Basel III Pillar 3 Report

Market discipline

Basel III Pillar 3 Report at 31 December 2015

22 April 2016 / Banque Cantonale Vaudoise / Version 2.0

41-501/09.01

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This document is a translation of the original French document entitled “Bâle III - Pilier 3 – Rapport au 31 décembre 2015.” Only the French text is authoritative.

1. Objective and scope of this report

The objective of this report is to provide in-depth information on risk management at BCV Group to investors, analysts, ratings agencies and supervisory bodies. In particular, it describes the Bank's capital adequacy, its risk-assessment methods and the level of risk taken at BCV. This document was prepared in accordance with the Pillar 3 disclosure requirements set forth under the Basel III Accord, together with Circular 2008/22 "Capital adequacy disclosure – banks" published by the Swiss Financial Market Supervisory Authority (FINMA).[1]

1.1 Disclosure policy

For ease of access, this report is available in the investor relations section of BCV's website. It has been updated on a half-yearly basis ever since BCV became subject to Basel II on 1 January 2009. It is published within two months following the end of the first half of the financial year and within four months following the end of the financial year, in accordance with Swiss regulations (FINMA Circular 2008/22, margin numbers 53–55).

This version of the report corresponds to the closing of accounts on 31 December 2015. The description of the Bank's governance, methods and processes reflects the situation at 31 December 2015; subsequent changes are not included.

The Bank's external auditor verifies, as a general rule every three years, compliance with financial disclosure requirements based on FINMA Circular 2013/3 “Auditing,” and states its opinion in a detailed audit report. The last Pillar 3 report to be audited in this way was the report at 31 December 2013. The data contained in the Bank's Pillar 3 reports are calculated in accordance with the Basel III Accord regulatory capital requirements. This calculation process was audited during FINMA’s IRB approval process and is subject to oversight as part of the regulatory supervision process. Furthermore, BCV's Internal Audit Department periodically reviews the process for calculating capital requirements (Basel III Accord, §443).

The appendix to this report contains information that is useful for understanding this document, including a description of business segments and a list of abbreviations.

The figures contained in the tables have each been properly rounded depending on the number of significant digits used for the table; this may result in discrepancies between listed column and row totals and the sum of individual column or row items.

1.2 Scope

The parent company within BCV Group is Banque Cantonale Vaudoise, a corporation organized under public law with its headquarters in Lausanne. The parent company has a branch in Guernsey.

The companies that the Group is required to include in its regulatory reporting include companies over which BCV has control and companies in which it has significant influence over operations. These companies are fully consolidated. Significant influence is generally recognized by the Bank when it makes a profit from and bears the risks of a company’s operations.

Companies in which BCV has significant influence but no outright control (holdings of 20%-50%) are accounted for using the equity method.

The following companies are not included in the scope of consolidation:

- Holdings of no material significance in terms of financial reporting and risk;
- Significant holdings not held for strategic purposes and intended to be sold or liquidated within 12 months.

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[1] The correspondence between the tables in this Pillar 3 report and those in the Basel Accord is provided in the appendix (section 5.2.1).

Table 1: Group companies included in the supervisory review
at 31 December 2015, BCV Group

Fully consolidated BCV Group companies		Capital in millions	Shareholding as %
Private banks:			
Piguet Galland & Cie SA, Yverdon-les-Bains (Switzerland)	CHF	24.4	99.7
Fund-management companies:			
Gérifonds SA, Lausanne (Switzerland)	CHF	2.9	100.0
Gérifonds (Luxembourg) SA, Luxembourg (Luxembourg)	EUR	0.1	100.0
Société pour la gestion de placements collectifs GEP SA, Lausanne (Switzerland)	CHF	1.5	100.0

The scope of consolidation did not change relative to end-2014.

Companies taken into account for calculating capital requirements are the same as those included in the Group's consolidated accounts. All these companies are fully consolidated in the financial statements. No company is currently accounted for using the equity method. The Group has no subsidiaries in the field of insurance.

There are no restrictions that could hinder the transfer of money or capital within the Group.

The main non-consolidated holdings and their treatment are listed in Table 2 below (see also section 4.5.2 below).

Table 2: Main risk-weighted, non-consolidated holdings in financial companies
at 31 December 2015, BCV Group

Company	Shareholding as %
Central Mortgage-Bond Institution of Swiss Cantonal Banks SA, Zurich (Switzerland)[1]	14
Aduno Holding SA, Zurich (Switzerland)	5
Banque Cantonale du Jura SA, Porrentruy (Switzerland)	5
Caleas SA, Zurich (Switzerland)	5
Swiss Bankers Prepaid Services SA, Grosshöchstetten (Switzerland)	3
SIX Group SA, Zurich (Switzerland)	2

[1] According to CAO Art. 40, if threshold 3 is not reached, a 250% risk weighting is applied to shareholdings of more than 10% in financial companies

In 2015, the Group sold its 7.3% stake in Swisscanto, the Swiss cantonal banks' fund-management company, to Zurcher Kantonalbank; it also sold its 7.5% stake in Dynagest SA, based in Geneva.

2. Capital structure

BCV Group's regulatory capital is composed almost entirely of Common Equity Tier 1 (CET1) capital, with a marginal amount of Tier 2 (T2) capital. Regulatory capital is based on the Group's financial statements, which are drawn up in accordance with the Swiss accounting rules for banks of 27 March 2014 (FINMA Circular 2015/1).

CET1 capital comprises paid-in capital, disclosed reserves and minority interests. At 31 December 2015, BCV's share capital amounted to CHF 86,061,900 and consisted of 8,606,190 fully paid-in registered shares with a par value of CHF 10. CET1 is adjusted for regulatory deductions such as goodwill, the shortfall of provisions to regulatory expected loss and the sectoral countercyclical capital buffer for mortgage loans. BCV has not issued any capital instruments that meet the criteria for inclusion in Additional Tier 1 (AT1) capital. In particular, BCV has no authorized or conditional capital, and has not issued any dividend-right certificates. There are no outstanding convertible bonds or options issued by the Bank involving the BCV share.

Tier 2 capital comprises reserves on debt and equity securities carried under financial investments and stated at lower of cost or market, subject to a limit of 45% of unrealized gains, and general provisions allocated under the International Standard Approach. BCV has not issued any capital instruments that meet the criteria for inclusion in T2.

Table 3: Eligible capital
in CHF millions, BCV Group

	December 2015	December 2014
Common Equity Tier 1 (CET1) capital[1]	**2,924**	**2,874**
Instruments and reserves	3,113	3,066
- of which share capital	86	86
- of which disclosed reserves	3,027	2,980
Regulatory adjustments	-75	-86
- of which goodwill	-23	-27
- of which shortfall of provisions to regulatory expected loss	-53	-59
Countercyclical buffer	-113	-106
Additional Tier 1 (AT1) capital	**-**	**-**
Instruments	-	-
Regulatory adjustments	-	-
Tier 2 (T2) capital	**19**	**19**
Compulsory reserves in equities and general provisions	19	19
Regulatory adjustments	-	-
Total eligible capital[1]	**2,943**	**2,893**

[1] After countercyclical buffer, which was 2% of risk-weighted assets relating to residential property financing.

3. Capital adequacy

BCV monitors its capital adequacy in accordance with Pillars 1 and 2 of the Basel III Accord.

The capital ratio is a key part of the Pillar 1 capital-adequacy monitoring process.[2] Since 1 January 2013, capital adequacy has been determined in accordance with the standards in the Basel III Accord. The proposed regulatory relief during the transition period has not been applied. BCV chose not to make use of the regulatory relief offered as part of Basel III implementation because its impact would have been minimal for the Bank.

The Executive Board monitors the capital ratio and its components monthly for the parent company. Both the Executive Board and the Board of Directors do so every quarter for the parent company and every six months for the Group as a whole. Important decisions regarding the Bank's business development and operations are analyzed in terms of their impact on the capital ratio. The impact that a worsening economic environment would have on the Bank's capital ratio is also analyzed each year using cyclicality stress tests (Basel III Accord, §435).

FINMA monitors the parent company's capital adequacy each quarter and the Group's capital adequacy every six months using the Common Reporting framework (COREP).

Capital-adequacy monitoring under Pillar 2 of the Basel III Accord is carried out at two levels:

1. Regulatory requirements: The countercyclical buffer is taken into account in BCV's capital ratio. FINMA set a minimum target for this ratio of 12% (FINMA Circular 2011/2), comprising the 10.5% requirement applied globally – the absolute minimum requirement (8%) plus the capital conservation buffer (2.5%) – and the additional capital requirement (1.5%) stipulated in Swiss regulations for category 3 banks. FINMA's intervention threshold is set at a capital ratio of 11%.
2. Stress testing (Basel III Accord, §434): The capital ratio must be high enough to absorb the stresses that the Bank calculates annually using extreme scenarios for credit, market, operational, business and strategic risks.

[2] The capital ratio is equal to the ratio of eligible capital less the countercyclical buffer to risk-weighted assets.

Table 4: Capital adequacy
in CHF millions, BCV Group

	December 2015	December 2014
Eligible capital[1]	**2,943**	**2,893**
Core Equity Tier 1 (CET1) capital	2,924	2,874
Additional Tier 1 (AT1) capital	-	-
Tier 2 (T2) capital	19	19
Risk-weighted assets	**16,589**	**16,792**
Credit risk[2]	13,777	13,984
Non-counterparty-related assets	660	693
Market risk	363	350
Operational risk	1,789	1,764
Equity ratios		
CET1 ratio	17.6%	17.1%
T1 ratio	17.6%	17.0%
Total capital ratio	**17.7%**	**17.2%**

[1] After countercyclical buffer, which was 2% of risk-weighted assets relating to residential property financing.
[2] Including the credit value adjustment (CVA) and central counterparty requirements.

The Swiss Federal Council approved the Swiss National Bank's proposal for a countercyclical buffer. After taking the buffer into account, BCV's total capital ratio was 17.7% (18.4% excluding the buffer). This figure was above the minimum regulatory target of 12% in effect as of 1 July 2011. The CET1 capital ratio was 17.6% (18.3% excluding the buffer), which was also above the FINMA minimum regulatory target of 7.8%. The difference between the total capital ratio and the CET1 is due to the fact that T2 capital comprises reserves on debt and equity securities carried under financial investments and stated at lower of cost or market, subject to a limit of 45% of unrealized gains.

The leverage ratio fell from 6.8% to 6.7% in 2015 following a rise in total assets, particularly cash deposited with the Swiss National Bank (see tables in section 5.2 for further details).

Table 5: Credit-risk-weighted assets, by asset category
in CHF millions, BCV Group

Asset category	December 2015	December 2014
Residential retail	2,712	2,514
Other retail	648	659
Corporate	4,086	4,427
Specialized lending	4,527	4,534
Sovereigns	10	0
Other institutions	343	401
Banks	748	654
Central counterparties	33	28
Equity securities[1]	532	612
Credit value adjustment (CVA)	139	155
Total	**13,777**	**13,984**

[1] Including shareholdings of more than 10% in financial companies, with a 250% risk weighting.

In accordance with the Bank's business activities, the majority (around 83%) of the Bank's risk-weighted assets are associated with credit risk. Corporate lending (excluding banks) accounts for 63% of credit-risk-weighted assets, due in particular to the large amount of specialized lending (e.g., trade finance and income-producing real estate).

Table 6: Credit-risk-weighted assets, by approach applied
in CHF millions, at 31 December 2015, BCV Group

Asset category	International Standard Approach (SA-BIS)	IRB Approach	Total
Residential retail	-	2,712	2,712
Other retail	236	412	648
Corporate	2,481	1,605	4,086
Specialized lending	-	4,527	4,527
Sovereigns	10	-	10
Other institutions	171	172	343
Banks	148	600	748
Central counterparties	-	33	33
Equity securities[1]	-	532	532
Credit value adjustment (CVA)	-	139	139
Total	**3,046**	**10,731**	**13,777**

[1] Including shareholdings of more than 10% in financial companies, with a 250% risk weighting.

The International Standard Approach (SA-BIS) is applied to 22% of risk-weighted assets (outside the scope of the IRB approach). These exposures are essentially to counterparties (in particular large corporates) for which a compatible IRB model is not yet in place or for which the Bank does not intend to put in place a rating model (Mortgage-Bond Bank of the Swiss Mortgage Institutions, Central Mortgage-Bond Institution, Swiss Government, foreign governments, multilateral development banks).

4. Risk exposure and assessment

The strategic framework for risk exposure (risk appetite), risk-assessment principles, risk reporting, as well as other operational guidelines relating to risk management are defined in the Bank's Risk Management Policy and Strategy (RMPS), an internal framework document that is reviewed and approved each year by the Board of Directors.

This section of the report sets out the Bank’s RMPS principles and provides details of its risk profile using the structure and tables required by FINMA for Pillar 3 disclosure.

4.1 Risk-management objectives and governance

Risk-management objectives

BCV manages all its risks in an integrated and consistent way, using a process that encompasses all of the Bank's activities. The overall goals are to ensure that:

- BCV's risk exposure is evaluated, monitored and reported in a manner that is appropriate to the economic and regulatory environment.
- BCV's risk-taking capacity is in line with its risk profile.
- BCV earns optimal returns on the risks that it takes and hence on the equity capital committed.

Governance

All risks are managed according to the same basic principles of governance and organization. The main responsibilities can be summarized as follows:

- The Board of Directors establishes the Bank's policy for managing risk and decides the strategy the Bank will pursue in taking on risk.
- The Board of Directors' Audit & Risk Committee ensures that the risk management policy set by the Board of Directors is implemented and is operational.
- The Executive Board is responsible for ensuring that the risk-management procedures are implemented and operational, and for monitoring the Bank's risk profile. The Executive Board monitors strategic and business risk and supervises the Executive Board Risk Management Committee (EBRMC) in monitoring and reporting these risks. The EBRMC is chaired by the Chief Financial Officer (CFO), and includes the CEO, other division heads, and the head of the Risk Management Department.
- Division heads are responsible for conducting and monitoring the activities of their divisions, regardless of whether the division has a front-line, steering or business-support role. They have initial responsibility for overseeing, identifying and managing the strategic, business, credit, market and operational risks arising from the activities of their divisions.
- The CFO also assumes the role of Chief Risk Officer. The CFO puts forward risk-management policy and strategy, monitors the Bank's aggregate risk profile, is responsible for capital adequacy, and helps foster a culture of risk management among staff, with the support of the Risk Management Department, which reports to the CFO.
- The Chief Credit Officer (CCO) is responsible for analyzing risk for all types of credit-risk exposure assumed by the Bank and, up to the limit of his approval authority (see below), for credit decisions and for monitoring risk exposures on a counterparty basis.

Risk Management

Risk Management's mission is to develop and continually improve the Bank's methods and principles for managing credit, market and operational risk; to monitor the Bank's risk profile; and to oversee and execute risk reporting. Risk Management ensures that the Bank's internal control system is properly implemented and in keeping with the Bank's needs; it is also in charge of submitting all risk reports to the Bank's governing bodies. Finally, it is responsible for the overnight monitoring of market risk for BCV's trading floor.

