Annual Report

Financial year 2019

Zürcher Kantonalbank

Close to you.

Key figures (group)

	2019	2018	Change in %
Key figures (in CHF million)			
Return on equity (RoE)	7.2	7.1	
Cost/income ratio (CIR)[1]	59.9	61.4	
Common equity Tier 1 ratio (CET1)[2]	17.7	17.8	
Risk-based capital ratio (going concern)[2]	20.0	20.2	
Risk-based capital ratio (gone concern)[2/3]	1.4	–	
Leverage ratio (going concern)[2]	7.0	6.8	
Leverage ratio (gone concern)[2/3]	0.5	–	
Liquidity coverage ratio (LCR)[4]	123	127	
Income statement (in CHF million)			
Net result from interest operations	1,216	1,213	0.3
Result from commission business and services	777	776	0.1
Result from trading activities and the fair value option	319	286	11.7
Other result from ordinary activities	102	46	122.1
Operating income	**2,414**	**2,320**	**4.0**
Operating expenses	–1,443	–1,430	0.9
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets	–113	–192	–41.2
Changes to provisions and other value adjustments and losses	–12	194	–106.0
Operating result	**846**	**892**	–5.2
Extraordinary result	4	103	–96.1
Changes in reserves for general banking risks	–	–200	–100.0
Taxes	–5	–7	–23.8
Consolidated profit	**845**	**788**	**7.2**
Balance sheet (before appropriation of profit) (in CHF million)			
Balance sheet total	167,054	169,408	–1.4
Mortgage loans	84,311	81,256	3.8
Amounts due in respect of customer deposits	85,089	85,537	–0.5
Provisions	242	255	–5.4
Shareholders' equity	12,337	11,852	4.1
Customers' assets (in CHF million)			
Total customers' assets	**333,341**	**295,194**	**12.9**
Headcount/branches (Number)			
Headcount after adjustment for part-time employees, as at the reporting date	5,145	5,087	1.1
Branches[5]	66	75	
Profit distribution (in CHF million)			
Share paid to canton to cover actual costs	11	13	–15.1
Distribution to canton	330[6]	230	43.5
Distribution to municipalities	165[6]	115	43.5
Total profit distribution	**506**	**358**	**41.4**
Additional compensation for state guarantee	22	22	–1.5
Additional payments from public service mandate	125	140	–10.5
Rating agencies (Rating)			
Fitch	AAA	AAA	
Moody's	Aaa	Aaa	
Standard & Poor's	AAA	AAA	

1 Calculation: Cost/income ratio (excl. changes in default-related value adjustments and losses from interest operations).
2 In accordance with the provisions for systemically important banks.
3 Effective since 1 January 2019.
4 Simple average of the closing values on the business days during the quarter under review.
5 Including branches of Zürcher Kantonalbank Österreich AG in Salzburg and Vienna.
6 Including anniversary dividend.

Group structure

- Zürcher Kantonalbank
  - Swisscanto Holding Ltd.
    - Swisscanto Fund Management Company Ltd.
    - Swisscanto Pensions Ltd.
    - Swisscanto Asset Management International S.A.
  - Zürcher Kantonalbank Finance (Guernsey) Ltd.
  - Zürcher Kantonalbank Österreich AG
  - ZüriBahn AG
  - Representative Offices
    - São Paulo
    - Beijing
    - Mumbai
    - Singapore

Group mission statement

Our vision

Close to you

We support, advise and offer solutions.
Always, everywhere.
Throughout your life.

— No. 1 in the Greater Zurich Area
— Nationally strong
— Internationally successful

Our goals

Powerful Swiss universal bank

— Happy clients
— Committed staff
— High financial security
— Sustainable success

Our values

Inspiring
Motivate, think ahead, show courage

Responsible
Be reliable, create value, be present

Passionate
Be involved, enthuse, persevere

Our roots

The bank of the people of Zurich

— For the population and the economy
— Continuity in business policy
— Economic, ecological and social engagement

Our 2019 financial reporting includes the publications on our financial year and our company profile. It illustrates how Zürcher Kantonalbank creates sustainable value for Zurich as an economic area and a place to live. This year's thematic focus lies on sustainability. Find out how Zürcher Kantonalbank perceives sustainability as an integrated dimension of its business model.

Read our company profile to find out more about our commitment. **zkb.ch/unternehmensprofil**

Contents

About the figures:
The amounts stated in this report have been rounded off. The total may therefore vary from the sum of the individual values.

0	(0 or 0.0) Figure that is smaller than half the unit of account used
–	Figure not available or not meaningful

Martin Scholl (left) and Dr Jörg Müller-Ganz in the lobby of the head office in Zurich's Bahnhofstrasse.

Interview

“Our bank has cultivated a comprehensive approach to sustainability for many decades”

Dr Jörg Muller-Ganz, Chairman of the Board of Directors, and Martin Scholl, Chief Executive Officer, explain how sustainability is being implemented in the banking sector and look ahead to the 150th anniversary.

Mr Müller-Ganz, 2019 was a good year for Zürcher Kantonalbank. Which key factors were pivotal to the bank’s success?

Zürcher Kantonalbank has been characterised for the past 150 years by its strong foundation and three sturdy pillars: strategy, culture and people. This is why the bank has only posted a loss for one year of its long history, namely in the year it was established. It is underpinned by the political will to operate a bank for the private individuals and companies of Zurich with a business policy geared towards continuity. That means that sustainability, in the broader sense of the term, has defined the standard framework of the bank’s business dealings from the very start. It automatically focuses on the long term and precludes short-term profit optimisation. The bank has always pursued a long-term corporate strategy on this basis. It holds its chosen course, even if the weather changes. Implementation is consistent and carried out step by step. Our culture is based not on Anglo-American principles, as commonly seen in our industry today, but on the typical Zurich canon of values. In other words, Zurich values such as a focus on performance, reliability, transparency, authenticity, restraint as well as sustainability and continuity. The third pillar has always been embodied by the bank’s leaders who live, and have lived, in accordance with these values and this strategy.

Mr Scholl, how did financial year 2019 go from the Executive Board’s perspective? People are hoarding cash; margins are shrinking. Making money as a bank is becoming increasingly difficult. Nevertheless, Mr Scholl, the bank posted a good business performance yet again this year. What sets this bank apart?

We can be extremely satisfied with financial year 2019. In an environment characterised by negative interest rates and geopolitical uncertainties, our results this year were gratifying. We benefited from our earnings diversification yet again. If we succeed in driving this strategy forward, I’m also confident about the future. This result was only possible thanks to the enormous dedication and commitment of each and every employee.

Mr Müller-Ganz, the Board of Directors was elected last year for the new 2019 – 2023 legislative period. What will their priorities be and what challenges will they face?

At the normative level, the challenge is to continue making it clear to legislators and regulators alike that there is a vast difference between Zürcher Kantonalbank – as a national bank with systemic relevance – and the two globally active big banks and that differentiated regulation is therefore both necessary and appropriate. At the business level, the Board of Directors is faced with two central challenges: one is to renew members of the Executive Board, as almost all of the current members are retiring. In doing so, the goals of stability and constancy as well as further development and innovation must be reconciled in a way that suits our bank. The other challenge is to transform the bank based on clients’ changing needs, an undertaking that will also impact the bank’s organisation and processes.

Mr Scholl, two transactions stood out in 2019: the acquisition of precious metals funds from GAM Holding AG and the mandate from Swiss Re to take over its employees' mortgages. Going forward, will the bank focus more on acquisition-driven rather than organic growth?

The acquisition of the funds and the mandate for the mortgage business fit perfectly into our portfolio and strengthen our positioning in these areas. We will continue to seize exciting opportunities in the market in future, provided they make sense within the framework of our business model. By taking steps such as these, we set trends and display courage.

Mr Müller-Ganz, the topic of sustainability was omnipresent in 2019, and it gained new urgency in public debate. "Business as usual" doesn't seem to meet climate targets. How does Zürcher Kantonalbank react to these global challenges, and has the business policy framework been, or is it being adjusted as a result?

For many decades, our bank has cultivated a comprehensive approach to sustainability that focuses intrinsically on all three sustainability factors: the environment, society and governance. Today, our actions are aligned with the 17 United Nations goals for sustainable development adopted in 2016, and this is also enshrined in the group strategy. There is still room for improvement in terms of our outward communications to clients and the public so that we can ensure our efforts don't go unnoticed amid the general information overload. As part of our annual report, our 2020 company profile focuses on Zürcher Kantonalbank's sustainability, although I would like to emphasise that we had already defined this within the scope of a master plan three years ago.

Mr Scholl, as a service provider, the bank's carbon footprint is small compared to that of industrial companies. As a player in the financial markets, however, it is capable of exerting an immensely greater influence through its financing and investment activities. How will Zürcher Kantonalbank's sustainability policy affect its product offer?

We can make the greatest impact through sustainable investments and financing. Last year, we expanded our investment offering yet again, and we will increase its penetration in 2020 as well. In other words, sustainability criteria are being applied to a continually growing investment volume. With respect to financing, our focus is on construction and renovation as well as start-ups. We promote pioneering, innovative technologies in these areas. In addition, we deliberately refrain from engaging in transactions such as investing in agricultural commodities or financing crude and heavy fuel oil. Nor do we finance coal-fired power stations, coal mines or power plants operated with coal.

Mr Müller-Ganz, another big issue is the ongoing low interest rate phase and the increasingly distant prospect of an interest rate reversal. What social impact does this have on the Canton of Zurich, and what role does Zürcher Kantonalbank play?

Even though, from an economic point of view, it's the real (inflation-adjusted) interest rate that counts rather than the nominal interest rate, I'm convinced that nominal low and negative interest rates have a detrimental effect on our society's collective behaviour. How am I supposed to teach my children to exercise self-denial and save money if their efforts aren't rewarded with any earned interest at the end of the year? How can private individuals, companies and governments be discouraged from going into debt when loans are free? Zürcher Kantonalbank is trapped in this interest rate market. If we raised interest rates on savings accounts without any restrictions, for example, we would be inundated with savings deposits from all over the world, and that, in turn, would eventually melt away our profits or even cause us to sustain losses due to the negative interest rates. Zürcher Kantonalbank's standard policy is to pass on negative interest rates only after considering a client's overall situation.

Mr Scholl, negative interest rates are likely to continue weighing on our interest operations, which contribute around half of our operating income. Should we be bracing ourselves for declining corporate earnings?

Of course, the persistently low interest rate environment remains challenging and is putting pressure on our interest margin. In recent years, however, we have strongly pursued a diversification of our business, which has also allowed us to significantly reduce our dependence on interest operations. That means we're well positioned to generate solid results, even in this challenging environment.

Mr Müller-Ganz, our society is experiencing a profound digital transformation. How does Zürcher Kantonalbank meet up to its responsibilities within the scope of this transformation?

Banks, in particular, have been dealing with digitalisation for some time now. The first ATM commissioned by one of Switzerland's banks went into service in 1968 at Zürcher Kantonalbank at Bahnhofstrasse 9. Digitalisation took place at a leisurely pace after that and only began its exponential growth spurt in recent years. Zürcher Kantonalbank's development has been in sync with these changes. Our online banking services, for example, are state of the art and rated very highly by both clients and experts. Of course, we still have to continue our transformation in all areas. To that end, more than one-third of our IT investments of CHF 330 million are allocated to innovation and new developments.

Mr Scholl, digital transformation not only presents us with challenges, but also offers opportunities and new business models. What is Zürcher Kantonalbank's stance?

Technological development is an important driving force behind the emergence of completely new client needs and the means by which we meet those needs. Digital solutions, for example, give us an opportunity to improve how we respond to our clients in the future. However, not all services will be provided digitally. Our clients will continue to attach great importance to personal advice on complex life events, such as retirement or the purchase of a new home. Against this background, our physical locations remain a core element of our sales strategy.

Mr Müller-Ganz, Zürcher Kantonalbank is committed to diversity. What considerations have prompted the bank to actively promote diversity in our society, for example by launching the "Swiss LGBTI" label?

Zürcher Kantonalbank is committed to promoting diversity in all aspects of our lives and business dealings. Being one of the first Swiss companies to receive the "Swiss LGTBI" label lets us send a clear message on the topics of inclusion and employee appreciation.

Mr Scholl, the two-yearly employee satisfaction survey was conducted again in the year under review. What conclusions do you draw from the results, and how does the bank remain attractive for its employees and future talent?

I'm thrilled that we were able to make further gains, despite the very good results of the last two surveys. The high response rate further underpins these results. The survey shows where our strengths lie and where further potential still lies untapped. It also reveals the importance of dialogue between management and employees. It turns out that we made the right strategic decision by eliminating employee appraisals and individual target-setting agreements. The results provide us with valuable input that we can leverage in order to remain attractive as an employer in the future. This is important not only within the traditional banking sector, but with respect to all roles.

Mr Scholl, the people of Zurich will still have to wait a while until the ZüriBahn cable car finally arrives. Does this tarnish the festive mood in the run-up to the 150th anniversary?

No, not at all. Over the past few months, we've invested a great deal of effort into the preparations for the festivities and we're really looking forward to being able to celebrate our bank's 150th anniversary together with the people of Zurich. Of course, it would have been nice if the ZüriBahn could have become a part of this special event. It was clear to us from the outset, however, that the schedule was ambitious. Despite the delay, I'm confident that we can make the ZüriBahn a reality.

Mr Müller-Ganz, what can the people of Zurich look forward to in particular during the anniversary year?

Our anniversary activities will focus on the ErlebnisGarten park in Zurich's Landiwiese recreational area from 29 May to 12 July. During the daytime and early evening hours on those dates, from Tuesday to Sunday, they can look forward to 400 exclusive yet free events in the areas of culture, nature, sport and innovation, plus surprises from the realms of architecture, landscaping, food, technology and history!

Dr Jörg Muller-Ganz

is an economist who was first elected to the Board of Directors in 2007 and has served as its Chairman since July 2011.

Martin Scholl

became Chief Executive Officer in 2007 and has been a member of the Executive Board since 2002. He first joined the bank as an apprentice.

Zürcher Kantonalbank has successfully positioned itself as a universal bank with a regional base as well as a national and international network. We are not only the leading cantonal bank in Switzerland, but also one of the largest Swiss banks. With a market penetration rate of around 50 percent, we are the top-ranked bank in the Canton of Zurich in both retail and corporate banking. We are also the third-largest fund provider in the country. Zürcher Kantonalbank is an autonomous public-law institution of the Canton of Zurich and benefits from a state guarantee. Our public service mandate is to provide financial services to the public and business, to contribute towards efforts to address economic and social issues and to ensure that our actions are environmentally and socially responsible. We uphold our values: responsible, inspiring and passionate. We are the bank that's "Close to you" and are part of life in the Canton of Zurich.

Looking back

Financial year 2019 was extremely encouraging. The return on equity amounted to 7.2 percent. The cost / income ratio was 59.9 percent. We have further strengthened our capital base in recent years, while also complying with steadily rising regulatory requirements. At the end of 2019, the risk-based capital ratio (going concern) came to 20.0 percent and therefore far exceeded the regulatory requirement of 13.6 percent (including a countercyclical buffer). The current risk-based requirement (gone concern) amounts to 1.0 percent. With a reported risk-based capital ratio (gone concern) of 1.4 percent, this requirement was also exceeded at the end of 2019.

The financial year in numbers

Switzerland's only AAA bank

The rating agencies Standard & Poor's, Moody's and Fitch continue to award Zürcher Kantonalbank their highest ratings of AAA or Aaa. In the view of ratings agency Standard & Poor's, Zürcher Kantonalbank is among the safest banks in the world. That makes us the only Swiss bank to be given top marks yet again by all three rating agencies. Given its "stand-alone credit profile" of aa-, the bank's creditworthiness is rated as extremely good, even without taking the state guarantee into account. Our high ratings are due in part to our sustained operational stability as a result of our diversified business model as well as the extremely good capitalisation of Zürcher Kantonalbank. Other factors include Zürcher Kantonalbank's solid income base and the profitability this affords the bank, something which is based not least on its stable, lasting client relationships. The bank reported equity of CHF 12.3 billion at the end of 2019. The risk-based capital ratio (gone concern) amounted to 20.2 percent. These figures confirm our standing as one of the best-capitalised banks in the world. Based on our total assets of more than CHF 167.1 billion, we are the largest cantonal bank in Switzerland and the fourth-largest bank in the country.

Strongly rooted in the canton

We are the market leader for retail and corporate banking in the Canton of Zurich. While we also operate the canton's densest network of branches and ATMs, our clients are increasingly conducting their banking transactions via our support centres, eBanking and eBanking Mobile services. Over the course of the last year, we committed CHF 124.9 million to providing financial support in the Canton of Zurich in the economic, environmental and social arenas. Through more than 150 sponsorship commitments, we are also actively helping to make Zurich a canton worth living in.

Figures achieved

Indicators	Objectives	**2019**	2018	2017
Return on equity (RoE) [1]		**7.2**	7.1	7.3
Cost/income ratio (CIR)	58–64 %	**59.9**	61.4	61.1
Risk-based capital ratio (going concern)	16–19 %	**20.0**	20.2	18.8
Risk-based capital ratio (gone concern)	–	**1.4**	–	–
Group rating	AAA, Aaa	**AAA, Aaa**	AAA, Aaa	AAA, Aaa
Employee satisfaction [2]	≥ 70 points	**86**	–	84
Brand performance [3]	–	**–**	–	64
Customer satisfaction [4]				
Retail and commercial clients	≥ 75 points	**–**	82	–
Corporate clients	≥ 75 points	**–**	86	–
Private banking clients	≥ 75 points	**–**	82	–

1 Internally, we have been measuring profitability based on economic profit since 2015. Externally, we continue to state the ROE, but without a target bandwidth.
2 Surveyed every two years; 2019 results, next survey in 2021.
3 Due to changes made to the measurement method and the definition of new target values, brand performance is not reported for the 2019 reporting year. Target value until 2019: ≥ 60 points
4 Surveyed every two years; 2018 results, next survey in 2020.

Diversified income

Our economic strength is based on a broadly diversified business model, which has an impact on our income structure. We therefore aim for qualitative growth, particularly in the investment and asset management business. With CHF 175 billion in assets under management, Swisscanto Invest by Zürcher Kantonalbank is also Switzerland's third-largest fund provider. Commission business accounted for 32 percent of the bank's operating income at the end of 2019, with the net result from interest operations contributing 50 percent, the trading business contributing 13 percent and other income contributing 4 percent.

Profit

With consolidated profit of CHF 845 million, 2019 marks yet another extremely gratifying result. The ordinary appropriation of profit includes a dividend of CHF 356 million. Of this, CHF 241 million will go to the canton and CHF 11 million will be used to cover actual costs. Around CHF 115 million will go to the municipalities. On the occasion of the bank's 150th anniversary, we are also distributing an extraordinary anniversary dividend to the canton and municipalities in the amount of CHF 150 million.

Important employer

5,950 people work at Zürcher Kantonalbank (group) in 5,145 full-time positions. With 410 apprenticeships in the areas of banking and IT, we are one of the largest training centres in the Zurich region.

Milestones and material events

Cantonal Parliament elects Board of Directors and Committee of the Board of Zürcher Kantonalbank for the new 2019 to 2023 legislative period

In the year under review, the Cantonal Parliament held elections to renew memberships on both the Board of Directors and the Committee of the Board of Zürcher Kantonalbank. Roger Liebi (SVP), who joined the Board of Directors of Zürcher Kantonalbank in July 2018, was elected to the Committee of the Board of Zürcher Kantonalbank. He succeeds Bruno Dobler (SVP), who is retiring after two legislative periods. Prof. Bettina Furrer (GLP) was newly elected to the Board of Directors. Bettina Furrer's election reflects the changed balance of power in Zurich's Cantonal Parliament following last April's elections. The composition of the Board of Directors is based on the representation of the various factions within the Cantonal Parliament. The following were re-elected by the Cantonal Parliament to serve for another legislative period: the members of the Committee of the Board represented by Dr Jörg Müller-Ganz and Dr János Blum as well as existing members of the Board of Directors Amr Abdelaziz, René Huber, Henrich Kisker, Mark Roth, Peter Ruff, Walter Schoch, Anita Sigg, Rolf Walther and Stefan Wirth. The Board of Directors elected Dr Jörg Müller-Ganz as its Chairman and Dr János Blum as his deputy.

Remo Schmidli appointed as member of the Executive Board

With effect from 1 July 2019, the Board of Directors of Zürcher Kantonalbank appointed Remo Schmidli as the new Head of the IT, Operations & Real Estate business unit (the Logistics business unit until 31 August 2019) and as a member of the Executive Board. Remo Schmidli, who has held various positions within the bank over the past 18 years, can draw on a broad range of technical and management experience in the areas of IT and multichannel management.

Zürcher Kantonalbank acquires GAM's precious metals ETF and money market business

In 2019, Zürcher Kantonalbank took over the investment management and marketing of four Swiss precious metals funds with assets of CHF 1.8 billion from GAM Holding AG. In this context we also agreed to acquire GAM money market funds with CHF 0.4 billion in assets. The purchase price amounted to CHF 15 million, which corresponds to 0.6 percent of the acquired assets. No employees transferred from GAM to Zürcher Kantonalbank as part of the transaction. This transaction has enabled Zürcher Kantonalbank to further expand its position as a leader in the precious metals investment business.

