

# Capital adequacy and liquidity disclosures

Disclosures as at 31 December 2015

With the information showing its position as at 31 December 2015, the bank meets the requirements of the Ordinance on Capital Adequacy and Risk Diversification for Banks and Securities Dealers and the disclosure rules contained in FINMA Circular 2008/22 and 2016/01 (as far as already applicable). Effective 31 December 2015, Zürcher Kantonalbank changed its method for calculating credit risks from the Swiss standard approach (SA-CH) to the international standard approach (SA-BIS).

### **Developments in Basel III regulatory capital adequacy ratios and liquidity**

Zürcher Kantonalbank has strengthened its capital base once again. The short-term liquidity requirements with respect to the liquidity coverage ratio (LCR) were also exceeded.

The total capital ratio for the group was 17.9 percent at the end of 2015 (2014: 16.6 percent) and reflects Zürcher Kantonalbank's solid equity base. The common equity Tier 1 capital ratio (15.8 percent) also rose significantly compared with the previous year (14.6 percent).

As at 31 December 2015, the minimum required capital amounted to CHF 5,035 million (2014: CHF 4,705 million) against eligible capital for the group of CHF 11,293 million (2014: CHF 9,783 million). The minimum required capital was therefore CHF 330 million higher than in the previous year. The increase in required capital for credit risks is mainly connected with the adoption of the SA-BIS approach. The higher risk weights for mortgages secured by commercial or industrial property and the different method used for the calculation of derivative and repurchase transactions led to a marked increase in the corresponding requirements. For market risks also, the increase is primarily due to the switch. On the other hand, far lower risk weights are applied under SA-BIS than under SA-CH for non-counterparty-related risks, resulting in a corresponding reduction in minimum required capital as at 31 December 2015. For operational risks, the inclusion of Swisscanto in the calculation of the basic indicator led to an increase in requirements for the group.

The eligible capital of Zürcher Kantonalbank increased significantly in the 2015 financial year. Apart from retained earnings, this is mainly due to the issue of two subordinated Tier 2 bonds and the increase in endowment capital. On the other hand, capital deduction items increased as a result of the inclusion of goodwill for Swisscanto.

The leverage ratio of 6.98 percent (group) far exceeds the requirement of 3.52 percent, highlighting the strength of Zürcher Kantonalbank's capital base, even under the unweighted capital adequacy requirements. The LCR averaged 128% in the fourth quarter of 2015 and surpasses the 100% required.

### **About the bank**

In accordance with its public service mandate, Zürcher Kantonalbank's primary focus is on its customers in the Greater Zurich area. To a limited extent, the bank also operates in the rest of Switzerland and abroad.

Zürcher Kantonalbank is an independent public-law institution of the canton of Zurich. The corporate (endowment) capital provided by the canton is a component of Zürcher Kantonalbank's equity. Should these resources prove inadequate, the canton additionally provides a guarantee for all of the bank's non-subordinated liabilities.

## 1 Qualitative disclosures

### 1.1 General information about risk management

**Risk profile.** There was no material change in Zürcher Kantonalbank's risk profile in 2015. In the first quarter, the Swiss National Bank's decision to discontinue the minimum exchange rate against the euro in January 2015 and the ensuing turmoil in the financial markets temporarily led to higher values-at-risk for trading. However, as the volatility died down, risk figures soon returned to the previous year's level. Changing conditions with negative CHF interest rates far into the long term made asset and liability management a challenge. The high interest rate sensitivity in the banking book in the long term primarily takes into account the risk of a protracted period of low interest rates. This also hedges against the risk of a further fall in CHF interest rates.

There was a slight increase in the volume of lending business, with the largest nominal rise in mortgages. The volume of mortgages to private individuals stood at 3.7% in the year under review. There were no material changes in the rating structure of the sub-portfolio.

The risk profile of operational risks remained stable. The bank paid particular attention to the identification of cyber risks. Legal and reputation risks in the cross-border financial services business are a focal point in the management of compliance risks, together with adapting to changes to the regulatory framework for financial services providers.

**Internal controls system.** Zürcher Kantonalbank's internal controls system covers all control structures and processes, which at all levels of the institution constitute the basis for the achievement of the bank's business policy objectives, the protection of the bank's credit rating and reputation, compliance with legal and ethical norms, as well as the reliability of financial reporting. The internal controls system involves not only retrospective checks but also planning and management activities. The following are key features of the internal controls system:

- systematic risk analysis and periodic monitoring of the appropriateness and effectiveness of internal controls by the executive board and board of directors,
- the risk policy parameters of the board of directors for safeguarding the bank's credit rating and reputation,
- the bank's established processes for risk management and compliance with applicable standards and
- the systematic process to ensure the appropriateness and effectiveness of internal controls by the individual business units and processes.

**Principles of risk management.** The objective of risk management is to support the bank in generating added value whilst retaining a first-class credit rating and reputation. Zürcher Kantonalbank's approach to risk management is based on the following principles:

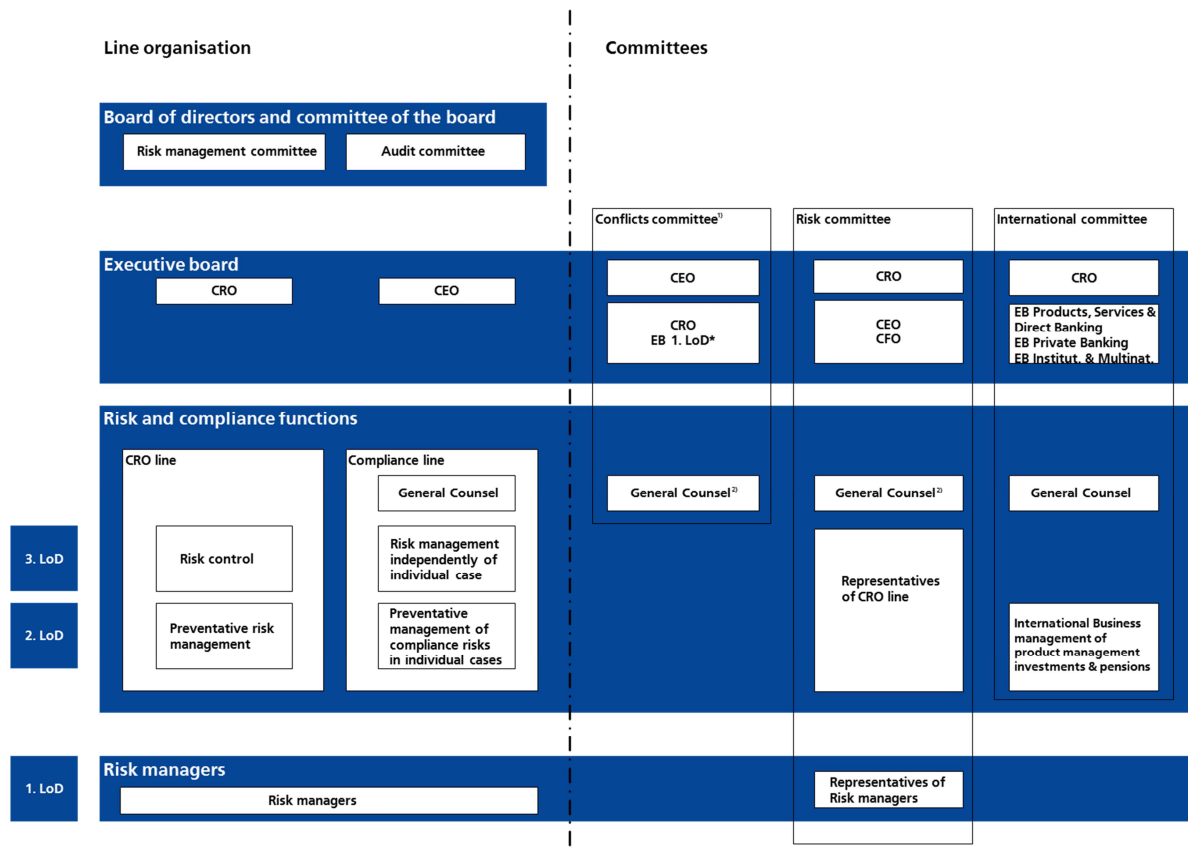
- Risk culture: the bank fosters a risk culture that is geared towards responsible behaviour. Risk managers bear responsibility for profits and losses generated on the risks entered into. In addition, they bear primary responsibility for identifying transactions and structures with particular business policy risks, conflicts of interest or particular effects on the bank's reputation.
- Separation of functions: for significant risks and to avoid conflicts of interest, the bank has established control processes that are independent of management.
- Risk identification and monitoring: the bank only enters into transactions if the risks are in accordance with its business strategy and can be appropriately identified, managed and monitored.
- Risk and return: in relation to all transactions, the bank seeks to achieve a balanced relationship between risk and return. The assessment of the risk and return profile takes account of quantifiable as well as non-quantifiable risks.
- Transparency: risk reporting and disclosure are guided by high industry standards in terms of objectivity, scope, transparency and timeliness.

These principles constitute the basis for determining the organisational structure and detailed group-wide risk management framework.

**Principles of compliance policy.** The objective of compliance is to ensure that Zürcher Kantonalbank conducts its business operations in accordance with legal and ethical norms. The principles of compliance policy are as follows: relevant legal and ethical norms; anchoring ethical and performance-related basic values in a code of conduct; duty of all employees and members of the governing bodies to comply with the laws, regulations, internal rules, industry standards, codes of conduct with corresponding sanctions for violations of the rules; special reporting procedure for identified violations of the rules for employees (whistle-blowing); primary responsibility of the executive board for compliance; annual assessment of the compliance risk based on the risk inventory with corresponding activity plan, as well as independence of the compliance function. The most important principle of all is that Zürcher Kantonalbank conducts its banking operations in accordance with the statutory and regulatory provisions as well as recognised professional and ethical principles within the banking industry.

**Risk and compliance organisation.** Zürcher Kantonalbank's risk management line organisation is based on the three Lines of Defence model. In organisational terms, the risk acceptance and risk management functions (1st Line of Defence), on the one hand, and preventive risk management (2nd Line of Defence) and risk control (3rd Line of Defence), on the other, are separated at executive-board level.

Fig. 1: Risk and compliance organisation



**Board of directors and committee of the board.** The board of directors approves the principles of risk management and compliance, code of conduct, risk acceptance and additional risk policy parameters. The board of directors is also responsible for the monitoring and regular examination of the appropriateness and effectiveness of internal controls, including the risk and compliance organisation.

The board of directors approves matters involving major financial exposure and/or having particular effects on the Group's reputation in key areas. The committee of the board approves limits and discusses matters involving particular business policy risks, where they lie outside the remit of the executive board and do not fall within the remit of the board of directors. The risk management and audit committees support the board of directors in its tasks.

**Executive board.** The executive board approves the provisions for identifying, assessing, measuring, limiting and monitoring risk. It provides the board of directors with periodic reports on the overall bank risks and compliance with the risk policy parameters. The executive board also informs the board of directors of measurement methods and models as well as their consequences for risk management. The executive board is also responsible for approving matters with particular business policy risks, conflicts of interest or particular effects on the reputation of Zürcher Kantonalbank, unless they are assigned to another officer-holder in regulatory terms.

**Conflicts committee.** The members of the executive board represented on the conflicts committee take decisions on matters with particular business policy risks. The escalation body of the conflicts committee is the committee of the board.

**Risk committee.** The risk committee assists the executive board with regard to formulating risk management processes. Decisions of the risk committee are taken on the basis of responsibilities delegated by the members of the executive board represented on the risk committee. The risk managers represented on four separate sub-committees (credit, trading, treasury and operational risk) and members of the risk and compliance organisation provide preliminary advice on the risk committee's business and formulate proposals for it. In a crisis situation, individual crisis management teams reporting to the risk committee ensure that necessary and appropriate measures are defined and implemented.

**International committee.** The international committee is tasked with defining the business policy parameters for matters with an international dimension, as well as corresponding monitoring and reporting and obtaining the necessary approval to carry on the relevant activities in each country.

**CRO line.** The chief risk officer (CRO) is a member of the executive board and manages the Risk unit. He has a right of intervention that permits measures to be assigned to the risk managers if required by the risk situation or to protect the bank.

Risk control (3rd Line of Defence) is responsible for identifying and monitoring risks at portfolio level, monitoring compliance with the risk policy parameters and integrated risk reporting to the executive board and board of directors. The risk control function is responsible for defining methods of risk measurement, parts of the acceptance procedure for new products and valuation methods, model validation, as well as execution and quality assurance in relation to the risk measurement implemented.

Preventative risk management (2nd Line of Defence) is responsible for analysis and examination of transactions prior to conclusion in the context of existing delineations of power and mandatory consultations, the definition of parameters at individual transaction level, the continuous local monitoring of risks and the training of risk managers.

**Compliance line.** The general counsel reports directly to the CEO and manages the legal, tax and compliance unit. As a member of the risk, conflicts and international committees, he has a right of escalation to the committee of the board. He also enjoys direct access to the committee of the board at all times.

The compliance function as 3rd Line of Defence has the following duties: examining on an annual basis the compliance risk inventory and preparing the annual activity plan with key focal points relating to the management of compliance risk, formulating proposals and if necessary implementing defined monitoring and control duties in the context of post-deal control, defining the risk management tools and implementing risk control measures independently of the individual case such as editing directives in the context of the implementation of new directives and staging training events. The compliance function as 2nd Line of Defence is primarily responsible for providing forward-looking legal advice with the objective of avoiding or minimising individual identified risks and threats arising due to legal parameters. Legal advice is provided in the context of existing mandatory consultations, as a pre-deal consultation or on request.

**Risk managers.** The risk managers (1st Line of Defence) bear responsibility for profits and losses generated on the risks entered into. They are responsible for the continuous, active management of risks and for constant compliance with the risk policy parameters, relevant laws, ordinances and standards.

**Risk reporting.** Risk controlling reports on a quarterly basis in the context of integrated risk reporting to the executive board and board of directors on the development of the risk profile, on material internal and external events and on findings from monitoring activities. Quarterly reports are supplemented by special analysis of significant themes. Besides quarterly reporting, various reports are produced for the individual types of risk; in terms of the frequency with which they are published and group of recipients, they are tailored to the individual risks and ensure the provision of comprehensive, objective and transparent information for decision-makers and supervisory bodies. The compliance function also reports directly to the board of directors once a year.

## **1.2 Regulatory capital adequacy requirements**

### **1.2.1 Participations and scope of consolidation**

The scope of consolidation for the purpose of calculating capital adequacy is identical to that used in preparing the group financial statements.

The parent company's capital is calculated on a solo consolidated basis in accordance with Art. 10 para. 3 CAO and includes the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd., St. Peter Port, Guernsey. There are no other differences between the scopes of consolidation for regulatory and accounting purposes.

The group's scope of consolidation includes the parent company, Zürcher Kantonalbank, as well as all directly and indirectly wholly owned subsidiaries: Zürcher Kantonalbank Finance (Guernsey) Ltd., Zürcher Kantonalbank Österreich AG and Swisssanto, consisting of Swisssanto Holding Ltd., Swisssanto Fund Management Company Ltd., Swisssanto Pensions Ltd., Swisssanto Funds Centre Ltd. and Swisssanto Asset Management International SA.

The representative office in São Paulo, which from an accounting perspective is a non-material majority interest of Zürcher Kantonalbank Representações Ltda, is not fully consolidated.

The changes to the scope of consolidation compared with the previous year relate specifically to the acquisition of Swisssanto and the subsequent merger of the Balfidor Group with Swisssanto.

Equity instruments of companies operating in the financial sector are treated in accordance with the procedure described in Articles 33 - 40 CAO. Here the portion above a threshold is deducted directly from equity, while the portion below the threshold is risk-weighted.

Zürcher Kantonalbank has several significant participations that are not consolidated. The treatment of these positions in terms of capital adequacy is illustrated in the figure below.