4.2 Classification of risks and risk-assessment principles

Classification of risks

The Bank looks at three aspects for all types of risk:

- First, the existence of a risk factor, i.e., a source of uncertainty relative to the Bank's interests (e.g., the uncertain financial situation of one of the Bank's counterparties, or an equity position on the trading book with a fluctuating price);
- Second, the occurrence of a risk event, which is a situation that has an adverse effect on the Bank's interests and that is caused by the deterioration of a risk factor (e.g., if one of the Bank's counterparties does not meet its financial obligations, or if a share price falls);
- Third, the assessment of the negative impact that the risk event would have on the Bank's interests (e.g., the need to record a loan impairment charge or a loss on a security).

Throughout the Bank, four categories of risk are used to classify risk events:

- Strategic and business risk. Strategic risk arises from economic or regulatory changes that have an adverse effect on the Bank's strategic choices; business risk is the result of competitive changes that have an adverse effect on business decisions for a given strategy.
- Credit risk. This arises from the possibility that a counterparty may default. Credit risk exists before and during unwinding of a transaction.
- Market risk. This arises from potential adverse changes in market parameters – particularly prices and implied volatility – and other market effects (e.g., correlation between asset prices and market liquidity). Liquidity risk, both in terms of the structural funding of activities and short-term liquidity management, is also deemed to be a component of market risk.
- Operational risk. This arises from a possible inadequacy or failure relating to processes, people and/or information systems within and outside the Bank. Operational risk includes the risk of non-compliance, i.e., the risk of the Bank breaching legal requirements, standards and regulations.

For all risk types, the Bank seeks to protect itself against three types of potential impact:

- The financial impact, that is, a decrease in the Bank's net profit and/or a drop in the book or economic value of the Bank's capital;
- The regulatory impact, that is, inquiries, sanctions, increased monitoring or a restriction on banking activities;
- The reputational impact, that is, the image the Bank projects to the outside world.

Risk assessment

Throughout the Bank's businesses and portfolios and for every position and transaction, the Bank assesses and monitors its risk profile, i.e., its exposure to strategic, business, credit, market and operational risks. The Bank assesses the potential financial, regulatory and reputational impact of these risks.

Risk assessment generally involves analyzing the following:

- *Risk exposure*
  This involves determining whether the Bank is exposed to certain risks as a result of its activities or operational processes.

- *Risk factors and events*
  This involves identifying relevant risk factors and determining potential risk events. For strategic and business risk, this includes all economic and regulatory factors that may affect the Bank's business activities and its operational processes. For credit, market and operational risk, the relevant risk factors and risk events are defined according to the nature of the Bank's activities.
- *Impact of risks*
  This involves determining the potential financial, regulatory and reputational impact. For risks with a potential financial impact, this means defining *loss metrics* and *risk metrics* and determining *capital requirements*.

  Loss metrics, which are used to determine the potential financial impact, are calculated in accordance with the guidelines set out in the RMPS; they are developed for each risk category set out above. Generally speaking, the Bank uses effective loss, expected loss and accounting loss to measure loss. Which risk metrics are applied depends on the relevant risk factors and the risk categories in question. These metrics reflect the methods and tools currently available to the Bank. The Bank continually improves and implements the risk metrics to make them more integrated and consistent across the Bank's various activities and risk categories. In terms of capital requirements, the Bank monitors its capital situation in accordance with the FINMA framework.

4.3 Credit risk

Strategy and processes

Guidelines for taking on credit risk

The Bank's lending activities are focused on Vaud Canton; lending does however take place to a lesser extent in other parts of Switzerland and other countries for specific client segments and products. Through its lending activities, the Bank aims to contribute to the development of all areas of the private-sector economy, to mortgage lending and to the financing of public-sector entities within the Canton.

Lending at BCV is based on the principle that a borrower must be able to fully repay any loan within a given period, or that the Bank may be released from any commitments it may have in regard to counterparties, while receiving fair compensation for the risks incurred and the work undertaken.

The Bank applies a differentiated pricing policy according to the estimated degree of risk. Where preferential terms are requested due to the extent of the Bank's business relationship with the counterparty or business group, the overall return on the business relationship is taken into consideration.

The Bank does not engage in pledge financing or name lending. The lending decision takes into account the solvency of the counterparty, the project's earnings capacity and the management's capabilities; these factors take precedence over collateral value or reputation.

The Bank avoids financing or supporting illegal or immoral activities through its lending facilities. The Bank also avoids facilitating, through its lending facilities, activities that could entail a risk of money laundering, insider trading, corruption, or activities that would breach in any other way the Swiss banks' code of conduct with regard to the exercise of due diligence. The Bank avoids operations that may damage its reputation or image.

Standards and procedures for lending and loan renewals

Before taking on credit risk, the Bank conducts an analysis of the nature and complexity of lending commitments, using the appropriate internal methods for that type of transaction. BCV will not grant, increase or renew loans to debtors until it has assessed solvency, i.e., until it has determined the appropriate internal counterparty default rating using established methods. Risks relating to transactions and the return on commitments are also analyzed. It is in this context that the collateral for the commitment is identified and evaluated.

For both new and existing lending operations, the Bank studies the economic background, the nature of and the reasons for the transaction, as well as the relationship between the parties involved. The Bank seeks to obtain a detailed view of the economic and personal situation of counterparties, and, as necessary, of the beneficial owners, the guarantors or the beneficiaries of guarantees. The information obtained is carefully verified.

The Bank develops, reviews and uses standard criteria for lending decisions. For financing single-family homes and income-producing real estate, these criteria were chosen, in particular, for their reliability and clarity.

Contractual documentation for standard lending operations is drawn up using models and/or guidelines that have been validated by the Bank's legal department. For some lending operations, the Bank's legal department or, if necessary, external experts may be called upon. Contractual provisions ensure, in particular, that the funds are used in accordance with the stated purpose of the lending facility and that the Bank obtains any requested financial information within the stated deadlines. For medium- and long-term lending commitments, the contract is written in such a way as to ensure that the Bank's position as lender is not subordinated to that of other creditors without its agreement, in terms of both collateral and the counterparty's position within a business group. For long-term commitments that cannot be terminated at any time based on the Bank's General Conditions, or for which the Bank cannot call in additional collateral at any time, the Bank adds a termination clause to hedge against the increased risk.

An application is prepared for all new loans and loan renewals. The application clearly states the reasons, conditions and contractual terms associated with the risk taken, and in particular the credit limit granted to the counterparty or business group. These applications are submitted for approval to the competent body according to a defined delegation chain.

Reexamination of lending commitments and collateral

Lending commitments are periodically reviewed in an effort to assess any change in the counterparty's solvency or the value of the collateral, and to determine whether the commitments should be maintained at the existing level or reduced. The Bank uses an internal timetable to ensure that a periodic review is conducted of all lending commitments associated with a business group together with the contractual terms. A similar timetable is also used to review the level of collateral.

In addition to these regular reviews, the Bank uses a system of alerts under which specific commitments are reviewed outside of the normal timetable if any deterioration is detected. These alerts could be triggered and a review required, for example, if payment deadlines are missed or if there is a delay in the submission of information required to properly monitor lending commitments.

Decisions made on the basis of these reviews are subject to the same delegation chain as that used to assess whether to grant a new line of credit.

Limits, portfolio monitoring and special measures

Within the credit portfolio, global risk limits are defined, mainly for the purpose of tallying up exposures that taken together could have a major impact on the Bank's net profit and economic capital. These limits are defined and monitored:

- For the nominal exposure, the expected loss and the regulatory capital requirement for various client segments and for activities outside Vaud Canton and outside Switzerland.
- For the amount and term of the lending commitments in each foreign country in which the Bank takes on credit risk. The limits are determined through an internal analysis of the financial and settlement risks associated with the financing in place in the various countries.
- For the amount of aggregate positions for a given business group, in order to monitor concentration risk.

If necessary, in addition to setting and monitoring these limits, the Bank analyzes specific portfolios that are deemed to be exposed to potential or actual adverse conditions. These analyses may lead to proactive measures for a sub-grouping of the counterparties in question in order to enhance credit-risk monitoring.

Furthermore, in case of extraordinary events, such as a significant decline in the local or broader property market, the dates on which collateral is reviewed may be moved forward for groups of collateral identified in accordance with various criteria (by region, property type, age of existing valuation, etc.) to avoid a situation in which the Bank's information systems contain obsolete and overestimated amounts for the market value of properties.

Monitoring and treating counterparties reputed to be in financial difficulty and counterparties in default

Counterparties that present a particularly high risk of default but are nevertheless considered to be performing are said to be “reputed to be in financial difficulty” (RD). These counterparties, along with counterparties that are “in default” (ID), are subject to closer monitoring.

Lending commitments to RD or ID counterparties are treated by the Bank individually, quickly and with the necessary rigor, in accordance with ethical and compliance-related rules. These positions must generally be made sound over the course of three to four years. Where this strategy cannot be applied, the Bank takes the appropriate measures to minimize its losses.

Structure and organization

Responsibilities in the credit process

In processing credit operations, the Bank as a general rule separates its client-facing divisions (Corporate Banking, Retail Banking, Private Banking and Asset Management & Trading), which are responsible for advising, selling, selecting, pre-analyzing and pricing the transactions, from the Credit Management Division, whose departments are in charge of the other phases of the lending process, such as analysis, granting loans, arranging the financing and monitoring credit limits. In addition to the principle of separation, rules exist to avoid potential conflicts of interest between counterparties on the one hand and analysts and specialists on the other.

Delegation chain for credit-related decisions

The decision-making process involves approving or reviewing a position and validating the internal counterparty default rating as well as any overrides. To determine the competent body, the Bank applies a differentiated delegation chain that ensures that large and high-risk commitments are dealt with at the highest level, guaranteeing that Management is appropriately involved in taking on credit risk.

The competent body depends on the nature of the commitments and the level of credit risk of the business group to which the counterparty belongs. Decision-making authority is attributed individually or to credit committees, in accordance with a set of approval limits for each type of commitment (e.g., loans and advances to customers, interbank lending, and loans to employees and members of the governing bodies). These limits depend on the internal counterparty default rating, the nature, amount and term of the lending commitment, and the level and quality of the collateral for the financing. In addition, should certain lending criteria not be met, any decision to grant or increase financing for single-family homes and income-producing real estate would have to be made higher up the credit-decision-making chain. For each type of lending commitment, there is a distinct set of approval limits for decisions relating to short-term overruns or overdrafts.

The Board of Directors is at the top of the decision-making hierarchy and systematically reviews the most important credit-related decisions. Immediately below the Board of Directors are the Executive Board’s Credit Committee (EBCC) and the Chief Credit Officer (CCO), who heads the Credit Management Division. The EBCC and the CCO have widespread lending authority, which encompasses all of the Bank's activities. For lower amounts, lending authority is allocated according to the activity, beginning with the sector-specific credit committees. Lower down still, the analysts in the Credit Management Division, with different levels of authority, have certain powers that are specific to their field. Finally, the front line has some lending authority. It is limited to fully secured lending commitments in a limited amount, temporary overdrafts or overruns, and certain employee loans.

Lending commitments to counterparties “reputed to be in financial difficulty” (RD) or “in default” (ID) are subject to a separate delegation chain. There is an additional set of approval limits for decisions relating to taking on credit risk abroad.

Decisions taken at a given approval level are checked *a posteriori* by the level above, through a full or selective review of lending decisions deemed to be significant.

Responsibility for identifying and monitoring provisioned loans

Any entity within the Bank that is involved in the lending process may suggest that a client be included in the RD and ID categories on the basis of criteria that are defined in the same way for all of the Bank’s activities. Entities with lending authority are authorized to decide whether to include a client in these categories.

A specialized department within the Credit Management Division monitors these commitments. It is separate from the front-line units that generate lending commitments. Once lending commitments are sound again, they are monitored by the front line.

Internal documentation and regulations

The guidelines for lending activities are set out in the Bank’s Credit Policy. In particular, it sets out the basic principle for how authority for granting and reviewing loans is allocated. The delegation chain is then explained in detail in the Bank’s Lending Policy Rule Book. Together with the Technical Standards (technical criteria and limits for lending), these documents form the framework for the Bank's lending activities, which is established in accordance with the Bank's Risk Management Policy and Strategy.

The Executive Board defines and develops the Credit Policy, upon the recommendation of the CCO, and submits it to the Board of Directors (BoD) for approval. The BoD reviews the Credit Policy periodically. All those involved in the lending process are responsible for monitoring the Credit Policy and ensuring that it is adhered to. The CCO oversees its application.

The Lending Policy Rule Book sets out the rules and guidelines for decisions concerning the Bank’s credit risk at the parent company level (delegation chain). It is established in accordance with the Bank's by-laws and Credit Policy.

The EBCC develops and submits the Lending Policy Rule Book and its updates to the BoD.

The Technical Standards define the type of collateral recognized by the Bank and, for each type of collateral, the loan-to-value ratio required for a loan to be consider secured. The Technical Standards are subject to validation by the BoD.

At the operational level, lending activities are structured around a series of internal directives that provide details of the guidelines set forth in the framework documents.

Risk assessment

Risk event

A credit-risk event is a default by a counterparty: the Bank considers a counterparty to be in default when the counterparty is past due more than 90 days on any material credit obligation to the Bank or when the Bank considers that the counterparty is unlikely to pay its credit obligations to the Bank in full.

Risk exposure

The Bank considers all credit-risk exposures that arise from its activities, including its activities as a custodian bank, with the following counterparties or groups of counterparties:

- Retail and private banking clients;
- Corporates, excluding trade finance;
- Trade finance;

- Fund-management companies;
- Public-sector entities (municipalities, and regional, local and national governments);
- Bank counterparties.

For any counterparty, exposure to credit risk on the trading book and banking book (both on and off the balance sheet) occurs in the following forms:

- Exposure in the form of a financial claim (mortgage loans, fixed-term advances, current accounts with credit limits, overdrafts, investments and current accounts held by the Bank with other banks);
- Off-balance-sheet exposure resulting from undrawn portions of notified limits, contingent liabilities (guarantees) issued by the Bank on behalf of the counterparty, guarantees or other forms of commitment (letters of credit, avalized drafts) received from the counterparty as collateral or for which the Bank takes over the risk;
- Exposure resulting from forward contracts and OTC derivatives, taking into account netting agreements and collateral management agreements;
- Exposure in terms of shares and other equity securities (including equity derivatives) for which the counterparty is the issuer (on the banking book and net positions on the banking book);
- Exposure resulting from repos/reverse repos and securities lending/borrowing transactions;
- Settlement exposure, especially on currency transactions. It should be noted that when positions are unwound through a simultaneous settlement system, such as CLS (Continuous Linked Settlement), settlement risk is not considered.

The methods defined determine the amount of exposure by category.

Loss metrics

The Bank uses two different loss metrics:

- *Expected loss:* The expected loss is determined on the basis of the probability of default and the loss given default for positions not relating to trade finance, and on the basis of slotting criteria for trade-finance positions. A general description of these methods is provided below.
- *Book loss or a loan impairment charge:* Most loan impairment charges are the result of a bottom-up calculation, position by position, following the discovery of RD and ID counterparties and an analysis of the corresponding exposure. These charges reflect the best *a priori* estimate of the loss on specific exposures. The amount of such charges is generally determined using a parameter-based method in which the provisioning ratio is determined and applied to credit-risk exposure. This method is different from that used to calculate the expected loss on performing loans. In some cases, for large commitments or for special or complex situations, the amount of the loan impairment charge is based on a scenario analysis. The Bank also allocates provisions for country risks, which are created whenever there is a major credit risk on commitments that are neither RD nor ID, for reasons relating to adverse situations in a country associated with the commitment.