Zürcher Kantonalbank takes over substantial real estate portfolio from Swiss Re

A bidding process culminated in Zürcher Kantonalbank's successful takeover of a substantial real estate portfolio from the world's second-largest reinsurer. While Swiss Re had been offering its employees mortgages and savings accounts at attractive conditions in the past, increasingly complex regulatory requirements, in particular, prompted Swiss Re to discontinue offering this service itself. In 2019, Zürcher Kantonalbank took over the management of a total of around CHF 700 million in mortgages taken out by the employees of Swiss Re in Switzerland, which had previously been managed by the reinsurer.

Zürcher Kantonalbank plans to acquire Vontobel's share brokerage activities in London

In the year under review, the Board of Directors decided to acquire the equity brokerage activities of Bank Vontobel Europe AG in London along with five employees. This transaction is to be concluded in the fourth quarter of 2020. The planned acquisition is intended to give Zürcher Kantonalbank direct access to key global investors. The bank's presence in London will substantially improve the offering for Swiss clients of Zürcher Kantonalbank with capital market needs and broaden the international investor base for capital market transactions with a Swiss connection.

Reservation of the endowment capital reserve for the contingency plan

Systemically important banks must meet more stringent requirements with regard to capital and liquidity and must also have a contingency plan in place that can be implemented immediately and, in the event of impending insolvency, guarantee that their systemically important functions can still be carried out. In connection with this contingency plan, FINMA has set the amount of the loss-absorbing capital buffer at 7.86 percent of risk-weighted assets (gone concern capital requirement). Half of this requirement must be provided by Zürcher Kantonalbank in the form of preallocated gone concern capital. The endowment capital of CHF 575 million, which has been approved by the Cantonal Parliament and has not yet been called on, has been reserved in full for the Bank's contingency plan by resolution of the Board of Directors and will be counted towards the gone concern capital component. As a result, the endowment capital reserve can now only be called on by order of FINMA or a FINMA-appointed restructuring official.

Another green bond successfully placed

In a challenging market environment, Zürcher Kantonalbank issued its second green bond, which was met with encouraging demand. The volume of the ten-year bond, which was issued in accordance with international standards (ICMA), reached CHF 200 million. Moody's rating agency has also given top marks to Zürcher Kantonalbank's second green bond and confirmed its green bond rating of GB 1 (excellent). Funds generated through green bonds are earmarked for use in projects and investments in the area of climate and environmental protection. Given that sustainability is part of our public service mandate, it goes to follow that this is also a strategic goal of Zürcher Kantonalbank. The proceeds from the issue will therefore be used to refinance existing and future ZKB environmental loans. Zürcher Kantonalbank is the first Swiss financial institution to issue a green bond in Swiss francs.

Zürcher Kantonalbank receives admission to participate as a trader on Frankfurt Stock Exchange

Zürcher Kantonalbank was admitted as a direct trader on Frankfurt Stock Exchange (Xetra trading) in late March. This means that clients benefit not only from an extended range of services offered by the trading centre, but also from the cost advantages that arise through direct market participation.

New services for private pensions

In the year under review, Zürcher Kantonalbank launched two new services in the area of private pensions. Clients can use the new retirement calculator on zkb.ch to get a quick overview of their anticipated financial situation at the time of their retirement and their anticipated post-retirement income. In addition, a new advisory service was introduced called "ZKB Retirement Compact". In a systematic, tablet-supported process, client advisors work with their clients to analyse their pension situation and jointly formulate an action plan to help them fulfil their personal wishes, goals and dreams for retirement. This pension advice complements the established expert advisory services already provided by the financial planners of Zürcher Kantonalbank, which include comprehensive pension advice in the areas of retirement planning and risk provisions, advice on matrimonial property and inheritance law, and taxes. The two new services are a central part of our strategic priority of strengthening the pensions business and responding to an important client need, namely for advice on retirement planning.

Swiss Equity Conference

For the first time during the year under review, Zürcher Kantonalbank organised its own two-day investor conference for Swiss companies. With over 60 well-known large, medium-sized and small Swiss companies and real estate funds, the Swiss Equity Conference was one of Switzerland's largest investor conferences of the year. It gave the bank an opportunity to consolidate its position in the research and brokerage business and complemented its existing offering of approximately 100 roadshows every year.

Development of the Zurich Centre for Creative Economies

Switzerland's largest art school, the Zurich University of the Arts (ZHdK), bundles its expertise in the creative industries. The construction of the Zurich Centre for Creative Economies (ZCCE) at Toni-Areal should establish a competence centre that is an international leader in the areas of research, teaching and consulting. Zürcher Kantonalbank supports this development as a founding partner and will thus enable ZHdK to create a professorship, a senior fellowship programme and support programmes for start-ups and spin-offs. Since 2013, Zürcher Kantonalbank has been promoting the activities of Zurich's universities – ETH Zurich, the University of Zurich, ZHAW and ZHdK – through a variety of initiatives. The bank provides this support not only within the framework of its service mandate, but also to strengthen Zurich as a place of research. The creative industries bring sectors together that are fit for the future and offer considerable job-creation potential. Featuring both innovative companies and a dynamic start-up scene, Zurich is an important location for the creative industries. Around one-third of Switzerland's added value is generated in the Canton of Zurich.

Swisscleantech

We have been a member of the Swisscleantech business association since 2019. Working within the framework of the association, we advocate knowledge building, innovation and the general conditions needed for a sustainable economy.

Fostering employee skills

The environment of Zürcher Kantonalbank is in a constant state of flux, in part due to growing digitalisation and demographic developments. The demands placed on the various business areas are changing rapidly and dynamically. In order for the bank to remain successful in the future, employees must be capable of taking action and adapting at any given time. This requires that they develop and reflect on their own skill sets on an ongoing basis. To meet this need, a simple, flexible model was launched during the year under review, which features a set of skills that employees and their line managers can use as a guideline and is applied within the scope of the personnel recruitment and development processes.

2019 employee satisfaction study reveals strong commitment

Satisfied employees are inseparably linked to the success story of Zürcher Kantonalbank. When it comes to promoting our bank – whether in terms of client contact, teamwork or the development and implementation of innovations – they are fully committed to making a positive contribution. A comprehensive employee satisfaction study (MAZU) is conducted every two years to find out what drives employees and to ensure that the bank can continue providing the right framework for a productive, appreciative environment. The results of the survey conducted in mid-2019 paint a very positive picture. For one, the bank succeeded in maintaining the previous survey's high "Commitment" score. Every business unit exceeded our ambitious targets. There were other high-level improvements for aspects such as "Work content" and "Scope for decision-making" as well as "Agreement with business policy" and "Satisfaction with management". The results of the study also demonstrate the importance of continuous dialogue between managers and employees in an era of digital transformation and encourage us to further consolidate our "Performance & Development" management approach.

Multifaceted commitment to LGBTI issues

Zürcher Kantonalbank is committed to promoting diversity in all aspects of our lives and business dealings. In 2019, it was involved in a number of measures, including the launch of the "Swiss LGBTI Label" and consultation on diversity-related issues in the corporate world. The "Swiss LGBTI Label" is awarded to organisations that have implemented a holistic diversity management approach and taken systematic steps to establish "sexual orientation" as one of the aspects of diversity. Zürcher Kantonalbank is proud to be one of the first companies to receive the "Swiss LGBTI Label". An LGBTI network named "Queers & Peers" was established at Zürcher Kantonalbank during the same reporting period, where all members of the bank are welcome. This association offers a platform for open dialogue on matters of particular concern to the bank's LGBTI community. Through this initiative, Zürcher Kantonalbank is sending another strong message regarding the inclusion and appreciation of all employees.

Apprentices: 100 % passed their final examination

In the year under review, all 82 banking and 13 IT apprentices were able to complete their training by passing their final apprenticeship examination. 90 percent of the apprentices also opted to continue their professional careers at Zürcher Kantonalbank.

Anniversary of the Women's Network

The Women's Network of Zürcher Kantonalbank celebrated its fifth anniversary in October 2019. In line with its guiding principle of "by women for women", this platform is dedicated to networking among female employees and representing their concerns within the organisation. One of the network's special areas of focus is on personal exchanges of ideas between women within the bank as well as on their professional development. Additionally, several events are held every year on topics that are both highly relevant to the group's members and offer valuable inspiration for their day-to-day lives. Around 1,200 women have attended these events since the network was first established. The network has around 470 members.

Kickbox: "BeMySponsor"

A business idea from the company's internal Kickbox innovation programme was presented to the public for the first time. An online platform called "BeMySponsor" was developed for association-organised sponsored runs. Compared to the extremely complex processes currently in use, the platform saves associations a lot of time, money and effort by using digital processes to efficiently automate manual work. At the same time, "BeMySponsor" offers associations the potential to increase their income since simple sharing via social media vastly extends their reach when searching for sponsors.

Zürcher Kantonalbank's new "Train for Zurich" in the ZVV network

Zürcher Kantonalbank presented its redesigned suburban train in 2019. The train's new design expresses the togetherness that Zürcher Kantonalbank wishes to celebrate with the whole Canton of Zurich in its 150th anniversary year in 2020: 150 years of "Zäme Züri" (Together Zurich). The revamped exterior, created by designer Nadine Geissbühler, was made possible through Zürcher Kantonalbank's 17-year commitment to the ZVV nighttime network. A train exterior designed by Zürcher Kantonalbank featuring bats as a symbol for the ZVV nighttime network could already be seen travelling along the tracks in and around Zurich back in 2008.

Zwingli – the film

As an expression of its commitment to the Canton of Zurich and its history, Zürcher Kantonalbank supported a Swiss film production entitled "Zwingli". As a historical figure, this reformer from Zurich played an important role in the evolution of the Canton of Zurich. Through its support for this project, the bank met its important cultural and historical responsibilities and simplified people's access to a period in Swiss history. Boasting more than 240,000 viewers, "Zwingli" was the sixth most successful film in Switzerland in 2019.

Space for creativity

A place for client-centred product development and innovation was created at Zürcher Kantonalbank's head office during the year under review. This space, which goes by the name of "Freiraum", gives employees and companies a creative space that can be used free of charge for workshops, events or user testing as part of product development work. Public events and presentations are also held there and, where needed, companies are offered support via guided workshops and user tests in this space. In its role as a progressive and dynamic company, Zürcher Kantonalbank makes an active contribution towards the transformation of the Zurich economic area.

Outlook

Given the geopolitical agenda, intense competition in the banking business and difficult conditions, we assume that the environment will remain challenging in 2020. Nevertheless, we still expect to be able to present pleasing results in our anniversary year as well. In the years to come, we intend to further strengthen our leading market position in the Zurich economic area as a universal bank.

Although global economic growth will continue to weaken in 2020, a recession is not imminent. In fact, evidence is mounting that the global economy is stabilising. This is also supported by global monetary and fiscal policy, which will remain expansionary in 2020 and boost the flagging global economy. While indicators point to an easing in the US-China trade conflict as well as an improvement in the Brexit situation, the geopolitical situation in the Middle East is unstable, and it is difficult to predict just how this will play out going forward. However, we do not believe that this will cause the global economy to suffer any noticeable setback. Nevertheless, we do not expect the financial markets to have the same momentum in 2020 as they did in 2019. It is too early to tell how COVID-19 will impact the global economy. We are keeping a close eye on developments.

Trends such as digitalisation and technological advances, regulatory pressure and the persistent negative interest rate environment are causing cost pressure, earnings uncertainty and changes in the way that clients use banking services. It is safe to assume that competition in the banking business will intensify even further in the coming years. Together with the political community, the aim must be to improve the framework for Switzerland as a financial centre. Freely accessible markets, in particular within the EU, are vital for Switzerland as a small, open economy. At the same time, we must strengthen people's trust in the financial centre even further and highlight the important role played by banks, particularly that of domestic banks, with respect to society and the economy.

Our environment therefore remains challenging. Hence, we must respond quickly and appropriately to changes in order to ensure our bank's long-term success. Using the right tools and structures for the job, we are gearing our organisation to enable it to operate in this environment and remain agile on the market. This includes both earnings diversification and proximity to our clients, as well as the enormous importance of the Zürcher Kantonalbank brand.

We will continue to focus on our strategic priorities. Standardising, centralising and automating our processes and products in a meaningful way makes us simpler and more agile. We diversify our earnings to a large degree by maintaining a balanced product portfolio as well as a broad range of services in the investment and pensions business. Our proximity to our clients is evidenced by the bank's various sales channels. In our effort to make ongoing improvements to customer interfaces, we are expanding our range of digital interfaces and personal consulting services.

We incorporate sustainability with regard to ecological, social and economic criteria into everything we do and are guided by the United Nations' 17 sustainable development goals.

Management Report

Management Report

The bank of the people of Zurich

Over the past 150 years, the Canton of Zurich has developed into an economic and cultural centre. Zürcher Kantonalbank has grown hand in hand with the canton. We continuously seek out ways of meeting our present-day challenges in order to fulfil our public service mandate. If our business activities are successful, everybody wins: the canton, the municipalities, the companies – to the benefit of everybody in Zurich.

History

Zürcher Kantonalbank was founded in 1870 as the "Bank of the people of Zurich". As a universal bank with a comprehensive range of products and services, we offer a counterweight to the major and private banks. Our positioning has remained unchanged since the bank was first founded: close to you.

Founding years

When Zürcher Kantonalbank opened its first counter back on 15 February 1870, it did so during a time when private banks largely neglected to serve tradesmen, employees and small factory owners who needed mortgages and had other investment-related requirements for their agricultural and commercial businesses. This is where the "Bank of the people of Zurich" was to step in, at least that was the idea of Johann Jakob Keller, a member of the Cantonal Parliament and one of the driving forces behind the bank's founding.

Since then, the Canton of Zurich has provided the endowment capital, guaranteed the bank's liabilities (state guarantee) and appointed its most senior governing bodies. The public service mandate and therefore the bank's social responsibility have been written into law.

Upswing

Zurich's economy experienced an enormous upswing towards the end of the 19th and in the early 20th century, which triggered rapid growth both in terms of the canton's population and rent levels. The mortgage portfolio of Zürcher Kantonalbank grew significantly.

Despite war- and crisis-related setbacks between 1914 and 1950, Zürcher Kantonalbank remained a reliable pillar of support within the canton. By virtue of its legal mandate, it refused to engage in speculative transactions and even emerged from the credit crisis of the early 1930s unscathed.

Mortgage and commercial bank

Zurich evolved into one of the world's most important financial centres during the second half of the 20th century. Zürcher Kantonalbank responded to this development by expanding its range of products and services and enlarging its business volume in the process. The main focus of the bank's operations during these years was on the savings and mortgage business. In addition, Zürcher

Kantonalbank has achieved a leading position in the capital market business and is now one of the foremost issuers of debt capital and equity instruments, both in terms of the number of issues and their volume. The bank's equity, real estate fund and bond research also has the largest coverage of any institution in Switzerland.

Leading universal bank

Towards the end of the century, the mortgage bank had evolved into an innovative universal bank with an international network, which allowed it to address the needs of an increasingly global economy. The real estate crisis in the mid-1990s also forced Zürcher Kantonalbank to make some adjustments. The bank reorganised and focused on client segments.

Stability thanks to diversification

2008 brought the financial industry's biggest crisis since the 1930s. Zürcher Kantonalbank's business model, which focuses on income diversification and sustainability, proved successful in the midst of a global crisis of confidence. While the trading business faltered somewhat, the interest arbitrage business continued to provide a steady income stream. In the Greater Zurich Area, Zürcher Kantonalbank achieved a position as market leader among private, corporate and commercial clients. It expanded its structure to nine business units and launched a growth initiative that was expected to boost income even further. The Swiss National Bank categorised Zürcher Kantonalbank as systemically relevant in 2013 on the basis of its importance as the market leader in the Swiss canton with the strongest economy. Ownership of Swisscanto and its fund management company was transferred to Zürcher Kantonalbank in 2015.

150th anniversary

Zürcher Kantonalbank is celebrating its anniversary in 2020. It has been an integral part of Zurich, both as a place to live and as an economic area, for the last 150 years. Over the course of the bank's history, it has worked hard to help ensure the canton's prosperity on the basis of its public service mandate. It has always seen itself as an element that establishes a link between business and society, town and country, tradition and modernity. We want the anniversary activities to express this deep sense of solidarity and serve as an extension of the factors that have always been behind each and every thing Zürcher Kantonalbank does: building bridges, providing inspiration and creating encounters.

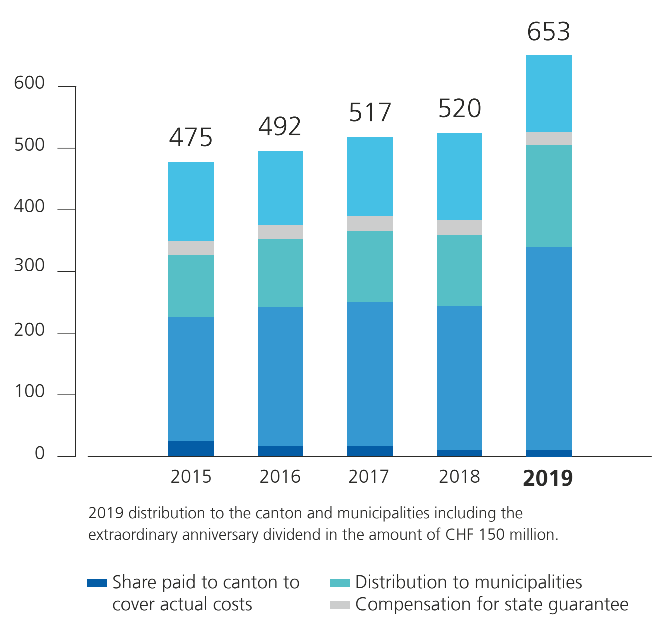
Public service mandate

Zürcher Kantonalbank is an independent public-law institution under the cantonal law of Zurich. We have a public service mandate from the Canton of Zurich. The scope of this mandate is formulated in the Cantonal Bank Act and in the Guidelines for the Fulfilment of the Public Service Mandate of the Board of Directors.

Market economy and state guarantee

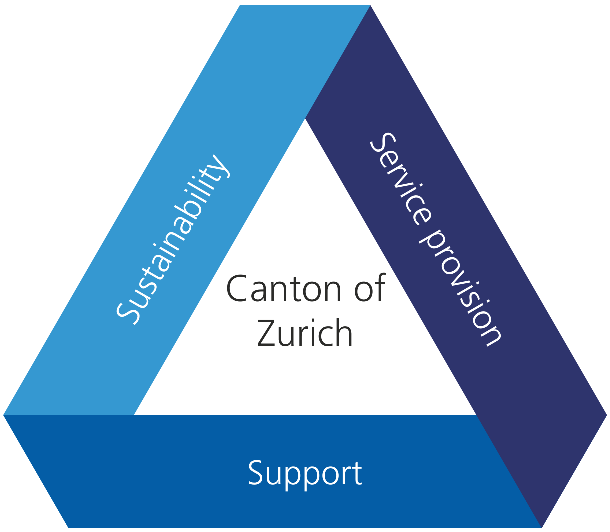
The endowment capital forms the corporate capital of Zürcher Kantonalbank and is provided by the Canton of Zurich. The canton also provides the bank with a state guarantee. In doing so, it is liable for all the bank's (non-subordinate) liabilities should the bank's resources prove inadequate. This is a security measure that has never had to be drawn upon.

Participation by canton and municipalities in Zürcher Kantonalbank's business activities (in CHF million)



2019 distribution to the canton and municipalities including the extraordinary anniversary dividend in the amount of CHF 150 million.

Public service mandate in the Canton of Zurich



Service mandate

We provide people and businesses in the canton with comprehensive banking services.

Support mandate

We assist the Canton of Zurich in the economic, social and environmental arenas.

Sustainability mandate

Our operations in all areas follow a sustainable business model.

Excerpt from the Law on Zürcher Kantonalbank of 28 September 1997

§ 2 Purpose

[1] The bank's purpose is to contribute to efforts to address economic and social issues within the canton. It supports environmentally sustainable development in the canton.

[2] It satisfies investment and financing needs through a business policy geared towards continuity. In doing so, it pays particular attention to the concerns of small and medium-sized enterprises, employees, agriculture and public authorities. It promotes home ownership and affordable housing.

In exchange for the provision of the state guarantee, we pay annual compensation to the canton, the amount of which is calculated in accordance with an actuarial model. This amounted to around CHF 22 million in 2019.

Profit distribution to the canton and municipalities

Zürcher Kantonalbank fulfils its public service mandate on the basis of a business strategy aimed at long-term continuity. It is based on market-oriented principles and intended to achieve an adequate level of profitability. Zürcher Kantonalbank will pay an ordinary dividend of CHF 356 million for 2019 (2018: CHF 358 million). The canton uses this to first cover the actual costs incurred of its endowment capital (2019: CHF 11 million, 2018: CHF 13 million). Of the rest, two-thirds go to the canton and one-third to the municipalities. Hence, the people of Zurich gain a share of CHF 329 per person in the success of the bank (2018: CHF 236). On the occasion of the bank's 150th anniversary, Zürcher Kantonalbank will also distribute an extraordinary anniversary dividend to the canton and municipalities in the amount of CHF 150 million.