Fig. 2: Treatment of non-consolidated significant participations<sup>1</sup> with respect to capital adequacy

Company name	Registered office	Business activity	Treatment for capital adequacy purposes	
			Threshold approach <sup>2</sup>	Weighting
Technopark Immobilien AG	Zurich	Project planning, construction, maintenance		X
Pfandbriefzentrale der schweizerischen Kantonalbanken AG	Zurich	Pfandbrief institution	X	
Aduno Holding AG	Zurich	Participations	X	
Zürcher Kantonalbank Representações Ltda.	São Paulo	Representative office	X	

<sup>1</sup> Shows all subsidiaries (interest > 50 percent) that are not consolidated for reasons of materiality and participations where the interest exceeds 10 percent. Additionally, the share of these interests in the corporate capital must amount to > CHF 2 million or book value to > CHF 15 million.

<sup>2</sup> Equity instruments of companies operating in the financial sector are treated in accordance with the procedure described in Articles 33 – 40 CAO. Here the portion above a threshold is deducted directly from equity, while the portion below the threshold is risk-weighted.

## 1.2.2 Eligible and required capital

**Weighted capital adequacy requirements.** Under Basel III, a selection of different approaches is available to banks for the calculation of capital adequacy requirements for credit, market and operational risks. Since 31 December 2015, the required capital for credit risks is calculated based on SA-BIS. The model-based approach is used for market risk combined with SA-BIS for specific interest rate risks, and the basic indicator approach (BIA) for operational risk.

The capital requirement for systemically important institutions consists of a basic requirement, the capital buffer plus the countercyclical capital buffer and a progressive component. The latter is calculated from the sum of the supplement for domestic market share and the supplement for size of financial group, although deductions may be considered for measures designed to improve the resolvability of the financial group. The level of the progressive component is stipulated each year by the Swiss Financial Market Supervisory Authority (FINMA).

As at 31 December 2015, the capital adequacy requirement for Zürcher Kantonalbank as a systemically important institution is 14.0 percent of risk-weighted assets, for both the parent company and the group, according to the decree issued by the Swiss Financial Market Supervisory Authority (FINMA). The countercyclical capital buffer on mortgages secured on residential properties in Switzerland increased the requirement by a further CHF 432 million, or 0.7 percent, to 14.7 percent.

The eligible capital of Zürcher Kantonalbank consists of common equity Tier 1 (CET), high-trigger convertible capital (AT1 bond) and low-trigger convertible capital (Tier 2 bonds). For detailed information, please refer to the tables showing the composition of the capital (Fig. 4a, 4b and 18) and the characteristics of the regulatory equity instruments (Fig. 11) in the quantitative section of the disclosures.

**Unweighted capital adequacy requirements (leverage ratio).** The unweighted capital adequacy requirement (leverage ratio) is 24 percent of the weighted capital adequacy requirements including countercyclical capital buffer and amounts to 3.52 percent of total exposure as at 31 December 2015. The leverage ratio of 6.98 percent far exceeds the requirements, highlighting the strength of Zürcher Kantonalbank's capital base, even under the unweighted capital adequacy requirements.

Detailed information about the leverage ratio can be found in Fig. 14, 20a and 20b (systemically relevant banks).

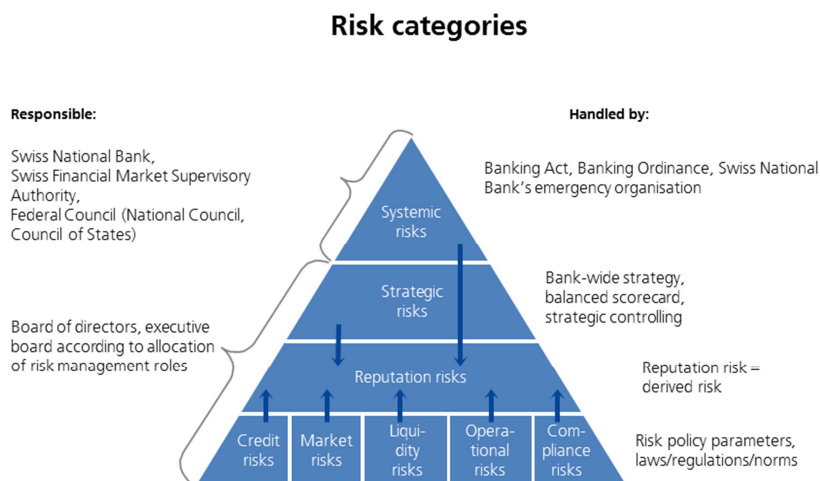
The increase of the leverage ratio versus the previous year for the group and the parent company by 1.2 and 1.1 percent respectively is mainly due to the strengthening of the eligible capital in 2015.



### 1.3 Risk categories

Zürcher Kantonalbank's risk strategy is based on the risk categorisation illustrated below.

Fig. 3: Risk categories



**Systemic risks.** Systemic risk is where an institution suffers damage due to negative developments in the financial system that are beyond its control. Systemic risks cannot be independently limited and controlled by a single institution. Systemic risks are managed in conjunction with the Swiss National Bank (SNB), Swiss Financial Market Supervisory Authority (FINMA) and, if necessary, the Federal Council. The SNB and FINMA are responsible for establishing adequate processes for managing systemic risks.

**Strategic risks.** Strategic risks include the risk of pursuing a strategy that is inappropriate against the backdrop of relevant factors of influence but also the risk of not implementing strategies successfully. Strategic risks are managed in the context of the bank's strategy process.

**Reputation risks.** Reputation risks involve damage to Zürcher Kantonalbank's image and brand value. As reputation risks can potentially arise as a result of any of the bank's business operations, they are controlled chiefly by ensuring competency, integrity and reliability on a bank-wide basis. This is a multi-layered task that embraces the bank's entire range of operational and strategic management tools. The findings of continuous media monitoring and periodic reputation monitoring are also important to Zürcher Kantonalbank's management of reputation risk.

**Other risks.** The definition of risk categories as well as the strategy, processes and organisation of risk management are described in the following sections.

## 1.4 Credit risks

Loans, promises of payment and trading business involve credit risks. Credit risk is the risk whereby payments due from a debtor are not met or are not met on time.

### 1.4.1 Strategy, organisation and processes for credit risks

**Strategy.** The strategy for managing credit risks is set out in the internal lending policy, which is reviewed and updated by the risk organisation in an annual, structured process, and approved by the executive board. The principles defined in the lending policy include the measurement and management of risks based on uniform, binding objectives and instruments, acceptance of risks based on objective, business-related criteria, in proportion to the bank's risk capacity, together with sustainable management of the quality of the credit portfolio.

The bank adopts a risk and cost-based pricing policy, with transparent credit decisions and a selective, quality-oriented strategy for the procurement of funds. Particular attention is also paid to environmental and social risks in the credit assessment process. In recognition of the total commitment of owners, higher risks are also accepted on occasions for SMEs from the Greater Zurich area.

**Organisation and processes.** Based on the 3-line model, the preventative risk management and risk control functions are separated from risk management at executive board level. Preventative risk management is responsible for setting parameters for the lending policy, analysing and examining transactions in the context of existing delineations of power, continuous local monitoring of risks and the training of risk managers. Risk control, as the 3rd Line of Defence, is responsible for monitoring risks and risk reporting at portfolio level, as well as defining methods of risk management.

Credit risks are managed and controlled at individual exposure level by means of detailed parameters and areas of responsibility within the credit process, whilst at portfolio level they are managed and controlled by limiting risk capital for the credit business in accordance with the capital-at-risk approach. Another key control element in credit risk management is risk-adjusted pricing, which includes expected losses (standard risk costs) as well as the cost of the risk capital to be retained in order to cover unexpected losses.

Expected losses are determined on the basis of the probability of default (PD), assumptions regarding exposure at default (EAD) and the estimated loss given default (LGD). Rating models specific to individual segments are used to determine default probabilities. The rating system for retail and corporate customers as well as banks combines statistical procedures with many years of practical experience in the credit business and incorporates both qualitative and quantitative elements. Country ratings are in principle based on the ratings of external agencies (country ceiling ratings and sovereign default ratings).

A credit portfolio model is used as the basis for the modelling of unexpected losses. Besides default probabilities, exposures in the event of default and loss rates – in particular the correlations between debtors – are significant for the modelling of unexpected losses. In principle, the model covers balance sheet and off-balance-sheet items.

For the valuation of collateral for loans, in particular the calculation of market and collateral values, the corresponding methods, procedures and responsibilities are specified in an extensive set of internal rules. These rules are continually monitored and aligned with regulatory requirements and market changes. For the valuation of mortgage collateral, the bank uses recognised estimation methods that are tailored to the type of property. This includes the use of hedonic models, income capitalisation approaches and expert appraisals. The models used as well as the individual valuations are reviewed on a regular basis. The maximum loan-to-value ratio for mortgages is based on

the marketability of the collateral and influenced by factors such as location and type of property (house or commercial property, for example). Marketable collateral (securities, precious metals, account balances, for example) is in principle valued at current market prices. Marketable collateral is subject to the deduction of specified margins. These margins differ primarily depending on the marketable collateral's susceptibility to fluctuations in value.

Limits are used to minimise credit exposures. In addition to the limits at counterparty and counterparty group level, limits are placed on sub-portfolios – for instance for foreign exposures. All credit and contingent exposures are valued each day, while exposures from trading business are valued on a real-time basis. In the case of trading business, pre-deal checks can be undertaken to examine and ensure adherence to counterparty limits. Any breaches of the limits are reported promptly to the officer responsible. An early-warning system is used to identify negative developments and communicate them to the officers responsible. The rating of corporate customers is in principle reviewed once a year on the basis of the annual financial statements. A supplementary review of ratings, limits and exposures in retail and corporate customer business is undertaken using risk-oriented criteria. Ratings, limits and exposures in the banking sector are reviewed periodically and on an extraordinary basis in the event of a deterioration in the credit rating of a particular institution.

**Allowances.** As part of their risk management role, the bank's relationship managers constantly monitor all positions in the credit portfolio to identify any signs of value losses. Should any signs be found, a standardised value loss test is used to determine whether a claim should be classed as impaired. Impaired claims are those where the borrower is unlikely to be able to meet his future obligations. Where it appears that the bank will be unable to collect all amounts due on a claim, the bank makes an allowance for the unsecured part of the claim, based on creditworthiness. In determining the required allowance, mortgage collateral (including valuation discounts, settlement and holding costs) and marketable collateral (freely tradable securities such as deposits, precious metals, fiduciary investments, etc.) are included at current realisable value. In particular, the stability of other security (e.g. leased assets, sureties) has to be demonstrated. Authority for the approval of the creation of new individual allowances rests with the risk managers. Above a certain amount, the approval of the risk organisation is also required.

Loans on which interest and corresponding commission have not been received in full 90 days after becoming due, and therefore classified as non-performing, are deemed to be impaired and fully adjusted. Although general allowances are made for overdrafts of up to CHF 30,000 and interest outstanding for more than 90 days and the corresponding commission, individual allowances are the norm.

A central, specialist unit handles impaired positions across all customer segments. This unit steers the positions through the stabilisation and resolution process, with regular review of the adjustment requirement for existing allowances.

**Country risks.** The country risk of individual exposures is determined on the basis of the risk domicile where this is not identical to the domicile of the borrower, in accordance with the Swiss Bankers Association's guidelines on the management of country risk. In the case of secured exposures, the risk domicile is determined by taking into account the domicile of the collateral. The risks for each country, total country risks and total country risks outside the best rating category (bank in-house rating categories B to G) are subject to limits, adherence to which is monitored on a constant basis.

**Settlement risk.** A settlement risk arises in the case of transactions with mutual payment and delivery obligations, where Zürcher Kantonalbank must meet its obligations without being able to ensure that counter-payment is also being made. Settlement risk can occur in relation to foreign exchange transactions, securities lending and borrowing (SLB) and OTC repo transactions as well as transactions involving different payment systems and time zones in the interbank sector. Zürcher Kantonalbank's membership to the CLS Bank International Ltd. joint venture a clearing

centre for settlement of foreign exchange transactions on a “delivery versus payment” basis, helps eliminate a substantial element of the settlement risk arising as a result of foreign exchange trading.

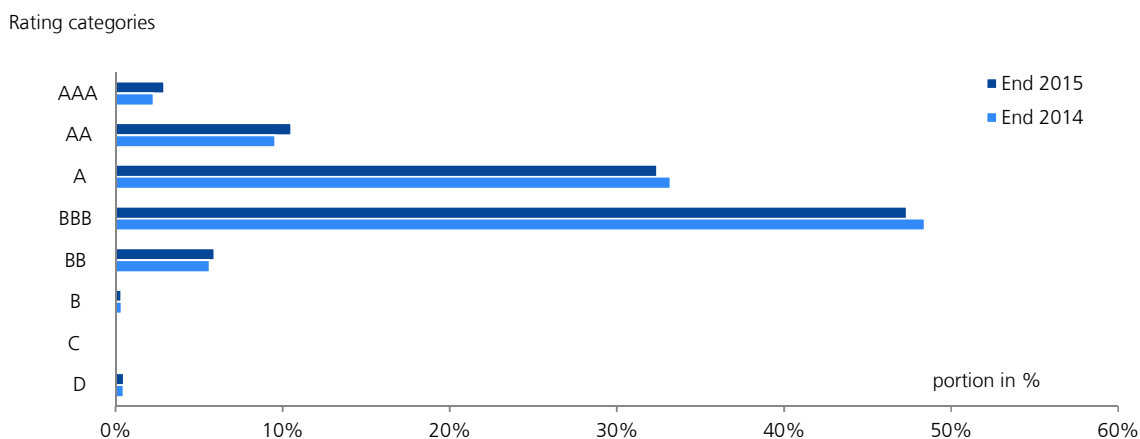
**Risk concentration.** Zürcher Kantonalbank uses an internal, systems-based method for monitoring risk concentration. Besides measurement for the purpose of preparing regulatory reports, risk concentration is restricted at product and customer level using benchmarks that are reflected in the corresponding powers of authorisation. Internal risk concentration reporting includes information on product, sector and individual position concentrations. Due to the bank’s anchoring within the Greater Zurich area, the biggest risk concentration in the credit portfolio takes the form of geographical concentration risk.

### 1.4.2 Risk profile

The following sections provide information about the most important sub-portfolios of the credit exposures of Zürcher Kantonalbank on the basis of various criteria. Figure 7 in the quantitative part of the disclosures shows credit exposures by counterparty group in accordance with Basel III.

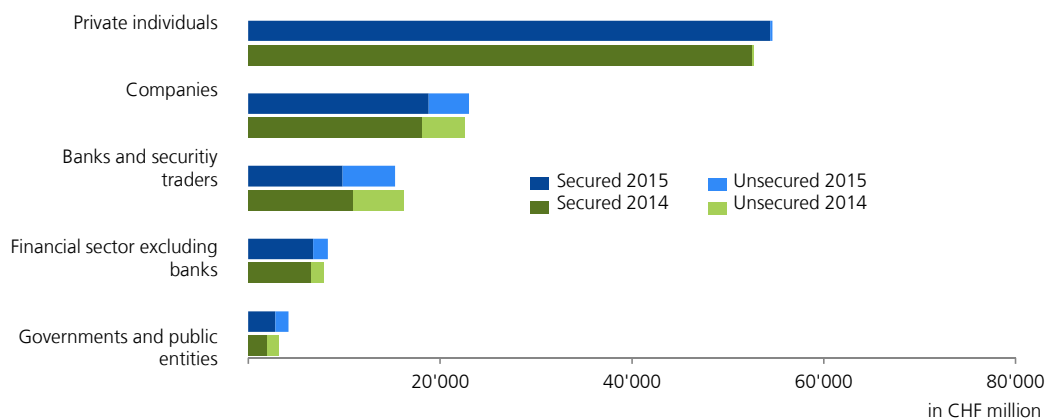
**Credit exposures by rating category.** Default probability ratings are assigned internally on the basis of a scale from 1 to 19. Figure 4 shows credit exposures to counterparties by rating category using S&P’s rating scale. There has been a slight shift in the distribution of credit exposures by rating category towards the better rating categories compared with the previous year.

Fig. 4: Credit exposures by rating category



**Credit exposures by customer portfolio.** Figure 5 shows credit exposures classified in accordance with the bank's internally defined customer portfolios.

