breakdown Hungarian credit portfolio by currency

## **4.2 Non retail credit risk and large exposure**

Besides retail related credit risk, AXA Bank Europe incurs credit exposure to high quality counterparties and issuers through its portfolio management, treasury and asset & liability management activities.

Since 2009, AXA Bank Europe is also designated by AXA Group to act as a centralised platform which provides AXA Insurance entities access to financial markets. As part of these activities, AXA Bank Europe incurs credit exposure related to derivative products and money market instruments but this exposure is fully covered by the Bank's limit and collateralisation framework.

AXA Bank Europe is subject to the large exposures limit framework described in articles III.4 & III.5 of the CBFA circular 2007-1- CPB, transposed from articles 106-119 of the EU CRD and updated in 2011 with circular letter CBFA\_2011\_03 dated 27 January 2011. On a quarterly basis, a large exposure report is submitted to AXA Bank Europe's regulator.

#### 4.2.1 Risk management governance

The management of AXA Bank Europe's non retail credit risk is centralized at its head office. The key governing bodies being:

- **AXA Bank Europe's Board of Directors** and **AXA Bank Europe's Management Board** assume the responsibilities described in section 1 towards the management of non retail credit risk.
- **AXA Bank Europe's Non Retail Credit Committee** has been setup to oversee the bank's non retail credit exposures. It meets on a monthly basis and its members are the CRO, the Head of Non Retail Credit Risks, the Head & Deputy Head of Financial Services and AXA Bank Europe's CEO and CFO. Relevant specialists from the AXA Bank Europe Risk department and from the Treasury and Investment departments may attend as well. It approves new counterparties and investments (in compliance with AXA Bank Europe's risk appetite framework). It reviews non retail credit and securitization risk reports. It also validates and ensures the maintenance of AXA Bank Europe's non retail credit and securitization indicators and models.

AXA Bank Europe's Impairment Committee receives a delegation from AXA Bank Europe's Management Board to set appropriate provisions with regards to AXA Bank Europe's non retail credit and securitization exposures.

AXA Bank Europe's Financial Services Department (consisting of Treasury and Portfolio management & Asset and Liabilities Management (ALM) and Investment products services) are the first line of responsibility for the management of non retail credit and securitization risks. They must respect AXA Bank Europe's non retail credit risk mitigation measures.

As a monitoring & control function (independent from the business lines), AXA Bank Europe's Risk Management department assists the Bank's Board of Directors, Management Board and Non Retail Credit Committee in managing the bank's non retail credit risk.

#### 4.2.2 Capital requirements assessments

On the 31 December 2012, AXA Bank Europe measured its minimum regulatory requirements for non retail credit risk as follows:

Minimum Regulatory Capital Requirement	31/12/2012 (Consolidated) (€ million)
Non Retail Credit Risk	103

### 4.2.3 Exposures

Table 8 illustrated the exposures in AXA Bank Europe's non-retail investments expressed in market value. The Bank's conservative investment strategy is reflected in its exposure. Sovereigns and Supranationals report for 85% of the total market value of the investments. These investments only account for a required capital of €0,7 million (line "Government Bonds" in Table 10).

The portfolio of structured products of €678 million which is in run-off represents less than 10% of the total non-retail investments. The portfolio mainly consists of high rated products with the following split:

- AAA : €155 million
- AA : €203 million
- A : €208 million
- < A- : €122 million

Exposure per type of counterparty	31/12/2012 Market Value (€ million )
Sovereign	6.187
Supranational	261
Structured products	678
Certificate of deposits	150
Covered Bonds	133
Corporate Bonds	133
Financial Institutions	117
Funds	2,1
<b>TOTAL</b>	<b>7.662</b>

Table 8: Exposure of AXA Bank Europe's investments on 31/12/2012

On 31 December 2012, AXA Bank Europe is having less than €500 million of investments in PIIGS countries. During 2012, the Bank has successfully liquidated its position in Ireland and Greece. Table 9 details the Banks exposure to Italy, Portugal and Spain.

PIIGS Exposure on 31/12/2012	Italy Market Value (€ million )	Portugal Market Value (€ million )	Spain Market Value (€ million )	Total PIIGS Market Value (€ million )
Corporate Bond	14	4	18	35
Financial Bond	13	6	13	32
Sovereign	101	15	0	116
Structured product	71	45	191	307
<i>Total Country</i>	<i>199</i>	<i>70</i>	<i>221</i>	<i>491</i>

Table 9: Split of exposures to PIIGS countries on 31/12/2012

The required capital for non-retail credit risk is €103 million. Within this amount, there are 3 major categories of exposures as shown in Table 10:

1. loans to other financial institutions and papers of financial institutions (€29,6 million required capital)
2. structured products, and more in particular ABS and MBS (€28,4 million required capital)
3. money market transactions (repos) that AXA Bank Europe has cleared with London Clearing House requires a buffer account (€24,4 million required capital).