For performing loans not relating to trade finance, the expected loss is determined on the basis of the probability of default and the loss given default.

- *A counterparty's probability of default and rating default risk*

  Each counterparty is assigned an internal counterparty default rating depending on its probability of default. Throughout the Bank (parent company), there are seven main internal ratings (B1 to B7) and 17 sub-ratings (B1.1 to B7).

  The ratings B1 to B5.2 are used for counterparties that are neither RD nor ID; B5.3 and B6 are used for counterparties that are RD, which are also considered performing. Counterparties rated B7 are ID or non-performing. Loan impairment charges may be recognized for ID and RD counterparties.

A default rating method is used to assign an internal rating to each performing counterparty. Counterparties (individuals, companies, banks, etc.) are distinguished by factors that may affect their solvency, the nature of available explanatory data and the level of loss-risk they represent. Rating methods are segmented into groups of counterparties so that counterparties that are deemed similar according to these analytical factors are handled in the same way.

For each rating segment the default rating method for performing clients comprises a "score" and an "analyst's assessment." Considered together, the score and the analyst's assessment make up the method used to assign an internal rating to each performing counterparty.

- For the score component of the rating method, an internal rating is identified using one of the following three procedures: applying a calculation function for the probability of default calibrated statistically or based on an expert’s assessment, assigning the counterparty to a default probability slot, or transferring a counterparty from one rating to another in accordance with a system of rules. The Bank also employs standards and methods to recognize the impact on the probability of default of factors such as the business group or government support at a local, regional or national level.
- The "analyst's assessment" component of the rating method defines the guidelines to be followed by an expert when analyzing the counterparty's debt quality, alongside the score. The competent body sets and approves the internal rating that is eventually determined as well as the override, if necessary.

Specific criteria are defined for the purpose of identifying RD counterparties. A counterparty is deemed RD when one of the following two conditions is met:

- The Bank believes there to be a high risk that part of its exposure to credit risk on the counterparty will not be recovered.
- A significant breach of the contract on any of the forms of credit extended to the counterparty by the Bank has occurred and has not been remedied without a temporary or definitive exemption being granted.

- *Loss given default*

  To calculate the loss given default, the Bank takes into account the expected exposure at the time of default, the expected coverage ratio at the time of default, the nature of the collateral, and the rate of loss on secured and unsecured parts. The internal models used are calibrated so that the loss given default produced by the calibrated model corresponds to an effective loss that takes into account discounted values of all cash flows paid and collected by the Bank after the default, including fees associated with managing the loans of counterparties in default and with recovering loans.

A risk-management slot is allocated to performing loans relating to trade finance in order to estimate the expected loss. The slot assignment is based on a structured analysis of the counterparty (i.e., the sponsor) and of the transaction. It meets the supervisory slotting criteria for specialized lending in annex 4 of the International Convergence of Capital Measurement and Capital Standards: a Revised Framework (Basel II Accord).

Risk metrics

The Bank's main credit-risk metrics are:

- The expected loss (see above);
- Loss under stress scenarios. The Bank applies cyclicality stress tests and global stress tests:
  - Cyclicality stress tests for credit risk indicate the extent of the change in capital requirements in the event of an economic slowdown. They are based on changes in two key credit-risk variables, which are probability of default and loss given default.
  - Global stress tests are part of the broad approach for estimating (by risk category) the impact of a number of stress scenarios on the Bank's net profit in order to assess capital adequacy.

For credit risk, this allows the need for new provisions to be estimated for each stress scenario, should it occur. The stress scenarios are defined for the entire lending portfolio on the basis of historical observations (for example, the property market correction in the early 1990s) and macroeconomic analyses.

Unless otherwise indicated, credit-risk metrics address a risk horizon of 12 months.

Capital requirements for credit risk

For a large proportion of credit-risk exposures, the Bank determines its regulatory capital requirements (Pillar 1) using the Internal Ratings-Based Foundation approach (IRB-F). For exposures outside the scope of the IRB-F approach, capital requirements are determined using the International Standard Approach (SA-BIS).

Risk reduction

For interbank activities, the Bank applies the following risk-reduction measures in particular:

- Insofar as the counterparty is a member/third-party participant of CLS (Continuous Linked Settlement), the Bank takes the necessary steps to ensure that the unwinding of transactions can take place through CLS.
- In principle, the Bank handles OTC derivative transactions only on the basis of ISDA netting agreements or an equivalent agreement.
- For its main bank counterparties in terms of pre-settlement exposure, the Bank takes the necessary measures to ensure that OTC derivative transactions can be carried out in accordance with a credit support annex (CSA) for collateral management. Alternatively, blocked cash deposits can be set up as a risk mitigant for OTC derivative exposure.

For customer lending activities, the Bank seeks to appropriately secure exposures through the use of collateral.

Various types of collateral are recognized. They include:

- Pledges on real estate (primarily mortgage deeds on various types of real estate);
- Pledges on financial assets (mainly cash and securities accounts);
- Guarantees (mainly loan guarantees and bank guarantees).

The valuation of collateral recognized by the Bank is based on the principle of market value, and is carried out as often as appropriate for the type of collateral. Pledges on real estate and financial assets are valued as follows:

- The valuation of pledged real estate is carried out using methods appropriate to the type of real estate: models are used for standard real estate like houses and apartments, while other types of properties, like hotels, are appraised. The frequency at which real estate is valued depends on the type of property, as do the standard loan-to-value ratios for the loans secured by this collateral.
- Securities portfolios and other financial assets pledged as collateral for lombard loans are valued daily. Loan-to-value ratios are defined by type (shares, debt securities, fund units, fiduciary accounts, precious metals, structured products), country of domicile, currency risk, the liquidity of the security, the counterparty's default risk and the residual term for debt securities, together with portfolio diversification.

Table 7: Credit-risk exposure by type of exposure and region
in CHF millions, BCV Group[3]

	Situation at 31 December 2015						
Region	On-balance-sheet loans and advances	Guarantees issued by the Bank	Undrawn credit limits	Derivatives	Debt securities	Total	Total at 31/12/14
Vaud Canton	24,206	155	2,724	101	5	**27,191**	**26,937**
Rest of Switzerland	5,060	317	1,667	655	2,191	**9,890**	**9,656**
European Union and North America	1,338	99	102	769	887	**3,196**	**3,223**
Rest of world	939	558	34	8	-	**1,539**	**1,467**
Unattributed	487	243	-	6	-	**736**	**1,017**
Total	**32,030**	**1,372**	**4,527**	**1,539**	**3,083**	**42,551**	**42,299**

The majority of client and bank exposures are found in Vaud Canton (64%).[4] 74% of loans to customers (excluding bank exposures) are in Vaud Canton. This type of exposure is composed primarily of lending volumes on the balance sheet including mortgage loans and various financing in the form of current accounts (e.g., loans for construction, operational, investment or cash-management purposes).

Client and bank exposures in the rest of Switzerland (excluding Vaud Canton), which amount to 23% of total exposures, comprise mainly large-corporate financing, often in the form of syndicated loans, and investments with the Mortgage-Bond Bank of the Swiss Mortgage Institutions and the Central Mortgage-Bond Institution. Exposures in the European Union arise mainly from cash-management and trading operations, whereas exposures in the rest of the world are a result of trade-finance activities.

[3] Excluding derivatives and futures traded by BCV clients on organized markets whose settlement is guaranteed by a central counterparty (see Table 28).

[4] Unless otherwise stated, exposures are measured as follows in this section:

- On-balance-sheet loans and advances, and guarantees issued by the Bank: amounts drawn down plus interest and fees due
- Undrawn credit limits: difference between the amount of the limit and the amount drawn down
- OTC derivatives: mark-to-market value plus regulatory add-on after netting and collateral management agreements have been taken into account
- Debt securities: balance-sheet value

Table 8: Credit-risk exposure by type of counterparty
in CHF millions, BCV Group[5]

	Situation at 31 December 2015						
Type of counterparty	On-balance-sheet loans and advances	Guarantees issued by the Bank	Undrawn credit limits	Derivatives	Debt securities	Total	Total at 31/12/14
Retail	9,458	14	106	0	3	**9,580**	**9,286**
Private banking	6,984	9	293	4	-	**7,290**	**7,027**
SMEs	3,674	89	852	32	-	**4,648**	**4,979**
Real-estate professionals	5,919	5	503	4	-	**6,431**	**6,379**
Large corporates	1,631	188	1,802	188	94	**3,904**	**3,986**
Public-sector entities	970	3	971	14	889	**2,848**	**2,991**
Trade finance	994	495	0	13	-	**1,503**	**1,778**
Banks	2,400	570	-	1,283	2,097	**6,349**	**5,873**
Total	**32,030**	**1,372**	**4,527**	**1,539**	**3,083**	**42,551**	**42,299**

The Bank distinguishes among eight types of counterparty depending on legal status, the client's main activity and the intensity of the business relationship.[6]

A large proportion of the Bank’s exposures (40%) represents lending to retail and private banking clients in the form of mortgages and lombard loans.

Companies account for 39% of exposures, which is divided among SMEs, real-estate professionals, large corporates and trade-finance counterparties.

Public-sector exposures mainly consist of limits granted to the Swiss Government, to municipalities and to the Vaud Cantonal Government. Public-sector exposures also include debt securities issued by the Swiss Government, other Swiss cantonal governments and other national governments.

Exposures to bank counterparties represented 15% of total exposures at 31 December 2015. Debt securities issued by banks include investments with the Mortgage-Bond Bank of the Swiss Mortgage Institutions and the Central Mortgage-Bond Institution amounting to CHF 1.6bn.

[5] Excluding derivatives and futures traded by BCV clients on organized markets whose settlement is guaranteed by a central counterparty (see Table 28).

[6] The counterparty types are described in the appendix in section 5.4.2.

Table 9: Breakdown of exposures by residual contractual maturity
in CHF millions, BCV Group[7]

	Situation at 31 December 2015						
Maturity	**On-balance-sheet loans and advances**	**Guarantees issued by the Bank**	**Undrawn credit limits**	**Derivatives**	**Debt securities**	**Total**	**Total at 31/12/14**
Parent company	**31,160**	**1,352**	**4,527**	**1,539**	**3,083**	**41,661**	**41,442**
No maturity	25,688	0	2,863	0	-	**28,552**	**28,226**
Less than 1 year	4,163	1,046	1,663	927	401	**8,200**	**8,238**
1 to 5 years	582	293	1	355	1,107	**2,338**	**2,338**
More than 5 years	727	13	-	257	1,575	**2,572**	**2,640**
Subsidiaries	**870**	**20**	**-**	**0**	**-**	**890**	**857**
Group total	**32,030**	**1,372**	**4,527**	**1,539**	**3,083**	**42,551**	**42,299**

For a large proportion (69%) of the Bank's exposures, there is no contractual maturity for repayment. This is the case for all mortgage loans and for some credit limits. Most mortgage loans are currently fixed-rate loans, which means there are maturity dates on which the interest rate can be renewed. At the maturity dates, most fixed-rate loans are renewed with new interest rates. For tax reasons, it is rare for clients residing in Switzerland to fully pay down their mortgage loan.

Guarantees issued by the Bank and OTC derivatives mostly have a maturity of less than one year. Debt securities are mainly financial investments with maturities of more than one year.

[7] Excluding derivatives and futures traded by BCV clients on organized markets whose settlement is guaranteed by a central counterparty (see Table 28). For subsidiaries, the item "on-balance-sheet loans and advances" also includes debt securities.

Table 10: Provisions
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group[8]

Type of counterparty	Impaired loans: Total commitments 2015	Impaired loans: Total commitments 2014	Impaired loans: Credit-risk provisions 2015	Impaired loans: Credit-risk provisions 2014	Provisions for latent risks 2015	Provisions for latent risks 2014
Parent company	**332**	**394**	**72**	**78**	**7**	**0**
SMEs	135	176	25	30	1	0
Retail	57	77	8	11	0	0
Real-estate professionals	32	51	3	2	0	0
Trade finance	28	13	22	11	6	0
Private banking	64	50	11	10	0	0
Banks	0	0	0	0	0	0
Large corporates	16	28	3	14	0	0
Subsidiaries	**8**	**16**	**1**	**2**	**0**	**0**
Total	**340**	**411**	**73**	**80**	**7**	**0**

Impaired loans amounted to CHF 340m and accounted for 0.9% of credit limits. A provision of CHF 73m exists for these loans; this represents an average provisioning ratio of 22%, which reflects the high quality of the collateral provided on these loans (see Table 25). Provisions are determined individually for each impaired loan, taking into account the liquidation value of collateral and the characteristics of the counterparty. Provisions for latent risks cover high-risk loans to counterparties reputed to be in financial difficulty, together with country risk. Provisions for country risk (CHF 1.0m at 31 December 2015) cover non-impaired exposures in countries where the financial or settlement risk rating is below a given threshold.

[8] As of end-2015, impaired loans consist of loans to counterparties in default (ID); prior to this date, they also included loans to counterparties reputed to be in financial difficulty (RD). Total impaired lending commitments include impaired loans with provisions of zero. With the exception of OTC derivatives, total lending commitments are measured in accordance with the definition provided in footnote 5 (page 19). For OTC derivatives, the exposure is equal to the mark-to-market value plus the add-on calculated using the internal method. For subsidiaries, net impaired lending commitments is used (i.e., excluding impaired loans with provisions of zero).

Table 11: Charge-offs and change in provisions
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group[9]

	Change in provisions		Charge-offs[1]	
Type of counterparty	**2015**	**2014**	**2015**	**2014**
Parent company	**1**	**-43**	**+6**	**-11**
SMEs	-3	-16	-4	-12
Retail	-2	+1	-1	+1
Real-estate professionals	-0	-1	-3	-1
Trade finance	+17	-14	+17	+2
Private banking	+1	+1	-1	-1
Banks	+0	-15	+0	+0
Large corporates	-11	+0	-2	-0
Subsidiaries	**-1**	**+1**	**-0**	**+0**
Total	**0**	**-43**	**+6**	**-11**

[1] Excluding recoveries of CHF 6.2m in 2015 and CHF 5.6m in 2014

Provisions remained stable in 2015, with an increase in Trade Finance provisions offset by a decrease in provisions for retail and corporate clients (see Table 13). The 2015 income statement shows new provisions of CHF 6m (excluding recoveries of CHF 6.2m).

[9] Total lending commitments, with the exception of OTC derivatives, are measured in accordance with the definition provided in footnote 5 (page 19). For OTC derivatives, the exposure is equal to the mark-to-market value plus the add-on calculated using the internal method.

Table 12: Impaired loans by region
in CHF millions, at 31 December 2015, BCV Group

	Impaired loans		
Region	**Total commitments**	**Credit-risk provisions**	**Provisions for latent risks**
Parent company	**332**	72	7
Vaud Canton	244	41	1
Rest of Switzerland	42	8	-
European Union and North America	13	4	-
Rest of world	23	16	6
Unattributed[1]	9	3	-
Subsidiaries	**8**	**1**	**-**
Total	**340**	**73**	**7**

[1] Small exposures that are grouped together and located mainly in Vaud Canton

74% of the parent company's impaired loans are linked to exposures in Vaud Canton and 86% to exposures in Switzerland as a whole.