Fig. 5: Credit exposures by customer portfolio



Credit exposures in relation to “private individuals” consist almost entirely of mortgages and represent 52 percent (2014: 51 percent) of total credit exposures. The “companies” portfolio consists of credit exposures in relation to customers of a commercial nature. The share of this customer group in total credit exposures is 22 percent (2014: 22 percent), 82 percent (2014: 80 percent) of which is secured by mortgage on properties or cash. In the “banks and securities dealers” portfolio, the larger share of credit exposures in volume terms is in the form of collateralised transactions such as reverse repo transactions. Other credit exposures in relation to banks arise as a result of trading operations and from the export financing business. Insurance companies, pension funds, financial holding companies, investment fund companies and similar companies together constitute the “Financial sector excluding banks” portfolio. “Governments and public entities” – the smallest portfolio, with a share of 4 percent of the volume of credit exposures – consists of positions with central banks, central governments and public authorities and institutions.

**Mortgage exposure to private individuals.** Real estate financing for private individuals is part of Zürcher Kantonalbank’s core business. Two-thirds of mortgage exposures relate to owner-occupied residential property. The remaining exposures are secured with rented residential properties or properties that are used for commercial purposes. Mortgage exposure to private individuals increased by 3.7% in 2015. The median gross loan-to-value ratio for all properties in the private customer portfolio was 52 percent (2014: 52 percent).

**Unsecured credit exposure.** 78 percent (2014: 81 percent) of unsecured credit exposure in the “companies” portfolio relates to customers in the AAA to BBB (investment grade) rating categories. The volume of unsecured lending in the corporate customers portfolio decreased slightly. Rating migrations led to an increase in lending in the BB rating category.

Fig. 6: Unsecured credit exposures of corporate customers by rating category

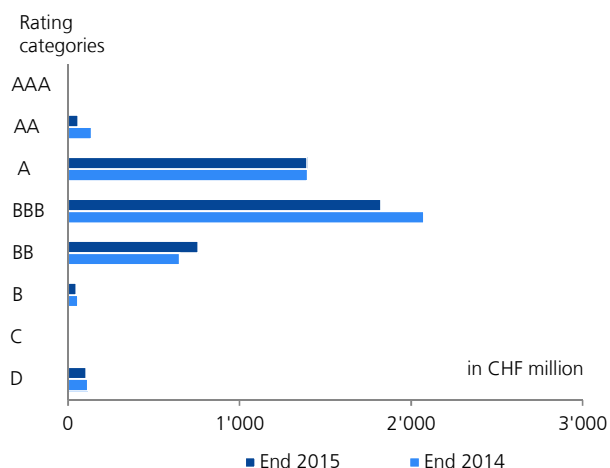
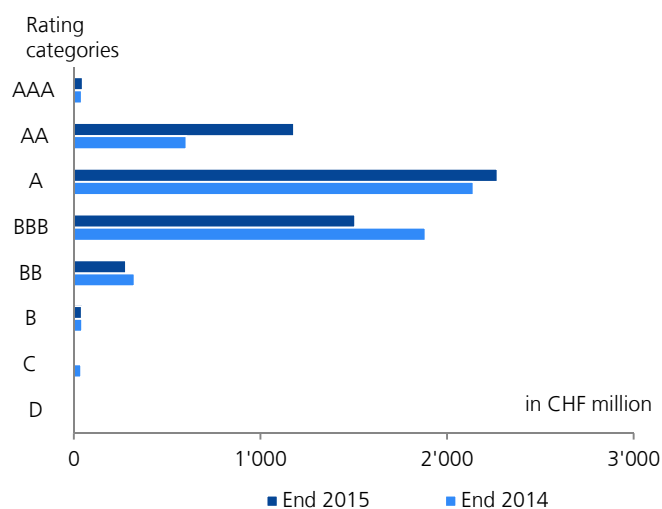


Fig. 7: Unsecured credit exposures of banks and securities traders by rating category



In the “banks and securities traders” customer portfolio, the share of unsecured loans in the A and AA rating categories rose slightly versus the previous year due to a slight increase in money market lending to banks with top credit ratings. A reduction in international trade finance led to a decrease in the volume in the BBB and BB rating categories. 92 percent (2014: 90 percent) of unsecured exposures relate to rating categories AAA to BBB (investment grade).

**Impaired loans.** Impaired loans amounted to CHF 466 million (2014: CHF 480 million). After deduction of the estimated recoverable value of the collateral, there was a net debt of CHF 184 million (2014: CHF 195 million, Note 2 regarding the balance sheet). Risk-weighted, impaired international loans accounted for under 15 percent of the bank’s total risk-weighted impaired loans, and for that reason no geographical breakdown is provided.

**Non-performing loans.** The nominal value of non-performing loans amounted to CHF 143 million at the end of the reporting period (2014: CHF 138 million). Loans are classified as non-performing when interest payments, commission, amortisation or the repayment of the principal have not been received in full 90 days after becoming due. This also includes claims against borrowers in liquidation, and loans with special conditions arising from a borrower’s financial standing. In addition, non-performing loans are often a component of impaired loans.

**Allowances and provisions.** The volume of allowances and provisions for default risks was reduced by CHF 12 million to CHF 309 million in 2015.

### **1.4.3 Approach to measuring capital adequacy, accounting for collateral and hedging instruments used for credit risks**

Capital adequacy requirements for credit risks are calculated using the international standard approach (SA-BIS). The credit equivalent of derivatives is calculated based on the fair value method, while the financial collateral comprehensive method is used for credit risk mitigation and to calculation of the credit equivalent for repos. In accordance with the regulatory requirements, capital is also required to cover the credit risks arising from financial investments and participations. The capital required for the risk of possible value adjustments due to the counterparty risk on derivatives (CVA risk) is calculated in accordance with the standard approach.

Under Basel III, the risk weightings of counterparties may be calculated on the basis of agency ratings. For the corporate and public-law entity categories, Zürcher Kantonalbank applies the ratings from agencies Standard & Poor's and Moody's. In the case of the bank and sovereign sectors, Fitch ratings are also taken into account. For securities with an issue-specific rating from Standard & Poor's and Moody's, it is this issue rating that is used.

In accordance with the Capital Adequacy Ordinance, the basis for calculating credit exposures in the case of most transactions is the reported value. In off-balance-sheet transactions, a credit conversion factor is used. Derivative transactions are converted into a credit equivalent and shown after netting.

## **1.5 Market risks in the trading book**

Market risks comprise the risk of financial losses on own securities and derivatives as a result of changes in market factors such as share prices, interest rates, volatilities and exchange rates, as well as issuer default.

### **1.5.1 Strategy, organisation and processes for the management of market risks in the trading book**

**Strategy.** Zürcher Kantonalbank pursues a strategy focussed on customer transactions for trading business. The individual desks hold trading mandates approved by the risk committee which set out the basic conditions in terms of the objectives pursued, instruments used for underlying and hedging transactions, the form of risk management and the holding period.

**Organisation and processes.** Based on the 3-line model, the preventative risk management and risk control functions are separated from risk management at executive board level. The responsibilities of preventative risk management, which are independent of trading and the risk control function downstream, include monitoring compliance with risk limits and trading mandates, calculating and analysing the trading income (P&L) and risk figures as well as preventive analysis of potentially high-risk transactions. The risk organisation is also responsible for defining methods of risk measurement, their independent validation and internal and external risk reporting.

Market risk is measured, managed and controlled on the one hand by assigning risk capital in accordance with the capital-at-risk approach and on the other by using value-at-risk limits. It is supplemented by the periodic performance of stress tests and by the monitoring of market liquidity risks. The value of trading positions is determined using the fair value method, whereby marking to market or marking to model, which is subject to stricter rules is applied on a daily basis.

The capital-at-risk market risk corresponds to the assigned risk capital for the market risks of trading operations on a one-year horizon and at a confidence level of 99.9%. The modelling is based on a stressed value-at-risk (Stressed-VaR). Besides general market risks, the model also takes into account issuer default risks.

Using a Monte Carlo simulation, Zürcher Kantonalbank calculates value-at-risk for a 10-day period and at a confidence level of 99 percent. The loss distribution is arrived at from the valuation of the portfolio using a large number of manufactured scenarios (full valuation). The necessary parameters for determining the scenarios are estimated on the basis of historical market data, whereby more recent observations for the forecasting of volatility are accorded a higher weighting than less recent ones. As a result, value-at-risk responds rapidly to any changing volatility on the markets. Value-at-risk is calculated on a daily basis for the entire trading book. The four groups of risk factors commodities, currencies, interest rates and equities are calculated and shown separately as well as on a combined basis (Fig. 16a in the quantitative part of the disclosures).

The bank uses different types of scenarios for stress-testing: in matrix scenarios, all market prices and their corresponding volatilities are heavily skewed. Such a scenario might include a 30 percent general fall in equity market prices with a simultaneous 70 percent increase in market volatility. The risk of losses due to general changes in price and volatility can therefore be identified. Non-linearity or asymmetry of risks can be observed in the matrix scenarios. Zürcher Kantonalbank identifies probability-based scenarios which are accorded a 0.1 percent probability of occurring in addition to the matrix scenarios. These scenarios are calculated with increased correlations between risk factors, with a view to taking into account the reduced diversification effect typically observed in an extreme situation.

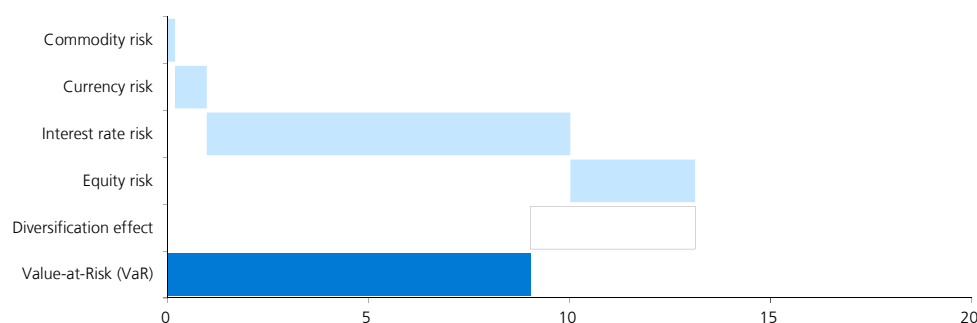
The bank additionally monitors the market liquidity risk of individual portfolios. In the equity derivatives sector, the potential trading volume resulting from the hedging strategy in the case of a change in the key risk factors is compared with the total market volume. Hypothetical offsetting expenses are calculated for bonds and bond-type products, based on observed bid-ask spreads and taking into account additional pricing supplements/discounts. Large-scale positions are examined regularly to ensure there is sufficient liquidity; valuation reserves are formed if necessary, causing a reduction in core capital in the context of capital adequacy.

The bank performs daily back-testing for the purpose of examining the forecast accuracy of value-at-risk. Regulatory back-testing is based on comparison of value-at-risk for a holding period of one day with the back-testing result. Any breach of limits is notified to the units responsible immediately.

The market risk model is validated annually on the basis of a defined process. Validation includes quantitative as well as qualitative aspects. The focus of the quantitative validation is the back-testing of the risk-factor distribution, while the focus of the qualitative validation is on aspects such as data quality, operation and further development of the model, as well as ongoing plausibility checks on the model results. In addition to the annual review of the model, risks not modelled in the value-at-risk are periodically analysed in a separate process and monitored with regard to materiality.



Fig. 8: Components of value-at-risk (in CHF million)



Back-testing results 2015: The quality of the value-at-risk approach used is estimated by comparing the value-at-risk for a holding period of one day with the realised daily back-testing result (Figure 17 in the quantitative part of the disclosures). In 2015, three breaches of the value-at-risk were recorded. In the case of a one-day holding period and 99-percent quantile, two to three breaches of the value-at-risk are expected each year. The back-testing result therefore corresponds to the statistically expected figure. Two breaches of limits resulted from extraordinary market movements following the Swiss National Bank's decision to discontinue the minimum exchange rate against the euro in January 2015 and the third arose from the uncertainty surrounding the decisions regarding fiscal policy taken by the European Central Bank (ECB) in December.

### 1.5.2 Approach to measuring capital adequacy for market risks in the trading book

The required capital is calculated based on the internal model-based approach approved by the Swiss Financial Supervisory Authority (FINMA) using value-at-risk. Capital adequacy requirements are based on the market risks in the trading book and exchange rate, precious metals and commodity risks in the banking book. Besides the value-at-risk figures calculated daily, stress-based value-at-risk figures are also included in the calculation of required capital on a weekly basis. The total risk is also calculated using the model approach, although the value changes in risk factors are based on data that were observed in a period with significant market stress for Zürcher Kantonalbank. By contrast, calculation of the required capital for the specific risks of interest rate instruments is performed in accordance with the international standard approach (SA-BIS) applicable since 31 December 2015. The required capital for market risks amounted to CHF 353 million as at 31 December 2015.

## 1.6 Market risks in the banking book.

### 1.6.1 Strategy, organisation and processes for the management of interest rate risks in the balance sheet

Interest rate risks are the risk that changes in market interest rates will impact negatively on Zürcher Kantonalbank's financial position. As well as affecting current interest income, changes in interest rates have implications for future earnings.

**Strategy.** Zürcher Kantonalbank pursues a strategy focussed on medium-term optimisation of net interest income for the management of the banking book. The interest rate risk is managed based on the market interest method. For customer deposits and loans with a variable interest rate, the interest rate risk is determined by taking into account the bank's presumed future rate-setting behaviour. Restrictions stemming from the capital commitment are also taken into account.

**Organisation and processes.** The interest rate risk in the banking book is managed in strategic terms by the board of directors and in tactical terms by the CFO and treasury. The strategic interest rate risk position is specified by the board of directors on a periodic basis in the form of an investment strategy for equity (equity benchmark). The CFO and treasury manage the deviation of the interest rate risk position in the banking book from the equity benchmark within the risk limits set by the board of directors. The Risk unit is responsible for the measurement and monitoring of risk as well as independent reporting on interest rate risk.

The interest rate risk management takes account of the present value as well as earnings prospects. With the present value perspective, interest rate risks are managed by allocating risk capital in accordance with the capital-at-risk approach (risk horizon one year, confidence level 99.9%) and by using value-at-risk limits. Value-at-risk is determined for a 20-day holding period and a confidence level of 99 percent and is calculated on an integrated basis for all currencies using a Monte Carlo simulation. In addition, stress scenarios are simulated in order to analyse and limit the impact of extraordinary changes in the level of interest rates. For operational management, sensitivity ratios are also calculated for each currency (key rate sensitivity).

With the earnings perspective, earnings stress tests are used to analyse the effects of changes in the interest rate on current earnings. The earnings stress tests model the effects of scenario-based interest rate changes on the balance-sheet items whereat reassignments and reinvestment of expiring contracts are eliminated. Changes in future interest income as a result of new business are not taken into account. The earnings stress tests provide an indication of interest income in the coming period in the event of extraordinary changes in market interest rates with unchanged positioning and constant margins.

**Risk profile.** The value-at-risk of the interest rate risk position of the banking book increased substantially due to the higher interest rate exposure and increased volatility in interest rate markets.

Fig. 9: Value-at-risk of interest rate risk in the banking book

in CHF million	Value-at-risk (99% quantile)
As at 31 December 2015	-226
As at 31 December 2014	-98

For maturity-related sensitivity figures, please refer to Figure 13 in the quantitative disclosures.

### 1.6.2 Strategy, organisation and processes for the management of risks in the investment portfolio

The risks in the investment portfolio comprise issuer risks on debt instruments in financial investments and market risks on equity-type securities and real estate. Interest rate risks are managed and limited as part of asset and liability management.

**Strategy.** The basis of the investment portfolio is mainly operational. Debt securities in financial investments form part of the bank's liquidity buffer, participations mainly relate to companies from the financial market infrastructure and the real estate position consists almost entirely of property in use by the bank.

**Organisation and processes.** There are detailed parameters and competencies for the purchase of financial investments and real estate, as well as for entering into participations. The investment strategy for the financial investments managed by treasury is laid down in a directive approved by the risk committee. Only debt instruments with a first-class credit rating, eligible as high quality liquid assets (HQLA) may be purchased. The Risk unit is responsible for the measurement and monitoring of risk as well as independent reporting on investment portfolio risks.