The majority of the repo and derivative positions that the Bank is taking are related to the activities with the AXA Insurance entities. AXA Bank Europe provides to AXA Group entities a centralised platform to access financial markets. This platform is used for plain-vanilla derivatives and standardised money market transactions (repos and reverse repos). Within this framework, all positions are back-to-back, which means that the positions with an AXA entity are backed by mirror transactions with the financial markets. The non-retail required capital for the derivative positions is €11,5 million (€5,2 million for derivatives with external counterparties and €6,3 for derivatives with AXA entities).

	<b>31/12/2012</b>
	(Consolidated)
<b>Required Capital per Product type</b>	(€ million)
Government Bonds	0,7
Financial Institutions (Loans and papers)	29,6
Corporate Bonds	6,7
Equity	0,0
Covered Bonds	1,1
Funds	0,2
ABS (Standard formula)	12,8
ABS securitisation (Standard formula)	3,0
MBS (most senior)	12,6
Repos with Financial Institutions	24,4
Repos with AXA Group Entities	0,4
Derivatives with Financial Institutions	5,2
Derivatives with AXA Group Entities	6,3
<b>TOTAL</b>	<b>103</b>

**Table 10: Split of Regulatory Capital Requirements for non-retail credit risk on 31/12/2012**

Further detailed information concerning AXA Bank Europe's total non retail credit exposures (including exposure on PIIGS) and concentration risk on 31 December 2012 can be found within sections 4.3.2, 4.3.3 and 4.4 of AXA Bank Europe IFRS Consolidated Financial Statements 2012.

### 4.3 Securitisation of retail credits

With its covered bond program, AXA Bank Europe wants to complement its traditional funding basis of retail deposits with another stable funding source. The strong underlying quality of AXA Bank Europe's retail mortgage portfolio in Belgium is the ideal collateral for a covered bond program. The Bank issued its first covered bonds in November 2010. Meanwhile, a total of €2.750 million covered bonds have been placed in the financial markets.

Covered bonds issuances by AXA Bank Europe (in million)		
Name	Date	Amount
Series 1	Nov 2010	€750
Series 3	April 2011	€500
Series 5	April 2012	€1.000
Series 7	Sept. 2012	€ 500
<b>Total</b>		<b>€2.750</b>

Table 11: Overview of the Covered Bond issuances

The securitisation process of AXA Bank Europe is illustrated in Figure 4-1. AXA Bank Europe sells a part of its retail mortgage loans portfolio to Royal Street<sup>9</sup>. On the balance sheet of Royal Street, the mortgages are repacked in Retail Mortgages Backed Securities (RMBS) with different tranches. Afterwards, AXA Bank Europe SCF<sup>10</sup> purchases the RMBS AAA senior notes of Royal Street. These RMBS are the collateral for the covered bonds issued by the SCF. The notional amount of the RMBS of the SCF is higher than the nominal amount of the issues covered bonds. This over-collateralization is financed by a senior loan granted by AXA Bank Europe to the SCF.

Disclosures on these originated securitisations and AXA Bank Europe SCF covered bond issuance can be found on the following websites.

Securitisation: <http://www.axabank.eu/eng/financialinformation-overview/royalstreet>

Covered bonds:

<http://www.axabank.eu/eng/financialinformation-overview/coveredbonds>

These disclosures detail the structure of the securitisation and covered bonds issuance, AXA Bank Europe's involvement in them and its governance. A quarterly investor report<sup>11</sup> completes the information in the above disclosure, by providing the markets with relevant quantitative information.

<sup>9</sup> Royal Street is a Belgian Securitisation vehicle, the purpose of which is to acquire residential mortgage loan receivables originated by AXA Bank Europe.

<sup>10</sup> AXA Bank SCF is a banking entity, subsidiary of AXA Bank Europe, created for the purpose of issuing covered bonds / obligations foncières for the benefit of its parent company AXA Bank Europe

<sup>11</sup> Also on the above mentioned website.