Table 13: Change in credit-risk provisions
in CHF millions, BCV Group

	Credit-risk provisions	Provisions for latent risks	Total
Amount at 31 December 2014	**76**	**4**	**80**
Used provisions	-14	-	-14
New overdue interest and recoveries	14	-	14
New provisions charged to the income statement	22	3	25
Releases of provisions to income statement	-25	-	-25
Amount at 31 December 2015	**73**	**7**	**80**

Provisions remained stable in 2015 and amounted to CHF 80m at the end of the year. This mainly reflects new provisions being recognized in Trade Finance, offset by a release of corporate provisions after commercial credit facilities were closed out.

Table 14: Exposure by approach applied

in CHF millions, at 31 December 2015, BCV Group[10]

	SA-BIS		IRB		Total	
	Drawn	Undrawn	Drawn	Undrawn	Drawn	Undrawn
Residential retail	-	-	16,309	-	16,309	-
Other retail	628	-	1,180	-	1,808	-
Corporates	4,066	1,773	2,622	521	6,688	2,294
Specialized lending	-	-	6,866	428	6,866	428
Sovereigns	886	75	-	-	886	75
Other institutions	757	375	913	604	1,671	979
Banks	1,092	-	3,455	-	4,547	-
Total	**7,429**	**2,223**	**31,346**	**1,553**	**38,775**	**3,776**

For a large proportion (77%) of the Bank’s lending exposures, the capital requirement is determined using the IRB-F approach. The other exposures are outside the scope of this approach and are determined using the International Standard Approach (SA-BIS). Two main types of exposure are outside the scope of the IRB-F approach:

- Firstly, counterparties for which the Bank does not intend to put in place a rating model are outside the scope of the IRB-F approach. These counterparties include the Swiss Government, Swiss cantonal governments, the Mortgage-Bond Bank of the Swiss Mortgage Institutions, the Central Mortgage-Bond Institution, counterparties with no loan agreement (i.e., for overdrafts) as well as exposures at the Bank's subsidiaries.
- Secondly, counterparties for which the Bank uses an internal rating model that does not yet meet the IRB requirements are outside the scope. This refers in particular to large corporates.

[10] Excluding derivatives and futures traded by BCV clients on organized markets whose settlement is guaranteed by a central counterparty (see Table 28).

4.3.1 The Standard Approach and the IRB approach for specialized lending

International Standard Approach (SA-BIS)

FINMA defines the risk weightings to be applied for exposures treated using the SA-BIS by type of counterparty (Capital Adequacy Ordinance, appendix 2). In this case, FINMA authorizes the use of external ratings (CAO, article 64) provided that:

1. The ratings are supplied by ratings agencies recognized by FINMA.
2. External ratings are applied systematically by the Bank using a precise and specific approach.
3. Where the Bank uses external ratings to determine the risk weightings for a category of positions, the entire category must in principle be weighted through the use of external ratings.

The Bank uses, where available, Standard & Poor’s ratings to determine the risk weightings of almost all counterparties for which the SA-BIS is applied. These counterparties are essentially large corporates and counterparties for debt securities in the financial investments portfolio. For corporate clients with no external rating, a weighting of 100% (“no rating”) is used.

Corporate clients make up 58% of the portfolio that is subject to the SA-BIS. This category includes large corporates for which a compatible IRB default rating model is not yet in operation, and bonds from the Central Mortgage-Bond Institution and the Mortgage-Bond Bank of the Swiss Mortgage Institutions (weighting = 20%). The category "Sovereigns, central banks and other institutions" is composed primarily of exposure to the Swiss Government (weighting = 0%), multilateral development banks recognized by FINMA (weighting = 0%) and several Swiss cantonal governments (weighting = 20%).

Table 15: Portfolio subject to the International Standard Approach (SA-BIS)
in CHF millions, at 31 December 2015, BCV Group[11]

	Retail banking clients		Corporate clients		Sovereigns, central banks and other institutions		Banks		Total	
Risk weighting	**Total lending commitments**	**Commitments less collateral**	**Total lending commitments**	**Commitments less collateral**	**Total lending commitments**	**Commitments less collateral**	**Total lending commitments**	**Commitments less collateral**	**Total lending commitments**	**Commitments less collateral**
0%	0	0	360	196	876	876	544	180	**1,781**	**1,253**
20%	-	-	1,731	1,731	691	691	335	335	**2,757**	**2,757**
35%	405	405	253	253	-	-	-	-	**659**	**659**
50%	-	-	38	38	65	65	30	30	**133**	**133**
75%	87	39	17	17	-	-	-	-	**105**	**56**
100%	131	65	2,002	1,990	10	10	66	66	**2,209**	**2,132**
150%	0	0	16	16	-	-	-	-	**16**	**16**
Total	**624**	**509**	**4,417**	**4,242**	**1,642**	**1,642**	**975**	**611**	**7,658**	**7,005**

[11] Commitments represent exposures after the CCF is applied and the substitution effect is taken into account.

Table 16: Use of external ratings in the International Standard Approach (SA-BIS)
in CHF millions, at 31 December 2015, BCV Group

	Retail banking clients		Corporate clients		Sovereigns, central banks and other institutions		Banks		Total	
Risk weighting	Standard & Poor's	No rating[1]	Standard & Poor's	No rating[1]	Standard & Poor's	No rating[1]	Standard & Poor's	No rating[1]	Standard & Poor's	No rating[1]
0%	-	0	-	360	335	541	142	402	**476**	**1,304**
20%	-	-	123	1,608	16	674	244	91	**384**	**2,373**
35%	-	405	-	253	-	-	-	-	**-**	**659**
50%	-	-	38	-	-	65	0	30	**38**	**95**
75%	-	87	-	17	-	-	-	-	**-**	**105**
100%	-	131	8	1,993	-	10	-	66	**8**	**2,200**
150%	-	0	16	0	-	-	-	-	**16**	**0**
Total	**-**	**624**	**185**	**4,232**	**351**	**1,291**	**386**	**589**	**922**	**6,736**

[1] Counterparties not rated by S&P or whose rating is not used to determine the risk weighting (e.g., the Swiss Government).

Slotting approach for specialized lending

The Bank uses slotting criteria for the financing of real-estate professionals ("income-producing real estate") and trade-finance transactions ("commodities financing"). For these two categories, FINMA has authorized the Bank to assign preferential risk weights to "strong" and "good" exposures (Basel III Accord, §277).

For real-estate professionals, the slots are determined on the basis of the probability of default (PD), loss given default (LGD) and exposure at default (EAD) models that are internally applied to each credit exposure in the real-estate professionals category. A specific mechanism used to calculate capital requirements has been set up to determine the PD of real-estate professionals in order to reduce the sensitivity of regulatory capital to the business cycle.

For trade finance, the slotting is based on a structured analysis of the counterparty (i.e., the sponsor) and of the transaction. It meets the supervisory slotting criteria for specialized lending in annex 4 of the International Convergence of Capital Measurement and Capital Standards: a Revised Framework (Basel II Accord).

Table 17: Portfolios subject to the slotting method under the IRB approach
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group[12]

	Total		Income-producing real estate		Financing of commodities and commodity derivatives	
Slot	**2015**	**2014**	**2015**	**2014**	**2015**	**2014**
Strong	3,871	3,777	3,269	3,055	602	722
Good	2,551	2,576	1,983	1,879	568	697
Satisfactory	464	489	171	144	292	345
Weak	1	2	1	1	0	0
Defaulted	54	32	14	20	40	13
Total	**6,941**	**6,875**	**5,438**	**5,099**	**1,502**	**1,777**

An overwhelming proportion (97%) of real-estate exposure can be found in the strong and good slots. This underscores the fact that this exposure is mainly associated with financing for real-estate investors that is for the most part secured by properties.

Similarly, 78% of trade-finance transactions are in the strong and good slots, as they are secured by recognized collateral (especially cash and merchandise).

[12] Commitments represent exposures after application of the CCF.

4.3.2 IRB approach (excluding specialized lending)

BCV obtained approval from FINMA to use the Basel IRB Foundation approach (IRB-F) to determine regulatory capital requirements for credit risk beginning on 1 January 2009.

Structure of IRB rating systems

The rating system for default risk is composed of a series of rating models. In all cases, the aim is to assess the one-year probability of default, in the form of an internal counterparty default rating. The following models are used for the categories for which the Bank obtained IRB-F approval (they are named for the population to which they apply):

- Individuals (statistical score);
- BCV staff (default probability pool);
- Private banking (default probability pool);
- SMEs (several statistical scores, depending on the nature of the client);
- Municipalities in Vaud Canton (expert-based scores);
- Real-estate professionals (several expert-based scores, depending on the nature of the client);
- Banks (statistical score, integrated into a global analytical approach);
- Joint and several co-debtors (approach based on the transfer of the internal counterparty default rating).

The Bank has also defined and implemented a system of rules governing the transmission of internal ratings for other types of counterparties that are related in terms of credit risk. The scores are accompanied by the analyst assessment rules.

All these models, with the exception of the rating model for bank counterparties, generate an estimate of the probability of default without using external ratings. When assessing default risk, the rating model used for bank counterparties takes into account, among other factors, the ratings issued by the main ratings agencies (Moody's, Fitch and Standard & Poor's).

Internal LGD and EAD models are used to calculate regulatory capital requirements for retail portfolios.

Use of ratings

In addition to being used to calculate regulatory capital requirements under the IRB-F approach, internal ratings are used for numerous purposes (in the front, middle and back offices). Here are the main uses:

- Decision-making support when credit facilities and other commitments are granted or renewed;
- Defining lending authority and the intensity of monitoring;
- Setting risk-adjusted prices;
- Creating provisions;
- Monitoring the performance of business units;
- Analyzing risk on the lending book;
- Strategic planning.

The scope of application of certain models for internal needs goes significantly beyond the scope of the corresponding IRB-F approval. Internal LGD/EAD models are used to estimate the expected loss on most of the Bank's credit portfolios and not only on the retail portfolios. Furthermore, internal rating models for default risk are used for a number of portfolios for which the Bank has not obtained IRB-F approval, such as large corporates.

Managing and integrating the reduction in credit risk

The principles used to recognize and value collateral are the same for the portfolios for which BCV has obtained IRB-F approval for calculating regulatory capital requirements as for the rest of its lending portfolio.

Rating system’s control mechanism

The rating system’s control mechanism obeys the principles of the Bank's internal control system. It is composed of three levels of internal oversight. The first two levels are under the responsibility of the Executive Board, while the third level falls under the Board of Directors:

- Level 1: operational and managerial oversight of business activities, in accordance with the chain of command.
- Level 2: monitoring the appropriateness and effectiveness of level 1 by independent entities.
- Level 3: periodic independent review of levels 1 and 2 by the Internal Audit Department.

For the rating models (PD, LGD and EAD), or other models affecting the assessment of credit risk, three steps are defined. The objectives and responsibilities for each step are as follows:

Step 1: initial validation

Key components of the initial validation include monitoring the following: the logic of the design; the quality of the data; the selection of variables; the modeling process; the development of results; documentation; programming; and implementation.

Preparatory work for the initial validation is conducted within the Risk Management Department by the units responsible for developing the models as part of their development and improvement work. Operational and managerial oversight of this work (level 1) is also done by these units, under the supervision and responsibility of the head of the Risk Management Department.

The Validation of Rating Models unit, under the CFO's responsibility, challenges and monitors in both qualitative and quantitative terms the development and improvement work and the initial validation, (level 2 oversight) and issues an opinion for purposes of the initial validation by the Executive Board’s Risk Management Committee (EBRMC).

The EBRMC is responsible for the initial validation of a new model or an improved model, and, by extension, for authorizing its implementation.

Step 2: monitoring the use of models

This refers to the application of models in the Bank's credit and piloting processes.

For the credit process, analysts from the Credit Management Division and the front office are responsible for using the models and thus for calculating the estimators produced by the models. Analysts and the front office are also responsible for ensuring that the estimators are appropriately used in the context of credit decisions (decisions to grant credit as well as pricing decisions). These activities are subject to operational and managerial oversight which is defined by the analysts and the front office (level 1).

For piloting needs, various departments use the estimators produced by these models in the lending process. The Risk Management Department in particular uses rating models to analyze and monitor risk on the loan book and to calculate capital requirements.

Step 3: ongoing validation

Key components of ongoing validation include ensuring appropriate use of the models and compliance with structural and design-related hypotheses, and back-testing performance (precision and discriminating capacity).

Preparatory work for ongoing validation is conducted by the units responsible for developing the models. These units also propose any necessary measures to be taken in response to the results obtained. Operational and managerial oversight of this work (level 1) is carried out by these units, under the supervision and responsibility of the head of the Risk Management Department.

As during the initial validation, the Validation of Rating Models unit, under the supervision and responsibility of the CFO, challenges and monitors in both qualitative and quantitative terms the ongoing validation (level 2) and issues an opinion on the results of the ongoing validation and the measures proposed, for ongoing validation by the EBRMC.

The EBRMC is responsible for deciding on the ongoing validation for a given model together with possible measures to be taken in this regard. It is therefore also responsible for authorizing the model’s continued use, including constraints and measures to be taken.

Operational principle behind model validation

The core principle underlying the activities of the Validation of Rating Models unit is "close, but independent." Proximity is achieved by involving the unit in the entire process, starting with the initial steps taken by the design teams, both through regular support and regular discussions. Independence is achieved through the use of operational principles overseen by the EBRMC itself.

The auditors’ role

For the three steps defined above, the Internal Audit Department and external auditors' work is set out in their respective audit programs and involves assessing the organization, processes and methods of levels 1 and 2 of the internal control system.

The segmentation of the Bank's default rating system into groups of counterparties is adapted to the Bank’s risk management needs and to its business activities. Within the Bank, both the initial and ongoing model validations are conducted according to these groups. The validation process is distinct from the asset categorization set forth under Basel III.

In order to assess credit facilities and other commitments associated with the various models, the table below shows the correspondence between the scope of application of the default rating models and the Bank's asset categories, for exposures handled under the IRB approach.

Table 18: Exposure (after CCF) by Basel Accord asset category and by counterparty rating model
in CHF millions, at 31 December 2015, BCV Group (IRB scope)[13]

	Basel Accord asset category						
BCV model	**Residential retail**	**Other retail**	**Corporates**	**Specialized lending**	**Other institutions**	**Banks**	**Total**
Individuals[1]	13,008	528	187	-	-	-	**13,723**
SMEs	865	513	1,721	-	39	-	**3,139**
Real-estate professionals	-	3	-	5,438	-	-	**5,442**
Trade finance	-	-	-	1,502	-	-	**1,502**
Vaud municipalities	-	-	-	-	598	-	**598**
Joint and several co-debtors	708	10	65	-	165	-	**947**
Transmission	1,728	103	652	-	110	-	**2,593**
Banks	-	1	-	-	-	2,126	**2,128**
Total	**16,308**	**1,159**	**2,624**	**6,941**	**913**	**2,126**	**30,071**

[1] Including BCV staff and private banking clients

[13] Excluding derivatives and futures traded by BCV clients on organized markets whose settlement is guaranteed by a central counterparty (see Table 28). In tables 18 to 21, exposures correspond to the credit equivalent following application of the credit conversion factors (CCF) and after taking into account the substitution effect.