Risk is managed internally for the investment portfolio by allocating risk capital. For the determination of the risk capital for financial investments and participations, Zürcher Kantonalbank uses an internal model based on a stress period for the risk factors, taking into account diversification effects, liquidity dependencies and the hedgeability of positions. For real estate owned by the bank, risk capital is allocated based on regulatory capital adequacy requirements.

**Risk profile.** The balance sheet value of debt securities in financial investments was CHF 4.1 billion as at 31 December 2015 (2014: CHF 4.0 billion). The portfolio consists of first-class bonds and is diversified in terms of counterparty groups and countries. Guarantees given by central governments in relation to debt securities of banks are in some cases not apparent. It should also be noted that due to regulatory requirements the exposure to central mortgage institution loans is shown in the companies counterparty group.

### **1.6.3 Approach to measuring capital adequacy for investment portfolio risks.**

The capital adequacy required for the investment portfolio is calculated using the international standard approach.

## **1.7 Operational risks**

Operational risks are potential risks that arise due to the inappropriateness or failure of persons, systems, procedures or due to external events.

### **1.7.1 Strategy, organisation and processes for operational risks**

**Strategy.** The objective of Zürcher Kantonalbank's management of operational risk is the risk-oriented protection of people, information, services and assets within its own sphere of responsibility and maintenance as well as the restoration of critical business functions in an operational emergency. The management of operational risk is therefore an essential factor in ensuring that the canton, customers, partners, the public and the regulator can be confident about the services provided by the bank. The assessment of operational risks takes account not only of the direct financial losses but also the consequences of a loss of customer confidence and reputation.

**Organisation and processes.** The bank-wide inventory of operational risks constitutes the basis for the management of operational risks. Through periodic, systematic assessments, the operational risks of all the bank's critical services and service providers are identified, assessed and documented. Bank-wide security management constitutes an important component of the management of operational risks, and comprises four areas of security and corresponding protection objectives:

Fig. 10: Security management

Security area	Security protection objective
Business Continuity Management	Maintaining critical business functions in the event of serious events stemming from operational risks
Data security	Protecting data confidentiality, integrity and availability
Personal safety	Protecting people (life and limb)
Protection of property	Protecting physical assets

The measurement of operational risks is based on an estimate of potential claims and the probability of occurrence. To calculate the operational risks, inherent risks are set against existing risk-mitigating measures. If the residual risks exceed the risk tolerance, additional risk-mitigating measures are defined. The effectiveness of the risk-mitigating measures is monitored in the context of the bank-wide internal controls system. The specialist "Operational Risk" function of the Risk unit specifies methods and provides tools for monitoring the internal controls system.

**Risk profile.** There was no material change in the bank's risk profile for operating risks compared with the previous year. There were no fundamental changes in the bank's business model or organisational structure. Zürcher Kantonalbank paid particular attention to the identification of operational risk scenarios in relation to cybercrime. The bank's security management is addressing growing threat levels through continuous improvement in protective and defensive measures.

### 1.7.2 Approach to measuring capital adequacy for operational risks.

Zürcher Kantonalbank uses the basic indicator approach to determine the required capital for operational risks. As at 31 December 2015, capital of CHF 318 million (2014: CHF 303 million) was required in order to cover operational risks.

## 1.8 Liquidity and refinancing risks

Liquidity refers to the bank's capacity to discharge its liabilities promptly and unrestrictedly. The liquidity risk is the risk that this capacity to pay will be impaired under institution or market-specific stress conditions.

Refinancing refers to the procurement of funds for the financing of assets. Management of refinancing involves managing the maturity profile of assets and liabilities. Refinancing risk is the risk that the bank is not in a position to procure sufficient funds for the ongoing financing of its lending business on suitable terms.

### 1.8.1 Strategy, organisation and processes for liquidity and refinancing risks

**Strategy.** The objective of the management of liquidity risks is to ensure the capacity to pay even under institution or market-specific stress conditions. Zürcher Kantonalbank pursues a long-term refinancing policy, including both cost and risk aspects.

Refinancing risks are managed via a deliberate diversification with regard to refinancing instruments used and markets, to limit dependence on funding sources. The treasury uses short and long-term instruments, which are placed on the domestic and international markets. The diversified refinancing base is reflected in a broad product portfolio, comprising customer deposits, bank deposits and capital market refinancing.

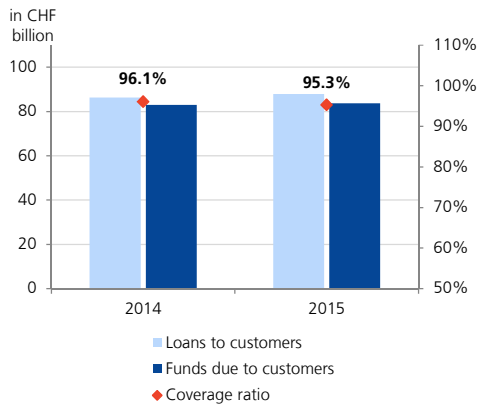
**Organisation and processes.** The treasury organisational unit is responsible for managing the liquidity risks and refinancing of Zürcher Kantonalbank. The treasury delegates operational liquidity management to the money trading unit. This organisation ensures the efficient use of liquidity based on current and future regulatory and internal rules. Within the framework of risk policy parameters, the board of directors establishes the maximum liquidity risk tolerance based on the internal model. The risk organisation oversees compliance with the rules and reports to the board of directors on this on a regular basis.

The measurement, management and control of short-term liquidity risks comprises both an internal scenario analysis system and the measurement of the regulatory indicator, the Liquidity Coverage Ratio (LCR). The internal scenario analysis system measures liquidity risks in a bank-specific stress scenario tailored to the characteristics of Zürcher Kantonalbank on a daily basis via a fully automated process. This scenario is based on the assumption that Zürcher Kantonalbank is no longer able to refinance itself on the interbank market on an unsecured basis and customers withdraw their money at the same time with varying degrees of intensity. The result of the liquidity risk measurement is a daily report on the net liquidity position, availability of liquid assets and securities eligible for repo transactions in financial investments and trading business positions as well as liquidity inflows and outflows under the standard stress scenario. For the regulatory indicator LCR, the portfolio of high-value liquid assets is exposed to the LCR scenario in relation to the net outflows after 30 days. As a systemically important bank, with effect from 1 January 2015, Zürcher Kantonalbank is subject to a minimum requirement of 100% for the LCR. Zürcher Kantonalbank uses an internal model in accordance with marginal note 225 of FINMA Circular 2015/2 Liquidity Risks for Banks for the division of wholesale deposits (major customers and banks). Net outflows of funds from derivatives are calculated based on changes in fair value according to a look back method in accordance with marginal note 262 of the Circular. Besides Swiss francs, which make up by far the largest part of the balance sheet of Zürcher Kantonalbank, the LCR is also monitored and periodically reported in other major currencies. The management of liquidity risks also involves an emergency plan. This supports the situationally appropriate conduct of the relevant functions in a crisis.

**Risk profile.** The liquidity ratios moved within a stable framework in 2015. The quarterly averages for the LCR fluctuated between 114% and 129%. The high quality liquid assets (HQLA) used to calculate the LCR remained relatively stable throughout the year, averaging CHF 35.1 billion. As shown in Figure 15 in the quantitative part of the disclosures, the available liquid assets can be subdivided into Level 1 assets (cash, central bank deposits, tradeable securities) and Level 2 assets (tradeable securities with less strict criteria). The majority of Level 1 assets are held in the form of central bank deposits. The volatility of inflows and outflows of funds is mainly due to non-operational deposits and secured funding of major customers and banks. These fluctuations reflect the active management of the liquidity profile, particularly by targeted management of fixed-term deposits and active collateral management, including SLB and repos.

The figure below shows a year-on-year comparison of the coverage ratio for asset-side customer business. Funds due to customers (including cash bonds) totalled CHF 83.8 billion as at 31 December 2015, against loans to customers of CHF 87.9 billion. This gives a coverage ratio of 95.3 percent. The coverage ratio has therefore reduced slightly versus the previous year.

Fig. 11: Coverage ratio customer business



## 2 Quantitative disclosures

The table below provides an overview of the capital adequacy and liquidity disclosures required as at 31 December 2015.

Ref. Circ. 08/22	Information to be disclosed	Applicable to ZKB	Systemic importance disclosures	Required frequency as per FINMA Circular 08/22	Effective disclosure frequency	Disclosure report reference
M.n. 23	Key characteristics of eligible regulatory capital instruments issued	Yes	No	Yes/in event of change	Q	Fig. 11
M.n. 38	Breakdown of eligible regulatory capital	Yes	No	HY	Q	Fig. 1,3, 4a-c
M.n. 39	Required capital	Yes	No	HY	Q	Fig. 2, 5a-b
M.n. 40	Credit risk/breakdown by counterparty or sector	Yes	No	HY	Q	Fig. 7
M.n. 41	Regulatory credit risk mitigation	Yes	No	HY	Q	Fig. 8
M.n. 42	Segmentation of credit risks	Yes	No	HY	Q	Fig. 9
M.n. 43	Geographical credit risks	No	No	n/a	n/a	n/a
M.n. 44	Doubtful customer loans by geographical area	No	No	n/a	n/a	n/a
M.n. 45	Credit derivative transactions in the banking book	Yes	No	HY	Q	Fig. 10
M.n. 45.1	Volume of risk-weighted positions when using external ratings	Yes	No	HY	Q	Fig. 12
M.n. 46	Interest rate risks in the banking book: figures on effect on assets and in event of an interest rate shock	Yes	No	HY	Q	Fig. 13
M.n. 46.1	Leverage ratio	Yes	No	HY	Q	Fig. 14
M.n. 46.3	Liquidity coverage ratio	No	No	n/a	n/a	n/a
M.n. 46.2 M.n. 46.4 – M.n. 46.6	Liquidity coverage ratio (group)	Yes	stricter requirements from 1 January 2017	HY	Q	Fig. 15 a
M.n. 13 (FINMA Circular 2016/1)	Liquidity coverage ratio (parent company)	Yes	No	J	Q	Fig. 15 b
M.n. 47 - M.n. 47.4	Disclosure requirements under Basel Minimum Standards when using:					
	▪ bank-specific calculations for credit risks	No	No	n/a	n/a	n/a
	▪ model-based approach for market risks	Yes	No	HY	Q	Fig. 16 a-b Fig. 17
	▪ institution-specific approach for operating risks	No	No	n/a	n/a	n/a
	▪ securitisation transactions as defined in FINMA Circular 08/19	No	No	n/a	n/a	n/a

Ref. Circ. 08/22	Information to be disclosed	Applicable to ZKB	Systemic importance disclosures	Required frequency as per FINMA Circular 08/22	Effective disclosure frequency	Disclosure report reference
M.n. 57-58	<p>The disclosure requirements for major banks include the group/subgroup ratios and significant domestic and foreign banking subsidiaries that must comply with capital adequacy requirements regarding:</p> <ul style="list-style-type: none"> <li>▪ common equity Tier 1 (CET1)</li> <li>▪ total core capital (Tier 1) and</li> <li>▪ ordinary regulatory capital (Tier 1 and Tier 2)</li> </ul> <p>Furthermore the related basic information, i.e. common equity Tier 1, total core capital and ordinary regulatory capital as well as minimum required capital.</p>	Yes	No	Q	Q	Fig.1 Fig. 2 Fig. 3 Fig. 4a-c Fig. 5a-b Fig. 6a-b
M.n. 58.1	<p>The disclosure obligations for major banks also include:</p> <ul style="list-style-type: none"> <li>▪ Leverage ratio including numerator (core capital, Tier 1) and denominator (total exposure)</li> </ul>					Fig. 14
M.n. 58.2	<ul style="list-style-type: none"> <li>▪ Quantitative and qualitative information regarding the LCR: <ul style="list-style-type: none"> <li>→ as per m.n. 36.3 et seq</li> <li>→ as per m.n. 46.2 et seq</li> </ul> </li> </ul>	Yes Yes	Yes No	Q Q	Q Q	Fig. 15 Fig. 15
M.n. 59.0	Banks with a total exposure greater than EUR 200 million → have additional disclosure obligations to meet	No	No	n/a	n/a	n/a
M.n. 59.2	CET1 ratios, high/low trigger convertible capital and indication as to which part is deemed AT1 and which T2.	Yes	Yes	Q	Q	Fig. 18
M.n. 59.3	Reconciliation into numbers/percentages to enable assessment of compliance with basic requirements, capital buffer and progressive component. CET1 used to cover the progressive component must be stated separately.	Yes	Yes	Q	Q	Fig. 19a-b
M.n. 59.4	Leverage Ratio: sub-divided in accordance with basic requirements, capital buffer and progressive component.	Yes	Yes	Q	Q	Fig. 20a-b
M.n. 59.5	Listing and qualification of reliefs granted for RWAs, eligible capital and total exposure at individual institution level, stating materiality of their impacts/importance etc.	No	No	n/a	n/a	n/a



## 2.1 Change in eligible and required capital

Fig. 1: Change in eligible capital (in CHF million)

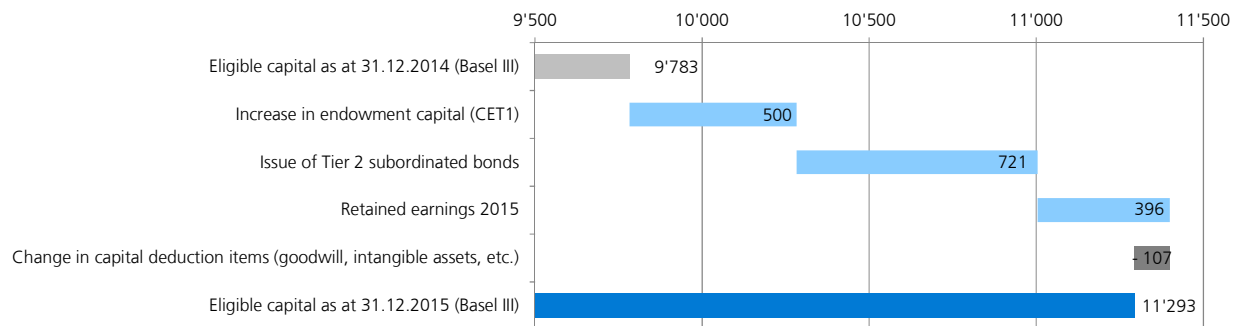
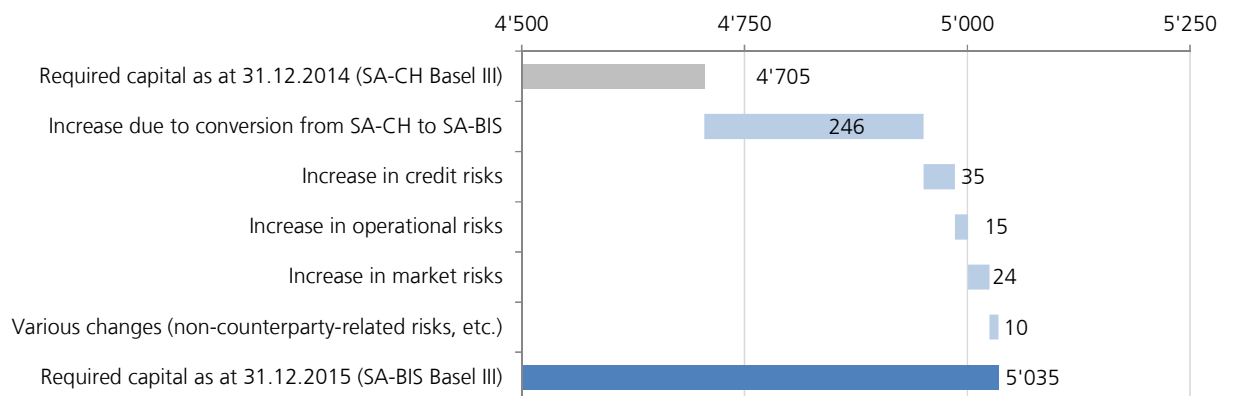


Fig. 2: Change in minimum required capital (in CHF million)



## 2.2 Eligible and required capital (parent company)

The tables below provide information on the detailed composition of and changes in eligible and required capital.