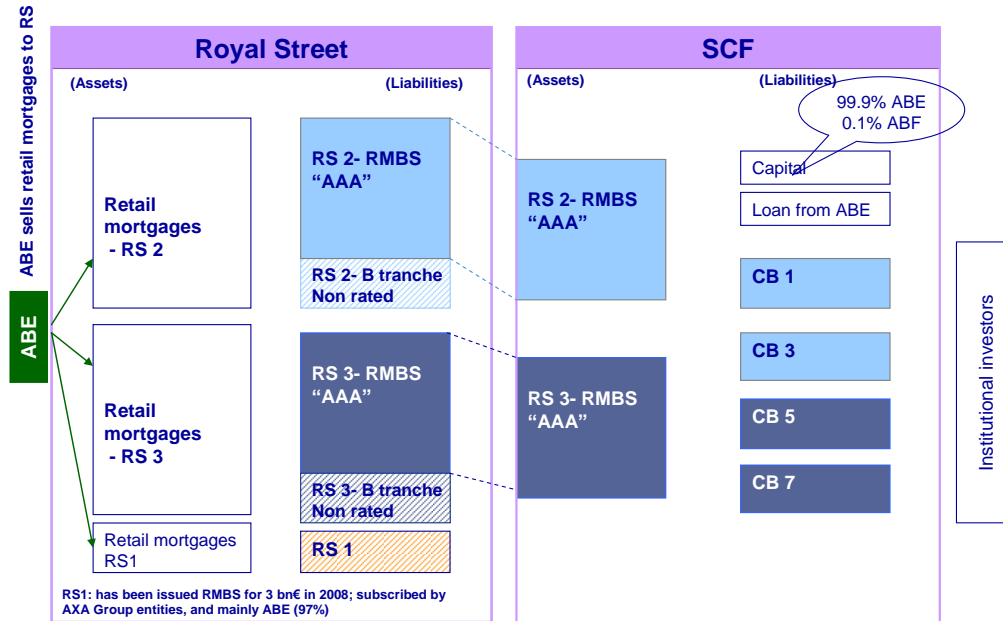


Figure 4-1: Overview of the AXA Bank Europe's covered bond process

## 5 Market Risk

AXA Bank Europe is dividing its market risk in 2 parts: market risk trading book which is covering the trading activities of the bank and market risk banking book which is covering the retail banking activities.

### 5.1 Market Risk Banking Book

The market risk in AXA Bank Europe's Banking book is principally the exposure to movements in interest rates of the Banking Book.

The interest rate risk is defined as the risk of potential adverse changes to the fair value of interest sensitive positions after movements in interest rates. Moreover, it also includes the sensitivity to movements in spreads between interbank rates and rate of government bonds, sometimes called basis risk.

AXA Bank Europe's business focus on retail banking means that the bank concentrates its credit exposures on lower risk prime mortgage loans. The corollary of this business strategy is that AXA Bank Europe is exposed to higher interest rate risk due to the long duration of a part of the mortgage portfolio.

#### 5.1.1 Risk management governance

The **Board of Directors** defines AXA Bank Europe's risk appetite and validates or proposes organizational and reporting structures for the management of the interest rate risk.

**AXA Bank Europe's Management Board** ensures that AXA Bank Europe's risk appetite is respected and delegates to ALCO the management and optimization of the Bank's interest rate risk position.

**AXA Bank Europe's ALCO** optimises the transformation result within the risk appetite limits set by AXA Bank Europe's Management Board. It takes decisions to manage the interest rate risk and allocates various envelopes to manage this risk.

**AXA Bank Europe's ALM department** reports on the Bank's structural interest rate risk to its senior management. It ensures that ALCO decisions pertaining to the management of structural interest rate risk are implemented. It also develops, calibrates and maintains AXA Bank Europe's interest rate risk indicators<sup>12</sup>.

**AXA Bank Europe's Treasury and Portfolio management department** take assets and liabilities positions, by executing ALCO's decisions.

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<sup>12</sup> Short term interest rate positions are managed by AXA Bank Europe's Treasury department in application and execution of ALCO decisions; See section 4, market risk banking book.

**AXA Bank Europe's Risk Management department** independently ensures that all sources of interest rate risk are identified, analysed, reported and managed.

**Financial Control Bank**, acting as a product control unit, is responsible for generating and reconciling AXA Bank Europe's balance sheet. As such, it provides its figures and various relevant reports to AXA Bank Europe's ALM and AXA Bank Europe's Risk Management departments.

### 5.1.2 Monitoring market risk in banking book

AXA Bank Europe uses different indicators to identify, measure, and analyse its sources and components of interest rate risk:

- The **Interest rate risk (IRR) Gap Indicators** that provide an assessment of the sensitivity to the interest rate risk which emanates from the difference in interest rate revision between assets and liabilities.
- The **Solvency Indicator** (option adjusted) is calculated and reported by AXA Bank Europe's ALM department to the ALCO. It represents the sensitivity of AXA Bank Europe's market value in case of a positive parallel shift on the interest rate yield curve with 200 basis points. This indicator equals to the difference between the market value calculated on the basis of the shifted curve and the market value calculated on the basis of the initial (end-of-month) curve.
- The **Economic Capital** for Interest Rate Risk and Basis Risk. The economic capital for interest rate risk is measured through a Monte-Carlo Value at Risk (V@R) analysis, with a confidence level of 99.9% and a holding period of two months. The model for Basis risk is a parametrical Value at Risk.

AXA Bank Europe also monitors and complies with a sensitivity indicators (on value and earnings) defined by its regulator<sup>13</sup>.