Table 19: Exposure (after CCF) to risk in the "corporate, bank, and other institution" portfolio
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group, IRB scope

	Exposure		Average risk weighting	
Internal counterparty default rating	**2015**	**2014**	**2015**	**2014**
B1.1	327	266	14%	12%
B1.2	316	338	11%	11%
B1.3	1,893	1,853	16%	16%
B2.1	842	693	25%	26%
B2.2	334	396	43%	39%
B3.1	574	656	50%	51%
B3.2	247	298	62%	60%
B3.3	389	409	75%	74%
B3.4	194	206	83%	83%
B4.1	132	121	93%	90%
B4.2	98	60	97%	91%
B4.3	109	97	122%	117%
B5.1	21	7	121%	95%
B5.2	77	56	156%	158%
B5.3	5	2	186%	102%
B6	-	23	-	92%
B7	105	118	90%	85%
Total	**5,664**	**5,600**	**40%**	**39%**

The average risk weighting on this portfolio (40%)[14] is strongly affected by bank counterparties, which are primarily rated B1.1 to B1.3. Corporate exposures are generally rated B3, implying a higher average risk weighting (58%).

The average risk weighting for B1.2-rated counterparties is below that of B1.1-rated counterparties because the former are slightly better secured and, consequently, the average LGD and the capital requirements are lower.

The average risk weighting for exposures to counterparties in default (rated B7) is below the average risk weighting of some non-impaired counterparties (rated B5.2 and B5.3, for example), because the capital requirement is calculated on the basis of the credit exposure less provisions set aside for the position.

[14] To determine the average risk weighting for the portfolio, the average risk weighting for each internal counterparty default rating is weighted according to its exposure.

Table 20: Exposure (after CCF) to risk in the "residential retail" portfolio
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group, IRB scope

Internal counterparty default rating	Exposure 2015	Exposure 2014	Average risk weighting 2015	Average risk weighting 2014
B1.1	-	0	-	1%
B1.2	1	55	3%	2%
B1.3	2,076	212	2%	2%
B2.1	4,540	3,260	6%	5%
B2.2	3,275	2,873	10%	8%
B3.1	2,583	3,649	18%	13%
B3.2	1,392	3,090	25%	21%
B3.3	954	1,436	32%	27%
B3.4	464	456	41%	32%
B4.1	343	273	51%	42%
B4.2	241	153	63%	50%
B4.3	174	137	73%	53%
B5.1	92	30	103%	75%
B5.2	40	30	93%	87%
B5.3	3	4	182%	120%
B6	14	15	181%	116%
B7	116	96	131%	115%
Total	**16,308**	**15,770**	**17%**	**16%**

Exposure in the "residential retail" portfolio is made up of mortgage loans that are for the most part secured by properties (mainly single-family homes). The resulting average risk weighting was 17%.

Table 21: Exposure (after CCF) to risk in the "other retail" portfolio
in CHF millions, at 31 December 2015 and 31 December 2014, BCV Group, IRB scope

	Exposure		Average risk weighting	
Internal counterparty default rating	**2015**	**2014**	**2015**	**2014**
B1.1	-	-	-	-
B1.2	0	2	1%	3%
B1.3	15	6	5%	4%
B2.1	514	566	5%	5%
B2.2	81	76	23%	25%
B3.1	133	142	41%	41%
B3.2	71	93	60%	53%
B3.3	89	91	71%	68%
B3.4	66	66	83%	82%
B4.1	67	64	83%	87%
B4.2	38	43	96%	97%
B4.3	21	30	101%	103%
B5.1	9	12	80%	98%
B5.2	10	11	91%	82%
B5.3	1	1	131%	94%
B6	4	6	158%	94%
B7	41	35	41%	32%
Total	**1,159**	**1,244**	**36%**	**35%**

The "other retail" portfolio is smaller than the previous two portfolios in terms of volume. It is composed of lombard loans to private banking clients (B2.1 rating) and to SMEs that meet the criteria to be handled as retail clients. These SMEs are rated B3, and exposure to them is generally not well secured, which leads to a relatively high average risk weighting for this portfolio (36%).

Table 22: New provisions within the IRB scope
in CHF millions, at 31 December 2015, BCV Group, IRB scope

Portfolio	New provisions 2015	Long-term annual average (2003-2015)
Corporates, sovereigns, banks	4	8
Residential retail	1	3
Other retail	2	3
Total	**7**	**14**

New provisions recognized in 2015 relative to IRB scope exposures were below the long-term annual average.

Table 23: Internal estimates and observed losses within the IRB scope
in CHF millions, at 31 December 2015, BCV Group, IRB scope[15]

Portfolio	Average annual expected loss (in CHF millions)	Average annual observed loss (in CHF millions)	Average annual probability of default	Average annual observed default rate	Average LGD	Average observed loss rate
Corporates, sovereigns, banks	10	4	0.8%	0.9%	44%	15%
Residential retail	5	1	0.4%	0.2%	13%	4%
Other retail	6	3	1.0%	1.0%	49%	16%
Total	**21**	**8**	**0.8%**	**0.8%**	**38%**	**14%**

[15] Expected loss is determined by applying PD, LGD and EAD models to non-impaired exposures at the start of the year. The observed losses on each counterparty that entered into default during the year are determined on the basis of the effective losses for counterparties that have been closed out and on the basis of the provisions created for counterparties that have not been closed out. The average LGD is equal to the estimated LGD at the beginning of the year for counterparties that went into default during the year. The observed loss rate is determined for counterparties that went into default during the year, on the basis of effective losses (closed out) and provisions (not closed out).

Within the IRB scope, the annual observed losses in the period analyzed (2003 to 2015) are lower than the average annual expected losses. The difference is due mainly to an overestimate of the observed loss rate by the LGD model during this unique period, in which economic growth was generally on the rise and the property market was favorable to the sale of property collateral (6% annual rise in prices for single-family homes between 2003 and 2014).

4.3.3 Standard and IRB approaches: Risk reduction

Risk-reduction approaches and procedures are described in section 4.3.

Table 24: Risk-reduction technique: International Standard Approach (SA-BIS)
in CHF millions, at 31 December 2015, BCV Group

Portfolio	Initial exposure (after CCF and provisions)	Outflows	Inflows	Exposure after substitution effect	Financial collateral	Property-related collateral	Other eligible collateral	Unsecured amounts
Retail	624	-0	0	624	115	427	-	82
Corporates	4,567	-150	0	4,417	175	583	-	3,659
National, cantonal and municipal governments	1,157	-	485	1,642	-	-	-	1,642
Banks	1,097	-122	0	975	364	-	-	611
Total	**7,445**	**-272**	**485**	**7,658**	**653**	**1,011**	**-**	**5,994**

The impact of risk-reduction measures is low in the scope of the SA-BIS. This is due to the predominance of exposure to large corporates and Swiss federal and cantonal governments, which are generally not secured.

Table 25: Risk-reduction technique: IRB approach
in CHF millions, at 31 December 2015, BCV Group, excluding specialized lending

		Substitution effect			Secured amounts			
Portfolio	**Initial exposure (after CCF)**	**Outflows**	**Inflows**	**Exposure after substitution effect**	**Financial collateral**	**Property-related collateral**	**Other eligible collateral**	**Unsecured amounts**
Residential retail	16,308	-	1	16,308	16	16,198	6	88
Other retail	1,158	-	0	1,158	546	127	26	460
Corporates – excluding specialized lending	3,321	-293	-	3,028	197	583	-	2,247
National, cantonal and municipal governments	579	-	79	658	33	43	-	582
Banks	3,508	-	0	3,508	1,405	-	-	2,103
Total	**24,873**	**-293**	**80**	**24,660**	**2,197**	**16,951**	**32**	**5,480**

IRB-eligible collateral reduces the total exposure by CHF 19,180m (–78%) after the substitution effect. Property-related collateral associated with mortgage loans is predominant. This concentration is heightened by the fact that most pledged real estate is in Vaud Canton. Property-market stress simulations are regularly carried out in order to take into account the increased risk of loss stemming from a drop in property prices.

4.3.4 Derivatives

OTC Derivatives

Limits for OTC derivatives (including forward contracts) are mainly granted to bank counterparties in order to carry out trading operations and interest-rate risk hedging transactions. They are also granted to companies or public-sector entities so that they can hedge typically against exchange-rate and interest-rate risk.

Limits for OTC derivatives are granted according to the lending process and lending authority described in section 4.3. They are monitored daily on an individual basis.

Credit-risk exposure is measured according to the principle of “positive mark-to-market value plus add-on." The add-on is determined by type of underlying and by maturity, on the basis of internal models.

Where the Bank has entered into an ISDA netting agreement with the counterparty, contracts with negative mark-to-market values can be taken into account to reduce credit-risk exposure.

Where the Bank has entered into a CSA collateral management agreement with the counterparty, credit-risk exposure is determined according to the same principle, taking into account the amount of the cash collateral and based on a reduced add-on, in order to take into consideration the frequency of revaluation and the option to make margin calls.

When calculating capital requirements, exposures are determined according to the current exposure method (Basel II Accord, annex IV, figures 91ff), taking account of regulatory add-ons as well as netting and collateral management agreements. Capital requirements are determined according to the appropriate approach (IRB or International Standard Approach), which since 1 January 2013 includes the credit value adjustment (CVA).

Table 26: Counterparty-risk exposure (OTC derivatives)
in CHF millions, at 31 December 2015, BCV Group

	Parent company						
	Banks	Corporates	National, cantonal and municipal governments	Individuals	Parent Co. total	Subsidiaries	Group total
Positive mark-to-market value	727	106	32	3	867	-	**867**
Netting	-396	-16	-3	-0	-416	-	**-416**
Exposure after netting effects	330	90	28	2	451	-	**451**
Cash collateral	-162	-	-	-	-162	-	**-162**
Net exposure	168	90	28	2	289	-	**289**
Exposure at default (EAD)[1]	867	204	47	4	1,123	-	**1,123**

[1] Before netting and collateral agreements

The majority of the net exposure (58%) is the result of derivative operations with bank counterparties.

Risk-reduction measures (i.e., netting and cash collateral agreements) reduce the exposure by around 70%.

Table 27: Regulatory EAD for OTC derivatives by type of underlying
in CHF millions, at 31 December 2015, BCV parent company, EAD (mark-to-market value plus regulatory add-on)

Underlying assets	EAD before netting and collateral agreements	Impact of netting and collateral	EAD after netting and collateral
Equities	-	-	-
Fixed income	110	-49	61
Forex	920	-517	403
Gold and other precious metals	92	-64	28
Other	0	-	0
Total	**1,123**	**-630**	**493**

Forward contracts and derivatives on currencies account for 82% of total regulatory EAD. Fixed-income derivatives are mainly swaps entered into to hedge against the Bank's interest-rate risk. The Bank enters into CSA collateral management agreements with its main OTC-derivative counterparties in order to reduce credit risk.

Derivatives traded on organized markets

Contracts traded on organized markets whose settlement is guaranteed by a central counterparty mainly relate to transactions on behalf of clients (investment funds, banks, companies, individuals). The Bank's nostro positions represent around 10% of total exposure.

The contracts traded are mainly options and futures on equities and major indexes. The major organized markets are Eurex, the Chicago Mercantile Exchange, and LIFFE.

Capital requirements for these positions have been calculated since Basel III came into force on 1 January 2013.

Table 28: Regulatory EAD for derivatives traded on organized markets
in CHF millions, at 31 December 2015, BCV Group, EAD (mark-to-market value plus regulatory add-on +/- value of collateral after regulatory haircuts)

	BCV is a clearing member			BCV is the client of a clearing member		
	Options	Futures	Total[1]	Options	Futures	Total[1]
Exposures to central counterparties (total)	**7**	**52**	**59**	**5**	**31**	**36**
BCV nostro portfolio	0	0	0	0	1	1
Client positions	7	52	59	5	30	35
Exposures to BCV clients (total)[2]	**19**	**5**	**24**	**2**	**5**	**6**
Funds	6	5	11	-	4	4
Banks	1	0	1	0	0	0
Corporates	7	0	8	0	-	0
Individuals	5	0	5	1	0	2

[1] After netting between options and futures
[2] After applying the scalar of 0.71

4.4 Non-counterparty-related assets

The notion of non-counterparty-related risk refers to a risk of loss arising from changes in asset values or from the liquidation of assets not linked to a counterparty (e.g., buildings and other tangible fixed assets).

Tangible fixed assets are carried at cost, with the exception of software developed by the Bank for in-house use, which is carried at production cost. Tangible fixed assets are depreciated on a straight-line basis over their estimated useful lives within the following limits: a maximum of 50 years for real estate, a maximum of ten years for technical facilities, and a maximum of five years for machinery, furniture, fittings and computer hardware and software.

Asset values are reviewed annually. If there is a decline in value or a change in the useful life, the carrying value of the asset concerned is written down and the residual value is depreciated over the remaining estimated useful life of the asset.

Available-for-sale real estate acquired in connection with credit operations and carried under financial investments is also included in non-counterparty-related assets; it is valued at the lower of cost or market.

Table 29: Risk-weighted non-counterparty-related assets
in CHF millions, BCV Group

	at 31 December 2015			
	Balance-sheet position	Risk weighting	Risk-weighted assets	Risk-weighted assets at 31 December 2014
Real estate	475	100%	475	483
Other tangible fixed assets and other assets	185	100%	185	210
Assets in offset account	23	0%	0	0
Total	**683**		**660**	**693**

4.5 Market risk

4.5.1 Market risk on the trading book

Strategy and process

All trading activities are managed within the Asset Management & Trading Division. A distinction is made between the trading portfolio, which includes all the trading departments' positions, and the financial management nostro portfolio, which is composed of the nostro positions managed by the Asset Management Department.

The Trading Department carries out market transactions in equities, fixed income instruments, forex and precious metals on behalf of internal and external counterparties. It has also acquired expertise in structured products. The Trading Department is active along the entire structured product value chain, from issuing to market-making. Since BCV completely withdrew from proprietary equity-derivative trading at the end of 2009, the Trading Department has focused primarily on customer-driven transactions.

The Asset Management Department is responsible for the financial management nostro portfolio. While this portfolio used to focus on providing a return, it was given a new role under the Bank's new strategy and significantly reduced in 2009 and early 2010. It is now used to assist in the creation of new Asset Management funds, while keeping risk-taking at a minimum. This portfolio may be invested in stocks, bonds, simple derivatives, structured products, funds, and funds of funds. All of these positions (apart from those in funds and funds of funds) are on recognized exchanges or representative markets.

Structure and organization

All new Asset Management & Trading products and instruments must be approved by the Division’s Product and Instrument Committee (PIC). This committee is chaired by the Executive Board member in charge of the Asset Management & Trading Division and includes the Division’s department heads, the head of the Risk Management Department (right of veto) and the head of the Back Office Department (right of veto). The process ensures that before a product is launched, all requirements have been met in the areas of risk management, ALM, treasury management, back offices, legal, compliance, tax and IT.