Fig. 3: Group balance sheet before distribution of net profit

<i>in CHF million</i>	References to Fig. 4a	31.12.2015 <sup>1</sup>	31.12.2014 <sup>1</sup>
<b>Assets</b>			
Liquid assets		32'497	27'064
Amounts due from banks		6'011	5'460
Amounts due from securities financing transactions		14'966	14'040
Amounts due from customers		7'673	7'483
Mortgage loans		73'623	71'349
Trading portfolio assets		10'226	11'272
Positive replacement values of derivative financial instruments		2'897	2'504
Other financial instruments at fair value		220	799
Financial investments		4'320	4'210
Accrued income and prepaid expenses		294	309
Non-consolidated participations		161	163
Tangible fixed assets		860	724
Intangible assets		124	1
- of which goodwill	A	121	0
- of which other intangible assets	B	3	1
Other assets		538	496
- of which deferred tax assets which rely on future profitability	C	9	10
<b>Total assets</b>		<b>154'410</b>	<b>145'872</b>
<b>Liabilities and equity</b>			
<b>Liabilities</b>			
Amounts due to banks		34'803	28'909
Liabilities from securities financing transactions		2'991	2'754
Amounts due in respect of customer deposits		80'820	79'969
Trading portfolio liabilities		2'110	2'728
Negative replacement values of derivative financial instruments		2'067	1'869
Liabilities from other financial instruments at fair value		4'163	3'772
Cash bonds		269	381
Bonds		7'669	7'817
Central mortgage institution loans		7'716	6'964
Accrued expenses and deferred income		578	424
Other liabilities		211	259
Provisions		584	539
- of which deferred tax on valuation differences		0	0
<b>Total liabilities</b>		<b>143'981</b>	<b>136'385</b>
- of which subordinated liabilities eligible as additional Tier 1 capital (AT1) <sup>2</sup>	D	589	588
- of which subordinated liabilities eligible as supplementary capital (T2) <sup>3</sup>	E	721	
- of which collective value adjustments for default risks, eligible as supplementary capital (T2)	F	14	
<b>Net equity</b>			
Corporate capital		2'425	1'925
- of which eligible as CET1	G	2'425	1'925
Voluntary retained earnings reserve	H	7'290	6'919
Foreign currency translation reserve	I	-8	-4
Group net income		722	647
- of which minority interests			
- of which retained earnings	J	396	368
<b>Total equity</b>		<b>10'429</b>	<b>9'487</b>
<b>Total liabilities and equity</b>		<b>154'410</b>	<b>145'872</b>

<sup>1</sup> The regulatory scope of consolidation pursuant to the Capital Adequacy Ordinance is identical to that used in accounting.

<sup>2</sup> Consists solely of high-trigger convertible capital.

<sup>3</sup> Consists solely of low-trigger convertible capital.

Fig. 4a: Eligible capital (group)<sup>1</sup>

<i>in CHF million</i>	References to Fig. 3	31.12.2015 <sup>2</sup>	31.12.2014 <sup>2</sup>
<b>Common equity Tier 1 (CET1)</b>			
Issued and paid-up corporate capital, fully eligible	G	2'425	1'925
Profit reserves, including reserves for general banking risks/profit (loss) brought forward and profit (loss) for the period	H+J	7'686	7'286
Capital reserves and foreign currency translation reserve	I	-8	-4
<b>Common equity Tier 1 before adjustments</b>		<b>10'103</b>	<b>9'207</b>
<b>Adjustments to common equity Tier 1</b>			
Goodwill	A	-121	-0
Other intangible assets	B	-3	-1
Deferred tax assets which rely on future profitability	C	-9	-10
Reclassification of CET1 to Tier 2 to cover the progressive component			-588
<b>Total adjustments to common equity Tier 1</b>		<b>-133</b>	<b>-600</b>
<b>Common equity Tier 1 (net CET1)</b>		<b>9'970</b>	<b>8'607</b>
<b>Additional Tier 1 capital (AT1)</b>			
Issued and paid up debt instruments <sup>3</sup>		590	590
Deduction of net long positions in own AT1 instruments		-1	-2
<b>Additional Tier 1 capital (net AT1)</b>	D	<b>589</b>	<b>588</b>
<b>Core capital (net Tier 1)</b>		<b>10'559</b>	<b>9'195</b>
<b>Supplementary capital (Tier 2)</b>			
Issued and paid up debt instruments <sup>4</sup>	E	729	
Deduction of net long positions in own Tier 2 instruments	E	-8	
General bad debt provision for inherent default risks	F	14	
Reclassification of CET1 to Tier 2 to cover the progressive component			588
<b>Supplementary capital (net Tier 2)</b>		<b>735</b>	<b>588</b>
<b>Regulatory total capital (net Tier 1 &amp; net Tier 2)</b>		<b>11'293</b>	<b>9'783</b>

<sup>1</sup> Unused headings in accordance with model table 1b) of Appendix 2 FINMA Circular 2008/22 "Capital Adequacy Disclosure – Banks" are omitted in favour of a more straightforward presentation.

<sup>2</sup> Figures for capital are calculated in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>3</sup> Consists solely of high-trigger convertible capital.

<sup>4</sup> Consists solely of low-trigger convertible capital.

Fig. 4b: Eligible capital (parent company)<sup>1,2,3</sup>

<i>in CHF million</i>	31.12.2015 <sup>4</sup>	31.12.2014 <sup>4</sup>
<b>Common equity Tier 1 (CET1)</b>		
Issued and paid-up corporate capital, fully eligible	2'425	1'925
Profit reserves, including reserves for general banking risks/profit (loss) brought forward and profit (loss) for the period	7'724	7'263
Capital reserves and foreign currency translation reserve		
<b>Common equity Tier 1 before adjustments</b>	<b>10'149</b>	<b>9'188</b>
<b>Adjustments to common equity Tier 1</b>		
Goodwill		-0
Other intangible assets	-3	-1
Deferred tax assets which rely on future profitability		
Consolidated participations (CET1 instruments)	-402	-39
Reclassification of CET1 to Tier 2 to cover the progressive component		-587
<b>Total adjustments to common equity Tier 1</b>	<b>-405</b>	<b>-627</b>
<b>Common equity Tier 1 (net CET1)</b>	<b>9'744</b>	<b>8'561</b>
<b>Additional Tier 1 capital (AT1)</b>		
Issued and paid-up debt instruments <sup>5</sup>	590	590
Deduction of net long positions in own AT1 instruments	-1	-2
<b>Additional Tier 1 capital (net AT1)</b>	<b>589</b>	<b>588</b>
<b>Core capital (net Tier 1)</b>	<b>10'333</b>	<b>9'148</b>
<b>Supplementary capital (Tier 2)</b>		
Issued and paid-up debt instruments <sup>6</sup>	729	
Deduction of net long positions in own Tier 2 instruments	-8	
General bad debt provision for inherent default risks	14	
Reclassification of CET1 to Tier 2 to cover the progressive component		587
<b>Supplementary capital (net Tier 2)</b>	<b>735</b>	<b>587</b>
<b>Regulatory total capital (net Tier 1 &amp; net Tier 2)</b>	<b>11'068</b>	<b>9'735</b>

<sup>1</sup> Unused headings in accordance with model table 1b) of Appendix 2 FINMA Circular 2008/22 "Capital Adequacy Disclosure – Banks" are omitted in favour of a more straightforward presentation.

<sup>2</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>3</sup> Zürcher Kantonalbank does not claim any relief on the basis of Art. 125 CAO.

<sup>4</sup> Figures for capital are calculated in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>5</sup> Consists solely of high-trigger convertible capital.

<sup>6</sup> Consists solely of low-trigger convertible capital.

Fig. 4c: Thresholds and positions with no deduction from common equity Tier 1 (CET1) (group)<sup>1</sup>

<i>in CHF million</i>	31.12.2015		31.12.2014	
	Amount <sup>2</sup>	Threshold	Amount <sup>2</sup>	Threshold
Non-qualified participations in the share capital of other companies in the financial sector	470	999 <sup>3</sup>	567	920 <sup>3</sup>
Qualified participations in the share capital of other companies in the financial sector	205	999 <sup>4</sup>	227	920 <sup>4</sup>

<sup>1</sup> Amounts below the threshold are subject to normal capital adequacy requirements. Zürcher Kantonalbank does not have any "mortgage servicing rights" or "other deferred tax assets".

<sup>2</sup> Net position (trading and banking book) for equity instruments of companies operating in the financial sector (Art. 52 CAO).

<sup>3</sup> Threshold 1 pursuant to Art. 35 para. 2 CAO.

<sup>4</sup> Threshold 2 pursuant to Art. 35 para. 3 CAO.

Fig. 5a: Required capital (group)

<i>in CHF million</i>	Remarks	31.12.2015 SA-BIS	31.12.2014 SA-CH
Credit risks (using standard approach)	including CVA <sup>1</sup>	4'296	3'999
- of which price risk relating to equity-type securities in the banking book		25	27
Non-counterparty-related risks (using standard approach)		69	159
Market risks		353	276
- of which market risks (using model-based approach) <sup>2</sup>		139	166
- of which market risks on interest rate instruments (specific market risks) <sup>3</sup>		214	110
Operational risks (using basic indicator approach)		318	303
Reduction because of deductible allowances and provisions <sup>4</sup>			-32
<b>Minimum required capital</b>		<b>5'035</b>	<b>4'705</b>
<b>Total risk-weighted assets</b>	12.5 x minimum capital	<b>62'942</b>	<b>58'816</b>

<sup>1</sup> The capital adequacy requirements for the risk of possible value adjustments due to the counterparty credit risk on derivatives (CVA risk) are calculated in accordance with the standard approach and amounted to CHF 198 million as at 31 December 2015 (CHF 215 million as at 31 December 2014).

<sup>2</sup> Excludes specific interest rate risks; aggregate value-at-risk (VaR) from average of the 60 immediately preceding trading days and stress-based VaR from average of the 12 immediately preceding weeks.

<sup>3</sup> Specific risks due to interest rates (from interest rate instruments, options and credit derivatives).

<sup>4</sup> Under the Swiss standard approach for credit risk (SA-CH), the allowances and provisions recognised as liabilities are deducted from the required capital on a global basis in accordance with Art. 137 para. 1 CAO.

Fig. 5b: Required capital (parent company)<sup>1</sup>

<i>in CHF million</i>	Remarks	31.12.2015 SA-BIS	31.12.2014 SA-CH
Credit risks (using standard approach)	including CVA <sup>2</sup>	4'286	3'996
- of which price risk relating to equity-type securities in the banking book		25	27
Non-counterparty-related risks (using standard approach)		68	157
Market risks		353	276
- of which market risks (using model-based approach) <sup>3</sup>		139	166
- of which market risks on interest rate instruments (specific market risks) <sup>4</sup>		214	110
Operational risks (using basic indicator approach)		304	299
Reduction because of deductible value adjustments and provisions <sup>5</sup>			-32
<b>Minimum required capital</b>		<b>5'010</b>	<b>4'696</b>
<b>Total risk-weighted assets</b>	12.5 x minimum capital	<b>62'626</b>	<b>58'701</b>

<sup>1</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>2</sup> The capital adequacy requirements for the risk of possible value adjustments due to the counterparty credit risk on derivatives (CVA risk) are calculated in accordance with the standard approach and amounted to CHF 198 million as at 31 December 2015 (CHF 215 million as at 31 December 2014).

<sup>3</sup> Excludes specific interest rate risks; aggregate value-at-risk (VaR) from average of the 60 immediately preceding trading days and stress-based VaR from average of the 12 immediately preceding weeks.

<sup>4</sup> Specific risks due to interest rates (from interest rate instruments, options and credit derivatives).

<sup>5</sup> Under the Swiss standard approach for credit risk (SA-CH), the allowances and provisions recognised as liabilities are deducted from the required capital on a global basis in accordance with Art. 137 para. 1 CAO.

Fig. 6a: Capital ratios in accordance with Basel III (Switzerland) (group)

	Remarks	31.12.2015 <sup>1</sup>	31.12.2014 <sup>1</sup>
<b>Common equity Tier 1 ratio (CET1)</b>	based on minimum capital (8%)	<b>15.8%</b>	<b>14.6%</b>
<b>Additional Tier 1 capital ratio (AT1)</b>	based on minimum capital (8%)	<b>0.9%</b>	<b>1.0%</b>
<b>Core capital ratio (Tier 1 = CET1 + AT1)</b>	based on minimum capital (8%)	<b>16.8%</b>	<b>15.6%</b>
<b>Supplementary capital ratio (Tier 2)</b>	based on minimum capital (8%)	<b>1.2%</b>	<b>1.0%</b>
<b>Total capital ratio (Tier 1 + Tier 2)</b>	based on minimum capital (8%)	<b>17.9%</b>	<b>16.6%</b>
<hr/>			
CET1 requirements pursuant to CAO (minimum requirements + capital buffer + countercyclical buffer) plus the capital buffer for global systemically important institutions in accordance with the Basel parameters (in % of risk-weighted assets)		5.2%	4.7%
- of which capital buffer pursuant to CAO (in % of risk-weighted assets) <sup>2</sup>			
- of which countercyclical buffer (in % of risk-weighted assets) <sup>3</sup>		0.7%	0.7%
- of which capital buffer for global systemically important institutions in accordance with (in % of risk-weighted assets)		-	-
<hr/>			
Available CET1 to meet minimum and buffer requirements, after deduction of AT1 and Tier 2 requirements, which are met through CET1 (in % of risk-weighted assets)		14.4% <sup>4</sup>	12.6% <sup>5</sup>
<hr/>			
CET1 target <sup>6</sup> plus countercyclical buffer (in % of risk-weighted assets)		10.7%	10.7%
<hr/>			
Available CET1 to meet target plus countercyclical buffer, after deduction of AT1 and Tier 2 requirements <sup>7</sup> , which are met through CET1 (in % of risk-weighted assets)		13.8%	12.6%
<hr/>			
Tier 1 target plus countercyclical buffer (in % of risk-weighted assets)		13.7%	13.7%
Available Tier 1 to meet target plus countercyclical buffer, after deduction of Tier 2 requirements, which are met through Tier 1 (in % of risk-weighted assets)		16.8%	15.6%
<hr/>			
Regulatory capital target plus countercyclical buffer (in % of risk-weighted assets)		14.7%	14.7%
Available regulatory capital to meet target plus countercyclical buffer (in % of risk-weighted assets)		17.9%	16.6%

<sup>1</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>2</sup> Based on the transitional provisions (Art. 144 CAO), the capital buffer specified in Art. 43 CAO for years 2013 to 2015 is 0.0%.

<sup>3</sup> The basis for the countercyclical capital buffer is mortgage lending for the financing of residential property in Switzerland. Since 30 June 2014, this has been 2.0% of the corresponding risk-weighted assets and amounted to CHF 432 million as at 31 December 2015 (CHF 418 million as at 31 December 2014).

<sup>4</sup> AT1 minimum requirement 1.5% (Art. 143 CAO), Tier 2 minimum requirement 2.0% (Art. 42 para. 1 CAO) from 1 January 2015.

<sup>5</sup> AT1 minimum requirement 1.5% (Art. 143 CAO), Tier 2 minimum requirement 2.5% (Art. 42 para. 1 CAO) as at 31 December 2014.

<sup>6</sup> Derived from the FINMA decree of August 2014, the CET1 target for Zürcher Kantonalbank is 10.0% from 31 December 2014.

<sup>7</sup> Derived from the FINMA decree of August 2014, the AT1 target for Zürcher Kantonalbank is 3.0% and the Tier 2 target 1.0% from 31 December 2014.