Threefold mandate

The public service mandate enshrined in the Law on Zürcher Kantonalbank consists of the service mandate, the support mandate and the sustainability mandate.

Our business activities and public service mandate therefore benefit the canton, the municipalities, companies and the population.

The service obligation The service obligation is at the heart of our public service mandate. Its purpose is to ensure that the people and companies in the canton have reliable, constant access to banking services. This includes payment transactions, the investment and financing business and services that cover their other financial needs.

We offer a wide range of products, including state-of-the-art digital solutions, to satisfy this service mandate.

We operate the canton's densest network of ATMs and branches. For more complex transactions, our client advisors are available to provide personal consultations at every stage of life and in all business circumstances. The bank and its banking services can additionally be accessed via various channels such as eBanking, eBanking Mobile, the website or social media. Zürcher Kantonalbank also performs services outside the scope of services provided by traditional universal banks. We provide non-cost-covering micro-loans and operate a pawnbroking agency, for example.

We make an ongoing effort to expand our state-of-the-art applications. Today, around half of our clients have an eBanking agreement. Our goal is to offer them an excellent experience across all our channels.

Promotion of home ownership We have been promoting home ownership and affordable housing for decades. First-time buyers of residential property benefit from ZKB starter mortgages, which have a reduced interest rate that is lower than the normal ZKB fixed-rate mortgage. All in all, ZKB starter mortgages worth more than CHF 5.9 billion were granted in 2019.

Commitment to SMEs We put a special focus on the concerns of small and medium-sized enterprises (SMEs), which, in terms of their number, still make up 99 percent of Zurich's businesses. Zürcher Kantonalbank has supported SMEs since it was first founded and, for several years now, has also been providing support to innovative start-ups (from the biotech, medtech, healthcare, IT, fintech, cleantech, high-tech and consumer products sectors). This support is offered at different levels and can include funding as well as specific support measures. With an annual investment volume of between CHF 10 million and CHF 15 million, we are one of the largest providers of risk capital in Switzerland. Our contribution to the start-up ecosystem goes even further through our cooperation with incubators and promotion of innovation spaces.

The support mandate As the canton with both the largest economy and the largest population in the country, the Canton of Zurich is responsible for addressing numerous economic and social issues. The support mandate obligates us to help the canton resolve these issues. Nowadays, our support frequently comes in the form of sponsorship commitments. For detailed information about our activities in this area, please go to zkb.ch/sponsoring.

Strengthening Zurich as a place of research Since 2013, Zürcher Kantonalbank has promoted the activities of Zurich's universities – ETH Zurich, the University of Zurich, the Zurich University of Applied Sciences (ZHAW) and the Zurich University of the Arts (ZHdK) – through a variety of initiatives. Zürcher Kantonalbank has supported the development of the Zurich Centre for Creative Economies (ZCCE), the new competence centre of ZHdK, as a founding partner since 2019. The bank is enabling ZHdK to create a professorship, a senior fellowship programme and support programmes for start-ups and spin-offs. By providing all four universities in the canton with support in fundamental research, the bank ensures that the conditions for start-ups in the Greater Zurich Area are excellent. ETH Zurich is supported in the field of information security, while the University of Zurich is supported in the fields of sustainability and behavioural economics. ZHAW promotes entrepreneurship, and ZHdK promotes the creative industries. This positive environment includes numerous other institutions with which Zürcher Kantonalbank maintains partnerships within the framework of this commitment, such as the Technoparks in Zurich and Winterthur, the Bio-Technopark Schlieren-Zurich, the Startzentrum Zurich, Startup Invest, Venture Incubator and the Innovation Park in Dubendorf, which is currently under construction.

Sponsorship With more than 150 sponsorship partners in the areas of nature, culture, sport, social activities and entrepreneurship, we make a daily contribution towards making the canton an appealing place to live and work. We are committed to protecting our natural resources, preserving social cohesion and strengthening the competitiveness of the Greater Zurich Area. It only goes to follow that we advocate a balanced relationship with nature and wildlife as well as sustainable mobility, cultural diversity, equal opportunity, innovation and entrepreneurship. In all likelihood, anybody who spends time in the Canton of Zurich has already encountered and taken advantage of our offerings (see page 25).

The sustainability mandate Sustainability is an integral aspect of our business model. That means we incorporate environmental, social and economic criteria into everything we do. This mindset is reflected in our products, the way we manage our staff, our commitments and how we configure our value chain. In 2019, we revised our sustainability policy and adopted the United Nations' 17 sustainable development goals. These include the promotion of climate protection, education and sustainable cities and industries.

Products and services Our products and services allow us to have the biggest impact. ZKB environmental loans, for example, have been encouraging environmentally friendly construction and renovations for more than 25 years now. They grant property owners a reduction in the interest rate due on their selected ZKB fixed-rate mortgage for a five-year period. For these terms to be granted, however, several criteria must be met, including the presentation of a "MINERGIE" or "2000-Watt Site" certificate, which are seals of approval for energy-efficient buildings. Our Sustainable Investments product line helps our clients invest responsibly. We launched our first sustainable investment solutions more than 20 years ago. Today we manage over CHF 16 billion in sustainable funds and mandates.

Sustainable Development Goals of the United Nations

Sustainability is an integral aspect of our business model. Here, we are guided by the United Nations' 17 sustainable development goals.

Memberships Apart from that, we also have a commitment to a variety of organisations dedicated to promoting sustainable development – including the Minergie Association and the Sustainable Construction Network Switzerland. The bank also joined the Swisscleantech business association in 2019. Within this framework, the bank advocates knowledge building, innovation and the general conditions needed for a sustainable economy.

Operational ecology In an effort to ensure a continuous reduction of CO_2 emissions and improve the company's environmental performance, we set ourselves environmental goals as part of our operational environmental programme. We use exclusively green "naturemade star" electricity, which helps us gradually reduce our CO_2 emissions and have been offsetting 100 percent of unavoidable CO_2 emissions since 2009. Our current operational environmental programme for 2018–2022 is running successfully and right on target.

Sustainability reporting The Sustainability Report for 2019 shows how Zürcher Kantonalbank exemplifies sustainability as an integrated business principle. In the section of the report prepared in accordance with the requirements of the Global Reporting Initiative (GRI), all key indicators are presented in accordance with the GRI standard.

Detailed information can be found under zkb.ch/nachhaltigkeit and zkb.ch/gri.

Committed to Zurich with over 150 activities

By offering a wide range of sponsorship activities in the fields of business, the environment and society, we help make Zurich a canton worth living in.

This is a small sampling of our commitments:

Alzheimervereinigung Kanton Zürich

The Alzheimer's Association of the Canton of Zurich provides information, promotes public awareness, and offers support and advice to relatives, volunteers and specialists. Our commitment supports the association in its efforts to improve the quality of life of both people with dementia and their families.

Zauberlaterne Kanton Zürich

The Zauberlaterne is a film club for children that runs 75 film clubs across Switzerland and presents high-quality, age-appropriate films. It not only aims to familiarise children with the world of cinema, but also to raise awareness of the importance of a responsible approach to audiovisual media.

Zurich Zoo

At Zurich Zoo, you'll not only discover around 400 animal species from all over the world, but you'll also be able to visit the new Lewa Savannah enclosure from 2020 onward. The zoo makes an important contribution to the survival of endangered animal species and the preservation of natural habitats.

Schauspielhaus Zurich

Attracting 150,000 patrons every year to its two buildings, Pfauen and Schiffbau, Schauspielhaus Zurich is the largest stage for spoken theatre in Switzerland. Our commitment helps ensure the success of this prominent theatre.

ZKB ZüriLaufCup

The ZKB ZüriLaufCup is Switzerland's oldest and largest series of running events, with over 23,000 participants. As its main sponsor, we are committed to the promotion of recreational sports and help encourage physical activity.

Innovation Park Zurich

Zürcher Kantonalbank joined together with the Canton of Zurich and ETH Zurich to found the Switzerland Innovation Park Zurich. This foundation is working to create a new platform for research, development and innovation at Dübendorf airport.

ZVV nighttime network

This offer eliminates the mandatory nighttime supplement of CHF 5 on every trip on the ZVV nighttime network for young people and students with a ZKB youngworld package, meaning they can stay mobile at the weekend and at night at no additional cost.

Grüningen Botanical Garden

Divided into 16 sectors, Grüningen Botanical Garden offers a tremendous variety of native and exotic plants in an impressive natural oasis. Grüningen Botanical Garden has been a foundation of Zürcher Kantonalbank since 1988.

SanArena

The SanArena Rescue School is a foundation run by Zürcher Kantonalbank that aspires to provide the general public with information about medical emergencies and teach them how to respond when one arises. More than 10,000 people attend the classes, courses and training sessions every year.

ZISC of ETH Zurich

ETH Zurich runs the "Zurich Information Security & Privacy Centre (ZISC)". Zürcher Kantonalbank's support for this institution serves to strengthen teaching and research activities in this field – including IT security.

Wildnispark Zurich

The Sihlwald, the largest mixed forest on the Swiss Central Plateau, has been left to nature for around ten years now. As Wildnispark Zurich's main sponsor, we are committed to its further development.

Zürcher Wanderwege

There are many interesting things to discover on the countless hiking trails criss-crossing the Canton of Zurich. As the association's main sponsor, we help "Zürcher Wanderwege" (Hiking Trails of Zurich) maintain the network of hiking trails. To promote sustainable health, we collaborate with the association to publish an annual programme entitled "Wanderungen in der Schweiz" (Hikes in Switzerland).

Casinotheater Winterthur

Having a theatre, restaurant and event venue all under one roof is what lends Casinotheater its unmistakable charm. Our commitment as a main sponsor helps us ensure that the Greater Zurich Area can enjoy a diverse and lively theatre culture.

Verband Frauenunternehmen

Aimed at achieving equality between women and men in the business world, Verband Frauenunternehmen (the Association of Women's Enterprises) lends its members the support they need to ensure their business success. We have supported the association's projects since 1999 and became an official partner in 2013.

Schweizer Jugendfilmtage

The Schweizer Jugendfilmtage (Swiss Youth Film Festival) is the country's largest and most important festival for up-and-coming Swiss filmmakers. By supporting this festival, we are promoting the future of Swiss filmmaking in the Canton of Zurich.

Sechseläuten

Zurich's spring festival is an annual event that takes place every April. The colourful procession of guilds winds its way through the town to Sechseläutenplatz, where the Böögg (an effigy representing winter) is burnt to celebrate the end of the winter season. We have been supporting this traditional event as its main sponsor since 2006.

Verein Pro Duale Berufsbildung Schweiz

Switzerland's economic success is largely attributable to vocational training. In many professions, however, there are not enough young people. As a member of the association that promotes Switzerland's dual system of vocational training, we are committed to strengthening this system, increasing the number of opportunities available and promoting vocational qualifications for young people.

Sustainability policy

Zürcher Kantonalbank is committed to ethically correct and economically profitable management in accordance with the statutory and regulatory provisions as well as recognised professional and ethical principles within the banking industry. The concept of sustainability is enshrined in the guidelines of Zürcher Kantonalbank as an integrated business principle.

Definition

Zürcher Kantonalbank views sustainability as the long-term reconciliation of successful business activities and responsibility for the environment and society. The bank strives to implement this business principle in its dealings with its stakeholder groups.

Stakeholder groups

The central stakeholder groups with respect to the three dimensions of sustainability (economic, social and environmental) are the bank's clients, employees, owner (Canton of Zurich), suppliers and partners as well as the general public.

Spheres of action and role of Zürcher Kantonalbank

The sustainability policy formulates the guidelines for implementation in the business areas. We are aware of the pivotal role played by the financial sector in efforts to achieve sustainable development worldwide. Within our sphere of influence, we strive to reconcile our activities with sustainable development and to report them transparently. Zürcher Kantonalbank focuses on areas where the potential for impact is large and aspires to make gradual improvements in the sustainability impact of its business activities. We set ourselves measurable targets and report transparently on both the measures taken and the achievement of our targets in compliance with the guidelines set forth by the Global Reporting Initiative. Transparency is a central, overarching basic principle.

For our investment business, we are guided by the six United Nations Principles for Responsible Investment (UN PRI) and report on these on an annual basis. We take sustainability into account in our management of collective investments and seek dialogue with companies on these issues. We exercise our own voting rights and those of our clients in Swiss and foreign-controlled companies in the interest of the long-term success and sustainability of the company.

We have defined processes and responsible committees for dealing with specific business transactions. In market and product approval processes or reviews, we always take account of the contribution made towards sustainable development, wherever this is relevant. Here, we are guided by the United Nations' 17 sustainable development goals.

The bank views its role in the economic, environmental and social spheres as follows:

Business

Value chain

We promote the long-term success, competitiveness and innovative strength of companies and public-sector entities (municipalities and cantons) throughout the entire business cycle.

- Efficient banking operations enable us to boost Zürcher Kantonalbank's economic viability.
- A credit policy geared towards continuity makes us a reliable financial partner for companies with intact future prospects, even in difficult times.
- We provide risk capital not only to start-ups, but especially to innovative young companies to ensure that they have the funding they need at an early stage of their lifecycle.
- We promote entrepreneurship among young people via targeted sponsorship.

Governance

We rely on recognised governance standards for the management and monitoring of private and public-sector companies and corporations.

- We define minimum corporate governance standards as a decision-making criterion in the investment and financing process.
- We also apply the relevant corporate governance standards to our management of Zürcher Kantonalbank.

Taxes

We expect our clients to ensure they comply with tax requirements for all assets they hold with us. Hence, we avoid accepting any new money that is not or will not be taxed. We expect our clients to clear up any tax issues from the past and help them to do so. When receiving and investing funds from international private clients, we insist that such funds are tax compliant and respect the relevant laws of the countries of origin.

Combating money laundering, corruption and terrorist financing

We make an active contribution towards maintaining the integrity of the financial system and ensure the integrity of our business by consistently and responsibly performing our duties in the fight against money laundering, corruption and terrorist financing.

- To combat money laundering and terrorist financing, we apply strict, internally established procedures that are aligned with national and international regulations.
- Potential incidents involving bribery and corruption among our employees are investigated systematically and, where appropriate, severely punished.

Environment

Environmental management

Zürcher Kantonalbank is committed to continuously improving its environmental performance and – where possible and appropriate – even goes above and beyond the legal requirements.

Our environmental management approach assesses both the environmental impact of the bank's operations as well as that of our banking products, services and other activities.

We also expect our external service providers and suppliers to adhere to high environmental standards. Zürcher Kantonalbank employs an environmental management system based on the ISO 14001 international standard.

Commodities (industrial metals, precious metals, agricultural resources, energy resources, water)

We are committed to ensuring transparent environmental and social standards with respect to commodity lifecycles and to gradually closing raw material cycles.

- As part of our due diligence process, we raise environmental and human rights issues with our clients in the commodities sector based on the relevant internationally recognised industry standards. As the client relationship progresses, we seek dialogue on these issues on an ongoing basis with the aim of achieving continuous improvement.
- We attach particular importance to the assessment of environmental and social risks in globally active companies. Any parties, goods or projects involved in the area of commodity trade finance are subject to a standardised review process for each individual transaction.

- Our credit policy explicitly excludes financing for raw materials such as crude and heavy oil, uranium, live goods, diamonds, asbestos, precious woods, non-certified palm oil and rare-earth elements.
- We do not offer our clients investment vehicles that invest in individual agricultural commodities (wheat, corn, soya beans and rice).
- As part of our procurement process, we ensure that products are as resource-efficient as possible in terms of how they are manufactured, used and disposed of, and that they are environmentally and socially sustainable.
- We commit to specific sponsorships in order to promote renewable energies and energy efficiency.

Energy and climate

We help mitigate climate change by promoting energy efficiency and the substitution of fossil, non-renewable sources of energy with renewable sources.

- We give our customers incentives to build, modernise and run their properties and infrastructure in the most environmentally friendly and energy-efficient way possible.
- When financing projects in the energy sector, we make an effort to increase the efficiency of plants even further and promote a gradual shift to renewable energy sources.
- We only support biofuels if they are produced using agricultural and forestry residues or biogenic waste and do not compete with food crop production.
- As part of our corporate environmental programme, we set ourselves targets for reducing CO_2 emissions in our own operations and offset 100 percent of all remaining CO_2 emissions.
- We strive to minimise climate risks in connection with both our financing activities and our active investment products.

Land

We are committed to environmentally sustainable land use and the transparent handling of contaminated properties.

- We promote the renovation and modernisation of existing properties as well as land recycling.
- As part of the credit assessment process, we also take the soil, subsoil and structure into consideration and establish transparency if there are any indications that a site might be contaminated.
- We help our customers implement the relevant requirements of environmental law.

Biodiversity (biological diversity)

We help preserve the diversity of habitats, species and genes.

- We avoid engaging in lending and capital market transactions with companies that harm protected ecosystems (e.g. primeval forests) through their business activities.
- We actively campaign for nature conservation in the Canton of Zurich and enable people to experience it in nature parks or on hikes.
- We support regional education programmes on the topics of nature and the environment and advocate sustainable mobility concepts.

Society

Human rights and equal opportunities

We respect and, within our sphere of influence, support the protection of international human rights as set forth by the United Nations, including the right to life, liberty, security, fair working conditions, equal opportunities and children’s rights.

- When we make financing and investment decisions, human rights issues form part of our reputation risk assessment for globally active companies.
- We neither provide financing nor invest in actively managed investment products that place assets in defence companies that manufacture weapons prohibited by international treaties and / or breach Swiss sanctions.
- When interacting with our clients and employees as well as in connection with public commitments, we advocate the equal rights of people regardless of origin, race, gender, age, language, social position, income, religion, political convictions and physical, mental or psychological disability.
- We commit to specific sponsorships in order to promote women in the workforce and in management positions and to help them balance family life and work.
- All our suppliers promise to respect human rights in accordance with our terms and conditions of purchase. Stricter requirements are set for the procurement of particularly sensitive products.
- We offer our employees fair, attractive employment conditions with the aim of strengthening their personal integrity and sense of security.

Education and non-profit commitment

We help improve education as well as the availability of knowledge and information, particularly on specialist subjects related to banking.

- We support Zurich as a centre of research and education and people in education through specific commitments and banking services.
- We promote access to a wide range of cultural activities for the people of Zurich.
- We offer our employees attractive conditions that enable them to get involved in politics, public authorities, their church, culture, educational institutions, trade associations and clubs and to share their banking expertise with the public as part of this involvement.
- We invest in the training and further education of our employees and offer attractive and multifaceted apprenticeships with future prospects.

Health

We promote the health of the people within our sphere and help them enhance their quality of life.

- We make a public commitment to fostering health, sport and exercise for all age groups, especially for children, young people and pensioners.
- We have a diverse range of offerings designed to boost our employees' health.

Financial stability

We are committed to ensuring that our clients manage their financial resources responsibly.

- Our savings, investment and pension products contribute to our clients' long-term financial stability and independence.
- We employ awareness campaigns and effective technical resources to prevent individuals, particularly young people, from becoming over-indebted.

The bank's sustainability policy is reviewed annually and approved by the Executive Board.

Our sustainability policy is also available at zkb.ch/nachhaltigkeit.

Management Report

Group mission statement and strategy

Our vision is "Close to you". Our mission statement describes our identity and serves as a compass for our conduct. Our strategy shows us which path we need to follow in order to fulfil our public service mandate, both now and in the future: we want to become simpler and more agile, strengthen our investment and retirement planning business and create proximity, both online and offline.

Zürcher Kantonalbank is characterised by continuity and stability. To ensure that we can continue to keep our promise of being "close to you" in future, we keep pace with economic, social and technological developments and align our organisation accordingly.

Group mission statement

The group mission statement serves as a compass for our conduct and the future development of our company and our subsidiaries.

The more fast-paced the environment, the more important it is that a long-term vision, goals and values guide our actions. Our Board of Directors has reformulated what this means in today's world in our mission statement.

The key element of this is the way we view ourselves. We're the bank of both the people and companies of Zurich. We engage in economic, environmental and social activities to fulfil our public service mandate.

Stakeholder groups

We want to enthuse our clients. In order to position ourselves successfully in this rapidly changing world, we continuously strive to improve our understanding of proximity: we want to advise our clients not only as financial experts, but also expand their own financial expertise, provide them with them lifelong support and offer them solutions to challenges they are not even aware of yet.

As an institution under public law, we have a special responsibility to our owner, the Canton of Zurich. Because of this, we conduct our business activities with a focus on maximum financial security and reliability at all times.