### 5.1.3 Exposures

The banking book of AXA Bank Europe including its branches consists of loans (€16,4 billion), deposits (€16,6 billion), banking book investments (€7 billion) and other funding sources including covered bonds and EMTNs (€4 billion).

The largest share of retail loans are mortgage loans (€13,8 billion). 44% percent of the mortgage loans have a fixed interest and 56% have a variable interest rate. The rates of the variable rates mortgages are linked to the evolution of the OLO<sup>14</sup> rates. The Belgian law imposes a cap on the variable interest rates of these loans but, given the historical low OLO rates, the embedded value for the client of this cap and the corresponding risk for the Bank are currently small.

The investments of the banking book are split in an "ALM portfolio" and "Credit Spread Portfolio". The ALM portfolio purely contains government bonds with a market value of

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<sup>13</sup> See CBFA Circulars #2006-17 and #2007-3.

<sup>14</sup> OLO stands for "Obligation Linéaire/Lineaire Obligatie" which is the abbreviation of Belgian Government Bonds

more than €4 billion with a concentration of their maturity between 3 and 7 year. The credit spread portfolio is a mix of government and supranational bonds (€1,5 billion) and other fixed income securities (€1 billion). The full notional amount of the credit spread portfolio is swapped (fixed against floating rate), which makes that this portfolio is not creating an additional interest rate gap. More details on the Bank's investments can be found in section 4.2.3.

On the liability side, the saving accounts represent €11,4 billion from which €3 billion consists of term deposits and certificate of deposits with a fixed interest rate.

In order to mitigate the interest rate risk and to keep the interest rate gap within the internal limits, the bank is actively managing a portfolio of derivatives for hedging purpose within its banking book activities.

## **5.2 Market risk trading book**

In 2012, AXA Bank Europe maintained a very conservative approach to market risk in its trading activities. AXA Bank Europe does not invest nor trade in commodities. Equity exposures already at negligible level and are in the process of being disposed of.

AXA Bank Europe's market risk in the trading book is induced either by the derivative platform for AXA insurance companies as well as by on-balance sheet positions with maturity lower than 1 year managed by Treasury.

With the derivative platform, AXA Bank Europe provides AXA insurance companies with access to the financial market in order to hedge their variable annuities business via standard derivatives (interest rate swaps and cap/floor). All positions resulting from this activity are back-to-back as AXA Bank Europe is mirroring the initial positions with the financial markets which leaves only a very limited residual risk position.

The market rate risk coming from Treasury activities has to remain within a reasonable sensitivity limit internally defined by the Assets and Liabilities Committee (ALCO). Overnight Index Swaps are used to hedge interest rate positions or to remain under defined sensitivity limit.

### **5.2.1 Risk management governance**

AXA Bank Europe manages its trading room activities from its head office. Its subsidiaries and branches are not allowed to take market risk exposures.

The governance of AXA Bank Europe's market risk can be summarized as follows:

- **AXA Bank Europe's Board of Directors** defines the risk appetite and other key metrics that set the levels of acceptable market risk that can be engaged by AXA Bank Europe's Treasury, and Investment product services departments. It also provides the final validation for proposed organizational and reporting structures setup for the management of this risk.

- **AXA Bank Europe's Management Board** is also responsible for ensuring that market risk management strategies are implemented and followed. It ensures that the bank's market risk appetite is respected.
- The Bank's **Asset & Liability Committee (ALCO)** is responsible for ensuring that market risk management strategies are applied. It reviews market risk reports and monitors compliance with agreed risk appetite limits. It monitors the adequacy of the risk infrastructure, pre-validates (as well as maintains) risk indicators and models (before they are sent for validation and endorsement to AXA Bank Europe's Management Board and Board of Directors).
- The Bank's **Treasury and Investment product services department** are responsible for managing the market risk exposure they generate.
- Nevertheless, **AXA Bank Europe's Risk Management department** also independently ensures that all sources of market risk are identified, analysed, reported and managed.

Market risk exposures are the object of a continuous follow-up. These exposures are compared to an overall economic capital limit covering all of AXA Bank Europe's market risks. This risk appetite limit is completed by different V@R and sensitivity limits. Alert triggering and escalation processes are also used by AXA Bank Europe's Risk Management department to ensure that AXA Bank Europe remains within its conservative risk appetite for market risk.