Fig. 6b: Capital ratios in accordance with Basel III (Switzerland) (parent company)

	Remarks	31.12.2015 <sup>1</sup>	31.12.2014 <sup>1</sup>
<b>Common equity Tier 1 ratio (CET1)</b>	based on minimum capital (8%)	<b>15.6%</b>	<b>14.6%</b>
<b>Additional Tier 1 capital ratio (AT1)</b>	based on minimum capital (8%)	<b>0.9%</b>	<b>1.0%</b>
<b>Core capital ratio (Tier 1 = CET1 + AT1)</b>	based on minimum capital (8%)	<b>16.5%</b>	<b>15.6%</b>
<b>Supplementary capital ratio (Tier 2)</b>	based on minimum capital (8%)	<b>1.2%</b>	<b>1.0%</b>
<b>Total capital ratio (Tier 1 + Tier 2)</b>	based on minimum capital (8%)	<b>17.7%</b>	<b>16.6%</b>
CET1 requirements pursuant to CAO (minimum requirements + capital buffer + countercyclical buffer) plus the capital buffer for global systemically important institutions in accordance with the Basel parameters (in % of risk-weighted assets)			
		5.2%	4.7%
- of which capital buffer pursuant to CAO (in % of risk-weighted assets) <sup>2</sup>			
		0.7%	0.7%
- of which countercyclical buffer (in % of risk-weighted assets) <sup>3</sup>			
		-	-
- of which capital buffer for global systemically important institutions in accordance with (in % of risk-weighted assets)			
		-	-
Available CET1 to meet minimum and buffer requirements, after deduction of AT1 and Tier 2 requirements, which are met through CET1 (in % of risk-weighted assets)			
		14.2% <sup>4</sup>	12.6% <sup>5</sup>
CET1 target <sup>6</sup> plus countercyclical buffer (in % of risk-weighted assets)			
		10.7%	10.7%
Available CET1 to meet target plus countercyclical buffer, after deduction of AT1 and Tier 2 requirements <sup>7</sup> , which are met through CET1 (in % of risk-weighted assets)			
		13.5%	12.6%
Tier 1 target plus countercyclical buffer (in % of risk-weighted assets)			
		13.7%	13.7%
Available Tier 1 to meet target plus countercyclical buffer, after deduction of Tier 2 requirements, which are met through Tier 1 (in % of risk-weighted assets)			
		16.5%	15.6%
Regulatory capital target plus countercyclical buffer (in % of risk-weighted assets)			
		14.7%	14.7%
Available regulatory capital to meet target plus countercyclical buffer (in % of risk-weighted assets)			
		17.7%	16.6%

<sup>1</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>2</sup> Based on the transitional provisions (Art. 144 CAO), the capital buffer specified in Art. 43 CAO for years 2013 to 2015 is 0.0%.

<sup>3</sup> The basis for the countercyclical capital buffer is mortgage lending for the financing of residential property in Switzerland. Since 30 June 2014, this has been 2.0% of the corresponding risk-weighted assets and amounted to CHF 432 million as at 31 December 2015 (CHF 418 million as at 31 December 2014).

<sup>4</sup> AT1 minimum requirement 1.5% (Art. 143 CAO), Tier 2 minimum requirement 2.0% (Art. 42 para. 1 CAO) from 1 January 2015.

<sup>5</sup> AT1 minimum requirement 1.5% (Art. 143 CAO), Tier 2 minimum requirement 2.5% (Art. 42 para. 1 CAO) as at 31 December 2014.

<sup>6</sup> Derived from the FINMA decree of August 2014, the CET1 target for Zürcher Kantonalbank is 10.0% from 31 December 2014.

<sup>7</sup> Derived from the FINMA decree of August 2014, the AT1 target for Zürcher Kantonalbank is 3.0% and the Tier 2 target 1.0% from 31 December 2014.

## 2.3 Credit risks

The following tables provide information about various aspects relating to credit risks.

Fig 7: Group credit exposure breakdown by counterparty group

Credit exposures <sup>1</sup>	in CHF million	Central governments and central banks	Banks and securities dealers	Other institutions <sup>2</sup>	Companies	Retail customers and small businesses <sup>3</sup>	Other positions <sup>4</sup>	Total
<b>Balance sheet items</b>								
Amounts due from banks		37	5'932		42			6'011
Amounts due from securities financial transactions		321	7'996	2'500	4'149			14'966
Amounts due from customers		1	0	1'291	4'677	1'635	69	7'673
Mortgage loans				33	4'469	67'389	1'732	73'623
Positive replacement values of derivative financial instruments		37	1'308	205	701	559	87	2'897
Other financial instruments at fair value			220					220
Debt securities in financial investments		836	557	1'166	1'337	250		4'146
Accrued income and prepaid expenses							294	294
Other assets <sup>5</sup>							115	115
<b>Total as at 31.12.2015</b>		<b>1'232</b>	<b>16'013</b>	<b>5'195</b>	<b>15'375</b>	<b>69'834</b>	<b>2'297</b>	<b>109'946</b>
<b>Total as at 31.12.2014</b>		<b>846</b>	<b>16'656</b>	<b>4'574</b>	<b>14'893</b>	<b>66'401</b>	<b>2'688</b>	<b>106'059</b>
<b>Off-balance-sheet transactions</b>								
Contingent liabilities		4	958	81	2'497	291	20	3'852
Irrevocable commitments <sup>6</sup>		4	213	326	5'380	1'495	60	7'478
Liabilities for calls on shares and other equities							147	147
Credit commitments								
<b>Total as at 31.12.2015</b>		<b>8</b>	<b>1'171</b>	<b>407</b>	<b>7'877</b>	<b>1'786</b>	<b>227</b>	<b>11'477</b>
<b>Total as at 31.12.2014</b>		<b>12</b>	<b>1'296</b>	<b>399</b>	<b>8'167</b>	<b>1'370</b>	<b>221</b>	<b>11'465</b>

<sup>1</sup> The counterparty groups correspond to those in the Capital Adequacy Ordinance (CAO). Cash, non-counterparty-related assets and exposure with equity-type characteristics are not stated under credit exposure.

<sup>2</sup> This group includes public authorities and institutions, the Bank for International Settlements (BIS), the International Monetary Fund (IMF), multilateral development banks and joint institutions.

<sup>3</sup> Small businesses are defined by Zürcher Kantonalbank as all companies that meet at least one of the following conditions: number of employees < 50, total assets < CHF 6 million, net sales < CHF 15 million.

<sup>4</sup> E.g. foundations or deferred items.

<sup>5</sup> Excludes equalising accounts for value adjustments not recognised in the income statement and deferred tax assets which rely on future profitability.

<sup>6</sup> Irrevocable commitments are disclosed in accordance with the definition specified in the Capital Adequacy Ordinance (CAO). Due to the different measurement criteria, the total may differ from the total under the accounting guidelines for banks (AGB) (group balance sheet).



The following tables show the credit exposures by type of collateral in accordance with the Capital Adequacy Ordinance. The transactions subject to capital adequacy rules are primarily calculated based on the values reported in the balance sheet. In off-balance-sheet transactions, a credit conversion factor is used. Derivative transactions are converted into a credit equivalent and shown after netting. Therefore, the total credit exposures are not identical to those in the table "Group credit exposure breakdown by counterparty group".

Fig 8: Regulatory group credit risk mitigation

<i>in CHF million</i>	Secured by guarantees	Secured by real estate	Financial collateral <sup>1</sup>	Other credit exposures	<b>Total</b>
<b>Credit exposures<sup>2</sup></b>					
Central governments and central banks	1			1'012	1'012
- of which derivatives <sup>3</sup>				61	61
Banks and securities traders <sup>4</sup>	514			12'683	13'196
- of which derivatives <sup>3</sup>				3'356	3'356
Other institutions	153	33		3'183	3'369
- of which derivatives <sup>3</sup>				302	302
Companies <sup>4</sup>	383	4'252	1'046	10'258	15'939
- of which derivatives <sup>3</sup>				1'535	1'535
Private customers and small businesses	262	67'003	614	2'799	70'678
- of which derivatives <sup>3</sup>				628	628
Other positions		1'713	24	33'246	34'984
- of which derivatives <sup>3</sup>				181	181
<b>Total as at 31 December 2015 (SA-BIS)<sup>5</sup></b>	<b>1'312</b>	<b>73'002</b>	<b>1'684</b>	<b>63'181</b>	<b>139'178</b>
<b>Total as at 31 December 2014 (SA-CH)<sup>5</sup></b>	<b>2'114</b>	<b>70'670</b>	<b>1'839</b>	<b>68'890</b>	<b>143'512</b>

<sup>1</sup> Effective 31 December 2012, risk is mitigated using the financial collateral comprehensive method. Financial collateral is recognised at the net value after taking into account supervisory haircuts.

<sup>2</sup> The counterparty groups correspond to those in the Capital Adequacy Ordinance (CAO). Non-counterparty-related assets and exposures with equity-type character are not stated under credit exposure. Credit exposures are shown after netting based on equity. Off-balance-sheet items were converted into their credit equivalent.

<sup>3</sup> The fair value method was used to calculate the credit equivalents on derivatives.

<sup>4</sup> Includes exposures vis-à-vis qualified central counterparties (CHF 2,575 million).

<sup>5</sup> Under SA-BIS, only the net exposure based on the financial collateral comprehensive method is shown for SLB and repurchase agreements. The SA-CH credit exposure as at 31 December 2014 also included the nominal values of debts (CHF 14,650 million).

Fig 9: Group credit exposure breakdown by risk weighting category

<i>in CHF million</i>	0%	2%	20% <sup>1</sup>	35%	50%	75%	100%	150%	250%	Deduction	<b>Total</b>
<b>Credit exposure after provision of collateral<sup>2</sup></b>											
Central governments and central banks	2'250				0		20				2'271
- of which derivatives <sup>3</sup>	45						16				61
Banks and securities traders <sup>4</sup>		1'728	5'474		4'947		456	106			12'712
- of which derivatives <sup>3</sup>		1'442	585		1'321		6	2			3'356
Other institutions	485		1'037	21	1'090	0	606	0			3'238
- of which derivatives <sup>3</sup>	22		60		36		184				302
Companies <sup>4</sup>		847	1'056	2'780	302	51	9'460	16			14'512
- of which derivatives <sup>3</sup>		343	49		122		1'020				1'535
Private customers and small businesses				56'691		1'734	11'329	48			69'802
- of which derivatives <sup>3</sup>							628				628
Other positions	32'497			918		15	1'527	2			34'959
- of which derivatives <sup>3</sup>							181				181
<b>Total as at 31 December 2015 (SA-BIS)<sup>5</sup></b>	<b>35'233</b>	<b>2'575</b>	<b>7'567</b>	<b>60'410</b>	<b>6'339</b>	<b>1'801</b>	<b>23'398</b>	<b>172</b>			<b>137'494</b>
<b>Total as at 31 December 2014 (SA-CH)<sup>5</sup></b>	<b>44'119</b>	<b>997</b>	<b>9'293</b>	<b>58'410</b>	<b>4'870</b>	<b>9'265</b>	<b>14'639</b>	<b>78</b>	<b>3</b>		<b>141'673</b>

<sup>1</sup> 25% respectively according to SA-CH.

<sup>2</sup> The counterparty groups correspond to those in the Capital Adequacy Ordinance (CAO). Non-counterparty-related assets and exposures with equity-type characteristics are not stated under credit exposure. Credit exposures are shown after netting based on equity. Off-balance-sheet items were converted into their credit equivalents. Effective 31 December 2012, the financial collateral comprehensive method is used for credit risk mitigation. Under this method, the net value of financial collateral is deducted from the covered exposure after taking into account supervisory haircuts. The substitution approach continues to be used for guarantees, whereby covered exposures can be allocated to the counterparty group of the protection seller in order to reflect the lower risk of the collateral. In contrast with the previous table, this table shows the credit exposures of the counterparty groups after the provision of collateral (deduction or substitution).

<sup>3</sup> The fair value method was used to calculate the credit equivalents on derivatives.

<sup>4</sup> Includes exposures vis-à-vis qualified central counterparties (risk weighting category 2%).

<sup>5</sup> Under SA-BIS, only the net exposure based on the financial collateral comprehensive method is shown for SLB and repurchase agreements. The SA-CH credit exposure as at 31 December 2014 also included the nominal values of debts (CHF 14,650 million in the 0% column).

On a selective basis, Zürcher Kantonalbank uses derivatives for the purpose of hedging credit exposures. Credit derivatives for hedging purposes are managed in the banking book in accordance with the Capital Adequacy Ordinance (CAO). There were no corresponding open positions as at 31 December 2015.

Fig 10: Credit derivative transactions in the banking book group

<i>in CHF million</i>	<b>Protection seller</b> Contract volume	<b>Protection buyer</b> Contract volume
Credit default swaps		
Credit linked notes		
Total return swaps		
First-to-default swaps		
Other credit derivatives		
<b>Total as at 31.12.2015</b>		
<b>Total as at 31.12.2014</b>	<b>522</b>	<b>522</b>

Fig 11: Key characteristics of regulatory capital instruments

	<b>Endowment capital</b>	<b>Tier 1 bond</b>
Issuer	Zürcher Kantonalbank	Zürcher Kantonalbank
Applicable law to instrument	Swiss law	Swiss law
Identifier (ISIN)	n/a	CH0143808332
<b>Supervisory treatment</b>		
Treatment under Basel III transitional rules (CET1 / AT1 / T2)	Common equity Tier 1 (CET1)	Additional Tier 1 capital (AT1)
Treatment after Basel III transitional period (CET1 / AT1 / T2)	Common equity Tier 1 (CET1)	Additional Tier 1 capital (AT1)
Eligible at solo / group / solo and group levels	Solo and group level	Solo and group level
Equity securities / debt securities / hybrid instruments / other instruments	Other instruments	Hybrid instrument (subordinated bond with conditional claim waiver)
Amount eligible as regulatory capital (according to latest statement of changes in equity)	CHF 2,425 million	CHF 589 million
Nominal value of instrument	CHF 2,425 million	CHF 590 million
Accounting item	Corporate capital	Bonds
Original date of issue	15.02.1870	31.01.2012
Unlimited or with expiry date	Unlimited	Unlimited
Original date of maturity	n/a	n/a
May be terminated by issuer (with prior consent of supervisory authority)	No	Yes
May be terminated at any time / in specific circumstances / redemption amount	n/a	First possible termination date 30.06.2017. Redemption amount: entire outstanding issue, no partial termination
May be terminated at a later date, if applicable	n/a	Thereafter annually on interest date of 30 June
<b>Coupons / dividends</b>		
Fixed / variable / initially fixed then variable / initially variable then fixed	n/a	Fixed with reset every 5 years
Nominal coupon and any reference index	n/a	Fixed at 3.5% until 30.06.2017; thereafter revised every 5 years based on 5-year mid-swap plus 2.98% risk premium
Existence of a dividend stopper arrangement (the waiving of dividends on the instrument also results in the stopping of dividends on common shares)	n/a	Yes. No distribution to canton if coupon is not paid
Interest payment / dividend: fully discretionary / partly discretionary / mandatory	Profit distribution fully discretionary	Payment of interest fully discretionary
Existence of an interest step-up clause or other incentive to redeem	No	No
Non-cumulative or cumulative	Non-cumulative	Non-cumulative
Convertible or non-convertible	Non-convertible	Non-convertible, write-off
Write-down characteristics	n/a	Write-down until trigger ratio (7%) is met again
Trigger for write-down	n/a	Common equity Tier 1 (CET1) capital ratio falls below 7% or FINMA declares PONV (point-of-non-viability)
Full / partial	n/a	Full or partial. To return to the trigger ratio (7%) in 25% stages from the nominal amount
Permanent or temporary	n/a	Permanent
In the case of temporary depreciation: allocation mechanism	n/a	n/a
Hierarchy in event of liquidation (state the higher-ranked instrument in each case)	Tier 1 bond	Subordinate to all other subordinated liabilities (if any) except pari passu instruments.
Existence of characteristics that prevent full recognition under Basel III	No	No