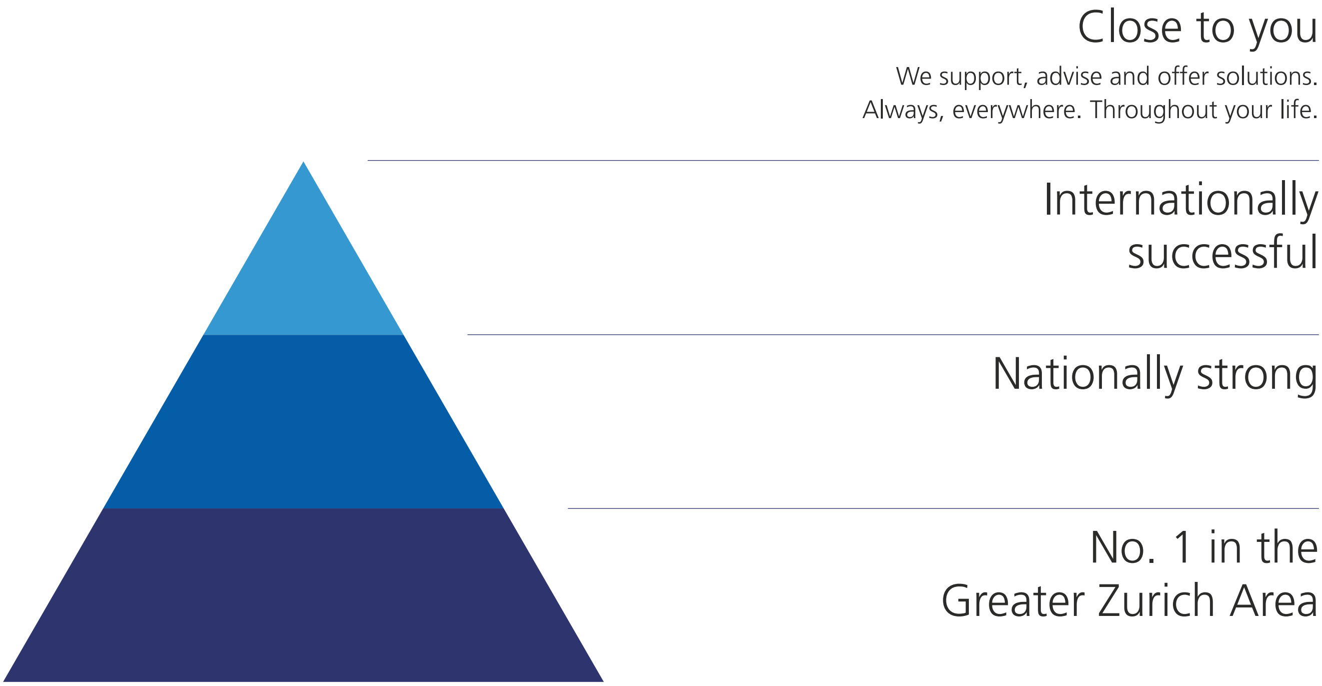
Since this is only possible through the efforts of committed employees who identify with our vision, goals and values, we provide them with comprehensive, long-term support. We do this not only so they can actively contribute to the development of our organisation, but also to enable them to successfully enhance their qualifications and skills.

Our values

Our values – responsible, inspiring and passionate – shape and reflect our culture and the conduct of our staff.

We conduct ourselves responsibly in every situation and with respect to all stakeholder groups. We are a reliable partner, make a positive impact and are at hand when

Our vision



needed. Responsible decisions always also focus on creating sustainable added value – for both society and the environment.

Those who take initiative and inspire do not wait to see what others do. We think ahead, anticipate trends, show courage and assume a pioneering role, and in doing so inspire others. We internalise our value of "inspiring" within our culture and thus become the bank that sets the pace beyond the Zurich area.

Our actions always revolve around people. Our passion for what we do is palpable – regardless of whether these contacts take place online or offline. Our collaborative commitment and firm perseverance spark enthusiasm in every encounter and in every aspect of our work.

Our strategy

We are a universal bank and a leader in our home market, the Greater Zurich Area. For certain client segments, we also provide services throughout Switzerland and in selected other countries.

Even with this excellent basis, we must still face the challenges presented by our modern-day world – globalisation, digitalisation, regulation of the financial sector, demographic change – and find both contemporary and forward-looking solutions for our clients.

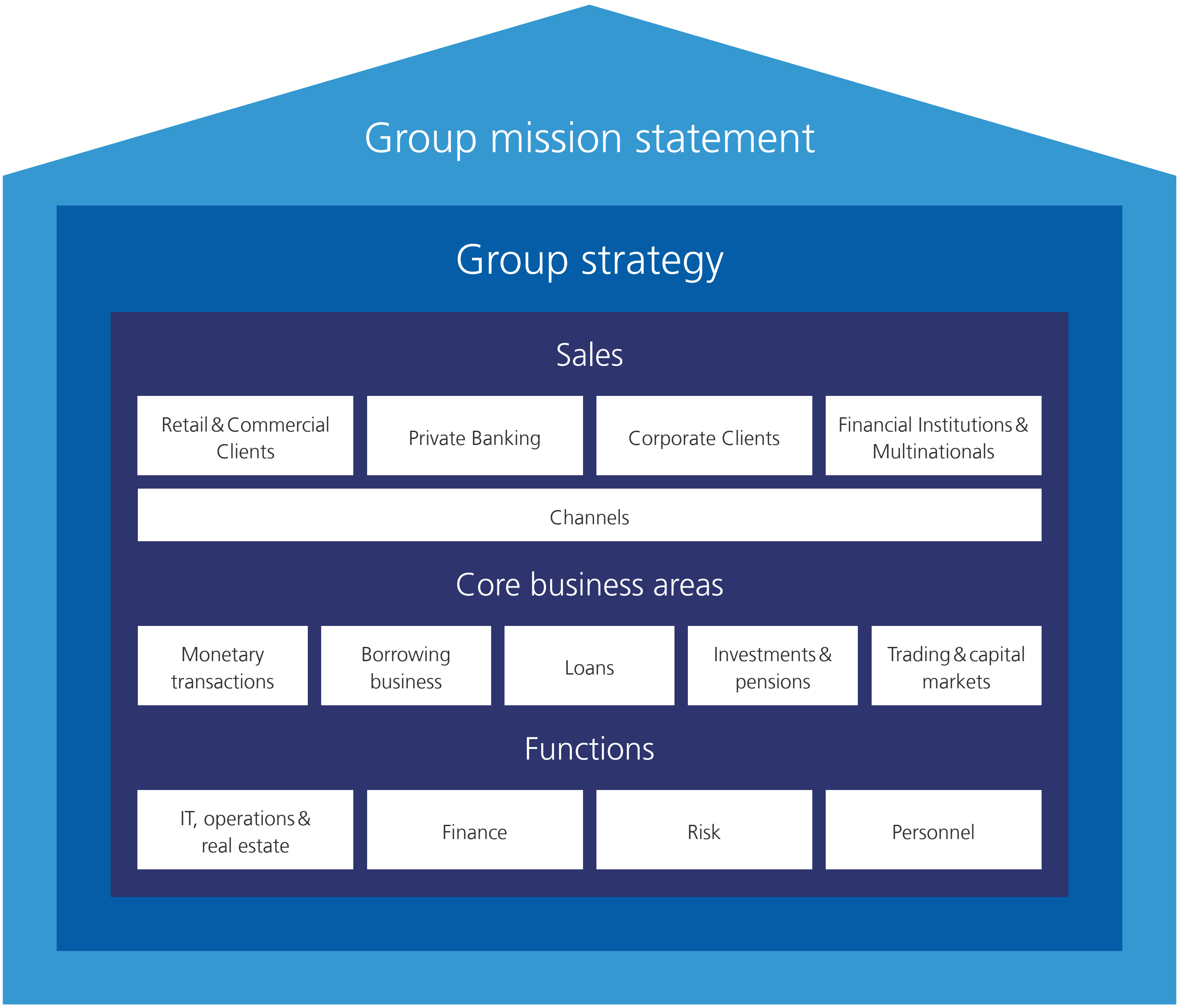
Our strategy tells us which path we must take as Zürcher Kantonalbank. It defines our future business activities and priorities.

Broad-based universal bank

We firmly believe that the only way for us to fulfil our broad public service mandate is by being a universal bank. This puts us in a position to offer the full range of banking services from one source and generate added value in the process.

We issue clear value propositions for each of our client segments: Retail and Commercial Clients, Private Banking, Corporate Clients and Financial Institutions & Multinationals.We support our clients at every stage of life and in all business circumstances, fully in line with our company values: responsible, inspiring and passionate. Our core business includes monetary transactions, the borrowing business, loans, the investment and retirement planning business as well as the trading and capital market business. Our entire value chain is focused on the Greater Zurich Area, where our proximity to the market and systematic, cross-divisional collaboration give us a competitive edge. We also offer certain services across Switzerland and selected services internationally.

Strategy



We pursue a diversification strategy: we generate our income in several different business areas to spread risks. To achieve broad income diversification, we aim for qualitative growth in the investment and asset management business. We wish to grow mainly organically. Our focus is on the Greater Zurich Area. We are not planning either substantial expansion abroad or disproportionately risky business.

Three strategic priorities

We have defined three priorities to guide us in our efforts to consistently implement our strategy: we want to become simpler and more agile, strengthen the investment and retirement planning business and create proximity, both online and offline.

Become simpler and more agile

Agility is a prerequisite for responding swiftly to changes in a complex environment. We aspire to keep our business model, our organisation, our infrastructure and our processes both agile and flexible.

To this end, we have designed a user-friendly financing process for owner-occupied residential property, bundled our payment and savings accounts in a range of packages, and launched a digital product advisor to help our clients find the best offer to meet their needs quickly and easily.

When we say “simpler and more agile”, we also refer to structuring our products and services in every business area in a clear, easy-to-understand way. We do this to ensure that our clients can navigate quickly through our broad range of offers. We constantly strive to streamline our processes and automate them where this makes sense. We are expanding the range of self-service options in eBanking and eBanking Mobile on an ongoing basis. Our investment offering is also structured in a way that ensures every step in the investment process is efficient and effective. Any efficiency we gain as a result benefits the services we provide our clients.

Lastly, we also promote agility internally. We offer our employees interesting platforms for personal development and encourage them to take responsibility for their own actions. One of the consequences of this was that we replaced the static annual objective-setting agreement with the dialogue-oriented Performance & Development approach.

Strengthen the investment and retirement planning business

With interest rates still at a historically low level, the current environment makes it nearly impossible to generate returns through conventional savings. In line with our brand promise of being “Close to you”, it is our duty to show clients how they can build their assets over the long term – always in accordance with their risk profile. Our investment offering is precisely geared to meet these client needs.

At the same time, demographic trends are putting retirement benefit plans – especially the AHV and pension funds – under more and more pressure. The importance of individual pension arrangements (pillars 2 and 3) is rising as a result. Increasing life expectancy and better long-term health are also ushering in a trend towards flexible retirement arrangements. To accommodate this development, we are continuously expanding our retirement and financial planning services even further and launching new products, including a pillar 3a pension fund with an equity weighting of 95 percent. Given that any changes made to retirement planning, investments and taxes can impact the other areas, our clients appreciate the fact that they receive competent support for their third phase of life.

Create proximity both online and offline

Because our clients expect to be able to conduct their banking transactions around the clock and from any location, we are continuing to develop our digital interfaces such as eBanking, eBanking Mobile and cashless payment options. We firmly believe, however, that personal advice is still indispensable when it comes to more complex financial matters, a stance confirmed every day by both our clients and our client advisors. Which is why we are also upgrading our advisory services. We will invest further in both our branches and the expertise of our staff.

Whether our contact with clients is digital or physical, we harmonise these client interfaces in an optimum manner. The digital self-service options will become more personalised, and personal advisory services will become more digital with new options such as tablet-supported advisory processes. Our brand promise is to be “Close to you”, and we want our clients to experience this consistently.

Digitalisation and innovation

Digitalisation influences the way in which we work and the demands of our clients. We adapt to changes in clients' behaviour by constantly developing our banking services. Every business unit within Zürcher Kantonalbank is working on promising new solutions.

We foster a corporate culture that supports innovation at every level. All of our divisions are constantly looking to develop innovations that are both useful and profitable. As part of the annual strategic planning and controlling process, we develop solutions for every client segment in the bank. To this end, trends are analysed systematically and across all industries, innovation is promoted and meaningful partnerships and collaborations are examined. As a result, several innovations contributed to the bank's success in the past financial year.

Projects and processes

Digitalisation with a client focus

We not only want to boost the efficiency of our day-to-day business activities and bring the online and offline worlds closer together, but we also want to strengthen our core business. Digitalisation is particularly valuable for focusing on clients and their needs. We are working on further developing our digital client interfaces both on behalf of our clients and in collaboration with them. New service approaches are tested at the physical contact points within the scope of temporary pilot projects. Promising ideas are broken down into concrete steps, and various offers are tested with clients directly. This approach helps give us quick, substantiated feedback.

Incorporating innovation

Zürcher Kantonalbank operates its own innovation lab in Multichannel Management, which rolls out technological developments and services to clients as quickly as possible. At the same time, the lab does preliminary work to prepare for new technologies and trends. Agile methods are used to develop new service offerings, which also strengthen the positive perception of the Zürcher Kantonalbank brand. Examples of this include the electronic account opening process for corporate clients, which only requires them to enter data that is not publicly accessible, plus a PDF bill-reading feature available through eBanking Mobile – the first of its kind offered by a Swiss bank. Read more on page 42.

The Freiraum project

Innovation is multifaceted. Within the scope of its “Freiraum” (free space) pilot project, Zürcher Kantonalbank offered temporary space at its head office free of charge to members of the general public during the year under review, where they could engage in creative projects and cross-company cooperation. The room, centrally located in Zurich, offered space for workshops, events, user tests, testing of new solutions and a pop-up store. The “Freiraum” concept also makes a variety of different coaching formats available to companies to help them focus on developing client-centric solutions. This project fosters an employee-led exchange of knowledge at no cost to the participants. “Freiraum” complements Büro Züri's existing offer of free, flexible workstations. The bank thus provides support for business innovations and makes an active contribution towards the transformation of the Zurich economic area.

Collaborative innovation initiatives: Swiss Fintech Innovations

We drive collaborative innovation initiatives forward through our active involvement in associations and organisations. As a result, we gain valuable input and support for the transfer of know-how and efforts to establish innovation principles. We are a founding member of the Swiss Fintech Innovations (SFTI) association, for example, where we are also represented in management. This association, which consists of leading companies in the financial centre, focuses on attracting and promoting innovative companies as well as fostering cooperation between business and science and joint research projects. The aim is to create a common platform for diverse and forward-looking fintech initiatives and activities in Switzerland and thus actively promote the digitalisation of the financial sector. Among other things, the association has set out scenarios for the future and their potential implications for financial institutions. These efforts are intended to promote an exchange of ideas and opinions among all financial service providers involved and to lay a foundation for strategic discussions.

Management Report

Business environment and risk assessment

The year under review was dominated by political and economic uncertainties. The financial centre makes an important contribution to the Swiss economy. Competition in the industry is intensifying, while the interest rate reversal has been postponed and regulatory requirements are likely to become more stringent. Zürcher Kantonalbank's risk profile changed very little in 2019.

General economic situation

In 2019, the mood on the equity markets was consistently positive and even reached new highs. At the same time, however, the global economy barely picked up any momentum. Once again, the conclusion was: slowdown yes, recession no. The US continued to be the driving force of the economy. Fears that a temporary governmental standstill due to the January 2019 budget dispute would lead to a massive downturn in the US economy proved unfounded. The story was different in the euro zone, which had to contend with disappointing economic data yet again. Uncertainty surrounding the Brexit put an additional strain on the economic outlook. Given the EU's status as Switzerland's most important trading partner, our economy was also impacted by this decline in growth momentum. Not all of the economic news was bad, though. The service sector, for example, remained an important pillar of the economy compared with the manufacturing industry, especially in industrialised countries.

In the course of 2019, the major central banks cancelled their plans to normalise monetary policy due to cyclical concerns and low inflation. The US Federal Reserve initiated an about-turn and cut its key rate three times in 2019, each time by 0.25 percentage points. Many emerging markets then eased their monetary policy considerably. Meanwhile, the European Central Bank and the Swiss National Bank (SNB) maintained their low or even negative interest rate policies.

An initial agreement was reached in December 2019 in the US-China trade dispute with the Phase 1 deal. This partial agreement includes a waiver of further tariffs and a reduction of existing punitive tariffs by the US. In return, China has committed to significantly increasing its purchases of goods, such as industrial products and services. Although the partial agreement brought a welcome easing of the trade conflict, the dispute between the two countries cannot be considered over. More deep-seated tensions will only be addressed in Phase 2. Clarity has also been achieved on the explosive Brexit issue. In early parliamentary elections held in the UK, Prime Minister Boris Johnson's Conservative Party won a clear majority in December 2019. While that meant that the way was clear for the UK to make an orderly exit from the EU, it did nothing to change the country's bleak economic outlook. Instead, difficult negotiations with the EU are on the horizon regarding the shape bilateral relations will take in future.

Economic growth will continue to slow down at the global level, but a recession is not imminent. In fact, evidence is mounting that the global economy is stabilising. This is also supported by global monetary and fiscal policy, which will remain expansionary and will thus boost the weakening global economy. This also applies to the SNB, which will probably not change its negative interest rate policy in 2020. Additionally, the troubled industrial sector appears to have bottomed out, as confirmed by data contained in the global Purchasing Managers' Index from the end of 2019. Progress in the manufacturing sector is being offset by a slowdown in the services sector, however. Nevertheless, the global capacity utilisation rate will remain sufficiently high, which should benefit employment levels and incomes. The US continues to outperform most economies. For 2020, we expect GDP growth of just under 2 percent, which corresponds to the economy's normal capacity utilisation rate. The labour market and consumption remain important cornerstones. The situation is different in the euro zone, which continues to struggle with low growth rates. Meanwhile, the Swiss economy is experiencing solid development and will continue to grow by around 1.2 percent in 2020. The economic stimuli propping up the emerging markets are primarily concentrated in their domestic markets, and their impact will not carry over to global trade until a later stage. Following global growth of 2.7 percent in 2019, we anticipate GDP growth of around 2.6 percent for 2020.

The financial markets will no longer exhibit the same upward momentum in 2020. Despite clear signs of easing, the ongoing US-China trade conflict is likely to trigger continued uncertainty. Since the upcoming US elections top the geopolitical agenda, equity markets can be expected to respond with greater volatility at times.

The Swiss banking centre

The Swiss financial centre makes an important contribution to the Swiss economy. Some 250 banks account for almost 5 percent of the local value chain and for a good 4 percent of taxes. Those figures do not factor in tax payments made by employees. Switzerland is still the number one in the world for cross-border private banking.

Attractive domestic market of Switzerland

Margins have come under pressure in many business areas, and competition in the Swiss market is particularly fierce. The major Swiss banks have been cultivating their home market with new-found intensity, while foreign banks have also begun entering the Swiss market. Pension funds and insurers are active in the mortgage business and the Federal Council wishes to grant Postfinance a licence for this business area, as well.

The general conditions in banking operations remain challenging. Banks have to contend with increasingly stringent international and national regulatory requirements, find the right solutions to meet changing client behaviour, make good use of the opportunities offered by digitalisation and deal with the negative interest rate environment.

Banks' assets under management increased in 2019, primarily due to market recovery. The commission business, on the other hand, suffered from client passivity. In the interest business, banks recorded an increase in mortgage lending, and no large-scale loan defaults occurred. At the same time, the banks continued to focus on cost management.

Client activity at low level

The start of the year under review was marked by the market downturn in the fourth quarter of 2018 and low client activity, which then normalised over the course of the year. As interest rates in Europe and Switzerland remained stuck at record low levels and no end to the "investment crisis" was in sight, the banks continued their efforts to increase the penetration rate of asset management mandates.

Negative interest rates in Switzerland remained a challenge for the banks. Using savings for refinancing is expensive, so there is an increasing shift to bonds. Growth on the mortgage market is still slowing. In the case of investment properties, demand appears to have been met in some regions, while there is an oversupply in others. Additionally, fixed-rate mortgages are expiring and being renewed with lower interest rates. Hopes of an interest rate reversal were dashed in the summer of 2019, and no turnaround in terms of interest rates can be expected until the end of 2021 at the earliest.

As a result, companies in the corporate lending business are increasingly evaluating alternative sources of financing, such as the capital market, instead of loans. Most SMEs are cautiously optimistic about the future.

Digitalisation solutions

Digitalisation is leading to new fintech companies trying to gain a foothold in the market. It is also opening up numerous opportunities for established banks – partly through collaborative partnerships with innovative fintech start-ups. These collaborative partnerships are seen by most financial services providers in Switzerland as a key to success if they want to provide new client experiences and solid quality at reasonable costs.

Most of the institutions active in retail banking are still working on digitalisation solutions. Ultimately, however, the digital channels are more useful for maintaining the loyalty of existing clients than for acquiring new ones, not least because digitalisation provides a wide range of clients with easy access to banking services.

Regulation

Regulations have become increasingly strict since the financial crisis, with clear thematic trends visible.

Continued development of supervisory law

The Federal Council has announced that it will issue a dispatch in spring 2020 with regard to the updating of the restructuring and deposit protection provisions of the Swiss Banking Act (Banking Act). Shortly after the latest revision of the Capital Adequacy Ordinance on 1 January 2019, the Federal Council submitted a new revision for consultation in April 2019. At the end of August 2019, FINMA recognised the SBA's tightening of its self-imposed regulations on the financing of investment properties (reduction of the loan-to-value ratio and shortening of the amortisation period) in anticipation of additional regulation under the final version of Basel III. This does not represent a challenge for Zürcher Kantonalbank, because it already complies with the new requirements.