### 5.2.2 Capital requirement assessment

To meet its Basel II minimum regulatory capital requirements, AXA Bank Europe uses the Standardised Approach defined in Title IX of the CBFA circular 2007-1 to measure, monitor, report and manage its market risks. This approach measures the following components of market risks:

- General interest rate risk
- Specific interest rate risk
- General equity position risk
- Specific equity position risk
- Foreign exchange risk

Within the above regulatory methods, AXA Bank Europe has made the following methodological choices:

- For the general interest rate risk, it uses the Maturity Method.
- For the specific interest rate risk, AXA Bank Europe uses the risk weights specified in compliance with CBFA's Circular 2007-1 Article IX.25.
- For the general equity position risk, AXA Bank Europe uses a 8% risk weight in compliance with CBFA's Circular 2007-1 Article IX.48.
- For the specific equity position risk, AXA Bank Europe uses a 4% risk weight in compliance with CBFA's Circular 2007-1 Article IX.47.

- For the foreign exchange risk, AXA Bank Europe uses a 8% risk weight in compliance with CBFA's Circular 2007-1 Article IX.73.

Minimum Regulatory Capital Requirement		31/12/2011 (Consolidated) (‘000 € )
Market Risk		27.957

## 6 Operational Risk

AXA Bank Europe defines operational risk, as the risk of loss resulting from inadequate or failed internal processes, or from personnel or systems. The failure or inadequacy may result from both internal and external causes.

In Basel II framework, operational risk is divided into 7 categories:

- i. **Internal Fraud:** misappropriation of assets, tax evasion, intentional mismarking of positions, bribery, etc.
- ii. **External Fraud:** theft of information, hacking damage, third-party theft and forgery, etc.
- iii. **Employment Practices and Workplace Safety:** discrimination, workers compensation, employee health and safety, etc.
- iv. **Clients, Products and Business Practices:** market manipulation, antitrust, improper trade, product defects, fiduciary breaches, account churning, etc.
- v. **Damage to Physical Assets:** natural disasters, vandalism, terrorism, etc.
- vi. **Business Disruption and Systems Failures:** utility disruptions, software failures, hardware failures, etc.
- vii. **Execution, Delivery and Process Management:** data entry errors, accounting errors, failed mandatory reporting, negligent loss of client assets, etc.

For AXA Bank Europe, the definition of Operational Risk also includes Legal Risk<sup>15</sup>: risk of loss resulting from the failure of an institution to adopt appropriate policies, procedures or controls, to comply with its legal obligation arising from laws, regulations, or any other type of binding contracts.

For AXA Bank Europe, the definition of Operational Risk excludes Reputation Risk and Strategic Risk. However it should be noted that the potential damages to AXA's reputation<sup>16</sup> are considered (although not fully measured) when assessing the impacts of operational risks; major damages will be followed up by the Group.

<sup>15</sup> Compliance risk – which is defined in the AXA Group Compliance Standard as the risk of legal or regulatory sanctions, material financial loss or loss of reputation that a company may suffer as a result of not complying with laws, regulations and administrative provisions applicable to its activities – is also included in AXA Bank Europe definition of operational risk.

<sup>16</sup> Using the framework of the Group: no impact, impact (not yet assessed), insignificant (minor isolated stakeholder concerns/impacts), minor (serious segmented stakeholder concerns/incidents), moderate (broader and more vocalized concerns within the industry), major (negative public exposure with significant impact), and severe (dramatic loss of stakeholder confidence – extensive negative public exposure).

## 6.1 Risk management governance

AXA Bank Europe's management uses an annual recurring Operational Risk Management cycle ("ORM cycle") to identify, assess and measure as well as mitigate its operational risks. Its four steps are: risk identification, self assessments, measurements and analysis & mitigation. AXA Bank Europe measures its economic capital using a methodology similar to the Basel II Standardised Approach under Pillar 1.

The ORM Cycle provides AXA Bank Europe's senior management with indications on the most significant operational risks faced by AXA Bank Europe (both at its head office level and within its branch and subsidiary levels).

**AXA Bank Europe's Management Board** has delegated the daily management of operational risks to a Risk Appetite Committee. This Group follows the implementation of operational risk management, gives guidelines to embed it in AXA Bank Europe's business-as-usual activities and reviews all important decisions or information relating to AXA Bank Europe ORM Cycle (ORM Charter, economic capital results, new methodology, processes, reporting, documentation, etc.).

All business lines and entities within AXA Bank Europe have full ownership of the operational risks they face in the practice of their activities.

The **Operational Risk management team** ensures the Operational Risks are identified, measured and managed in accordance with the AXA Group standard.

Figures produced by the above methods are compared, within **AXA Bank Europe's Risk Appetite Committee** with figures produced by AXA Bank Europe's ORM Cycle. Economic capital levels for operational risks are submitted for validation to AXA Bank Europe's Management Board.

## 6.2 Capital requirement assessment

AXA Bank Europe uses the Basel II Basic Indicator Approach (BIA) defined in the CBFA's Circular 2007-1 to calculate its minimum regulatory capital requirements for operational risk: Regulatory Capital Requirements under Basel II Pillar I for Operational Risk are equal to 15% times the mathematical average of the sum of all positive operational results over the last 3 annual results.