	CHF Tier 2 bond	EUR Tier 2 bond
Issuer	Zürcher Kantonalbank	Zürcher Kantonalbank
Applicable law to instrument	Swiss law	Swiss law
Identifier (ISIN)	CH0267596697	XS1245290181
<b>Supervisory treatment</b>		
Treatment under Basel III transitional rules (CET1 / AT1 / T2)	Supplementary capital (Tier 2)	Supplementary capital (Tier 2)
Treatment after Basel III transitional period (CET1 / AT1 / T2)	Supplementary capital (Tier 2)	Supplementary capital (Tier 2)
Eligible at solo / group / solo and group levels	Solo and group level	Solo and group level
Equity securities / debt securities / hybrid instruments / other instruments	Hybrid instrument (subordinated bond with conditional claim waiver)	Hybrid instrument (subordinated bond with conditional claim waiver)
Amount eligible as regulatory capital (according to latest statement of changes in equity)	CHF 177 million	CHF 544 million
Nominal value of instrument	CHF 185 million	EUR 500 million
Accounting item	Bonds	Bonds
Original date of issue	02.03.2015	15.06.2015
Unlimited or with expiry date	02.09.2025	15.06.2027
Original date of maturity	n/a	n/a
May be terminated by issuer (with prior consent of supervisory authority)	Yes	Yes
May be terminated at any time / in specific circumstances / redemption amount	First possible termination date 02.09.2020. Redemption amount: entire outstanding issue, no partial termination	First possible termination date 15.06.2022. Redemption amount: entire outstanding issue, no partial termination
May be terminated at a later date, if applicable	Thereafter annually on interest date of 02 Sep	n/a
<b>Coupons / dividends</b>		
Fixed / variable / initially fixed then variable / initially variable then fixed	Fixed with reset every 5 years	Fixed with reset every 7 years
Nominal coupon and any reference index	Fixed at 1.0% until 02.09.2020; thereafter reset based on 5-year mid-swap (minimum 0.00%) plus 1.00% risk premium	Fixed at 2.625% until 15.06.2022; thereafter reset based on 5-year mid-swap plus 1.85% risk premium
Existence of a dividend stopper arrangement (the waiving of dividends on the instrument also results in the stopping of dividends on common shares)	No	No
Interest payment / dividend: fully discretionary / partly discretionary / mandatory	Interest payment mandatory, except if write-off has occurred	Interest payment mandatory, except if write-off has occurred
Existence of an interest step-up clause or other incentive to redeem	No	No
Non-cumulative or cumulative	n/a	n/a
Convertible or non-convertible	Non-convertible, write-off	Non-convertible, write-off
Write-down characteristics	Full write-down if trigger has occurred	Full write-down if trigger has occurred
Trigger for write-down	Common equity Tier 1 (CET1) capital ratio falls below 5% or FINMA declares PONV (point-of-non-viability)	Common equity Tier 1 (CET1) capital ratio falls below 5% or FINMA declares PONV (point-of-non-viability)
Full / partial	Full	Full
Permanent or temporary	Permanent	Permanent
In the case of temporary depreciation: allocation mechanism	n/a	n/a
Hierarchy in event of liquidation (state the higher-ranked instrument in each case)	Has priority over lower-subordinated liabilities such as liabilities from Tier 1 bonds. Pari passu with similarly ranked instruments such as Tier 2 bonds. Subordinated to all other liabilities.	Has priority over lower-subordinated liabilities such as liabilities from Tier 1 bonds. Pari passu with similarly ranked instruments such as Tier 2 bonds. Subordinated to all other liabilities.
Existence of characteristics that prevent full recognition under Basel III	No	No

Fig. 12: Risk-weighted positions determined on basis of external ratings group

31.12.2015	<i>in CHF million</i>	0%	20%	50%	100%	150%
<b>Credit exposure after provision of collateral</b>						
Central governments and central banks	With rating <sup>1</sup>	842		0	2	
	No rating				18	
Banks and securities dealers	With rating <sup>1</sup>		5'010	3'965	456	49
	No rating		465	983		
Other institutions	With rating <sup>2</sup>		526	201		
	No rating				594	
Companies	With rating <sup>2</sup>		922	302	155	0
	No rating				7'873	

<sup>1</sup> Standard & Poor's, Moody's, Fitch

<sup>2</sup> Standard & Poor's, Moody's

## 2.4 Interest rate risks in the banking book

The sensitivity data (key rate sensitivity) shown in the tables below indicate the value loss or increase when interest rates for each maturity band fall by one basis point (0.01 percentage points). The CHF interest rate sensitivity of the banking book stood at CHF 8.1 million per basis point as at 31 December 2015, up on the previous year (CHF 6.7 million per basis point). The higher interest rate exposure mainly serves as a strategic hedge against persistently low or falling Swiss franc interest rates. The euro and US dollar interest rate exposures are fully hedged as of the end of 2015.

Fig. 13: Swiss franc, euro and US dollar interest rate sensitivity in the banking book

Basis point sensitivity <sup>1</sup> <i>in CHF 1,000</i>	up to 12 months	1 to 5 years	over 5 years	Total
Hedged item	-163	4'227	6'470	10'534
Hedge	363	-877	-1'961	-2'475
<b>Total as at 31.12.2015</b>	<b>200</b>	<b>3'349</b>	<b>4'509</b>	<b>8'058</b>
<b>Total as at 31.12.2014</b>	<b>-3</b>	<b>1'139</b>	<b>5'549</b>	<b>6'685</b>

Basis point sensitivity <sup>1</sup> <i>in EUR 1,000</i>	up to 12 months	1 to 5 years	over 5 years	Total
Hedged item	-59	-98	-604	-761
Hedge	32	59	724	815
<b>Total as at 31.12.2015</b>	<b>-27</b>	<b>-39</b>	<b>120</b>	<b>54</b>
<b>Total as at 31.12.2014</b>	<b>25</b>	<b>-49</b>	<b>386</b>	<b>362</b>

Basis point sensitivity <sup>1</sup> <i>in USD 1,000</i>	up to 12 months	1 to 5 years	over 5 years	Total
Hedged item	-2	30	17	45
Hedge	-	-	-	-
<b>Total as at 31.12.2015</b>	<b>-2</b>	<b>30</b>	<b>17</b>	<b>45</b>
<b>Total as at 31.12.2014</b>	<b>1</b>	<b>7</b>	<b>48</b>	<b>56</b>

<sup>1</sup> Basis point sensitivity is measured as a cash profit/loss when the interest rate in the maturity band concerned falls by one basis point. A basis point is 0.01 percentage points.

## 2.5 Leverage ratio

Fig. 14: Comparison between assets reported in the balance sheet and the total exposure for the leverage ratio, as well as detailed illustration of the leverage ratio

<i>in CHF million</i>	<b>Group</b> <b>31.12.2015</b>	<b>Parent Company</b> <sup>1</sup> <b>31.12.2015</b>
<i>Overview of total exposure</i> <sup>2</sup>		
1 Total assets as stated in the published accounts <sup>1</sup>	154'410	154'215
2 Adjustments relating to investments in banking, financial, insurance and commercial entities that are consolidated for accounting purposes but not included in the scope of regulatory consolidation (m.n. 6-7 FINMA Circular 15/3), and adjustments relating to assets deducted from core capital (m.n. 16-17 FINMA Circular 15/3)	-133	-3
3 Adjustments relating to fiduciary assets that are recognised in the balance sheet but not taken into account in the measurement of the leverage ratio (m.n. 15 FINMA Circular 15/3)		
4 Adjustments relating to derivatives (m.n. 21-51 FINMA Circular 15/3)	-840	-840
5 Adjustments relating to securities financing transactions (m.n. 52-73 FINMA Circular 15/3)	1'337	1'337
6 Adjustments relating to off-balance-sheet transactions (m.n. 74-76 FINMA Circular 15/3)	7'107	7'106
7 Other adjustments		
<b>8 Overall exposure subject to the leverage ratio</b>	<b>161'880</b>	<b>161'815</b>
<i>Detailed presentation of the leverage ratio</i> <sup>3</sup>		
<b>Balance sheet exposures</b>		
1 Balance sheet items excluding derivatives and securities financing transactions (SFTs) but including collateral (m.n. 14-15 FINMA Circular 15/3)	128'836	128'641
2 Assets that must be deducted from eligible core capital (m.n. 7 and m.n. 16-17 FINMA Circular 15/3).	-133	-3
<b>3 Total balance sheet positions subject to the leverage ratio excluding derivatives and SFTs</b>	<b>128'703</b>	<b>128'639</b>
<b>Derivatives</b>		
4 Positive replacement values relating to all derivative transactions including those concluded with central counterparties (CCPs) after taking into account margin payments and netting agreements (m.n. 22-23 and m.n. 34-35 FINMA Circular 15/3)	4'516	4'516
5 Add-ons for all derivatives (m.n. 22 and m.n. 25 FINMA Circular 15/3)	2'069	2'069
6 Reintegration of collateral provided in connection with derivatives if its accounting treatment results in a reduction in assets (m.n. 27 FINMA Circular 15/3)	2'790	2'790
7 Deduction of receivables arising due to margin payments (m.n. 36 FINMA Circular 15/3)		
8 Deduction relating to the exposure to qualified central counterparties (QCCPs) if there is no obligation to reimburse the customer in the event that a QCCP defaults (m.n. 39 FINMA Circular 15/3)		
9 Effective notional amount of credit derivatives issued, after deduction of negative replacement values (m.n. 43 FINMA Circular 15/3)	257	257
10 Netting with effective notional amount of offsetting credit derivatives (m.n. 44-50 FINMA Circular 15/3) and deduction of add-ons for credit derivatives issued (m.n. 51 FINMA Circular 15/3)	-65	-65
<b>11 Total exposure from derivatives</b>	<b>9'567</b>	<b>9'567</b>

<i>in CHF million</i>	<b>Group</b> <b>31.12.2015</b>	<b>Parent Company</b> <sup>1</sup> <b>31.12.2015</b>
<b>Securities financing transactions (SFTs)</b>		
12 Gross assets in connection with SFTs without netting (except in the case of novation with a qualified central counterparty (m.n. 57 FINMA Circular 15/3)) including those recognised as a sale (m.n. 69 FINMA Circular 15/3), less the securities received as part of the SFT, which are recognised as assets in the balance sheet (m.n. 58 FINMA Circular 15/3)	15'166	15'166
13 Netting of cash payables and receivables relating to SFT counterparties (m.n. 59-62 FINMA Circular 15/3)		
14 Exposure to SFT counterparties (m.n. 63-68 FINMA Circular 15/3)	1'337	1'337
15 Exposure to SFTs with the bank as agent (m.n. 70-73 FINMA Circular 15/3)		
<b>16 Total exposure from SFTs</b>	<b>16'503</b>	<b>16'503</b>
<b>Other off-balance-sheet exposures</b>		
17 Off-balance-sheet transactions as gross notional amount prior to use of credit conversion factors	28'595	28'587
18 Adjustments relating to conversion into credit equivalents (m.n. 75-76 FINMA Circular 15/3)	-21'488	-21'481
<b>19 Total off-balance-sheet exposures</b>	<b>7'107</b>	<b>7'106</b>
<b>Eligible capital and total exposure</b>		
20 Core capital (Tier 1) (m.n. 5 FINMA Circular 15/3)	10'559	10'333
21 Total exposure (sum of lines 3, 11, 16 and 19)	161'880	161'815
<b>Leverage ratio</b>		
22 Leverage ratio (m.n. 3-4 FINMA Circular 15/3)	6.52%	6.39%

<sup>1</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>2</sup> The numbering of the lines corresponds to model table 11a in Appendix 2 of FINMA Circular 08/22 Disclosure - Banks.

<sup>3</sup> The numbering of the lines corresponds to model table 11b in Appendix 2 of FINMA Circular 08/22 Disclosure - Banks.

## 2.6 Liquidity coverage ratio (LCR)

Fig. 15a: Information of the short-term liquidity ratio (LCR) (group)<sup>1</sup>

<i>in CHF million</i>	Monthly averages Q3 <sup>2</sup>		Monthly averages Q4 <sup>2</sup>	
	Unweighted values	Weighted values	Unweighted values	Weighted values
<b>High quality liquid assets (HQLA)</b>				
<b>Total high quality liquid assets (HQLA)</b>		<b>34'637</b>		<b>36'101</b>
<i>of which Level 1</i>		33'263		33'663
<i>of which Level 2</i>		1'374		2'439
<b>Outflows of funds</b>				
<b>Deposits from retail customers and SMEs</b>	48'666	4'961	48'918	4'997
<i>of which stable deposits</i>	6'028	301	6'029	301
<i>of which less stable deposits</i>	42'637	4'660	42'889	4'695
<b>Unsecured funds provided by commercial or major customers</b>	33'688	21'306	36'048	22'192
<i>of which operating deposits (all counterparties)</i>	3'378	845	3'537	884
<i>of which non-operating deposits (all counterparties)</i>	30'260	20'411	32'511	21'308
<i>of which unsecured bonds</i>	50	50	0	0
<b>Secured funding provided by commercial or major customers and security swaps</b>		7'555		5'728
<b>Other outflows of funds</b>	13'711	3'267	13'688	3'273
<i>of which outflows of funds relating to trading in derivatives and other transactions<sup>3</sup></i>	6'370	1'510	6'428	1'593
<i>of which outflows of funds from mortgage bond loans</i>	100	100	0	0
<i>of which outflows of funds from committed credit and liquidity facilities</i>	7'241	1'657	7'260	1'680
<b>Other contractual obligations regarding funding</b>	3'723	1'944	2'400	1'738
<b>Other contingent liabilities regarding funding</b>	21'934	355	22'740	363
<b>Total outflows of funds</b>		<b>39'387</b>		<b>38'291</b>
<b>Inflows of funds</b>				
Secured financing operations (e.g. reverse repo transactions) and security swaps	9'853	7'523	7'866	5'957
Inflows from receivables at full value	6'028	4'249	4'037	3'376
Other inflows of funds	664	664	769	769
<b>Total inflows of funds</b>	<b>16'545</b>	<b>12'435</b>	<b>12'673</b>	<b>10'103</b>
<b>Total high quality liquid assets (HQLA)</b>		<b>34'637</b>		<b>36'101</b>
<b>Total net inflows of funds</b>		<b>26'952</b>		<b>28'188</b>
<b>Liquidity coverage ratio LCR (in %)</b>		<b>129%</b>		<b>128%</b>

<sup>1</sup> Key figures and breakdown in accordance with FINMA Circular 2008/22 "Capital Adequacy Disclosure – Banks" (except footnote 3)

<sup>2</sup> The average is calculated based on the values shown in the monthly liquidity statement

<sup>3</sup> Inflows and outflows from trading in derivatives are recognised on a net basis

Fig. 15b: Information of the short-term liquidity ratio (LCR) (parent company)

<i>in CHF million</i>	Q1 2015 <sup>1</sup>	Q2 2015 <sup>1</sup>	Q3 2015 <sup>1</sup>	Q4 2015 <sup>1</sup>
High quality liquid assets (HQLA) <sup>2</sup>	34'861	34'665	34'570	36'050
- of which Level 1	33'459	33'318	33'199	33'629
- of which Level 2	1'402	1'347	1'370	2'421
Net outflow of funds	30'649	28'230	27'080	28'264
<b>Liquidity coverage ratio LCR (in %)</b>	<b>114%</b>	<b>123%</b>	<b>128%</b>	<b>128%</b>

<sup>1</sup> Monthly averages; based on the values shown in the monthly liquidity statement.

<sup>2</sup> Allowing for the unwinding/settlement mechanism in accordance with FINMA Circular 2015/2.



## 2.7 Market risks

Zürcher Kantonalbank's market risks are measured using an internal model approach based on value-at-risk (VaR) for a 10-day holding period and at a confidence level of 99 percent. As at 31 December 2015, the value-at-risk stood at CHF 12 million, the same as at the end of the previous year. Interest rate risks continue to dominate. On average, the value-at-risk for 2015 increased from CHF 13 million to CHF 17 million compared with 2014. The rise was mainly due to increased volatility in the financial markets in the first quarter of 2015.

Fig. 16a: Market risks in the trading book (group)

Risks including volatility risks in CHF million	Commodities <sup>1</sup>	Currencies <sup>2</sup>	Interest rates	Equities	Diversification	Modelled total risk	Total risk <sup>3</sup>
Risks based on model approach (value-at-risk with 10-day holding period)							
<b>As at 31 December 2015</b>	<b>0</b>	<b>1</b>	<b>9</b>	<b>3</b>	<b>-4</b>	<b>9</b>	<b>12</b>
Average current year 2015	0	2	14	3	-6	13	17
Maximum	1	14	37	6	-15	38	41
Minimum	0	0	8	1	-3	7	11
<b>As at 31 December 2014</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>-5</b>	<b>10</b>	<b>12</b>

1 Excluding gold

2 Including gold

3 Sum of modelled total risk and risk premium for trading products not fully modelled

Total risk remains unchanged at the end of the fourth quarter of 2015 versus 31 December 2014, remaining at a low level. A separate risk premium is calculated for trading products not fully modelled and added to the total modelled risk (CHF 3.3 million as at 31 December 2015; CHF 2.4 million as at 31 December 2014).