Increased transparency

Based on the referendum approving the Swiss Federal Act on Tax Reform and AHV Financing (STAF) in May 2019, the EU removed Switzerland from its "grey" watch list in October 2019. In October 2019, the OECD published a new initiative aimed at realigning tax revenue from international corporations around the world. Large portions of this tax revenue would no longer be levied where value creation takes place, but rather where sales are made. This would put small innovative countries with high exports, such as Switzerland, at a disadvantage. Switzerland stands to lose several billion Swiss francs in taxes every year as a result. Negotiations within the OECD are pending.

Strengthening investor protection

In early November 2019, the Federal Council implemented the Swiss Financial Services Act (FinSA) and the Swiss Financial Institutions Act (FinIA), along with their final ordinances, as of 1 January 2020. Zürcher Kantonalbank has already anticipated the requirements as far as possible with its "new investment offering". A transitional period until 1 January 2022 is now available for final implementation.

Intensification of the fight against money laundering

Driven by events such as the "Panama Papers", the requirements for efforts aimed at combating money laundering are becoming increasingly stringent. The Global Forum's recommendation to abolish bearer shares was implemented and it entered into force on 1 November 2019. The revision of the Anti-Money Laundering Act (AMLA), which is based on the recommendations of the Financial Action Task Force on Money Laundering (FATF), is still pending and will lead to stricter inspection and documentation requirements. The revised Ordinance on the Money Laundering Reporting Office (MGwV), which now permits electronic reporting, entered into force on 1 January 2020.

Data becoming increasingly important

The enormous importance of both data and data handling in an age of growing digitalisation is reflected in ongoing strengthening of data protection, growing regulation to support digital business models and increasing requirements for effective cyber security.

The revision of the Swiss Federal Act on Data Protection (FADP), which has been pending for some time, gained momentum in the second half of 2019. The different forces in Parliament reached an understanding, and the

Council of States, as the second chamber, made further improvements in the 2019 winter session. On this basis, the process to iron out differences began at the end of January 2020. One main objective will be to develop a concept of "profiling" that is capable of garnering majority support and only imposes higher requirements where risks are deemed high. At the same time, the Federal Council has published its intention to sign the Council of Europe's Data Protection Convention, which forms the basis for the EU's equivalence review to be held in spring 2020. All signs therefore point towards a positive outcome of the review.

In the fintech sector, a legislative project for the creation of an electronic identity (Swiss Federal Act on Electronic Identification Services, E-ID Act, BGEID), which is vitally important for digital business models, received parliamentary approval in late September 2019. A referendum opposing this act was also announced, however. On 27 November 2019, the Federal Council published its dispatch on the equally important Distributed Ledger Technology (DLT) legislation, which will establish legal certainty when dealing with digital assets such as tokens. Most of the aspects that are important for a functioning digital business world have already been included, and the proposal must now be discussed by Parliament. In June 2019, Facebook announced the launch of its Libra Project to create a digital currency. The Libra Association, which is spearheading the project, will be based in Switzerland. The resulting legal issues are currently being clarified by the relevant Swiss authorities.

Sustainability as a challenge

The UN and EU have launched numerous initiatives in recent years in light of ongoing climate change. In accordance with the United Nation's Paris Agreement, which Switzerland has signed, parties to the agreement are obliged to take measures to promote climate protection with the aim of achieving CO_2 neutrality by 2050. Parliament is currently revising the CO_2 law as a result, with some of these changes including regulatory taxes on heating, vehicles and plane tickets, for example. With regard to financial flows, the Federal Council respects the fact that even today – without legal regulations – some 20 percent of all investments are sustainable, with this trend on the rise. For the time being, therefore, the Federal Council is relying on the financial centre to take further voluntary steps. At Zürcher Kantonalbank, as well, numerous projects are still pending. Nevertheless, stricter regulatory requirements developed by the EU to ensure the sustainability of financial flows will also have a direct or indirect impact on the Swiss financial centre in the medium term.

Risk assessment

Zürcher Kantonalbank fosters a risk culture that is geared towards responsible behaviour. This includes the ongoing monitoring of risks in all dimensions. The risk organisation provides the Executive Board and the Board of Directors with comprehensive reports on a quarterly basis on the development and profile of credit, market and liquidity risks, as well as of compliance risks, operational risks and reputational risks.

The Board of Directors' risk management tasks

Risk management is practised at every level within the bank. The Board of Directors is responsible for the management of overall risks – it approves the principles for risk management and compliance, the Code of Conduct, the framework for group-wide risk management and the risk tolerance regulations at group level. The Board of Directors is responsible for assuring a suitable risk and control environment within the group and arranges for an effective internal control system (ICS). It also approves transactions involving major financial exposure.

Credit, market and liquidity risks

All in all, the risk profile of Zürcher Kantonalbank did not change much in 2019.

With our credit policy, we observe a risk policy geared towards continuity. The evaluation of environmental, social and governance risks (ESG criteria) forms an important part.

In the lending business, the volume of mortgage loans increased by another 3.8 percent in 2019 to CHF 84.3 billion. The lion's share of real estate financing is used for properties owned by private clients in the Greater Zurich Area. Given the current situation on the real estate market for investment properties (including increased vacancies in peripheral locations), we have reached an agreement with the other banks to impose stricter rules for granting loans as part of our self-regulation commitments. There were no material changes in the rating structure of the various credit portfolios. In line with its public service mandate, Zürcher Kantonalbank consciously takes on higher risks by providing financing to SMEs and start-ups.

In the trading business, we pursue a strategy geared towards client transactions. Over the course of 2019, the "Value at Risk" risk indicator for trading was at a low level and roughly on a par with the previous year. Asset and liability risk management continues to be significantly impacted by the negative interest rates in Swiss francs. The key figures for liquidity risk indicate a comfortable liquidity situation for Zürcher Kantonalbank.

Operational and compliance risks

In terms of operational risks, we are focusing on limiting cyber and process risks. The bank is responding to the dynamic threat situation posed by cyber risks by implementing technical protective and awareness-raising measures as well as by constantly formulating and developing rule- and model-based detection and monitoring measures.

As in the previous years, the regulatory changes show that an increasing number of requirements are being imposed on Zürcher Kantonalbank.

Further information on risk management and the risk profile is available in the Risk Report (Note I in the Financial Report).

Management Report

Banking services for individuals and companies

In a challenging market environment, we have delivered a strong performance in all business areas. Our efforts to consistently align our bank structure with the needs of our clients have really paid off. We are constantly working to provide our clients with an excellent client experience across all channels, regardless of whether it is in the physical or digital world.

In order to understand the financial needs of our clients as accurately as possible and to develop the best solutions for them, we differentiate between the following client groups: Retail & Commercial Clients, Private Banking, Corporate Clients as well as Financial Institutions & Multinationals. We offer specialist services to each of these client groups and have organised our business units accordingly. Each of these business units posted healthy results in the year under review. This reflects the trust that our clients have in us, and is confirmation that we are on the right track in terms of our strategy.

Number 1 in the Greater Zurich Area

Our economic strength is based on a broadly diversified business model. We are the number 1 address in the Canton of Zurich for basic services such as payment transactions and savings. Almost half of all Zurich residents have an account with Zürcher Kantonalbank. At the end of 2019, we had active relationships with around 700,000 private clients. With a market share of around 50 percent, we are the market leader in both retail and corporate banking. In terms of loans, we are the clear number 1 in the Greater Zurich Area. Furthermore, we are the preferred partner in a number of client segments, both in Switzerland and internationally in a selection of other countries. With Swisscanto Invest by Zürcher Kantonalbank, we are also the third-largest fund provider in Switzerland.

Client proximity

We ensure proximity to our clients every single day, whether it be during advisory consultations or in our client lobbies. To this end, we run around 65 branch offices and thus have the densest network of branches and ATMs in the Canton of Zurich. Both retail and corporate clients continue to use our branches as important points of contact for advice. In view of the changing client needs in terms of being able to make payments anywhere and at any time as well as the simultaneous upgrading of digital channels, we made substantial investments in our eBanking, eBanking Mobile and cashless payment solutions in the year under review. We continuously tailor our digital services to the needs of our clients and add new functions, where necessary.

Retail & Commercial Clients

Our support centre provides advice and support for around 450,000 active retail and around 30,000 active commercial clients, and at the same time acts as the central processing centre for Zürcher Kantonalbank. Our wide range of services includes the execution of our daily business activities, business opening and closing, maintenance of master data as well as availability and deputisation management. We also offer a telephone service (with approximately 720,000 calls made to the service in 2019) and deal with complex issues relating to legal estates and court-appointed guardians. A wide range of cutting-edge digital self-service options also bring us close to our clients. We are constantly developing services that are provided via mobile channels in particular, as they are becoming increasingly important. As a result, clients can carry out their banking activities regardless of the time or location via the eBanking and eBanking Mobile services. We are of the opinion that security, user-friendliness and service quality are of the utmost importance, which is why we continuously review and optimise our processes.

Changes in payment systems

Traditional payment systems are facing radical changes. Mobile payment methods are becoming increasingly important in Switzerland, too, as payments without cash or cards are both quick and convenient. In terms of transaction numbers, however, cash is still in first place, and debit cards are in the lead in terms of revenue. Nevertheless, changes in payment behaviour are still being observed. This can be seen in figures for the mobile payment app TWINT (in Switzerland), which, according to estimates, handles more transactions than any other payment app in Switzerland. Several different international solutions are on the market besides TWINT. Large digitalisation projects such as QR-billing and the switch to ISO 20022 are giving mobile payments an additional boost.

Network synergies in mobile payment offerings

In May 2017, TWINT was launched as a joint venture of the six largest banks in Switzerland – one of which being Zürcher Kantonalbank – and the stock exchange operator SIX. This mobile payment solution has over 2 million registered users to date. Every day, more than 160,000 transactions are processed via TWINT and more than 3,000 new users join the system (as of the end of 2019).

TWINT's year-on-year growth spurt can be attributed to the new widespread availability of acceptance points at checkouts and online shops as well as to network effects arising from strong partnerships in the retail sector. The new national providers in the mobility sector offer additional support for the spread of the app. As of this year, TWINT can be entered as a means of payment in the travel apps for Swiss Federal Railways and Zurich Transport Network. TWINT can also be used to pay parking fees and make donations throughout Switzerland. The global trend towards mobile payment solutions underpins our inspiring role as an important shareholder in TWINT AG. This development is also supported by our bank's cooperation with other providers. Our credit cards are now approved for "SwatchPAY", "Apple Pay" and "Samsung Pay". Additional providers are being examined on an ongoing basis, thus enabling us to offer our clients a range of alternatives for payments via smartphone and wearables. The more technically skilled the population and the more natural their use of smartphones as an everyday companion, the greater the change in payment behaviour.

The new way of paying bills

We are the first bank in Switzerland to offer our clients an eBanking Mobile function that lets them automatically import payment orders from PDF invoices. No more switching back and forth between eBanking Mobile and PDF to enter the details manually: eBanking Mobile now lets clients conveniently scan their PDF invoices. Since the system also recognises and suggests IBAN and PC numbers, it even works for PDF files without actual payment slips.

In a joint project with SIX and the major financial institutions, the bank updated E-Rechnung, a digital transmission and payment approval system for invoices, and relaunched it as eBill. As with E-Rechnung, bank clients receive bills from companies and providers electronically, if they have requested this service. They can check their bills and then approve them for payment, reject them or amend them electronically. This not only eliminates the need for paper bills but also the extra step of entering payment data into the eBanking system. Clients who want a receipt can then download the invoice in PDF format. The functionalities and user-friendliness of the eBill system are being gradually improved to ensure that it becomes the most frequently used payment method in the financial centre.

Private Banking

Our Private Banking client advisors are on hand to meet the various needs of a discerning clientèle. The client advisors will act as your personal primary contact for any questions you may have on investment, financing, taxes, pensions and succession planning. Additional specialists may also be consulted, depending on the complexity of the matter. We provide comprehensive solutions to meet individual client requirements and support more than 240,000 active clients in this segment at every stage of their lives. Our client satisfaction survey revealed that this is really appreciated. The focus during the year under review was on saving and investing as well as on using the digital tools that have been available since 2018 to assist clients with the new investment offering of Zürcher Kantonalbank.

Asset management and investment advice up considerably

2018 saw us introduce our "new investment offering", which has had a positive impact on the bank.

The declared goal for our investment advice service is to create added value for clients and the bank itself. This goal is based on our model of success, which is made up of three levels.

The client stands at the heart of everything we do and is in personal contact with the client advisor, who acts as the intermediary between the requests of the clients and the knowledge of the experts. Personal contact forms the first level of the model. Chief Investment Officer (CIO) and expert knowledge make up the second key level, with clients benefiting from the bank's pooled expertise. The third level of success is built on future-oriented technology, which can be used to compare each client portfolio with the CIO reference portfolio and show the differences. Under this new approach, consultations always take place within a portfolio context. That way, the expert opinion is presented to the client directly, and the client always receives the best investment proposal.

A tablet is available to use throughout the entire advisory process to help illustrate complex ideas in a clear and simple manner. Furthermore, the eBanking platform also features extensive advisory functionality.

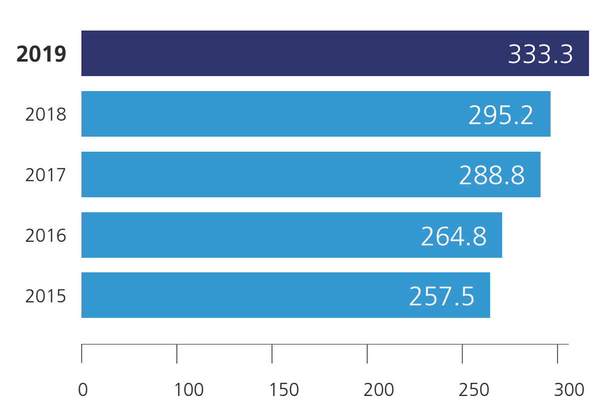
We posted strong growth in both traditional asset management mandates and new advisory mandates. Total client assets were boosted by CHF 38.1 billion to CHF 333.3 billion during the year under review while net new money inflow amounted to CHF 11.7 million.

Leading position in the mortgage business

We finance half of the owner-occupied homes in the Canton of Zurich. We thus find ourselves in the excellent position of being the market leader. There is fierce competition within the mortgage market, and the low interest rate environment and the negative interest rates are causing an increasing number of players from outside of the industry to force their way in. Our strategy remains the same and will continue to focus on the quality of our loans. Our affordability calculation therefore continues to be based on the imputed minimum interest rate of 5 percent, which is a sustainable rate.

Following the successful rollout of "Clever search", the needs-based property search function on our website, the bank followed up with its electronic "ZKB Hypothekenrechner" (ZKB mortgage calculator) in 2019, which shows prospective buyers how much financial leeway they have when buying residential property. Once potential new

Total client assets (in CHF billion)



homeowners have put together their financing preference, they can also send it to their client advisor electronically and it can be used as a basis for the consultation. At the consultation, the advisor then works together with the client on the tablet to calculate various financing options and work out the ideal product solution. Zürcher Kantonalbank's binding financing decision is made during that very same consultation. Video tutorials are available on zkb.ch that offer short, valuable and easy-to-understand tips on how to buy a home.

In the year under review, our mortgage loans increased by CHF 3.1 billion to CHF 84.3 billion. This corresponds to an increase of 3.8 percent, whereas the market as a whole (just banks, excluding mortgage investment companies and insurers) grew by 3.2 percent. Clients preferred terms of 5 and 10 years. The share of fixed-rate mortgages (including ZKB starter mortgages and ZKB environmental loans) in the total mortgage portfolio was 93 percent at the end of the year.

Zurich real estate market

The prices for purchasing residential property in the Canton of Zurich increased by 3.2 percent in 2019, compared to 3.7 percent in 2018. The price momentum increased continuously throughout the year and is now close to the previous year's level. The brisk demand for residential property continues to stand in contrast to a supply shortage, as construction activity is concentrated mainly on rental housing.

Volume of ZKB environmental loans remains constant

There are many old buildings that still need to be renovated and thus represent an opportunity to significantly reduce the energy consumption of a property. In line with our sustainability mandate, we provide our clients with assistance in this process. Thanks to our ZKB environmental loans, we have been promoting energy-efficient construction and renovation for over a quarter of a century. Clients with such loans benefit from an interest-rate reduction of up to 0.8 percentage points on their selected ZKB fixed-rate mortgage for up to five years. In 2019, the total volume of ZKB environmental loans taken out stood at approximately CHF 1.2 billion. Our environmental loans are used to construct new buildings and carry out renovations with proven energy-efficient characteristics.

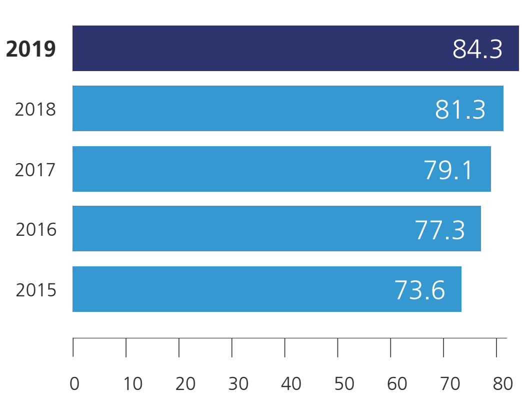
Greater demand for ZKB starter mortgages

In line with our public service mandate, we have supported first-time home buyers for over 30 years by providing them with ZKB starter mortgages. To get them off to a good start, we grant them a reduced interest rate in comparison with the normal ZKB fixed-rate mortgage. In 2019, the ZKB starter mortgage portfolio amounted to CHF 5.9 billion. This corresponds to year-on-year growth of 11.5 percent.

Worry-free home ownership in the third phase of life

One of home owners' greatest concerns is the question of "affordability in old age". Almost 50 percent of home owners in the Canton of Zurich are over 55 years old. Many people in this phase of life worry about their mortgage solution because their post-retirement income usually declines. Very few pensioners who finance the purchase of their own home default on their mortgages, however. Zürcher Kantonalbank is also a reliable financing partner for clients in the third phase of life, both with respect to the continuation of existing financing as well as increases in the amount being financed, for example to carry out renovations or to cover living costs. We offer worried clients a sense of security and appreciation and accordingly give a "lifelong commitment" for the financing of owner-

Mortgage loans (in CHF billion)



occupied residential property to all clients who meet the criteria.

Real estate portfolio of Swiss Re

Zürcher Kantonalbank prevailed against numerous competitors in a bidding process to win a substantial real estate portfolio from Swiss Re. Zürcher Kantonalbank took over the management of a total of around CHF 700 million in mortgages taken out by the employees of Swiss Re in Switzerland, which had previously been managed by the reinsurer.

Pension advice for private individuals

The first two pillars of the Swiss pension system are in need of reform. This is why we proactively and systematically address our clients' pension needs. To enable us to respond optimally to client needs, all client advisors complete a four-step further training course on the subject of retirement planning. The areas of pensions, taxes and investments are generally linked to one another, which is why, in many cases, a holistic approach offers our clients more scope for financial planning. This not only lets us help clients realise their wishes and dreams, but also takes us closer to our goal of being the number one pension contact in the Greater Zurich area. The year under review saw us launch both the Retirement Calculator on zkb.ch and the new consulting service "ZKB Retirement Compact", two central components of our enhanced pension advisory services. Based on the advisory approach we introduced in the investment business in 2017, our pension advisory services similarly combine our proximity to clients in our sales department with our financial planners' expertise, the technical possibilities offered by tablet-based advisory services and dovetailed online and offline channels.

Corporate Clients

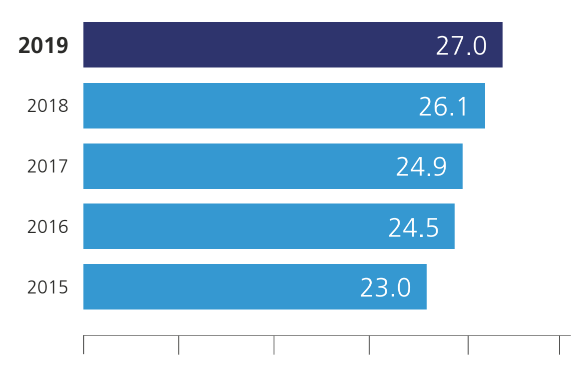
Our employees in Corporate Banking accompany companies through every phase of the business life cycle and provide them the support they need to overcome the financial challenges they will face – from the company's foundation to its succession planning. As a universal bank, we are in a position to put our entire range of services into operation for companies in a targeted manner – in other countries too, if necessary. In this respect, our specialised corporate client advisors act as personal contacts for all financial matters. They have been using an optimised tablet-based consulting approach for corporate clients since February 2019. In light of our public service mandate, we place a great deal of emphasis on our commitment to SMEs.

Thanks to a consistent lending policy, we make a significant contribution to the functioning of the economy by supplying credit to SMEs in the Canton of Zurich as well as to medium-sized and large companies throughout Switzerland. Our credit exposure to companies increased to CHF 27.0 billion in the year under review, which represents positive growth of 3.4 percent.

The negative interest rate situation was once again a key topic in the year under review, particularly among our larger clients. There was a tangible increase in demand for capital market and bond financing on the market. In addition, the para-banking sector and crowdlending platforms have enjoyed greater public recognition as providers of financing solutions. A risk-aware approach was used to simplify business processes for SME financing even further in an effort to maximise the benefit to our clients and boost our efficiency.