For all trading positions, the overnight monitoring of market risk is under the responsibility of the Market Risk Unit within the Risk Management Department. The Market Risk Unit also defines the risk control measures and monitors the appropriateness of risk control for new trading products.

Risk assessment

Various techniques are used to measure risk exposure on the Asset Management & Trading Division's trading portfolio:

- Historical overnight Value-at-Risk (VaR) with a one-day time horizon and a confidence level of 99%;
- Analysis of potential losses using static stress tests;
- Sensitivity metrics such as delta, gamma, vega, theta and rho.

Limit utilization is controlled and reported daily by the Market Risk Unit.

Various techniques are used to measure risk on the Asset Management & Trading Division's financial management nostro portfolio:

• Historical VaR with a six-month time horizon and a confidence level of 99%.

• Analysis of potential losses using static stress tests and dynamic six-month stress tests;

Market-risk-weighted assets correspond to the minimum capital requirements multiplied by 12.5. Minimum capital requirements for market risk on BCV's trading book are determined in accordance with the Standard Approach (CAO, Article 84) without the use of in-house models. For options trading, the calculation is based on the delta-plus method: the market value of the underlying is multiplied by the delta for the options positions. This method also takes gamma and vega into account. Hedge-fund positions in the financial management nostro portfolio are not included in the capital-requirement calculations for the trading book. Instead, these positions are included in the Bank’s financial investment portfolio and treated as equity securities.

Risk-weighted assets related to interest-rate risk represented the largest proportion of risk-weighted assets at the end of December 2015. Currency swaps for customer-driven forex trading and bond positions for interest-rate operations accounted for a large proportion of the risk-weighted assets exposed to interest-rate risk at 31 December 2015. Risk-weighted assets for equity risk result primarily from nostro positions managed by the Asset Management Department.

Table 30: Risk-weighted assets by type of underlying (Standard Approach)
in CHF millions, BCV Group

	December 2015	December 2014
Interest-rate risk	166	131
Equity risk	55	94
Exchange-rate risk	142	125
Commodity risk	0	0
Total	**363**	**350**

4.5.2 Risk on equity securities on the banking book

Equity securities on the banking book are recorded on the balance sheet in the line items Financial investments and Non-consolidated holdings.

Strategy and processes

Financial investments are composed of strategic holdings with a long time horizon that are acquired in accordance with the Bank's strategy. The Bank defined an upper limit of CHF 200m for these equity securities and, in principle, does not invest directly in private-equity positions.

The authority to acquire and change long-term holdings is held by the Executive Board for holdings of up to CHF 20m and the Board of Directors for larger amounts. The Board of Directors has responsibility for setting up and selling subsidiaries.

Risk assessment

Equity securities included in financial investments are mainly listed or unlisted shares and fund units that are not held for trading purposes or for long-term investment. They are valued at lower of cost or market.

The “Non-consolidated holdings” line item comprises corporate equity securities, which are held as long-term investments irrespective of voting rights. It also includes the Group's infrastructure-related holdings, particularly joint ventures. They are stated at cost, less any required impairment.

Capital requirements are determined for both equity securities recorded under Financial investments and those entered under Non-consolidated holdings. A 250% risk weighting is applied to shareholdings of more than 10% in financial companies, while the simple risk-weight method is applied to all other equity securities included in Financial investments and Non-consolidated holdings.

Table 31: Risk-weighted assets for equity securities on the banking book
in CHF millions, BCV Group

	At 31 December 2015					
	Balance-sheet position	Commitments relating to equity securities	Total	Risk weighting	Risk-weighted assets	Risk-weighted assets at 31 December 2014
Equity securities carried under Financial investments						
Listed shares	23	-	23	300%	74	75
Unlisted shares	8	-	8	400%	35	38
Private equity	-	1	1	400%	3	55
Total	32	1	32		113	167
Equity securities carried under Non-consolidated holdings						
Unlisted shares	11	-	11	400%	48	72
Shareholdings of >10% in financial companies	37	112	149	250%	372	372
Total	48	112	160		420	444
Total shareholdings	**80**	**113**	**192**		**532**	**612**

Table 32: Reserves on equity securities carried under financial investments, valued at lower of cost or market
in CHF millions, at 31 December 2015, BCV Group

			Reserves			
	Book value	Fair value	31/12/2015	31/12/2014	Change	Profit or loss on disposals in 2015
Listed shares	23	63	40	41	-1	0.3
Unlisted shares	8	9	-	-	-	8.3
Private equity	-	-	-	-	-	0.6
Total	**32**	**72**	**40**	**41**	**-1**	**9.2**

4.5.3 Interest-rate risk on the banking book

Strategy and processes

The Board of Directors establishes the Bank's principles for managing risk and decides on the risk strategy it will pursue, which includes the target profile for interest-rate risk on the banking book (IRRBB). The target interest-rate risk profile is defined in the Financial Strategy and reviewed annually as part of the Risk Management Policy and Strategy (RMPS). The process for defining the IRRBB target profile is guided by limits approved by the Board of Directors in the form of equity duration.

Structure and organization

The Executive Board is responsible for organizing and implementing IRRBB management. The Executive Board delegates management of this type of risk to its Asset and Liabilities Management Committee (ALCO). This committee meets monthly. It is chaired by the CEO and comprises four other Executive Board members, including the CFO.

Within the Finance & Risks Division, IRRBB management is centralized by the ALM & Financial Management (ALM-FM) Department, which reports directly to the CFO. This department is responsible for:

- Defining and maintaining the models and principles used to manage IRRBB as part of the Bank's Financial Strategy. These models and principles are approved by the Executive Board’s Risk Management Committee and by the Board of Directors.
- Producing monthly reports on IRRBB management and presenting them to the ALCO. This report is also presented to the Executive Board and the Board of Directors each quarter.

Risk assessment

The ALM-FM Department continuously manages interest-rate risk for the parent company’s entire banking book.

Interest-rate risks from trading activities represent market risks and are outside the scope of IRRBB.

Interest-rate risk relating to the activities of Piguet Galland & Cie SA is managed independently by its Executive Board under the supervision of BCV Group.

Each quarter, the interest-rate position for the entire Group is determined by the ALM-FM Department, in accordance with the approach used by the parent company. It is then presented to the ALCO, the Executive Board and the Board of Directors.

At 31 December 2015, in terms of sensitivity, the parent company’s IRRBB accounted for 98% of the Group’s IRRBB position.

Within the parent company, interest-rate risk positions are consolidated through a fund transfer pricing process to systematically hedge business activities against interest-rate risk. For this, interest-rate reset frequencies are determined on the basis of the transactions’ contractual features. For non-maturing products such as variable-rate loans, savings, sight accounts and debit accounts, interest-rate reset frequencies are determined using replicating models. These models take into consideration clients' historical behavior in terms of refinancing and funding requirements. Options positions are converted into their delta equivalent in terms of interest-rate positions. The assumptions and modeling processes used in the replicating models are reviewed annually by the ALM-FM and approved by ALCO.

Risk positions are measured on a monthly basis using two types of indicators:

- Static indicators, which measure the sensitivity of the net current value of the banking book, including:
  - the current value of equity capital;
  - the sensitivity of the economic value of equity capital to an interest-rate change of 100bp;
  - the duration of equity capital;
  - the VaR of the net current value of the banking book;
  - key rate durations.
- Dynamic indicators, which measure the sensitivity of the net interest margin to different interest-rate scenarios. These indicators simulate the net interest margin over the following three years based on seven interest-rate scenarios. Each scenario takes into account changes in the balance sheet and in client behavior. These simulations also include calculations of the value and duration of equity capital at future dates.

Risk reduction

The hedging products that are most commonly used are interest-rate swaps. Options positions on the banking book are systematically hedged through market transactions.

Table 33: Duration
in CHF millions, the parent company, impact of a 100bp rate hike over the entire yield curve on the economic value of equity capital

	Interest-rate terms					
	Less than 3 months	3-12 months	1-4 years	4-7 years	More than 7 years	Total
At 31 December 2015	**-2.4**	**21.3**	**48.4**	**-325.3**	**-145.1**	**-403.1**
At 31 December 2014	-4.9	18.4	52.9	-215.5	-179.8	-328.9

As the Bank is essentially exposed to rises in interest rates, only rate increases are simulated.

4.5.4 Liquidity risk

Strategy and process

The Board of Directors sets out the principles for managing liquidity risk and the target liquidity risk profile. The target liquidity-risk profile is expressed in the form of internal limits for the liquidity coverage ratio (LCR) and for other metrics used to analyze the balance sheet's structure. These internal limits are reviewed annually.

Structure and organization

The Executive Board delegates responsibility for managing liquidity risk to the ALCO, which does so in accordance with the principles set out by the Board of Directors. Every month, ALCO monitors liquidity risk via the monthly ALCO report. The reports are also submitted to the Executive Board and the Board of Directors every quarter.

Within the Finance & Risks Division, the ALM-FM Department, which includes ALM and Treasury, is responsible for the centralized and operational management of liquidity risk.

- Treasury manages the parent company's liquidity position on a daily basis and ensures that the internal LCR limit is complied with. Treasury is also the counterparty for Group subsidiaries when managing their liquidity positions.
- ALM submits proposals to the ALCO concerning strategic balance-sheet management (e.g., long-term borrowings and financial investments) and draws up the ALCO reports;
- ALM is also in charge of determining and maintaining liquidity-risk management principles and models. The principles are approved by the ALCO and the Board of Directors, while models are approved by the EBRMC.

Risk assessment

There are two types of liquidity-risk metrics:

- Static metrics, which calculate the risk on a given date in order to assess the risk level instantaneously and monitor changes over time;
- Dynamic metrics, which calculate the risk on future dates in order to anticipate changes in the risk level. Dynamic metrics are determined by simulating changes in balance-sheet items over the next three years.

The following metrics are calculated both statically and dynamically and analyzed by the ALCO in order to assess the Bank's liquidity position and the robustness of its balance sheet:

- Basel III liquidity ratios (LCR and NSFR);
- The net funding requirements of the Bank's business lines;
- The long-term funding plan.

Other static indicators are also monitored by the ALCO:

- Maturities distribution/concentration;
- Funding costs on the interbank and bond markets.

In addition to these risk metrics, stress tests are conducted to quantify the impact that different adverse scenarios would have on the Bank's liquidity position over a given time. These stress tests are the starting point for setting internal limits.

Funding structure

BCV is funded primarily by client deposits. These account for close to 70% of total liabilities and shareholders' equity and come in the form of savings, sight deposits, time deposits and medium-term notes.

Long-term borrowings account for just over 15% of total liabilities and shareholders' equity. Most long-term borrowings are mortgage-backed bonds issued through the Central Mortgage-Bond Institution, which represents a stable source of long-term funding. Other long-term borrowings (e.g., structured products and bonds) are made for diversification purposes.

Unsecured amounts due to banks represent just over 3% of total liabilities and shareholders' equity. Secured amounts due to banks (i.e., repurchase agreements) account for approximately 4%.

The remaining items are shareholders' equity (around 8%) and other liabilities (for around 3%).

Liquidity coverage ratio (LCR)

The LCR is an international regulatory standard set out in the Basel III Accord. It became mandatory on 1 January 2015. The LCR ensures that a bank has enough liquidity to withstand a 30-calendar-day liquidity stress scenario. It is the ratio between the amount of high-quality liquid assets (HQLA) available and potential net cash outflows over a 30-day period. The term net cash outflows is defined as the total potential cash outflows (such as withdrawals from sight deposits and non-renewals of borrowings with a maturity of less than 30 days) less the total potential cash inflows (such as the repayment of receivables with a maturity of less than 30 days) in a stress situation. For banks that, like BCV, are not systemically important, the minimum requirement for the LCR was 60% for 2015. It will be increased by 10% each year, reaching 100% by 2019.

Table 34: LCR breakdown

in CHF millions, BCV Group, average risk-weighted amounts

	Q4 2015[1]	Q3 2015[2]	31 December 2014
HQLAs	**7,491**	**7,234**	**6,429**
Net cash outflows	**6,741**	**6,593**	**6,146**
Cash outflows	8,673	8,978	7,742
Cash inflows	1,932	2,384	1,596
LCR	**111%**	**110%**	105%

[1] Simple average of figures at the end of October, November and December 2015

[2] Simple average of figures at the end of July, August and September 2015

The LCR for all BCV Group currencies combined increased 6 percentage points from end-2014 to reach 111% in Q4 2015, owing to a rise in customer deposits and in cash deposited in the Bank's Swiss Interbank Clearing (SIC) account (i.e., cash deposited with the Swiss National Bank). In 2015:

- Cash inflows rose following an increase in due from banks in the form of sight deposits;
- Cash outflows were up following a rise in customer deposits and in due to banks in the form of sight deposits;
- The rise in HQLAs reflects a rise in assets deposited in the Bank's SIC account, which in turn is a result of an increase in customer deposits.

Assets in the Bank's SIC account make up more than 60% of the Bank's HQLAs. The remaining HQLAs are primarily Swiss-issued securities that have a credit rating of between AAA and AA-

(Central Mortgage-Bond Institution, the Mortgage-Bond Bank, the Swiss government and cantonal governments) and that are eligible as collateral for SNB open-market transactions.

Outflows from retail and corporate client deposits account for more than 90% of total cash outflows. This reflects the fact that client deposits are the Bank's primary source of funding and also therefore the primary source of potential fund outflows in the event of a liquidity run.

Other cash outflows relate mainly to:

- Derivatives maturing within 30 days and margin calls relating to credit support annexes;
- The undrawn part of credit facilities granted to clients;
- Contingent liabilities (e.g., guarantees and letters of credit).

Loans to clients and due from banks maturing within 30 days account for almost 90% of cash inflows. The remaining cash inflows primarily come from derivatives maturing within 30 days.

The LCR in Swiss francs is higher than the LCR for all currencies combined, as almost all HQLAs are denominated in Swiss francs (cash deposited at the SNB). Conversely, the LCR in euros and US dollars is lower than the LCR for all currencies combined.

4.6 Operational risk

Strategy and processes

Exposures to operational risks result from the Bank carrying out its activities and are not actively sought after.

The aim of operational-risk management is to mitigate operational-risk factors by identifying areas of improvement and strengthening the Bank's operational and management control system. In particular, the Bank aims to reduce its exposure to:

- The erroneous or malicious behavior of employees, suppliers, bank counterparties, customers or other parties external to the Bank;
- Inadequate IT systems (applications, interfaces and hardware) or communication systems (telephone, fax, email, social media, etc.);
- Inadequate infrastructure;
- Inadequate organization in terms of the conceptual framework (methods, processes, corporate structure, etc.) or the organizational framework (rules, policies, directives and manuals);
- External factors, such as the risks of natural disasters, pandemic and social unrest.

Structure and organization

The Operational Risk Unit within the Finance & Risks Division's Risk Management Department is in charge of conducting periodic analyses to monitor the Bank's operational-risk profile (general self-assessments or specific analyses) and gathering and analyzing information on operational incidents that have occurred. This unit develops the methods used for managing operational risk and submits them for approval to the Executive Board's Risk Management Committee. The unit is also responsible for implementing these methods. In addition, the Operational Risk Unit contributes to creating and implementing assessment methods and tools for the Bank's internal control system.