Minimum Regulatory Capital Requirement	31/12/2012 (Consolidated) ( '000 € )
Operational Risk	54 911

## 7 *Liquidity Risk*

AXA Bank Europe's Risk Taxonomy considers the following two aspects of liquidity risk which all fall within the scope of liquidity risk management:

- **Short Term Liquidity Risk** defined as the risk that AXA Bank Europe cannot meet its financial liabilities when they come due (within a month), at a reasonable cost and in a timely manner. It results from short term cash and collateral positions (intra-day, overnight, one day to one month)
- **Structural Liquidity Risk** defined as the risk that the structural, long term balance sheet can not be financed at reasonable cost and in a timely manner. In this view of liquidity risk, the total on and off balance sheet positions are considered from a structural asset and liability management perspective.

### 7.1 *Risk management governance*

AXA Bank Europe manages its liquidity risk at its head office level. Branches and subsidiaries are not responsible for the management of their liquidity. The risks are transferred to AXA Bank Europe's head office for management through a Fund Transfer Pricing Mechanism Framework which takes into account country, liquidity and interest rate risks.

The governance of AXA Bank Europe's liquidity risk can be summarized as follows:

- AXA Bank Europe's Board of Directors and AXA Bank Europe's Management Board assume the responsibilities described in section 1.6 for the management of liquidity risk.
- AXA Bank Europe's Asset & Liability Committee (ALCO) manages the structure of the Bank's balance sheet, aiming to optimise its liquidity position. Consequently, it applies and implements liquidity risk management strategies. It reviews liquidity risk reports and monitors compliance within agreed limits by following relevant liquidity indicators.
- AXA Bank Europe's ALCO is assisted in this work by AXA Bank Europe's Asset & Liability Management department (ALM), Treasury & Portfolio Management, Financial Control and Risk Management departments.
- The functional management of AXA Bank Europe's structural liquidity belongs to its ALM department. ALM reports on the Bank's structural liquidity risk to its senior management. It ensures that ALCO decisions pertaining to the management of structural liquidity risk are implemented. It also develops, calibrates and maintains AXA Bank Europe's liquidity risk indicators.



- AXA Bank Europe's Risk Management department independently ensures that all sources of liquidity risk are identified, analysed, reported and managed.
- Financial Control Bank, acting as a product control unit, is responsible to generate and reconcile AXA Bank Europe's balance sheet. As such, it provides its figures and various relevant reports to AXA Bank Europe's ALM and AXA Bank Europe's Risk Management departments.

## **7.2 Monitoring liquidity risk**

In order to evaluate and manage its consolidated liquidity risk, AXA Bank Europe's ALCO monitors 2 kind of indicators:

1. Internal indicators
2. Regulatory indicators

### **1. Internal Liquidity Stresses (ILS)**

AXA Bank Europe has developed two tailor-made stress scenarios in order to assess the adequacy of Bank's liquidity buffer. The stress scenarios are developed in collaboration with AXA Group risk management. The internal scenarios are more restrictive than the NBB LI and LCR scenarios, which results in a lower liquidity excess under the internal scenarios. The Bank has expressed its liquidity risk appetite in terms of these internal scenarios.

The ILS scenarios cover multiple time horizons (1 month, 3 month, 6 month and 1 year) and the indicators are expressed in term of liquidity excess in euro after the scenario. The stock of liquid assets under the ILS indicators only retains ECB eligible assets. The liquidity excess is the difference between the stock of liquid assets minus the stressed in- and outflows under both scenarios.

Scenario 1 assumes a parallel downshift of interest rates while scenario 2 assumes an upward shift of the interest rates. Both scenarios imply a credit spread increase for the Bank and a downgrade of the Bank's rating.

### **2. Regulatory Indicators**

Since 2012, the Belgian National Bank is imposing a liquidity indicator on Belgian banking sector. The so called NBB Liquidity Indicator (NBB LI) needs to be calculated at both solo and consolidated level on a monthly basis.

Thereby, AXA Bank Europe already monitors the LCR and NSFR of the new Basel III framework. On 1 January 2015, the LCR minimum requirement will begin at 60%, rising in equal annual steps of 10 percentage points to reach 100% on 1 January 2019. The NSFR will become binding in 2018.

### 7.3 Liquidity Buffer assessment

In 2012, AXA Bank Europe's liquidity buffer largely exceeded the minimum requirement of the NBB LI and even those of the upcoming Basel III LCR which will be gradually required from 2015 onwards. For both regulatory ratios, AXA Bank Europe's liquidity buffer at the end of December 2012 shows a surplus of €1,2 billion above the required minimum level (see Table 12).

The Bank is expressing its liquidity risk appetite in terms of the Internal Liquidity Stresses (ILS) which states that, at all times, the Bank will maintain a minimum excess of €500 million liquid assets after a scenario described under the ILS. In all cases, the excess of the internal stress tests are clearly above the internal limit of €500 million.