Corporate Banking posted a positive result overall. Mortgages, corporate loans, the leasing business and fixed assets, in particular, reported growth.

Credit exposure to companies (in CHF billion)

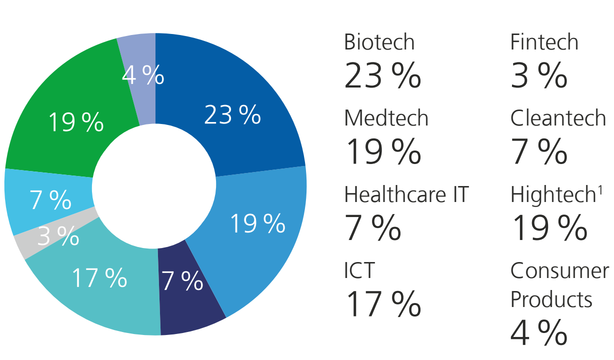


In Corporate Banking, we have a market penetration rate of around 50 percent in the Canton of Zurich, and nearly one-third of Zurich companies even call us their principal bank. We see growth opportunities in expanding our business with existing clients. Occupational pensions also play a very important role, both from a company perspective and from an entrepreneurial perspective. We have successfully established ourselves as a broker of pension solutions.

10th annual SME Award

The ZKB SME Award can now look back on ten successful years, during which which it has become established as an important platform for highlighting the sustainability efforts of small and medium-sized enterprises. A total of 685 companies have taken part in this competition over the past decade and around 45 companies became proud recipients of an award. They came from a wide range of industries, including a winery, a carpentry shop, a construction business and a health clinic. The anniversary of the ZKB SME Award offers us a perfect opportunity to refine the format. In the future, dialogue with SMEs, the close relationships with business and business organisations, and the numerous partnerships to promote SMEs will be intensified even further.

Composition of the "Pioneer" start-up portfolio



1 Collective term for nanotech, sensor technology, robotics, materials, etc.

Leasing calculator and SME loan calculator launched

Two new online tools were launched on zkb.ch in 2019, which allow clients to use a modern, convenient process to submit financing and leasing enquiries online. This new tool has succeeded in greatly simplifying the SME loan application process for both existing and new clients. The calculator then displays a non-binding amount representing the loan interest rate due or leasing rate. All enquiries are then sent electronically to the client advisors, who respond within one working day.

Inspiring "change of perspective"

Corporate Banking continues to incorporate and strengthen the new brand values of "inspiring, responsible and passionate". It does so by changing its perspective – by switching sides and looking at a situation from the client's point of view. Client advisors go to a client's company, where they work for half a day to a full day. Our conclusion is that clients like to show bank employees what makes them tick and how they are successful.

Start-ups and entrepreneurship promoted

New companies in traditional sectors, such as a painting business or a medical practice, are part of the regular financing business of Zürcher Kantonalbank. In 2019, Zürcher Kantonalbank provided CHF 32.5 million in traditional funding to around 120 start-ups. The bank also works closely with the "GO! Ziel selbststandig" association, helping people to become freelance entrepreneurs with ZKB microloans.

For start-ups with new, innovative products and services, the traditional forms of financing are only suitable to a limited extent in view of their increased risks and frequently tight liquidity – especially before entering the market, when a prototype is being further developed for mass production, and the first clients are being acquired. To meet these financing needs, Zürcher Kantonalbank launched the sustainable "Pioneer" start-up financing initiative in 2005, which provides innovative start-ups with risk capital on a targeted basis at an early stage of their company's life cycle. An innovative company is one that offers a product, a service or a distribution model that does not yet exist on the market.

As part of the "Pioneer" programme, Zürcher Kantonalbank has supported more than 200 innovative young companies with over CHF 150 million since 2005. As a result, companies exhibiting a growth rate that is above average have created more than 2,300 new jobs. Over 80 percent of the financing was arranged in the Canton of Zurich, primarily in the form of equity.

During the year under review, a total of CHF 14.6 million in risk capital financing was approved for 46 promising start-ups.

Succession planning offering expanded

Thousands of Zurich-based SMEs need to work out their succession plans and require both specialist and financial support during this phase. Our priority is to ensure that the generational change at SMEs is a success, as it is also important to the economy. We have therefore further expanded our offering – including by launching our succession planning check at zkb.ch/nachfolgecheck. This check allows for a simple assessment of the current situation as regards succession planning and is an ideal basis for discussion for an advisory consultation. In the year under review, we provided personal support through more than 180 advisory mandates and 46 acquisition loans to help ensure that the generational change proceeds smoothly.

Consistent demand for microloans and leasing

Microbusinesses and small enterprises make an important contribution to the vibrant Zurich economy. We therefore ensure that these companies have access to professional advice and a wide range of services with fair conditions. During the year under review, the portfolio included more than 4,300 non-cost-covering microloans of less than CHF 200,000 for SMEs. Capital goods leasing is increasingly important in this area. For SMEs and the agriculture sector in particular, this represents a liquidity-preserving alternative to a traditional investment loan. Zürcher Kantonalbank is a major provider of capital goods leases throughout Switzerland. Overall, in the joint distribution network with other cantonal banks, more than 3,000 lease agreements with a volume of approximately CHF 300 million were concluded.

Financial Institutions & Multinationals

We meet the needs of major domestic and international companies, commodity trading companies, international organisations and financial service providers such as banks, insurance companies, pension funds, asset managers, investment funds and brokers with a wide range of products. These range from financing, trading products and capital market services to custody and asset management services, payment transactions and trade finance. As a universal bank with a diverse service portfolio, we also operate as a supplier for third-party institutions. One of the changes that took place during the year under review is that responsibility for providing support to public-sector entities (e.g. cantons and cities) was transferred to Corporate Banking. At the same time, large pension funds are now handled by the Financial Institutions & Multinationals division due to their institutional character.

Partner to major clients and international banks

In addition to providing financing through loans or the capital market, our services also include trade finance and export financing for all of the bank's client segments. This is why we cultivate international banking relationships as well as relationships with major Swiss clients and are responsible for a high-calibre network of correspondent banks. We have representative offices in our clients' most important export markets around the world, namely in Brazil, China, India and Singapore, which also support us by contributing their local expertise during the risk assessment process.

We have continued to successfully expand our range of insurance products. An insurance forum, which we held for the first time, gave us an opportunity to demonstrate our expertise in a targeted manner and also conduct valuable discussions.

Client-oriented offers also gave us a chance to put our strengths on display in other areas, as well. Reliably, quickly and professionally.

Our clients are demanding increasingly complex solutions. We still consider it our duty to provide our services securely, easily and efficiently, despite growing regulatory requirements. We do this by relying on continuity, regardless of economic and market trends, and that is something our clients can count on.

Supplier for financial service providers in Switzerland and Liechtenstein

The accelerated structural change in the financial sector is increasingly leading to the breakdown of value chains, with financial services providers, such as regional banks and other cantonal banks, buying an ever-increasing number of individual components from third parties. As a nationally significant universal bank with roots in the local area and an outstanding credit rating, we are the natural partner for other financial service providers. The solutions we provide are used every day by our own clients and thus prove their competitiveness. In order to take advantage of the opportunities arising from this structural change, dedicated teams provide support to financial service providers (e.g. banks and asset managers) based in Switzerland and Liechtenstein. These teams are also responsible for looking after all investment fund vehicles, regardless of their domicile.

In this challenging and increasingly complex environment for all financial service providers, Zürcher Kantonalbank has performed very well. It has further expanded its role as a supplier for third-party institutions. Traditionally, Zürcher Kantonalbank has close ties to the cantonal banking sector. The range of services it offers is also becoming increasingly popular outside of the cantonal banking world, for example in the investment process, which includes our research as well as strategic and tactical asset allocation.

For most financial service providers in Switzerland, cooperative partnerships will be a main driver of medium- and long-term success. Thanks to our considerable innovative strength, the stable and long-term business model and the solutions that have proven their worth in our day-to-day business, we see excellent opportunities for further sustainable growth in our business with Swiss financial service providers.

The increasing importance of custody

Custody and asset services are growing dramatically in importance for our institutional clients. We offer them numerous services in this area, including safekeeping and administration services, securities accounting, performance reporting and investment compliance services as well as custodian bank services for investment funds.

Although the market is largely saturated, we are seeing continued growth in this area among custody and custodian bank clients. Our strengths are flexibility in the development of solutions as well as our wide range of offerings.

We are still focusing on the further development of our reporting capabilities in the areas of sustainability and private equity investments, our expertise in the area of alternative investment services and client interfaces.

Added value via research services

Our equity, real estate and bond research is renowned, covering more than 150 stock corporations and real estate funds as well as around 200 bond issuers throughout Switzerland – more than any other institution. Our equity recommendations have generated above-average performance and thus added value for our clients for the last few years. In addition, Zürcher Kantonalbank organises events, such as roadshows, production tours and investor meetings to support platforms that promote information exchange between investors and small and medium-sized Swiss firms as well as global players. In 2019, we organised our own large, two-day investor conference in Zurich for the first time. It was attended by more than 250 investors. Top managers from more than 60 Swiss companies and real estate funds presented their strategies and provided information on current challenges and financial developments. This high-calibre event, which was greatly appreciated by everybody involved, gave us an opportunity to consolidate our already excellent position in the research and brokerage business and complements our existing offering of approximately 100 roadshows throughout Switzerland every year.

The ratings awarded to issuers by the Bond Research team of Zürcher Kantonalbank are relevant for the composition of the Swiss Bond Index and are an important investment criterion for institutional investors. The Credit Research team published its rating methodology for corporate and state-affiliated corporate debtors, Swiss cantons and cities, the electricity sector and hospitals in 2019. We use these publications to establish the highest possible level of transparency, and that in turn enables investors and issuers to objectively understand the rating classifications. The rating methodology met with broad interest among institutional clients.

Developments on the financial markets, which included an intensification of trade disputes, an economic slowdown and further global declines in interest rates from an already very low level, posed challenges for our analysts as well. The performance of research recommendations, however, was very encouraging overall. Our two model portfolios of Swiss blue chips (624 basis points above the benchmark) and Swiss second liners (817 basis points above the benchmark) significantly outperformed their respective benchmarks. In addition to day-to-day business, extensive research reports were prepared on both the bond side (2) and the equity side (9) in connection with new cover and capital market projects. On the equity side, for example, a comprehensive report was published on the IPO of the train manufacturer Stadler Rail, which was one of the largest in Europe in 2019.

Trading and capital markets as the central offering in an integrated value chain

We are one of Switzerland's leading providers in the trading business as well as in the issuing of debt capital and equity instruments (capital market). In trading, we cover all of the important products and asset classes, such as equities, foreign currencies, precious metals, interest rate and credit instruments and structured products. In the consolidating market environment, we position ourselves as an "insourcer" in our domestic market of Switzerland and provide our clients with our integrated value chain and cutting-edge interfaces. The Trading and Capital Markets division is also an important service provider for the parent company.

The 2019 reporting year was marked by a challenging market environment in which political developments (e.g. US-China tariff conflict, unrest in Hong Kong, a government crisis in Italy and Brexit) impacted on economic reality. The markets had to contend with highly volatile interest rates for a large portion of the year. Our business strategy is based on client activities. In light of recent political developments and the intensifying low interest rate phase, our clients are taking a cautious approach, which is reflected in restrained client activity.

In addition to income from trading operations, our Trading and Capital Markets division also generates interest earnings and income from commission business and services. While the latter items posted pleasing growth, income from trading operations in the year under review amounted to CHF 318.9 million, which is 11.7 percent up on the previous year. The market risks in the trading book (value at risk) amounted to CHF 13 million on average and were likewise slightly lower.

We were successful in consolidating our position in the capital market business. On the debt capital markets, Zürcher Kantonalbank supervised the issue of a total of 74 bonds with a proportional value of CHF 5,812 million. Additionally, 37 transactions were carried out for the Central Mortgage Bond Institution of the Swiss Cantonal Banks, worth CHF 7,830 million. On the equity capital markets, we supervised a total of 23 transactions for companies listed on SIX Swiss Exchange. In addition to our role as joint bookrunner for the IPOs of Stadler Rail, SoftwareONE and Aluflexpack, we also acted as the sole lead manager for five capital increases.

Zürcher Kantonalbank additionally announced plans to take over the equity brokerage activities of Bank Vontobel Europe AG in London along with five employees. The transaction, which is expected to be completed in the fourth quarter of 2020, should give Zürcher Kantonalbank direct access to key global investors and substantially improve the offering for Swiss clients with capital market needs.

Asset management offering expanded

Swisscanto Invest by Zürcher Kantonalbank is the Asset Management division of Zürcher Kantonalbank. This competence centre is responsible for the development and management of investment solutions, such as investment funds and individual, mainly institutional mandates. As such, Asset Management provides professional and innovative investment solutions to meet client needs in the various business units and provides clients with support in connection with technical issues and sales. Assets under management increased substantially by CHF 149 billion to CHF 175 billion (+17 %) over the course of 2019. The fund business as well as institutional asset management mandates have been growth drivers in the past and continued to drive growth during the year under review.

The prospect that the major central banks might ease their monetary policy gave rise to a positive environment for stock exchanges and capital markets in 2019 – despite continuing or even intensified political risks, such as trade conflicts, Brexit and Iran, to name but a few. This resulted in share price gains, with key stock exchange indices hitting new all-time highs. By contrast, capital market yields fell to new lows. This was also reflected in price gains for bonds and listed real estate funds. As asset managers, we benefit from this situation. Not only market developments, but also substantial net new money inflows had a positive impact on the earnings situation.

As shares are highly valued and yields on bonds are low, investors are increasingly looking for investment alternatives. We already responded to this "investment emergency" last year with the launch of a product in the area of private market investments. The Swisscanto (CH) Growth Fund makes targeted investments in unlisted Swiss companies which have successfully mastered the start-up phase and now require capital for their expansion phase. With capital commitments of around CHF 180 million and investments of CHF 30 million in the five most promising companies, we actually exceeded our targets for 2019. We recently began offering another interesting possibility: Swisscanto (LU) Private Debt Fund iLending. This fund gives qualified investors access to consumer loans and SME loans, which are granted via online platforms.

We were able to systematically expand our position as the Swiss market leader in precious metal ETFs by acquiring four Swiss precious metals funds from GAM. Following completion of the transaction, Zürcher Kantonalbank has a market share of over 60 percent in the Swiss precious metals fund business.

Demand for sustainable investments is rising steadily, which stands in contrast to the somewhat chaotic market supply. Additionally, today's clients want to see sustainability standards implemented in every investment product. We reorganised our division over the course of the year to reflect these client needs. It goes to follow that sustainability is not merely a niche topic, but rather a firmly integrated aspect of asset management – implemented systematically and transparently across the entire product range. In line with its sustainability policy, Zürcher Kantonalbank excludes defence companies that produce weapons prohibited by international treaties or violate Swiss sanctions. Furthermore, environmental, social and governance criteria are systematically integrated into the basic investment processes.

Sustainable investments

Swisscanto has been managing sustainable investments for 20 years and is a pioneer in this area. We firmly believe that considering sustainability factors is an integral part of a successful asset manager's social responsibility.

The sustainability of our investment solutions is guaranteed by a blacklist, the consideration of ESG factors (ESG integration), specially designed sustainable product lines ("Responsible" and "Sustainable") and engagement (e.g. exercising voting rights; see overview).

Blacklist

Investments in defence companies that produce weapons prohibited by international treaties or violate Swiss sanctions are not permitted. These include manufacturers of cluster bombs / ammunition or anti-personnel mines and landmines. The blacklist applies to all active and passive investment solutions of Swisscanto Invest and concerns an investment volume of CHF 174.7 billion.

ESG integration

Particularly since signing the UN Principles for Responsible Investment in 2009, Swisscanto Invest has made a systematic effort to integrate sustainability factors into its range of funds. This refers to the ESG factors of the environment, society and governance. Material risks that are not – or not yet fully – priced into the valuation are integrated into all actively managed investments, thus adding another dimension to conventional financial analyses. Other criteria also considered include revenue-based CO_2 emissions, reputation risk and corporate management. ESG aspects are factored into domestic and global equities and bonds with a total value of CHF 81.9 billion. We use a traffic light system to simply and transparently indicate the degree of sustainability of all products, with the exception of money market, commodity and real estate funds .

Two sustainable product lines

Responsible: We use the Responsible approach to systematically exclude the most controversial companies from a sustainability perspective while simultaneously maintaining a risk / return profile on a par with that of traditional investments. The corresponding investment solutions do not include companies that manage ESG risks inadequately, that have been found to commit gross violations or breaches of international standards, or whose business activities are critical from an environmental and social perspective. We systematically reduce ESG risks on active and certain passive vehicles; this relates to a volume of CHF 7.7 billion.

Sustainable: The products of our more rigorous sustainability approach, the Sustainable range, look beyond the risk aspect and seize investment opportunities based on the social benefits they achieve. Swisscanto Invest firmly believes that companies that benefit society are more successful, since they have products and services that enjoy above-average demand in the medium term. This approach is applied to active vehicles amounting to CHF 4.9 billion.

Engagement

We fulfil our responsibility towards the companies through dialogue (engagement) with the board of directors and management. Our Asset Management, which conducts these engagement discussions as part of its activities, aims to promote good corporate governance at the listed companies in accordance with recognised principles (best-practice corporate governance) and to foster environmental and social issues (ESG). Swisscanto Invest additionally participates in joint engagements within the framework of the UN PRI platform. Swisscanto Invest has developed its own voting guidelines, actively exercises the voting rights and publishes its voting behaviour transparently (swisscanto.ch/voting). We actively exercise voting rights on direct equity investments worth CHF 34.1 billion.

Sustainability Advisory Committee

Swisscanto Invest is supported by an external Sustainability Advisory Committee, which is composed of the following proven specialists: Elvira Bieri, Chair, Managing Director of SGS Switzerland; Dr Werner Aeschbach, Professor of Aquatic Systems at the University of Heidelberg; Paola Ghillani, former Managing Director of the Max Havelaar Foundation; Dr Thomas Stocker, Professor of Climatic and Environmental Physics at the University of Berne.

Outlook

The objective is to ensure that our investment activities in active, traditional investment products focus consistently on reducing CO_2 emissions by at least 4 percent per year.

How sustainable investing works

Before the investment

Blacklist

ESG integration	**Responsible**	**Sustainable**
Mainstreaming	Minimum ESG standard	Focus on impact
	Dedicated ESG product range	

After the investment

Engagement
Exercise of voting rights – dialogue – collaborative engagement

Product lines in the sustainability fund

Responsible Minimum ESG standard	**Sustainable** Focus on impact
Reduction of sustainability risks	Returns with social and environmental benefit
– Few exclusion criteria – The least sustainable companies are eliminated following an analysis based on 45 ESG criteria.	– Comprehensive exclusion criteria – The most sustainable companies are identified by means of an analysis based on 45 ESG criteria. – An impact analysis is performed to identify the companies that provide the greatest social benefits.
– Implementation: active, passive – Exclusion of around 20 % of the investment universe – Risk/return profile comparable with that of traditional funds	– Implementation: active – Exclusion of around 70 % of the investment universe – Main areas of analysis: energy, mobility, resources, health, finances, education

Management Report

Employees

Unless indicated otherwise, the figures and information below relate to the parent company (excluding subsidiaries and their subsidiaries).

Headcount

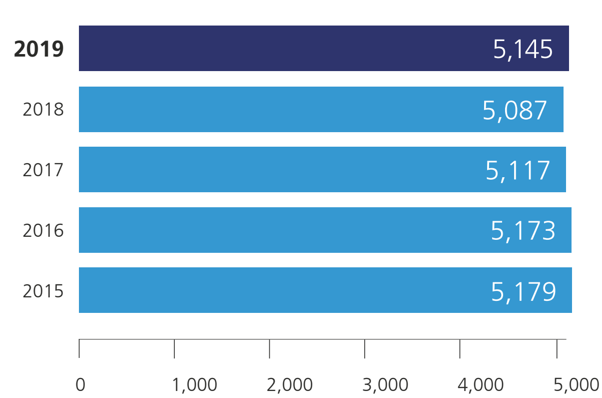
In 2019, the group's headcount rose by 1.1 percent from 5,087 to 5,145 full-time positions (FTE). 27 full-time positions were filled by temporary employees. 337 employees were on a banking or IT apprenticeship or high-school internship.

Performance & Development

In the past few years, we have successfully invested in our employees' further development and in succession planning within the scope of our Performance & Development. This measure is aimed at strengthening employees' self-initiative, giving them creative freedom and promoting dialogue with line managers and within teams, so that employees can leverage their strengths to even greater effect and gear their actions to our strategy. This will make us simpler and more agile and enable us to respond appropriately to changes in our environment and thereby make a more targeted contribution to the success of Zürcher Kantonalbank. Development discussions, development plans and short meetings will continue to be a central element of "Performance & Development", as will personal develop-

We offer our employees a productive, appreciative environment. The most recent employee satisfaction survey has shown once again that we meet this commitment at a high level. As one of the canton's largest training centres, we also make it possible for numerous young adults to enter a wide range of professions in the worlds of banking and IT.

Group headcount (FTE) as at 31 December



ment measures that are based on the performance, behaviour and potential of each individual employee.