Operational risk reviews and analysis of operational incidents

Periodic reviews are carried out in order to anticipate the main operational risks. These reviews are supplemented by ad-hoc analyses if new threats arise, if FINMA submits a specific request or if a major risk event occurs in another bank. The aim of these reviews is to reveal possible improvements to operational and managerial controls.

In addition to anticipating risks, the Bank exhaustively and systematically gathers information on and analyzes the main operational incidents arising from the Bank's activities. These incidents are recorded in a dedicated operational-risk-management system and analyzed on a monthly basis in order to improve internal controls. Whenever possible, the Bank manages major operational incidents according to pre-defined action plans.

The Risk Management Department forms part of the level 2 oversight of the internal control system. As such, the Department conducts regular reviews of how operational risks are detected, the measures in place for mitigating operational risks and the related controls. These reviews are conducted as part of the annual review of main risks and of the internal control system.

Since the Basel II Accord came into force, the Bank has determined its regulatory capital requirements for operational risk in accordance with the Standard Approach (CAO, Article 93). Under this approach, the Bank allocates income to the eight business segments set forth by the regulator.

Table 35: Capital requirements for operational risks
in CHF millions, BCV Group

		at 31 December 2015		
Business segments	**Weighting**	**Average operating income**	**Risk-weighted assets**	**Risk-weighted assets at 31 December 2014**
Corporate finance/advisory	18%	11	25	29
Trading	18%	137	308	274
Private clients	12%	273	410	425
Corporate clients	15%	337	631	616
Payment and settlement	18%	38	86	76
Deposits and fiduciary deposits	15%	49	92	91
Institutional asset management	12%	118	177	195
Brokerage	12%	40	60	58
Total			**1,789**	**1,764**

Internal control system

The Bank's internal control system (ICS) was developed in accordance with the recommendations of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and the Basel Committee, and pursuant to FINMA circular 2008/24 and Swiss auditing standard No. 890.

The ICS is an integrated bank-wide system covering all functions and all hierarchical levels. In addition to the Bank's front-line activities, the system also applies to business-support, steering and monitoring functions as well as to external service providers, particularly those falling under the scope of FINMA circular 2008/7 on outsourcing.

BCV works continually to foster a culture of oversight among its staff so that each employee understands his or her role in the ICS. Oversight is thus part of employee performance assessment and skills development.

In accordance with the disclosure and reporting requirements set forth in FINMA Circular 2008/24, the Bank carries out a review at least annually of key risks and controls, with a particular focus on operational risks related to execution. The Bank keeps detailed records of these risks and controls for each department and identifies the main areas of potential improvement.

Each year, following the review, the Bank assesses its operational ICS and submits a report to the governing bodies. It also submits an annual assessment of its ICS for the financial accounts in order to meet the requirements of Swiss auditing standard No. 890.

5. APPENDICES

5.1 Additional information on eligible capital

5.1.1 Breakdown of regulatory capital

This table fulfills the requirement to disclose the breakdown of regulatory capital (Composition of capital disclosure requirements, Basel Committee, June 2012, §4, section 1 and FINMA Circular 2008/22, margin number 38).

Table 36: Breakdown of regulatory capital
in CHF millions, BCV Group, at 31 December 2015

	Common Equity Tier 1 capital: instruments and reserves		Ref.[1]
1	Directly issued qualifying common share (and equivalent for non-joint stock companies) capital plus related stock surplus	68	c + i
2	Retained earnings	2,841	b + g + l - m
3	Accumulated other comprehensive income (and other reserves)	204	e + h - f
4	*Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)*		
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	0	j - n
6	**Common Equity Tier 1 capital before regulatory adjustments**	**3,113**	

	Common Equity Tier 1 capital: regulatory adjustments		Ref.[1]
7	Prudential valuation adjustments		
8	Goodwill (net of related tax liability)	23	a
9	Intangibles other than mortgage-servicing rights (net of related tax liability)		
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)		
11	Cash-flow hedge reserve		
12	Shortfall of provisions to expected losses	53	
13	Securitization gain on sale (as set out in paragraph 562 of Basel III framework)		
14	Gains and losses due to changes in own credit risk on fair valued liabilities		
15	Defined-benefit pension fund net assets		
16	Investments in own shares (if not already netted off paid-in capital on reported balance sheet)		
17	Reciprocal cross-holdings in common equity		
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued share capital (amount above 10% threshold)	0	
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	0	
20	Mortgage servicing rights (amount above 10% threshold)		
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)		
22	Amount exceeding the 15% threshold	0	
23	of which: significant investments in the common stock of financials		

24	of which: mortgage servicing rights		
25	of which: deferred tax assets arising from temporary differences		
26	Expected loss for equity positions under the PD-LGD approach and the simple risk-weight method	0	
26a	Other adjustments for financial statements prepared under internationally recognized accounting principles		
26b	Other deductions		
27	Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions	0	
28	**Total regulatory adjustments to Common equity Tier 1**	**75**	
29	**Common Equity Tier 1 capital (CET1)**	**3,038**	

	Additional Tier 1 capital: instruments		**Ref.[1]**
30	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus		
31	of which: classified as equity under applicable accounting standards		
32	of which: classified as liabilities under applicable accounting standards		
33	*Directly issued capital instruments subject to phase out from Additional Tier 1*		
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)		
35	of which: instruments issued by subsidiaries subject to phase out		
36	**Additional Tier 1 capital before regulatory adjustments**	**0**	

	Additional Tier 1 capital: regulatory adjustments		**Ref.[1]**
37	Investments in own Additional Tier 1 instruments		
38	Reciprocal cross-holdings in Additional Tier 1 instruments		
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)		
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)		
41	National specific regulatory adjustments		
42	Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions		
43	**Total regulatory adjustments to Additional Tier 1 capital**	**0**	
44	**Additional Tier 1 capital (AT1)**	**0**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**3,038**	

	Tier 2 capital: instruments and provisions	
46	Directly issued qualifying Tier 2 instruments plus related stock surplus	0
47	*Directly issued capital instruments subject to phase out from Tier 2*	
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	0
49	*of which: instruments issued by subsidiaries subject to phase out*	
50	Provisions	19
51	**Tier 2 capital before regulatory adjustments**	**19**

	Tier 2 capital: regulatory adjustments	
52	Investments in own Tier 2 instruments	0
53	Reciprocal cross-holdings in Tier 2 instruments	
54	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above the 10% threshold)	
55	Significant investments in the capital banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	
56	Other deductions	
56a	Surplus deductions, included in AT1	
57	**Total regulatory adjustments to Tier 2 capital**	**0**
58	**Tier 2 capital (T2)**	**19**
59	**Total capital (TC = T1 + T2)**	**3,056**
60	**Total risk-weighted assets**	**16,589**

	Capital ratios and buffers	
61	Common Equity Tier 1 (as a percentage of risk-weighted assets)	18.3%
62	Tier 1 (as a percentage of risk-weighted assets)	18.3%
63	Total capital (as a percentage of risk-weighted assets)	18.4%
64	Institution-specific CET1 capital requirement (minimum CET1 requirement plus capital conservation and countercyclical buffer requirements, expressed as a percentage of risk-weighted assets) taking into account transitional rules	5.2%
65	*of which: capital conservation buffer requirement*	0.0%
66	*of which: bank specific countercyclical buffer requirement*	0.7%
67	*of which: G-SIB buffer requirement*	-
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk-weighted assets)	14.9%
68a	AT1 capital buffer requirements under FINMA Circular 2008/22 (as %)	8.5%
68b	AT1, specific additional requirements (in CHF)	14.2%
68c	T1 excess (as %)	10.3%
68d	T2 capital buffer requirements (as %)	16.0%
68e	T2, specific additional requirements (in CHF)	12.7%
68f	Overall excess (as %)	18.4%

	National minima (if different from Basel III)	
69	National Common Equity Tier 1 minimum ratio (if different from Basel III minimum)	N/A
70	National Tier 1 minimum ratio (if different from Basel III minimum)	N/A
71	National Tier 1 minimum ratio (if different from Basel III minimum)	N/A

	Amounts below the thresholds for deduction (before risk weighting)	
72	Non-significant investments in the capital of other financials	27
73	Significant investments in the common stock of financials	149
74	Mortgage servicing rights (net of related tax liability)	0
75	Deferred tax assets arising from temporary differences (net of related tax liability)	0

Applicable caps on the inclusion of provisions in Tier 2		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardized approach (prior to application of cap)	
77	Cap on inclusion of provisions in Tier 2 under standardized approach	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)	
79	Cap for inclusion of provisions in Tier 2 under internal ratings-based approach	

Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)		
80	*Current cap on CET1 instruments subject to phase out arrangements*	
81	*Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)*	
82	*Current cap on AT1 instruments subject to phase out arrangements*	
83	*Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)*	
84	*Current cap on T2 instruments subject to phase out arrangements*	
85	*Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)*	

[1] References to the reconciliation requirements (Table 37)

5.1.2 Reconciliation requirements

This table fulfills the requirement to provide a full reconciliation of all regulatory capital elements back to the published financial statements (Composition of capital disclosure requirements, Basel Committee, June 2012, §4, section 2 and FINMA Circular 2008/22, margin number 38).

Table 37: Financial statements
in CHF millions, BCV Group, at 31 December 2015

Balance sheet in the published financial statements	31/12/2015	Ref.[1]
Assets		
Cash and cash equivalents	6,861	
Due from banks	1,810	
Reverse repurchase agreements	280	
Loans and advances to customers	4,935	
Mortgage loans	24,522	
Trading portfolio assets	155	
Postive mark-to-market values of derivative financial instruments	343	
Other financial assets at fair value	581	
Financial investments	3,140	
Accrued income and prepaid expenses	106	
Non-consolidated holdings	48	
Tangible fixed assets	558	
Intangible assets	23	
of which goodwill	*23*	a
Other assets	56	
of which deferred tax credits dependent on future revenues	*0*	
of which deferred tax credits resulting from temporary differences	*0*	
Total assets	**43,418**	
Liabilities		
Due to banks	1,224	
Repurchase agreements	1,738	
Customer deposits	28,877	
Negative mark-to-market values of derivative financial instruments	331	
Other financial liabilities at fair value	666	
Medium-term notes	40	
Bonds and mortgage-backed bonds	6,873	
Accrued expenses and deferred income	219	
Other liabilities	35	
Provisions	18	
of which deferred tax relating to goodwill	*0*	
of which deferred tax relating to unrealized gains	*1*	
of which deferred tax relating to the reserve for general banking risks	*1*	

Balance sheet in the published financial statements	31/12/2015	Ref.[1]
Total liabilities	**40,021**	
of which subordinated liabilities eligible as Tier 2 capital (T2)	*0*	
of which subordinated liabilities eligible as additional Tier 1 capital (AT1)	*0*	
Capital		
Reserves for general banking risks	704	b
Share capital	86	
of which recognized as CET1	*86*	c
of which recognized as AT1	0	d
Capital reserve	292	e
of which scheduled for distribution	*86*	f
Retained earnings	1,999	g
Currency translation reserve	-2	h
Treasury shares	*-18*	i
Minority interests in equity	0	
of which recognized as CET1	*0*	j
of which recognized as AT1	*0*	k
Net profit	336	l
of which scheduled for distribution	*198*	m
of which minority interests	*0*	n
Shareholders' equity	**3,397**	
Total liabilities and shareholders' equity	**43,418**	

[1] References to eligible equity capital (Table 36)

5.1.3 Main features of regulatory capital instruments

This table fulfills the requirement to provide a description of the main features of regulatory capital instruments issued (Composition of capital disclosure requirements, Basel Committee, June 2012, §4, section 3 and FINMA Circular 2008/22, margin number 23).

Table 38: Main features of regulatory capital instruments issued
at 31 December 2015

Ref	Main features	BCV registered share
1	Issuer	**BANQUE CANTONALE VAUDOISE**: Founded by decree on 19 December 1845 by the Vaud Cantonal Parliament as a corporation organized under public law
2	Unique identifier	ISIN code: CH 0015251710
3	Law governing the instrument	Vaud Cantonal Act Governing the Organization of BCV and the BCV Articles of Association the Swiss Code of Obligations, for the remainder
	Regulatory treatment	

Ref	Main features	BCV registered share
4	Transitional Basel III rules	Not applicable
5	Post-transitional Basel III rules	Ordinary shares included under T1
6	Eligible at solo/group/group & solo	Group & solo
7	Instrument type (types to be specified by each jurisdiction)	Equity security
8	Amount recognized in regulatory capital (Currency in thousands, as of most recent reporting date)	CHF 86,062
9	Par value of instrument (in currency)	CHF 10
10	Accounting classification	Equity capital
11	Original date of issuance	31 December 1995
12	Perpetual or dated	Perpetual
13	Original maturity date	No maturity date
14	Issuer call subject to prior supervisory approval	No
15	Optional call date(s), amount	Not applicable
16	Subsequent call dates, if applicable	Not applicable
	Coupons / dividends	
17	Fixed or variable dividend/coupon	Variable
18	Coupon rate and index, if applicable	Not applicable
19	Existence of a dividend suspension mechanism	Not applicable
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary
21	Existence of step up or other incentive to redeem	No
22	Noncumulative or cumulative	Noncumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	Not applicable
25	If convertible, fully or partially	Not applicable
26	If convertible, conversion rate	Not applicable
27	If convertible, mandatory or optional conversion	Not applicable
28	If convertible, specify instrument type convertible into	Not applicable
29	If convertible, specify issuer of instrument it converts into	Not applicable
30	Write-down feature	No
31	If write-down, write-down trigger(s)	Not applicable
32	If write-down, full or partial	Not applicable
33	If write-down, permanent or temporary	Not applicable
34	If temporary write-down, description of write-up mechanism	Not applicable
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Not applicable
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	Not applicable

5.2 Leverage ratio

Table 39: Comparison of on-balance-sheet assets and total leverage-ratio exposures
in CHF millions, BCV Group

	Item	31/12/2015	31/12/2014
1	Total consolidated assets as per published financial statements	43,417	42,068
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation (margin numbers 6 and 7 FINMA circular 2015/3) and adjustments for assets deducted from Tier 1 capital (margin numbers 16 and 17 FINMA circular 2015/3)	-75	-59
3	Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure (margin number 15 FINMA circular 2015/3)	-	-
4	Adjustments for derivative financial instruments (margin numbers 21 to 51 FINMA circular 2015/3)	-28	-172
5	Adjustments for securities financing transactions (margin numbers 52 to 73 FINMA circular 2015/3)	2	-
6	Adjustments for off-balance-sheet items (margin numbers 74 to 76 FINMA circular 2015/3)	1,729	1,941
7	Other adjustments	-	-80
8	**Leverage-ratio exposure**	**45,045**	**43,698**

The difference between total assets as per the financial statements and the leverage-ratio exposure mainly reflects off-balance-sheet transactions (CHF 1,729m at 31 December 2015).