To determine its capital adequacy requirements, Zürcher Kantonalbank also calculates a stress-based VaR on a weekly basis. The total risk is also calculated using the internal model approach. The value changes in risk factors are based on data that were observed in a period with significant market stress for Zürcher Kantonalbank:

Fig. 16b: Stress-based market risks in the trading book and banking book (group)<sup>1</sup>

Stress-based VaR in CHF million	Modelled total risk	Total risk <sup>2</sup>
Stress-based risks based on model approach (value-at-risk with 10-day holding period) <sup>3</sup>		
<b>As at 31 December 2015</b>	<b>39</b>	<b>42</b>
Average current year 2015	38	41
Maximum	52	55
Minimum	29	33
<b>As at 31 December 2014</b>	<b>34</b>	<b>36</b>

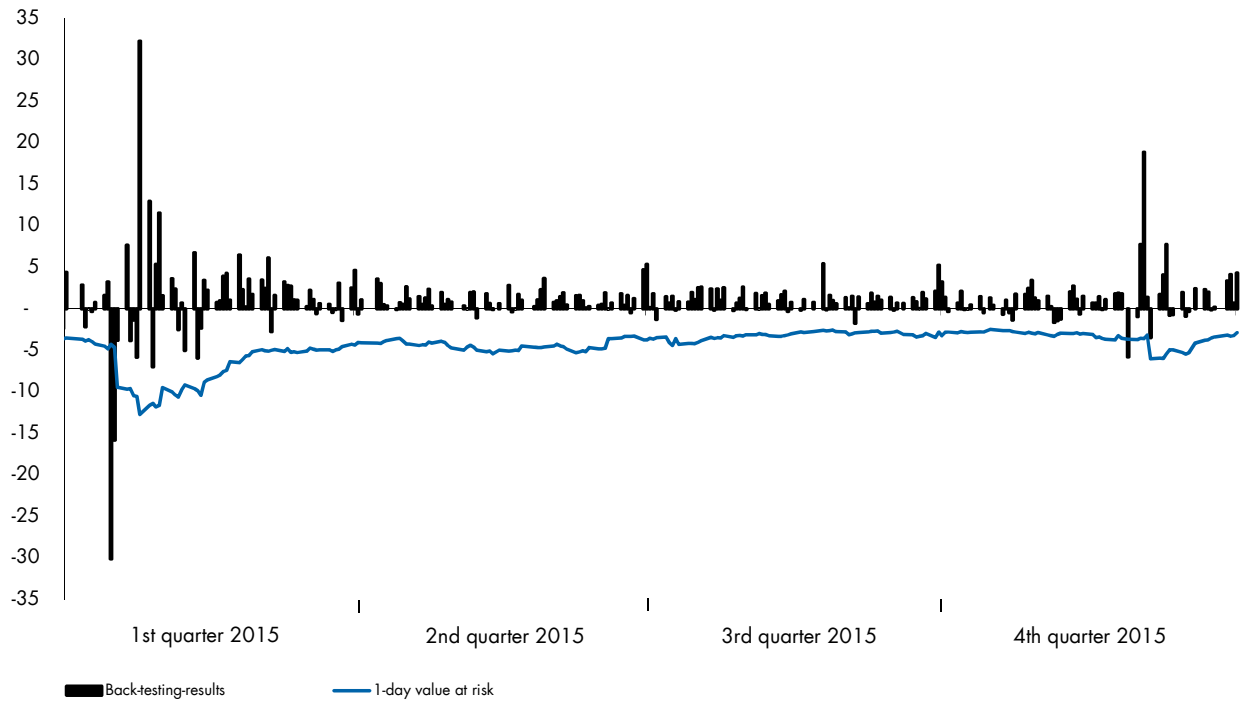
1 Including exchange rate, precious metals and commodity risks in the banking book

2 Sum of modelled total risk and risk premium for trading products not fully modelled.

3 VaR model, calibrated for observed changes in value due to market stress

The quality of the VaR model used by Zürcher Kantonalbank is tested by back-testing. A VaR is calculated assuming a one-day holding period (confidence level 99 percent) and compared with the daily trading income achieved on the next trading day. The following picture emerges for the last 250 trading days:

Fig. 17: Comparison of back-testing results<sup>1</sup> and value-at-risk (group) (in CHF million)



<sup>1)</sup> The back-testing result corresponds to the adjusted trading income used for the methodological review of the quality of the risk model.

## 2.8 Systemic importance disclosures

Zürcher Kantonalbank has been considered a systemically relevant bank since November 2013.

The risk-weighted capital requirements for systemically relevant banks consist of a basic requirement (4.5 percent), the capital buffer (8.5 percent) plus the countercyclical capital buffer (0.7 percent as at 31 December 2015) and a progressive component (1.0 percent). The latter is calculated from the sum of the supplement for domestic market share and the supplement for size of financial group, although deductions may be considered for measures designed to improve the resolvability of the financial group. The level of the progressive component is stipulated each year by the Swiss Financial Market Supervisory Authority (FINMA). The unweighted capital adequacy requirement (leverage ratio) is 24.0 percent of the weighted capital adequacy requirements and therefore amounts to 3.53 percent of total exposure.

Fig. 18: Composition of capital and risk-weighted capital ratios

<i>in CHF million</i>	Group		Parent Company <sup>1</sup>		
	31.12.2015 <sup>2</sup>	31.12.2014 <sup>2</sup>	31.12.2015 <sup>2</sup>	31.12.2014 <sup>2</sup>	
Common equity Tier 1 (CET1)	10'103	9'207	10'149	9'188	
Adjustments to common equity Tier 1	-133	-11	-405	-40	
Reclassification of CET1 to Tier 2 to cover the progressive component		-588		-587	
<b>Common equity Tier 1 (net CET1)</b>	<b>9'970</b>	<b>8'607</b>	<b>9'744</b>	<b>8'561</b>	
Issued and paid up high-trigger capital instruments <sup>3</sup>	590	590	590	590	
Deduction of net long positions in own high-trigger capital instruments	-1	-2	-1	-2	
<b>High-trigger convertible capital</b>	<b>589</b>	<b>588</b>	<b>589</b>	<b>588</b>	
Issued and paid up low-trigger capital instruments <sup>4</sup>	729		729		
Deduction of net long positions in own low-trigger capital instruments	-8		-8		
Reclassification of CET1 to Tier 2 to cover the progressive component		588		587	
<b>Low-trigger convertible capital</b>	<b>721</b>	<b>588</b>	<b>721</b>	<b>587</b>	
General bad debt provision for inherent default risks	14		14		
<b>Other Tier 2 capital</b>	<b>14</b>		<b>14</b>		
<b>Total capital</b>	<b>11'293</b>	<b>9'783</b>	<b>11'068</b>	<b>9'735</b>	
<b>Total risk-weighted assets <sup>5</sup></b>	<b>62'942</b>	<b>58'816</b>	<b>62'626</b>	<b>58'701</b>	
<i>Capital ratios</i>					
Common equity Tier 1 ratio (CET1)	based on minimum capital (8%)	15.8%	14.6%	15.6%	14.6%
High-trigger convertible capital ratio	based on minimum capital (8%)	0.9%	1.0%	0.9%	1.0%
Low-trigger convertible capital ratio	based on minimum capital (8%)	1.1%	1.0%	1.2%	1.0%
<b>Total capital ratio</b>	<b>based on minimum capital (8%)</b>	<b>17.9%</b>	<b>16.6%</b>	<b>17.7%</b>	<b>16.6%</b>

<sup>1</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>2</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>3</sup> Consists solely of additional Tier 1 capital (AT1).

<sup>4</sup> Consists solely of supplementary capital (T2).

<sup>5</sup> Risk-weighted assets as at 31 December 2015 are calculated according to SA-BIS and those as at 31 December 2014 according to SA-CH.

Fig. 19a: Risk-weighted capital requirements and coverage (group)<sup>1</sup>

	Basic requirement	Capital buffer	Progressive component	Excess	Total
<b>Total risk-weighted assets (in CHF million)</b>	-	-	-	-	62'942
<i>Capital requirements</i>					
Minimum capital ratio <sup>1</sup>	4.5%	9.2% <sup>2</sup>	1.0%	-	14.7%
Minimum capital requirement (in CHF million) <sup>3</sup>	2'832	5'782	629	-	9'244
<i>Capital coverage (in CHF million)<sup>4</sup></i>					
Common equity Tier 1 (net CET1)	2'832	5'194	-	1'944	9'970
High-trigger convertible capital	-	589	-	-	589
Low-trigger convertible capital	-	-	629	92	721
Other Tier 2 capital	-	-	-	14	14
<b>Total</b>	<b>2'832</b>	<b>5'782</b>	<b>629</b>	<b>2'049</b>	<b>11'293</b>
<b>Capital ratios 31.12.2015</b>	<b>4.5%</b>	<b>9.2%</b>	<b>1.0%</b>	<b>3.3%</b>	<b>17.9%</b>
<b>Capital ratios 31.12.2014</b>	<b>4.5%</b>	<b>9.2%</b>	<b>1.0%</b>	<b>1.9%</b>	<b>16.6%</b>

<sup>1</sup> In accordance with Art. 128 – 132 CAO.

<sup>2</sup> Includes countercyclical capital buffer (capital requirement CHF 432 million, or 0.7%).

<sup>3</sup> Capital requirements are calculated as a percentage of risk-weighted assets.

<sup>4</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

Fig. 19b: Risk-weighted capital requirements and coverage (parent company)<sup>1,2</sup>

	Basic requirement	Capital buffer	Progressive component	Excess	Total
<b>Total risk-weighted assets (in CHF million)</b>	-	-	-	-	62'626
<i>Capital requirements</i>					
Minimum capital ratio	4.5%	9.2% <sup>3</sup>	1.0%	-	14.7%
Minimum capital requirement (in CHF million) <sup>4</sup>	2'818	5'756	626	-	9'200
<i>Capital coverage (in CHF million)<sup>5</sup></i>					
Common equity Tier 1 (net CET1)	2'818	5'167	-	1'759	9'744
High-trigger convertible capital	-	589	-	-	589
Low-trigger convertible capital	-	-	626	95	721
Other Tier 2 capital	-	-	-	14	14
<b>Total</b>	<b>2'818</b>	<b>5'756</b>	<b>626</b>	<b>1'868</b>	<b>11'068</b>
<b>Capital ratios 31.12.2015</b>	<b>4.5%</b>	<b>9.2%</b>	<b>1.0%</b>	<b>3.0%</b>	<b>17.7%</b>
<b>Capital ratios 31.12.2014</b>	<b>4.5%</b>	<b>9.2%</b>	<b>1.0%</b>	<b>1.9%</b>	<b>16.6%</b>

<sup>1</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>2</sup> Zürcher Kantonalbank does not claim any relief on the basis of Art. 125 CAO.

<sup>3</sup> Includes countercyclical capital buffer (capital requirement CHF 432 million, or 0.7%).

<sup>4</sup> Capital requirements are calculated as a percentage of risk-weighted assets.

<sup>5</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

Fig. 20a: Leverage ratio requirements and coverage for systemically important banks (group)

	Basic requirement	Capital buffer <sup>1</sup>	Progressive component	Excess	<b>Total</b>
<b>Total exposure (in CHF million)</b>	-	-	-	-	161'880
<b>Capital requirements</b>					
Minimum capital ratio <sup>2</sup>	1.08%	2.20%	0.24%	-	3.52%
Minimum capital requirement (in CHF million) <sup>3</sup>	1'748	3'569	389	-	5'706
<b>Capital coverage (in CHF million) <sup>4</sup></b>					
Common equity Tier 1 (net CET1)	1'748	2'980	-	5'241	9'970
High-trigger convertible capital	-	589	-	-	589
Low-trigger convertible capital	-	-	389	333	721
Other Tier 2 capital	-	-	-	14	14
<b>Total</b>	1'748	3'569	389	5'587	11'293
<b>Leverage ratio 31.12.2015</b>	1.08%	2.20%	0.24%	3.45%	6.98%
<b>Leverage Ratio 31.12.2014 <sup>5</sup></b>	1.08%	2.21%	0.24%	2.27%	5.80%

<sup>1</sup> Includes countercyclical capital buffer.

<sup>2</sup> 24% of the minimum capital ratios in accordance with Art. 134 CAO.

<sup>3</sup> Capital requirements are calculated as a percentage of risk-weighted assets.

<sup>4</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>5</sup> Total exposure as at 31.12.2014 was calculated in accordance with Art. 133 – 135 CAO from the average of the last three month-end values.

Fig. 20b: Leverage ratio requirements and coverage for systemically relevant banks (parent company)<sup>1,2</sup>

	Basic requirement	Capital buffer <sup>3</sup>	Progressive component	Excess	<b>Total</b>
<b>Total exposure (in CHF million)</b>	-	-	-	-	161'815
<b>Capital requirements</b>					
Minimum capital ratio <sup>4</sup>	1.08%	2.21%	0.24%	-	3.53%
Minimum capital requirement (in CHF million) <sup>5</sup>	1'748	3'569	388	-	5'705
<b>Capital coverage (in CHF million) <sup>6</sup></b>					
Common equity Tier 1 (net CET1)	1'748	2'980	-	5'016	9'744
High-trigger convertible capital	-	589	-	-	589
Low-trigger convertible capital	-	-	388	333	721
Other Tier 2 capital	-	-	-	14	14
<b>Total</b>	1'748	3'569	388	5'363	11'068
<b>Leverage ratio 31.12.2015</b>	1.08%	2.21%	0.24%	3.31%	6.84%
<b>Leverage Ratio 31.12.2014 <sup>7</sup></b>	1.08%	2.21%	0.24%	2.24%	5.77%

<sup>1</sup> The parent company's capital is calculated on a solo consolidated basis from 31 December 2012. Under Art. 10 para. 3 CAO, FINMA can allow a bank to consolidate group companies operating in the financial sector at individual institution level (solo consolidation) on account of their particularly close relationship to the bank. FINMA has ruled that Zürcher Kantonalbank may consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. on a solo basis under the individual institution provisions from 2012.

<sup>2</sup> Zürcher Kantonalbank does not claim any relief on the basis of Art. 125 CAO.

<sup>3</sup> Includes countercyclical capital buffer.

<sup>4</sup> 24% of the minimum capital ratios in accordance with Art. 134 CAO.

<sup>5</sup> Capital requirements are calculated as a percentage of risk-weighted assets.

<sup>6</sup> Figures for capital are net values in accordance with the definitive Basel III provisions. Zürcher Kantonalbank chose not to make use of the transitional provisions under Art. 140 – 142 CAO, which allow a gradual introduction of the new rules.

<sup>7</sup> Total exposure as at 31.12.2014 was calculated in accordance with Art. 133 – 135 CAO from the average of the last three month-end values.

**Disclaimer**

This document is for information purposes only and is expressly not addressed to any person who by domicile or nationality is prohibited to receive such information according to the applicable law.

This document is neither an offer nor a recommendation for the purchase or sale of financial instruments or financial services and does not discharge the recipient from his own judgement. Nor does it constitute an offer to sell or a solicitation or an invitation to subscribe to or to make an offer to buy any securities, nor does it provide a basis for any contract or obligation of any kind. The present document has not been drawn up by the "financial analysis" department as defined in the rules of the "Directives on the Independence of Financial Research" published by the Swiss Bankers Association, hence these rules do not apply to this document.

This publication and the information contained in it must not be distributed and/or redistributed to, used or relied upon by any person (whether individual or entity) who may be a US person under Regulation S under the US Securities Act of 1933. US persons include any US resident; any corporation, company, partnership or other entity organized under any law of the United States; and other categories set out in Regulation S.

This document has been produced for the benefit of our English-speaking customers and stakeholders and other interested parties. In the event of any discrepancies between the German and the English versions, the German version shall take precedence, as it constitutes the official document.

**Copyright** © 2016 Zürcher Kantonalbank. All rights reserved.