Attracting and promoting talent

Continuous dialogue shows how much potential our employees have and where their strengths lie. We are therefore investing in a comprehensive talent management programme. Our aim here is not just to train young people, but to promote lifelong learning at all levels. Our approaches to talent management focus as much on our employees' personal objectives as on the strategic direction of the bank. It is important to us that all measures are always transparent and that we foster our employees' networking. The new talent management concept was launched in May 2019 with a talent community. This allows talented employees to better share and learn from each other across business units. They are also given the opportunity to become actively involved in specific issues and engaged on the bank's behalf.

We also offer additional special opportunities for employees with potential. In the year under review, 44 high-achieving employees with huge potential were given the opportunity to develop their professional and personal skills through tailored development programmes.

Identification with the company

As the regular employee surveys show, we are successful in keeping employee commitment at a high level. The 2019 survey produced yet another excellent Commitment Index for the bank – 86 points and therefore 2 points higher than in 2017. Participation in the survey came in at 84 percent, which is similar to the high level seen in previous years.

We want to create a positive experience for potential recruits in order for them to perceive us as an attractive employer. Our employees also actively act as brand ambassadors by carrying over our corporate culture and corporate values as well as their enthusiasm for working in the bank into their personal lives. This positive image should help ensure that we are widely perceived as an employer of choice. We approach candidates individually and personally during the recruitment process. Interviews are conducted on the bank's premises, in an authentic working environment but in a comfortable setting. We show the candidates that we are interested in them as people.

Young professionals

With 410 apprenticeships, we are one of the largest providers of vocational training in the Canton of Zurich. We offer vocational training in the areas of banking and information technology. In 2019, 90 apprentices started their training with us. Since it began in 2019, the commercial apprenticeship programme has followed a new syllabus, which involves shorter, alternating assignments during the apprenticeship period and combines these with the skills that the apprentices are to acquire. This provides added value for both the apprentices and the bank.

The first university graduates began following the new trainee programme in summer 2019.

All 95 apprentices passed (82 bank apprentices and 13 IT apprentices). 50 of them also completed and passed the Federal Vocational Baccalaureate. We were once again able to meet our main objective of continuing to employ young employees in the bank after they have completed their apprenticeships, with 86.3 percent of those who graduated in the year under review pursuing their careers within the bank and gaining a great deal of valuable professional experience.

In addition to apprenticeships, we also offer internships for vocational school and high school graduates, as well as trainee programmes for university graduates and graduates of apprenticeship programmes. In 2019, there were 48 interns and 73 trainees working at the bank.

Basic training and further education

We find it extremely important that our employees continually expand their technical, methodological and social skills. We provide a wide range of internal classes, workshops, podcasts and videos, among other things, as well as the opportunity to attend external training and development courses.

In the year under review, we invested more than CHF 11.1 million in basic training and further education. 632 employees are currently taking part in a training course.

We are continuously expanding this offering to ensure that our proven learning portal continues to provide a needs-based range of courses to promote our employees' development and make them fit for the future. The focus in 2019 was on transformation and agility-related issues, as we believe that the acquisition of skills in these areas is vital to the success of our employees, our teams and our bank. Additionally, the range of courses for management staff as well as the new management training landscape became an increasingly well-established part of the overall offering.

Employer commitment

Flexible working models

We want our employees to be able to find a healthy balance between their professional commitments and their personal lives. To this end, we offer flexible working models and financial support for childcare, among other things. In total, 28 percent of our employees work on a part-time basis. We have also seen a slight increase in the number of part-time employees working in middle and senior management. The percentage of women working in senior management positions has likewise increased again.

Political engagement

Zürcher Kantonalbank supports employees if they choose to hold a political office. A total of around 120 employees are involved in politics, thus making a valuable contribution towards embedding our bank in both the political and social realms. The bank supports these non-profit activities with a month's worth of paid days off without any reduction in annual leave, for example. As an expression of the gratitude and appreciation we have for the commitment shown by these employees, the Committee of the Board's "Politics and Commitment" event was held in the year under review for the third time. Ernst Stocker, Member of the Government Council and Head of the Department of Finance of the Canton of Zurich, gave the participating employees a first-hand assessment of Zurich's opportunities and prospects as a business and financial centre.

Diversity & inclusion

We believe that the diversity of our employees offers the bank substantial added value. Furthermore, it reflects our equally diverse client structure. We are firmly committed to fairness and respect and promote equal opportunities – regardless of age, gender, sexual orientation, nationality, religion and physical condition.

Integration

We gave another three work-integration positions to people who require a programme specifically customised to their needs in order for them to enter the job market. We provide these people with tailored support and help them enter the working world, whether at our bank or another company.

Health

Our systematic approach to health management makes an important contribution to the work-life balance and well-being of our employees. This is reflected in the employee satisfaction survey conducted every two years. Healthcare and health promotion will thus continue to be an important aspect of our commitment as an employer. Our bank has been designated as a "Friendly Work Space" for the past five years. "Friendly Work Space" is a label that recognises companies for their exemplary occupational health management programmes. Our offers include financial support for health checks, free flu vaccinations in collaboration with the Swiss Association of Pharmacists, and support for sporting activities such as the "Bike to Work" campaign to promote health throughout Switzerland. We also provide our employees with ergonomically designed workstations, chill-out rooms and additional resources as needed. We are constantly optimising our measures with the aim of helping our employees to stay fit and healthy. We once again conducted seminars and workshops aimed at helping employees increase their personal resilience, avoid burnout and boost their sense of well-being. They were attended by 116 people in 2019.

Employee representation committee

The employee representation committee is made up of five members and constitutes itself. For the 2018–2022 legislative period, they have decided to appoint a new chairperson from among the elected employee representatives on an annual basis. The employee representatives of Zürcher Kantonalbank are supported by an employee committee.

GRI key figures[1] Employees

		2019	2018	2017	2016	2015
Employment (parent company)						
Number of employees (full-time equivalent)	Number	4,918	4,859	4,866	4,910	4,879
Turnover rate	%	5.8	6.3	5.7	5.9	6.8
Change in the number of jobs	%	1.1	–0.2	–0.9	0.6	3.7
Health and occupational safety (parent company)						
Lost days per employee as a result of sickness or occupational and non-occupational accidents	Days/ employee	6.8	6.9	6.8	7.1	7
Basic training and further education (parent company)						
Internal basic training and further education per employee	Hours/ employee	18.4	14.3	22.8	20.5	19.3
Percentage of employees on external courses	%	12.8	12.9	13.1	11.3	10.4
Diversity and equal opportunities (parent company)						
Percentage of women in total workforce	%	37.3	37.2	37.3	37.7	38.1
Percentage of women in middle management	%	36.5	35.1	34.3	34.2	33.2
Percentage of women in senior management	%	13.3	13.1	11.9	11.2	10.6

1 The Annual Report of Zürcher Kantonalbank has been prepared in line with the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI). The bank publishes a separate sustainability report on its website at www.zkb.ch/nachhaltigkeit

Employee benefits

Our employees are compensated according to the total compensation approach. Their compensation consists of a base salary, variable compensation based on the performance of the group, as well as statutory allowances and additional voluntary benefits. Please see the Compensation Report from page 83 onwards.

In the year under review, the Pension Fund of Zürcher Kantonalbank covered 5,400 active insured persons and 2,172 retirees. As at 31 December 2019, it managed assets of approximately CHF 4.628 billion and had a coverage ratio of 117.2 percent (unaudited). For further information on occupational pensions and employee benefits, please see Note 13.

Management Report

Business development

Material events

9 May 2019 Zürcher Kantonalbank launched another green bond in accordance with international standards. The issue of Zürcher Kantonalbank's second green bond met with encouraging demand once again. The volume of the bond issue reached CHF 200 million. Moody's rating agency also gave top marks to Zürcher Kantonalbank's second green bond.

30 July 2019 Zürcher Kantonalbank reached an agreement with GAM Holding AG (GAM) to take over the investment management and marketing of its four Swiss precious metals funds and GAM money market funds. The purchase price amounted to CHF 15 million, which corresponded to 0.6 percent of the acquired assets.

30 November 2019 As evidenced by Swiss fund market statistics, the Asset Management division of Zürcher Kantonalbank managed to exceed the magic level of CHF 100 billion in assets under management in the fund business for the first time last year with its Swisscanto Invest funds. This put Zürcher Kantonalbank's Asset Management division in third place among the top 50 fund providers in Switzerland.

19 December 2019 The Board of Directors decided to set aside the full amount of the endowment capital of CHF 575 million (endowment capital reserve), which had been approved by the Cantonal Parliament and had not yet been called on, as reserves for the bank's contingency plan. This allows the endowment capital reserve to be counted towards the gone concern capital component. As a result, this amount can now only be called on by order of FINMA or a FINMA-appointed restructuring official.

Excellent group results

Consolidated profit, which was extremely gratifying at around CHF 845 million, once again validates the broadly diversified business model and the strategy geared towards continuity, particularly as the past financial year was marked by a variety of challenging geopolitical events and a persistently negative interest rate environment. This affected the markets, as well, which were correspondingly volatile. Signs of stabilisation only became apparent in the fourth quarter.

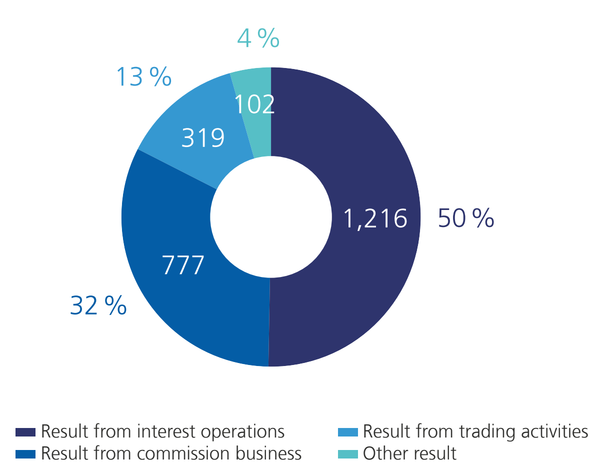
The excellent result is also reflected in the operating income. At CHF 2,413.8 million, it is around CHF 94 million higher than in the previous year. The bank succeeded in either matching or exceeding the previous year's results in all income categories. Forward-looking, cost-conscious management in 2019 helped keep operating expenses stable yet again.

The following section looks at the main income statement and balance sheet items and their development in financial year 2019.

Interest operations generate positive earnings despite challenging environment

At CHF 1,216.2 million, the net result from interest operations exceeded the already ambitious target from the previous year (CHF 1,212.9 million).

Breakdown of operating result (in CHF million / percent)



The negative interest charged by the Swiss National Bank amounted to CHF 154.4 million, and thus considerably exceeded the figure charged last year (CHF 135.6 million). This negative interest continued to be passed on in different ways on the interbank market and on the credit balances of corporate clients in financial year 2019. Retail clients, on the other hand, were still not charged any negative interest.

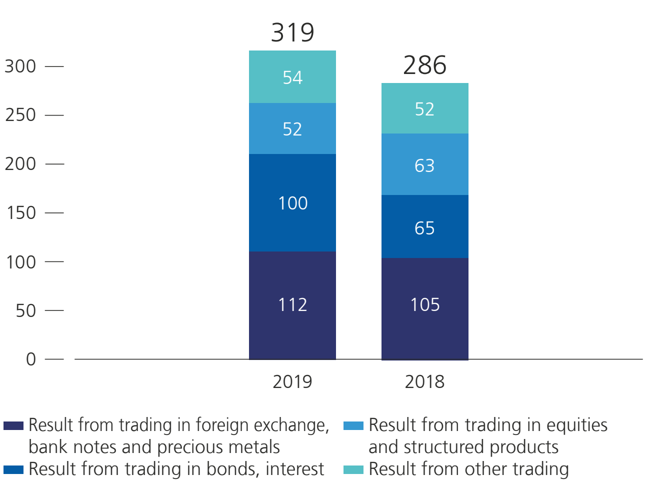
The result from interest operations also includes a net unwinding of value adjustments for defaults and losses from interest operations amounting to CHF 6.5 million (previous year: creation of CHF 10.1 million).

Continuing commission business and services

The result from commission business and services totalled CHF 776.8 million in financial year 2019, meaning that the bank once again succeeded in achieving or slightly exceeding the positive result of the previous year (CHF 775.8 million).

Nevertheless, commission income from securities trading and investment activities was CHF 786.2 million, around two percent below the previous year's target. This difference was offset by the other components. Commission income from the lending business, in particular, improved year-on-year. It totalled CHF 58.5 billion, which represents an increase of 17.3 percent or CHF 8.6 billion.

Breakdown of trading income (in CHF million)



At CHF 217.8 million, commission expense was also around CHF 6.3 million lower than in the previous year.

On the other hand, there were no significant changes in the composition of the commission and fee income.

Strong trading business

At CHF 318.9 million, income from trading operations, which depends largely on the client business, was considerably higher than the CHF 285.6 million recorded in the previous year.

Particularly income from trading in bonds, interest rate and credit derivatives, at CHF 100.5 million, exhibited a significant year-on-year increase (CHF 65.3 million). Most of the other sectors also reported better results than in the previous year. One exception to this is the result from trading in equities and structured products, which declined by CHF 11.1 million to CHF 52.4 million.

For further information, please see Note 32 to the Financial Report.

Higher other result from ordinary activities

The other result from ordinary activities amounted to CHF 102.0 million, a significant increase compared with the previous year. The CHF 56.1 million rise is attributable in particular to positive changes in the book value of financial assets.

Operating expenses remain unchanged

Operating expenses remained stable, with just a 0.9 percent increase over the previous year to CHF 1,443.2 million, thanks to a systematic and disciplined approach to cost monitoring.

At CHF 417.3 million, general and administrative expenses were actually down on the previous year (CHF 428.5 million).

A slightly higher headcount and slightly higher variable salary payments due to the good result led to personnel expenses of CHF 1,025.9 million (previous year: CHF 1,001.9 million).

For further information on personnel, general and administrative expenses, please see Notes 34 and 35 to the Financial Report.

Lower depreciation expenses

Expenses in connection with value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets in the year under review amounted to CHF 112.9 million (2018: CHF 191.8 million).

The previous year was strongly shaped by the consequences of the sale of a subsidiary. By contrast, no extraordinary events were recorded in the 2019 financial year.

Net creation of provisions

Value adjustments are made and provisions are created to the extent necessary in order to cover default risks and any other identifiable risks.

For the 2019 financial year, the item "Changes to provisions and other value adjustments and losses" shows net creation of CHF 11.6 million (2018: CHF 194.1 million).

The net release reported in the previous year was largely due to a one-off effect (provisions released in connection with the conclusion of the US Department of Justice investigation) and was therefore not representative.

The item "Changes in value adjustments for default risks and losses from interest operations" is a component of the result from interest operations. A comment regarding the item can be found in the section "Interest operations".

Extraordinary result from participations

The extraordinary result amounted to CHF 4.1 million, mainly due to the appreciation of participations amounting to CHF 3.9 million.

The previous year's figure of CHF 103.1 million was largely due to a one-off effect from the sale of a subsidiary.

Tax expenses amounted to CHF 5.3 million compared with CHF 6.9 million in the previous year.

Analysis of the financial and capital position

Reduction in the balance sheet total

The balance sheet total amounted to CHF 167.1 billion at the end of 2019, which represents a year-on-year decrease of CHF 2.4 billion or 1.4 percent.

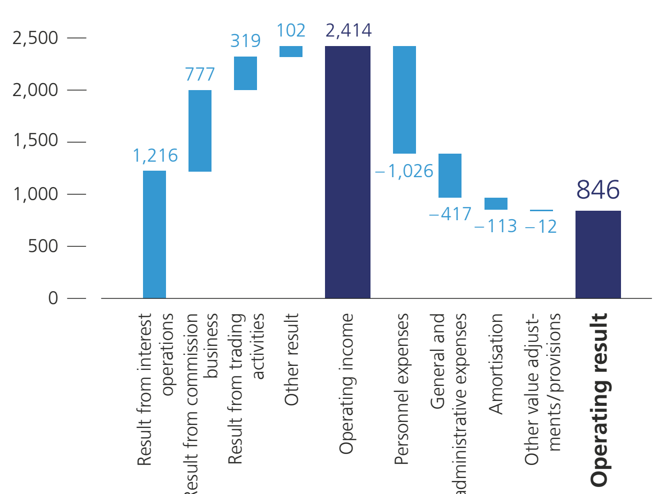
On the assets side, the change is mainly due to a decrease in liquid assets (down CHF 4.2 billion) and lower holdings in the securities financing business (down CHF 1.4 billion), with a simultaneous increase of CHF 3.1 billion in mortgage loans.

On the liabilities side, the lower amounts due to banks (down CHF 2.9 billion) were particularly significant. The decline in liabilities from securities financing transactions (down CHF 1.9 billion) was largely offset by bonds outstanding (up CHF 1.6 billion).

The composition of the asset side is still dominated by mortgage loans, which account for around half of the balance sheet total. At 22.0 percent, liquid assets still represent a significant position as well. This can be mainly attributed to applicable liquidity requirements.

The liabilities side was characterised by amounts due in respect of customer deposits, which was the largest balance sheet item at 50.9 percent and a main source of financing.

Breakdown of operating result (in CHF million)



Disclosures on significant components of the balance sheet

Comfortable liquidity situation

As a systemically important bank, Zürcher Kantonalbank is subject to stricter liquidity requirements.

Deposits with the Swiss National Bank, which are included in liquid assets, serve to meet these requirements. At the end of the year under review, these amounted to CHF 36.3 billion (previous year: CHF 40.6 billion).

Furthermore, the high-quality fixed-interest securities held as financial investments are also counted as liquidity.

At CHF 4.4 billion, the portfolio of financial investments is slightly lower than in the previous year, but still at a high level.

Zürcher Kantonalbank's comfortable liquidity situation is also reflected in its liquidity coverage ratio (LCR) of 123 percent.

Slight decline in interbank and securities financing business

The interbank and securities financing business is used for short and medium-term liquidity management. The assets in question can be correspondingly volatile.
At the end of the financial year 2019, amounts due from banks amounted to CHF 4.9 billion and were thus on a par with the previous year (CHF 4.8 billion).

As already mentioned, amounts due to banks were slightly lower at CHF 34.1 billion compared with the previous year (CHF 37.0 billion).

The same applies to securities financing, which recorded a year-on-year decline on both the assets and liabilities sides. At the end of 2019, amounts due from securities financing transactions amounted to CHF 15.6 billion (previous year: CHF 17.0 billion), and liabilities from securities financing transactions came to CHF 5.0 billion (previous year: CHF 6.9 billion).

Encouraging growth in loans

At the end of 2019, mortgage loans amounted to CHF 84.3 billion (previous year: CHF 81.3 billion). This constitutes an increase of 3.8 percent or CHF 3.1 billion. There was no material change in the maturity structure.

The quality of the loans and their collateral continues to be a key consideration. Accordingly, the bank continues to calculate a client's ability to afford a property in the current interest rate environment on the basis of an imputed mortgage interest rate of 5 percent.

Amounts due from customers (CHF 8.9 billion) also recorded growth of 5.1 percent or CHF 0.4 billion. This item includes all amounts due from non-banks that are not to be disclosed elsewhere.

Trading activities remain steady

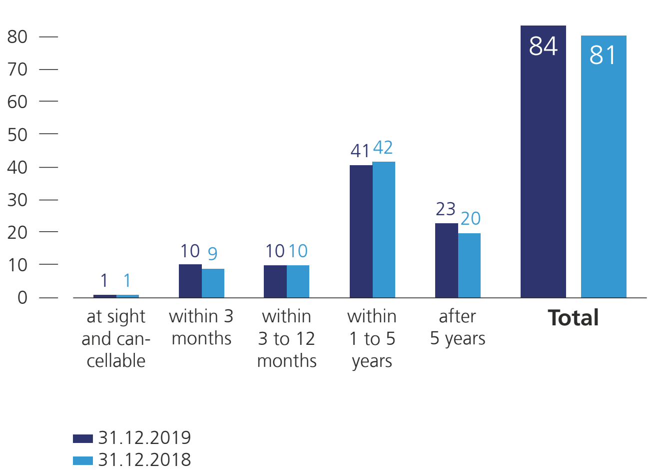
Trading positions posted a slight year-on-year decline to CHF 9.2 billion (previous year: CHF 9.4 billion).
A similar picture emerges with regard to trading portfolio liabilities, which amounted to CHF 2.1 million compared with CHF 2.4 million in the previous year.

On the other hand, liabilities from other financial instruments at fair value and the replacement values of derivative financial instruments experienced a year-on-year increase.

Further information on trading activities can be found in Notes 3 and 4 to the Financial Report.

For further information on market risk management, please see section 1.6 of the Risk Report.

Mortgage loan maturity structure (in CHF billion)



Participations, tangible fixed assets and intangible assets

Non-consolidated participations totalled CHF 138.3 million and were thus on a par with the previous year. For further information, please see Notes 6 and 7 to the Financial Report.

The tangible fixed assets in the amount of CHF 650.9 million mainly consist of bank premises and other properties. Investments in tangible fixed assets amounted to CHF 47.6 million during financial year 2019 compared with ordinary depreciation of CHF 73.6 million.