Table 40: Common leverage-ratio disclosures
in CHF millions, BCV Group

	Item	31/12/2015	31/12/2014
On-balance-sheet exposures			
1	On-balance-sheet exposures (excluding derivatives and SFTs, but including collateral) (margin numbers 14 and 15 FINMA circular 2015/3)	41,086	40,203
2	Asset amounts deducted in determined Tier 1 capital (margin numbers 7, 16 and 17 FINMA circular 2015/3)	-75	-59
3	**Total on-balance-sheet leverage-ratio exposures (excluding derivatives and SFTs)**	**41,011**	**40,144**
Derivative exposures			
4	Replacement cost associated with all derivatives transactions including those for CCPs and taking account of received margins and netting agreements (margin numbers 22, 23, 34 and 35 FINMA circular 2015/3)	258	262
5	Add-on amounts for all derivatives transactions (margin numbers 22, 23, 25, 34 and 35 FINMA circular 2015/3)	356	342
6	Gross-up for derivatives collateral provided where deducted from the balance-sheet assets (margin number 27 FINMA circular 2015/3)	-	-
7	Deductions of receivables assets for cash variation margin provided in derivatives transactions (margin number 36 FINMA circular 2015/3)	-298	-343
8	Exempted QCCP leg of client-cleared trade exposures (margin number 39 FINMA circular 2015/3)	-	-
9	Adjusted effective notional amount of written credit derivatives (margin number 43 FINMA circular 2015/3)	-	-
10	Adjusted effective notional offsets (margin numbers 44 to 50 FINMA circular 2015/3) and add-on deductions for written credit derivatives (margin number 51 FINMA circular 2015/3)	-	-

11	**Total derivative exposures**	**316**	**261**
Securities financing transaction exposures (SFT)			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions (margin number 69 FINMA circular 2015/3), and after adjusting for the positions stated in margin number 58 FINMA circular 2015/3	1,987	1,353
13	Netted amounts of cash payables and cash receivables of gross SFT assets (margin numbers 59 to 62 FINMA circular 2015/3)	-	-
14	CCR exposure for SFT assets (margin numbers 63 to 68 FINMA circular 2015/3)	2	-
15	Agent transaction exposures (margin numbers 70 to 73 FINMA circular 2015/3)	-	-
16	**Total SFT exposures**	**1,989**	**1,353**
Other off-balance-sheet exposures			
17	Off-balance sheet exposure at gross notional amount, i.e., before conversion to credit-equivalent amounts	5,945	6,076
18	Adjustments for conversion to credit-equivalent amounts (margin numbers 75 and 76 FINMA circular 2015/3)	-4,216	-4,135
19	**Total off-balance-sheet exposures**	**1,729**	**1,941**
Capital and total exposures			
20	Tier 1 (margin number 5 FINMA circular 2015/3)	3,038	2,980
21	**Total exposures**	**45,045**	**43,698**
Leverage ratio			
22	**Leverage ratio (margin numbers 3 and 4 FINMA circular 2015/3)**	**6.7%**	**6.8%**

The difference between total assets as per the financial statements and on-balance-sheet exposures (line 1 of Table 40) reflects repos (CHF 1,987m at 31 December 2015) and derivative positions (CHF 343m at 31 December 2015).

5.3 Liquidity coverage ratio

The table below meets the LCR disclosure requirements set out in margin number 46 of FINMA circular 2008/22)

Table 41: Common LCR disclosures
in CHF millions, BCV Group

		Q3 2015[1]		Q4 2015[2]	
		Unweighted values	Risk-weighted values	Unweighted values	Risk-weighted values
Stock of HQLAs					
1	**Total HQLAs**		**7,234**		**7,491**
Cash outflows					
2	Retail deposits	18,687	1,680	18,826	1,695
3	*of which stable deposits*	*5,986*	*299*	*5,986*	*299*
4	*of which less stable deposits*	*12,701*	*1,380*	*12,840*	*1,396*
5	**Unsecured corporate and wholesale funding**	10,903	6,497	10,727	6,279
6	*of which operational deposits (all counterparties) and deposits with the centralized institution by cooperative banks in an institutional network*	*1,146*	*286*	*1,166*	*292*

7	*of which non-operational deposits (all counterparties)*	*9,715*	*6,168*	*9,513*	*5,940*
8	*of which unsecured debt issuance*	*42*	*42*	*48*	*48*
9	Secured corporate and wholesale funding and collateral swaps		206		10
10	Other cash outflows	1,969	507	1,995	601
11	*of which cash outflows relating to derivatives and other transactions*	*754*	*212*	*803*	*251*
12	*of which cash outflows resulting from the loss of funding on asset-backed securities, covered bonds and other structured financing instruments, asset-backed commercial paper, special purpose entities (conduits), securities investment vehicles and other such financing facilities*	-	-	-	-
13	*of which cash outflows relating to committed credit and liquidity facilities*	*1,214*	*296*	*1,192*	*350*
14	Other contractual funding obligations	9	15	38	15
15	Other contingent funding obligations	1,456	73	1,456	73
16	**= Total cash outflows**		**8,978**		**8,673**
17	Secured financing transactions (e.g., reverse repos)	95	-	296	67
18	Cash inflows from non-impaired receivables	2,927	2,291	2,310	1,719
19	Other cash inflows	93	93	146	146
20	**= Total cash inflows**	**3,115**	**2,384**	**2,752**	**1,932**
Net values					
21	**Total HQLAs**		**7,234**		**7,491**
22	**Net cash outflows**		**6,593**		**6,741**
23	**Liquidity coverage ratio (as a %)**		**110%**		**111%**

[1] Simple average of figures at the end of July, August and September 2015

[2] Simple average of figures at the end of October, November and December 2015

5.4 Table of correspondence, analytical classifications and abbreviations

5.4.1 Table of correspondence

Part 4 of the Basel II Accord defines the minimum disclosure requirements. The relationship between the tables in the Accord and those in this report is described below:

Table 42: Table of correspondence

Subject	Basel Accord[1]	FINMA circulars[2]	BCV's Pillar 3 report
Scope of application	Table 1, letter (a)		Section 1.2
	Table 1, letter (b)		Section 1.2, tables 1 and 2
	Table 1, letter (c)		Section 1.2
	Table 1, letter (d)		Section 1.2
	Table 1, letter (e)		Section 1.2
	Table 1, letter (f)		Section 1.2
Capital structure	Table 2, letter (a)		Section 2
	Table 2, letter (b)		Section 2, table 3
	Table 2, letter (c)		Section 2, table 3
	Table 2, letter (d)		Section 2, table 3
	Table 2, letter (e)		Section 2, table 3
	Annexes 1 to 3[3]	Tables 1a,1b and 9	Section 5.1, tables 36, 37 and 38
Capital adequacy	Table 3, letter (a)		Section 3
	Table 3, letter (b)		Section 3, tables 4, 5 and 6

	Table 3, letter (c)		Section 3, table 4
	Table 3, letter (d)		Section 3, table 4
	Table 3, letter (e)		Section 3, table 4
	Table 3, letter (f)		Section 3, table 4
	Table 1[4]	Table 11a	Section 5.2, table 39
	Table 2[4]	Table 11b	Section 5.2, table 40
Credit risk	Table 4, letter (a)		Section 4.3
	Table 4, letter (b)		Section 4.3, table 7
	Table 4, letter (c)		Section 4.3, table 7
	Table 4, letter (d)		Section 4.3, table 8
	Table 4, letter (e)		Section 4.3, table 9
	Table 4, letter (f)		Section 4.3, tables 10 and 11
	Table 4, letter (g)		Section 4.3, table 12
	Table 4, letter (h)		Section 4.3, table 13
	Table 4, letter (i)		Section 4.3, table 14
	Table 5, letter (a)		Section 4.3.1
	Table 5, letter (b)		Section 4.3.1, tables 15, 16, 17 and 31
	Table 6, letter (a)		Section 4.3.2
	Table 6, letter (b)		Section 4.3.2
	Table 6, letter (c)		Section 4.3.2
	Table 6, letter (d)		Section 4.3.2, tables 19, 20 and 21
	Table 6, letter (e)		Section 4.3.2, table 22
	Table 6, letter (f)		Section 4.3.2, table 23
	Table 7, letter (a)		Section 4.3
	Table 7, letter (b)		Section 4.3.3, tables 24 and 25
	Table 7, letter (c)		No credit derivatives
	Table 8, letter (a)		Section 4.3
	Table 8, letter (b)		Section 4.3.4, tables 26, 27 and 28
	Table 8, letter (c)		No credit derivatives
	Table 8, letter (d)		No estimate of alpha factor
	Table 9		No securitization
Market risk	Table 10, letter (a)		Section 4.5.1
	Table 10, letter (b)		Section 4.5.1, table 30
	Table 11		No internal model
Operational risk	Table 12, letter (a)		Section 4.6, table 35
	Table 12, letter (b)		No advanced approach
	Table 12, letter (c)		No advanced approach
Equities	Table 13, letter (a)		Section 4.5.2
	Table 13, letter (b)		Section 4.5.2, table 32
	Table 13, letter (c)		Section 4.5.2, table 32
	Table 13, letter (d)		Section 4.5.2, table 32
	Table 13, letter (e)		Section 4.5.2, table 32
	Table 13, letter (f)		Section 4.5.2, table 31
Interest-rate risk on the banking book	Table 14, letter (a)		Section 4.5.3
	Table 14, letter (b)		Section 4.5.3, table 33
Liquidity risk	Annex 1[5]	Table 12	Sections 4.5.4 and 5.3, table 41

[1] Unless stated otherwise, table numbers refer to Chapter 4 of the Basel Accord

[2] Unless stated otherwise, table numbers refer to FINMA circular 2008/22

[3] Composition of Capital Disclosure Requirements, Basel Committee, June 2012

[4] Basel III Leverage Ratio Framework and Disclosure Requirements, Basel Committee, January 2014

[5] Liquidity Coverage Ratio Disclosure Standards, Basel Committee, January 2014

5.4.2 Analytical classifications

This section describes the different analytical classifications used in this document that are not already defined within the framework of the Basel III Accord.

Table 43: Type of counterparty

Type of counterparty	Description
Retail	Individuals with up to CHF 250,000 in assets or income, or a mortgage loan of up to CHF 1.2m
Private banking	Individuals who meet at least one of the following criteria: assets or income above CHF 250,000, or a mortgage loan above CHF 1.2m
SMEs	Small and medium-sized businesses, excluding real-estate professionals and trade-finance counterparties, that employ up to 150 people, are not listed on the stock exchange and have annual revenues of below CHF 50m
Real-estate professionals	Individuals or entities whose main professional activity involves buying and selling real estate or real-estate development, management or rental
Large corporates	Listed companies that meet at least one of the following criteria (excluding trade-finance counterparties): more than 150 employees or annual revenues of at least CHF 50m
Public-sector entities	Swiss national, cantonal and municipal governments
Trade finance	Non-bank counterparties involved in trade-finance activities
Banks	Bank counterparties, including central counterparties since 1 January 2013

Table 44: Basel III Accord asset categories (IRB)

Asset category	Description
Residential retail	Mortgage-backed exposure to individuals or to companies that meet the retail criteria
Other retail	Other exposure to individuals or to companies that meet the retail criteria
Corporates	Companies that do not meet the retail criteria The Mortgage-Bond Bank of the Swiss Mortgage Institutions and the Central Mortgage-Bond Institution
Specialized lending	Real-estate financing for counterparties rated with the “real-estate professionals” rating model, together with trade-finance operations
Sovereigns	The Swiss national government, BIS, central banks, multilateral development banks eligible for a 0% risk weighting, and foreign governments
Other institutions	Cantonal governments and municipal authorities
Banks	Bank counterparties

Table 45: Counterparty rating model (scope of IRB-F approach)

BCV rating model	Description
Individuals	Combines the following rating models, which are applied to individuals or co-debtors without commercial financing: • Private banking: private banking counterparties with at least CHF 300,000 in assets at BCV or who are financed solely on the basis of lombard loans • BCV employees: counterparties employed by BCV Group • Individuals model: counterparties not included in the above private banking and BCV employee groupings
SMEs	Corporate counterparties that are outside the scope of the models for real-estate professionals, large corporates and trade finance
Real-estate professionals	Individuals or entities that are mainly active in real-estate development or investment for their own account
Trade finance	Transactions carried out to finance international commodities trading
Vaud municipalities	Municipal authorities in Vaud Canton
Joint and several co-debtors	A group of co-debtors that is not a couple, or a grouping of municipalities
Transmission	Counterparty whose rating was transferred from another counterparty under a system of rules
Banks	Bank counterparties

5.4.3 List of abbreviations

ALCO	Asset and Liabilities Management Committee
ALM	Asset and Liability Management
ALM-FM	The Bank's ALM and Financial Management Department
BCV	Banque Cantonale Vaudoise
BIS	Bank for International Settlements
BoD	Board of Directors
CAO	Ordinance of 1 June 2012 concerning capital adequacy and risk diversification for banks and securities traders (known as the “Capital Adequacy Ordinance,” CAO)
CCF	Credit conversion factor
CCO	Chief Credit Officer
CCR	Counterparty credit risk
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CLS	Continuous linked settlement
COREP	Common Reporting framework for Basel III Pillar 1
CRO	Chief Risk Officer
CSA	Credit Support Annex, an optional annex for ISDA netting agreements
CVA	Credit value adjustment: capital requirement aimed at covering the risk of loss in market value as a result of deterioration in the counterparty’s credit quality.
EAD	Exposure at default
EBCC	Executive Board Credit Committee
EBRMC	Executive Board Risk Management Committee
FINMA	Swiss Financial Market Supervisory Authority
HQLA	High-quality liquid assets
ICS	Internal control system

ID	BCV’s “in default” provisioning category
IRB-F	Internal Ratings-Based Foundation approach
IRRBB	Interest-rate risk on the banking book
ISDA	International Swaps and Derivatives Association
LCR	Liquidity coverage ratio
LGD	Loss given default
NSFR	Net stable funding ratio
OTC	Over the counter
PC	Parent company
PD	Probability of default
PIC	Product and Instrument Committee
PSE	Public-sector entities
QCCP	Qualified central counterparty
RD	BCV’s “reputed to be in financial difficulty” provisioning category
RMPS	BCV’s Risk Management Policy and Strategy
SFT	Securities financing transaction
SNB	Swiss National Bank
SA-BIS	International Standard Approach in accordance with the CAO
VaR	Value at risk

5.5 Parent-company disclosures

When capital and liquidity requirements are calculated at group level, the group is generally only required to provide consolidated disclosures (known as the disclosure exemption).

Under FINMA Circular 2016/1, the Bank is nevertheless required to disclose the following parent-company ratios.

Table 1: Main parent-company ratios

Capital	**December 2015**
CET1 ratio[1]	18.0%
T1 ratio[1]	18.0%
Total capital ratio[1]	18.1%
Minimum target pursuant to FINMA Circular 2011/2 (excluding countercyclical buffer)	12.0%
Countercyclical buffer (as a % of risk-weighted assets)	0.7%
Minimum target pursuant to FINMA Circular 2011/2 (including countercyclical buffer)	12.7%
Leverage ratio	6.6%

Liquidity coverage ratio (LCR)[2]	**2015**
Q1 2015 LCR	103.4%
Q2 2015 LCR	102.6%
Q3 2015 LCR	106.4%
Q4 2015 LCR	108.5%

[1] Does not include the countercyclical buffer

[2] The quarterly LCR is calculated by dividing the average HQLAs over the period by the average net outflows over the period