<b>Liquidity Excess</b> (surplus over minimum level in €millions of liquid assets remaining after stress scenario)	<b>December 2012</b>	<b>Lower limit of surplus</b>
NBB LI (Conso)	1.175	0
LCR	1.161	0
ILS 1 for 1 month horizon	1.287	500
ILS 1 for 1 year horizon	1.272	500
ILS 2 for 1 month horizon	1.303	500
ILS 2 for 1 year horizon	1.289	500

**Table 12: Excess of AXA Bank Europe's liquidity indicators on December 2012**

In short, AXA Bank Europe enjoys a very robust liquidity position as demonstrated by its strong liquidity buffer that clearly exceeds regulatory and internal limits (see Table 12).

## **8 Other Risks**

The following section describes the management of other risks that AXA Bank Europe considers material through its Internal Capital Adequacy Assessment Process. These risks are hedged through capital/and or processes. The material risks covered by this section are:

- Commercial margins and fees risk
- Model risk
- Strategic risk
- Reputation risk
- Remuneration policy risk
- Capital risk
- Political and regulatory risk
- Intangible assets and deferred tax asset risk

### **8.1 Business Risk on commercial margins and fees**

AXA Bank Europe's commercial margins and fees risk, is the risk arising from deteriorating margins and fees on commercial products (retail products and non-retail products) due to the competitive environment. It is a material risk hedged by capital and processes.

AXA Bank Europe's Management Board reviews margins and volumes for products on a regular basis. Targets for volumes and margins are fixed at the beginning of each year, by AXA Bank Europe's Management Board and Board of Directors. Moreover, the Asset and Liability Committee regularly monitors and manages the margins on the assets and liabilities from an ALM point of view.

AXA Bank Europe's commercial margins and fees risk is mitigated through a series of mitigating actions taken by AXA Bank Europe's Management Board, AXA Bank Europe's Asset and Liability Committee and local Management, which include:

- Regular competitors review
- Regular review of the margins
- Regular review of product mix
- Reporting at entity level and at AXA Bank Europe's Management Board level (monthly reporting by AXA Bank Europe Finance)
- Economic capital

### **8.2 Model risk**

AXA Bank Europe defines model risk as the risk that occurs when a financial or risk model used to measure capital requirements for a risk exposure does not perform the tasks or capture the risks it was designed to. It is a material risk, hedged by processes.

Models are independently validated and reviewed by the Transversal risks team. The Transversal risks team is an independent team, reporting directly to the CRO. Each model validation is submitted to the CRO for endorsement and then to the relevant Committee for review and sign-off.

Mitigation processes for model risk include:

- Model back-testing and stress-testing
- Independent validation
- According to the Solvency K1 statement, the economic capital consumption X 125 % should always be lower than the Basel III eligible capital (Tier 1 and Tier 2). Thus, as AXA Bank Europe is keeping an amount of capital above its economic capital consumption, this can be considered an additional mitigation process for model risk.

### **8.3 Strategic risk**

AXA Bank Europe defines strategic risk as the risk that AXA Bank Europe's main objectives and risk tolerance targets are not attained due to late or inappropriate strategic decisions from the Board of Directors with regard to external business environment, internal organisation or new strategic opportunities. It is a material risk, hedged through processes.

Different governance bodies/structures are in place to advise the Management Board on AXA Bank Europe's strategy and so mitigate strategic risk. These governance bodies/structures include: AXA Group and NORCEE Region, AXA Bank Europe Finance, AXA Bank Europe Risk Management, AXA Bank Europe Change Management, AXA Bank Europe Business and product development.

The monitoring of the strategic risk can be split in two types of processes:

- General Strategic Processes
- Specific Strategic Processes

General Strategic Processes: The General Strategic Processes occur on a regular basis, through strategic reviews and the translation of the strategy into operational and functional business objectives. Moreover, AXA Bank Europe's strategy must be aligned with AXA Bank Europe's risk appetite. Therefore, AXA Bank Europe's risk appetite is integrated into AXA Bank Europe's strategic planning process

Specific Strategic Processes: Strategic decisions are taken on specific occasions when new products are launched/or significantly modified and also when major projects are launched.

## **8.4 Reputation risk**

AXA Bank Europe defines this risk as the risk of loss resulting from a decrease in the number of clients, transactions and funding opportunities arising from the adverse perception of the image of the financial institution on the part of customers, counterparties, shareholders, investors or regulators. It is a material risk hedged through processes.

Responsibility for the management of AXA Bank Europe's reputation belongs to AXA Bank Europe's Board of Directors and Management Board. These boards are assisted in this task by various departments among which the Bank's head office HR & Communication department, AXA Group's communication teams, Compliance department and Risk Management department.

AXA Bank Europe's HR & Communication and Risk Management departments have identified a number of processes for the mitigation of reputation risk:

- 1) Processes towards the general public
- 2) Processes towards the market
- 3) Processes towards retail customers and distribution network
- 4) Processes towards staff and employees
- 5) Processes towards regulator
- 6) Crisis management

## **8.5 Remuneration policy risk**

AXA Bank Europe defines its remuneration policy risk as the risk that its overall remuneration policy does not support its business strategy, risk tolerance, objectives, values, long-term interests or that it encourages excessive risk-taking. It is a material risk hedged through processes.

AXA Bank Europe's remuneration policy is based on AXA Group's remuneration policy while conforming to local rules and market practices. AXA Bank Europe's remuneration policy for the Board of Directors, Management Board, Internal Control and Trading room functions is described in the "*Politique de Remuneration*" which can be found in AXA Bank Europe's Memorandum of Governance. It explains the philosophy and structure behind AXA Bank Europe's remuneration policy and how performance for variable and non variable remunerations is measured.

The remuneration policy is annually reviewed by AXA Group in coordination with AXA Bank Europe's Remuneration Committee.

The Remuneration Committee also prepares the remuneration decisions to be taken by the Board of Directors. Decisions are based on the one hand on the repercussion on the company's risk management, and on the other hand on the long-term interests of the organisation's stakeholders.

Remuneration policies for all other AXA Bank Europe staff (not included in AXA Bank Europe's remuneration policy described above) are in line with local labour agreements at AXA Bank Europe and entity level and with AXA Group's remuneration policies.

Key mitigation processes for remuneration risk are:

- AXA Bank Europe's remuneration policies
- Assessment of the remuneration risk by the Transversal risks team in the context of the Global Assessment

## **8.6 Capital risk**

AXA Bank Europe describes this risk as the risk arising from having insufficient and/or unbalanced available capital to cover the risk the bank exposes itself, or from difficulties to flexibly raise risk coverage capital if necessary. It is a material risk hedged through processes.

AXA Bank Europe mitigates this risk through monitoring the composition of its internal available capital (Tier 1 and Tier 2 capital) and by aligning to regulation on capital adequacy (currently Basel II and III).

## **8.7 Political and regulatory risk**

Political and regulatory risks can be defined as the risks of losses due to changes that occur in a country's government or regulatory environment:

- The political risk is the risk of losses due to unfavourable changes in political climate (like populism and protectionism).
- The regulatory risk is the risk of losses, due to the application of adverse rules and/or arbitrary changes in the regulation.

It is a material risk hedged through processes. AXA Bank Europe mitigates this risk through a political and regulatory monitoring in all countries where it is active by the local senior management and local legal teams.

## **8.8 Intangible assets and deferred tax assets risk**

This risk is defined as the risk of adverse change in the book value of intangible assets and deferred tax assets. It is a material risk hedged through processes, through reporting and monitoring by the AXA Bank Europe accounting department.

## Appendix - Risks resulting from other AXA Bank Europe entities

### 1. AXA Belgium Finance

The activities of this company are the issuance of different types of structured notes destined to be sold and distributed by AXA Bank Europe to its retail clients and to onlend their proceeds to AXA Bank Europe. AXA Belgium Finance structured notes are 100% (irrevocably and unconditionally) guaranteed by AXA Bank Europe (both capital and interest). All the risks generated by these activities are transferred to (and managed by) AXA Bank Europe.

### 2. Beran

Beran owns land property rights on which some of AXA Bank Europe's operations in Antwerp are located. It financed its purchase of those rights through credits from AXA Bank Europe. Having no revenues, Beran has been capitalized by AXA Bank Europe so that it can honor its debts to AXA Bank Europe. The market value of its land property rights (which are held solely for operational purposes) exceeds their original acquisition cost.

### 3. Motor Finance Company NV

The purpose of this company is to have ATM installed within AXA Bank Europe's network. It is financed by AXA Bank Europe through a mix of capital investment and credit facilities. This company is profitable and capable of honouring its commitments.

### 4. Royal Street SPV (Special Purpose Vehicle)

Royal Street is an SPV created to securitize a part of AXA Bank Europe's residential mortgage portfolio. As an SPV, Royal Street does not engage in any specific businesses. More information on this company can be found in section 4.3 of this report.

### 5. AXA Bank Europe SCF (Société de crédit foncier)

AXA Bank Europe SCF is a banking entity, subsidiary of AXA Bank Europe, created for the purpose of issuing covered bonds / obligations foncières for the benefit of its parent company AXA Bank Europe. It assists AXA Bank Europe in managing its liquidity positions. AXA Bank Europe SCF is a French regulated bank.

AXA Bank Europe SCF has no specific business activities for its own benefit. It only maintains activities that support AXA Bank Europe's covered bonds program done for liquidity management.