At CHF 108.0 million, goodwill was still the largest item recognised under "Intangible assets", which came to a total of CHF 122.5 million (previous year: 141.7 million).

Stable client deposits

Amounts due in respect of client deposits changed by only 0.5 per cent compared with the previous year.

At the end of 2019, the balance sheet showed a high level of CHF 85.1 billion. These included sight and time deposits in savings accounts as well as other client accounts.

Increase in bonds and central mortgage institution loans

Both the maturing bonds and the maturing central mortgage institution loans were fully replaced by new issues.

At the end of 2019, the bank reported outstanding bonds totalling CHF 13.3 billion, an increase of CHF 1.7 billion or 14.3 percent.

The increase in central mortgage institution loans was moderate at 3.3 percent. At year-end, central mortgage institution loans in the amount of CHF 9.8 billion were recognised.

For further information, please see Note 15 to the Financial Report.

Further strengthening of equity

Equity increased again on the back of the positive business result and the profit retained in the retained earnings reserves.

The equity reported in the balance sheet before appropriation of profit amounts to CHF 12.3 billion, an increase of CHF 485.5 million or 4.1 percent over the previous year.

It comprises the bank's capital (CHF 2.4 billion), retained earnings reserves and foreign currency translation reserves (CHF 8.9 billion), reserves established for general banking risks (CHF 200.0 million) as well as consolidated profit (CHF 845.0 million).

The bank's capital consists exclusively of endowment capital, which is made available to the bank by the Canton of Zurich for an unlimited term as equity.

Client assets

Assets under management increased by CHF 38.1 billion to CHF 333.3 billion in financial year 2019.

Thereof, approximately CHF 27.0 billion can be attributed to the positive performance (i.e. price gains/losses, interest, dividends and currency gains/losses). The net inflow of assets under management amounted to CHF 11.7 billion.

For further information, please see Notes 31a and 31b to the Financial Report.

Corporate Governance

We take our responsibility to the Canton of Zurich and its residents seriously. This is also reflected in our corporate management. We engage in open, transparent dialogue with our stakeholder groups. The management and organisation of our bank comprises the Board of Directors, the Board of Directors Committees, the Committee of the Board, the Audit Committee, the Auditor, the Cantonal Parliamentary Committee and the Executive Board. The Board of Directors, the Committee of the Board and the Executive Board ensure that the objectives of the public service mandate are fulfilled.

Basic principles

Zürcher Kantonalbank is a responsible bank which engages in a constant, open and transparent dialogue with its stakeholder groups. As an institution under public law, we are accountable in particular to the Canton of Zurich, its residents and the Cantonal Parliament, which is ultimately responsible for the supervision of the bank. The bank voluntarily adheres to the corporate governance principles set out in Art. 663b^{bis} of the Swiss Code of Obligations. In doing so, it draws, insofar as this is possible for a public-law institution, on the SIX Swiss Exchange Directive Corporate Governance of 20 March 2018 and the economiesuisse Swiss Code of Best Practice for Corporate Governance of 29 February 2016. Unless otherwise specified, all stated information is valid as at 31 December 2019.

Structure and ownership

Zürcher Kantonalbank is a public-law institution under the cantonal law of Zurich. In accordance with the Law on Zürcher Kantonalbank of 28 September 1997, version dated 1 January 2015 (Cantonal Bank Act), the bank's purpose is to contribute to addressing economic and social issues and support environmentally sustainable development in the Canton of Zurich. For information on the group structure and the scope of consolidation, please see the outside back cover 4, and page 99. For information on the development of equity, please see page 98.

Board of Directors and Committee of the Board

The Board of Directors consists of 13 members elected by the Cantonal Parliament for a term of four years. This number includes three full-time members of the Committee of the Board.

All of the members of the Board of Directors are Swiss citizens resident in the Canton of Zurich and are independent within the meaning of FINMA Circular 2017/1 "Corporate Governance – Banks". No member has ever served on the bank's Executive Board. None of the part-time members of the Board of Directors have significant business connections with the bank as defined in the SIX directive. The Committee of the Board is an independent body. Its members are subject to the same rules as all employees of Zürcher Kantonalbank, except for the provisions of the regulations approved by the Cantonal

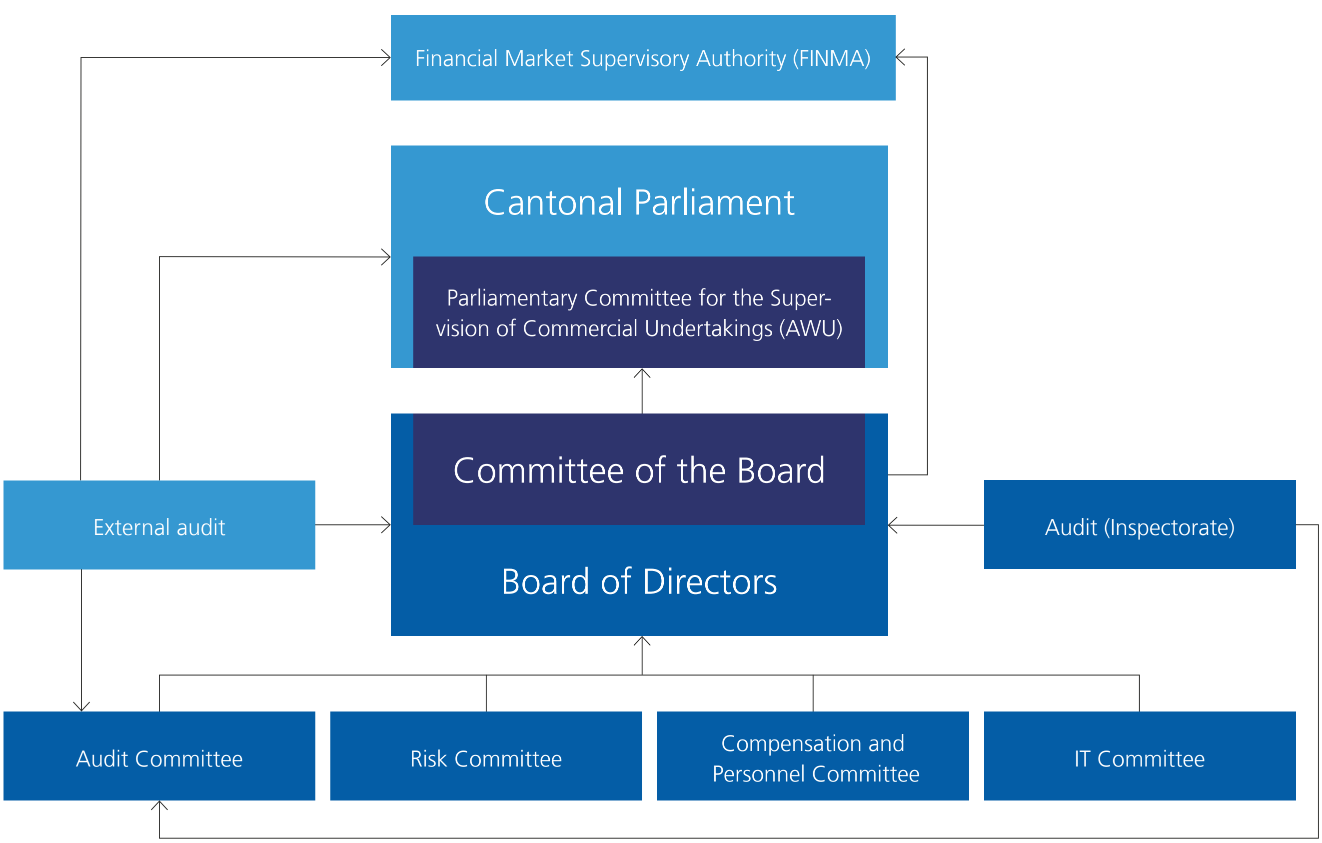
Parliament governing the compensation of the members of the Board of Directors of Zürcher Kantonalbank dated 25 November 2004.

The duties of the Board of Directors and Committee of the Board are set out in sections 15 and 16 of the Law on Zürcher Kantonalbank, sections 29, 30 and 33 of the bank's organisational regulations of 23 June 2011 and other specific regulations. As laid down in section 14, paragraph 3, of the Law on Zürcher Kantonalbank, members of the Board of Directors may not work for any other bank, be a member of the Government Council, Cantonal Parliament or highest cantonal courts, or work for the tax authorities.

The Cantonal Parliament of Zurich elects the members of the Board of Directors and the Committee of the Board for a four-year term of office. In doing so, it considers their personal characteristics such as assertiveness, credibility and integrity, and their suitability with regard to banking expertise, as well as regulatory requirements and proportional political representation. The professional criteria for each individual member of the Board of Directors are regularly assessed by external specialists. Members are eligible for re-election. There are no restrictions on periods of office for members of the Committee of the Board. For the other members of the Board of Directors, the total period of office may not exceed 12 years. The term of office for members of the Board of Directors ends at the latest on their 70th birthday. If members of the Committee of the Board reach their 65th birthday during their term of office, their time in office ends when their term of office expires.

For the current legislative period (July 2019 – end of June 2023), the Board of Directors consists of the persons listed in the table on page 65.

Corporate Governance at Board of Directors level



Members of the Board of Directors 2019–2023 legislative period

Dr Jörg Muller-Ganz	Chairman Member of the Board of Directors	since 01.07.2011 since 01.07.2007
Dr János Blum	Deputy Chairman Member of the Board of Directors	since 01.07.2011 since 06.05.2002
Roger Liebi (replacing Bruno Dobler)	Deputy Chairman Member of the Board of Directors	since 01.07.2019 since 01.07.2018
Amr Abdelaziz	Member of the Board of Directors	since 01.07.2015
Bettina Furrer (replacing Roger Liebi)	Member of the Board of Directors	since 01.07.2019
René Huber	Member of the Board of Directors	since 01.11.2014
Henrich Kisker	Member of the Board of Directors	since 01.07.2015
Mark Roth	Member of the Board of Directors	since 01.09.2013
Peter Ruff	Member of the Board of Directors	since 01.07.2011
Walter Schoch	Member of the Board of Directors	since 01.07.2015
Anita Sigg	Member of the Board of Directors	since 01.07.2011
Rolf Walther	Member of the Board of Directors	since 01.10.2010
Stefan Wirth	Member of the Board of Directors	since 01.07.2011

Internal organisation

Committee of the Board

Main responsibilities of the Committee of the Board: It

- prepares topics relating to strategy and corporate culture for submission to the Board of Directors
- scrutinises the decisions of the Executive Board and assures its direct supervision
- monitors the execution of resolutions passed by the Board of Directors
- approves unsecured loans in accordance with the delineation of powers laid down by the Board of Directors
- decides on the purchase and sale of real estate in addition to renovations and new building projects in accordance with the delineation of powers laid down by the Board of Directors
- approves the payment of invoices for building projects authorised by the Board of Directors
- takes decisions on providing assistance to economic, social and cultural institutions
- decides on the bank's membership of, and representation in, organisations
- consults the detailed monthly reports of the Executive Board
- is informed of new lending transactions that fall within the remit of the Executive Board
- is informed of the course of business at participations
- hires, dismisses and promotes members of senior management
- reviews the legal, tax and compliance reports on a half-yearly basis
- is regularly informed of major risk positions
- deals with pressing matters that fall under the responsibilities of the Board of Directors and subsequently obtains the Board's approval
- in the event of escalation decides on transactions with particular business policy risks, conflicts of interest and particular effects on reputation
- regularly checks the quality and efficiency of the fulfilment of the public service mandate

The Committee of the Board is an executive body in its own right alongside the Board of Directors. Under section 16 of the Law on Zürcher Kantonalbank, the Committee of the Board is responsible for the direct supervision of the Executive Board. In this context, the Committee monitors the implementation of decisions of the Board of Directors and compliance with statutory and regulatory requirements. Within the framework of such statutory and regulatory requirements, it takes decisions on various operational and electoral matters. The Committee of the Board ensures that the public service mandate is addressed by the Board of Directors and in this connection also bears responsibility for sustainability issues. Elections for a new term were held in the year under review.

The Committee of the Board consists of Jörg Müller-Ganz, János Blum and Roger Liebi. Jörg Müller-Ganz is the Chairman and János Blum is his deputy. Roger Liebi is the successor to Bruno Dobler, who retired on 30 June 2019 on reaching retirement age. Anita Sigg and Rolf Walther have been elected as substitute members of the Committee of the Board.

In addition to addressing strategic, planning, organisational and human resources questions as well as issues concerning the corporate culture, the Committee of the Board, in accordance with statutory and regulatory competencies, dealt at its weekly meetings in the year under review with lending and limit transactions within its area of responsibility following the applicable regulations, as well as transactions involving potential reputation risk. Members of the Executive Board, the Head of Audit and representatives of the specialist units were regularly invited to attend these meetings. The Committee of the Board met several times in its function as a strategic committee for the Board of Directors. In addition, it continuously dealt with current geopolitical and national events and their possible effects on the markets and the bank.

The Committee of the Board kept abreast of regulatory changes in the year under review and monitored the development of important bank projects. In addition, it prepared the elections for the new terms of the Board of Directors and the Committee of the Board, and looked at the succession planning for key individuals at the bank as well as the activities planned for the bank's anniversary celebrations in 2020. Besides deciding on any immediate measures to address objections in audit reports, the Committee of the Board closely oversaw the implementation of regulatory requirements and dealt with requests from the Financial Markets Supervisory Authority (FINMA) and the Cantonal Parliament addressed to the Board of Directors. The Committee of the Board maintained contact with FINMA, in particular in the context of developing the capital regime for systemically important banks with a domestic focus. In order to better promote the interests of Zürcher Kantonalbank among important decision-makers in politics and business, it continued to strengthen its collaboration with the Public Affairs specialist unit founded in 2015. The Committee of the Board maintained a personal dialogue with the Cantonal Parliament of Zurich – particularly the Parliamentary Committee for the Supervision of Commercial Undertakings (AWU) and executive board – as well as the State Council of Zurich, the executive authorities of towns and municipalities in the Canton of Zurich, and Zurich's representatives in the National Council and Council of States. The Committee of the Board held talks with the federal authorities on the revision of the Capital Adequacy Ordinance and on the contingency plan. It also decided on sponsorship commitments under the public service mandate. It cooperated with the Board of Directors Committees in preparing the substantive resolutions and personnel decisions as well as the basic principles for the statutory and strategic adjustment requirement on behalf of the Board of Directors and ensured their swift implementation. The Committee of the Board represented Zürcher Kantonalbank in regular discussions between bank chairmen in the context of the Association of Swiss Cantonal Banks as well as at a variety of representative cultural, political, environmental and business events. In accordance with an agreed timetable, the members of the Committee of the Board visited market areas and specialist units, subsidiaries and branches.

Board of Directors

Main responsibilities of the Board of Directors: It

- defines the principles of the corporate strategy, the mission statement, the business strategy and the organisational structure
- approves the risk policy, equity strategy, group-wide risk and global limits, equity investments and the general framework for group-wide risk management
- establishes and closes branches and establishes subsidiaries
- sets up an internal control system (ICS)
- determines the group and financial planning
- issues guidelines on human resources policy as part of the group strategy
- is informed quarterly on risk concentration in accordance with article 95, paragraph 1, of the Ordinance on Capital Adequacy and Risk Diversification for Banks and Securities Dealers
- is informed of the reporting on country limits
- consults the detailed quarterly reports of the Executive Board
- is regularly informed by the Executive Board of all relevant aspects of risk management
- approves unsecured loans in excess of CHF 1 billion
- is regularly informed of lending transactions that fall within the remit of the Committee of the Board
- approves the annual planning, annual and semi-

annual financial statements and the annual report including the compensation report
– hires and dismisses the members of the Executive Board and their deputies, branch managers at senior level, and the Head of Audit and his/her deputy
– decides on the annual distribution of profit to the canton and municipalities

The Board of Directors bears ultimate responsibility for the management of the bank and for the supervision of the individuals entrusted with its operational management (section 15 of the Law on Zürcher Kantonalbank).

The Board of Directors follows a structured annual cycle and examines the group strategy and analyses Zürcher Kantonalbank's strengths and weaknesses, opportunities and risks as well as the associated strategic risks. This includes the related planning, controlling and reporting activities, as well as regular examination of risk management, risk reporting, the regulatory audit report by auditors Ernst & Young AG (EY), and measures and reports relating to the public service mandate and sustainability. The Board of Directors also takes decisions on loan and limit applications as well as other transactions that fall within its remit. Elections for a new term of the Board of Directors were held in mid-2019.

In the year under review, the Board of Directors approved the acquisition of Swiss Re's employee mortgage loans and the acquisition of the equity brokerage business of Bank Vontobel Europe AG in London. It was informed about the purchase of GAM's precious metals ETF and money market business. As it does every year, the Board of Directors sought guidance on the effects on the bank of national and geopolitical events and conditions on the financial markets. In this context, it monitored developments in the negotiations regarding the bilateral agreement with the EU as well as developments related to national and international laws and regulations. It also dealt in particular with topics such as the state guarantee and the public service mandate. Due to the systemic importance of the bank, the Board also focused closely on both the contingency plan and the revision of the Capital Adequacy Ordinance and approved the updated stabilisation plan. The Board of Directors adopted the contingency plan and reclassified the unused portion of the CHF 575 million endowment capital into gone-concern capital, which FINMA may draw down in the event of insolvency. In addition, the Board of Directors received more detailed information on the interim status of the "Financial Management" project and on the following other topics: business continuity management, employee satisfaction survey, continuous auditing, modularisation and individualisation of the channels, deposit insurance, VAT risks and anniversary activities. One meeting of the Bank's Board of Directors was devoted primarily to the topic of innovation. Multiple topics were presented to the Board of Directors at this meeting, including a presentation on the bank's various activities in innovative financial technology.

In the year under review, the Board of Directors appointed Remo Schmidli to be the new Head of the Logistics business unit as of 1 July 2019 (since 1 October 2019: IT, Operations & Real Estate business unit), and Armin Keller to be his deputy as of 1 December 2019. The Board of Directors also appointed two new branch managers for the Egg and Adliswil branches.

Ten regular meetings were held; they were also attended by members of the Executive Board as well as the Head of Audit. Representatives of EY attended three meetings. The Board of Directors also held a two-day retreat to discuss strategic issues, namely various aspects of sustainability, and discussed adjustments to the group strategy. The adjusted group strategy, which focuses the bank's activities even more towards sustainability targets, was adopted at the end of the year.

Two members of the Board of Directors also made visits to ten branches and five specialist units.

Board of Directors Committees

Four committees assist the Board of Directors in its decisions by providing preliminary advice:
– Audit Committee
– Risk Committee
– Compensation and Personnel Committee
– IT Committee

The Board of Directors Committees have no decision-making powers; instead they have a preliminary consultative function, make proposals and give recommendations. Information on the work of the committees is presented at every meeting of the Board of Directors. Twice a year, the committee chairmen hold a joint coordination meeting with the Committee of the Board. Where possible, subjects concerning more than one committee are dealt with at joint meetings coordinated by the Committee of the Board. In addition, minutes of the individual committee meetings are submitted to all members of the Board of Directors.

Audit Committee

The Audit Committee supports the Board of Directors in its supervisory and control functions in accordance with section 15a of the Law on Zürcher Kantonalbank, section 32 of the organisational regulations of Zürcher Kantonalbank and FINMA Circular 2017/1 "Corporate Governance – Banks". Within its area of responsibility, it prepares specialist resolutions of the full Board of Directors and, in this regard, is responsible in particular for critically analysing the published annual and interim financial statements of the parent company and group. In addition, the Audit Committee assesses the functionality of the internal control system and appraises the audit plan and reports issued by Audit and the external auditors.

As at 31 December 2019, this Committee comprised Mark Roth (Chairman), Amr Abdelaziz, Bettina Furrer, René Huber and Henrich Kisker. The Head of Audit, Walter Seif, attends all meetings of the Audit Committee as a permanent guest.

The Audit Committee held a total of twelve meetings lasting several hours in 2019. All meetings with agenda items relating to financial planning, management and reporting were attended by the CFO. In relation to specific subject matters, the meetings were also regularly attended by the external auditors, the CEO, CRO and Head of Legal, Tax & Compliance. Depending on their importance, various agenda items were discussed in the presence of the Committee of the Board. The relevant management decision-makers were also involved in the discussions on a regular basis where needed.

At each meeting, attention focused on financial reporting (monthly, quarterly, half-yearly and annual reports including disclosures) as well as the external and internal audit reports. A total of 56 internal and 23 external audit reports were discussed. This also involved the assessment of the appropriateness of measures taken by the entities audited and reporting by Audit on the current implementation status of the measures decided.

At several meetings and at the annual workshop organised by Audit, key changes in the risk profile as well as the consequent setting of audit objectives for internal and external auditing were discussed. FINMA also presented its view to the Audit Committee as part of the supervisory risk analysis. It focused in particular on the systematic overall coverage of the supervisory audit universe in a multi-year cycle by internal and external auditors.

When the bank retendered the external audit mandate starting in the 2021 financial year, the Audit Committee carried out the tendering and evaluation procedure and made a final recommendation to the overall Board of Directors. The Audit Committee also focused on the revision of the internal control system.

Other important activities and those required by the regulator in the year under review included:
- analysis and assessment of reporting on the structure and effectiveness of the internal control system for all business units and subsidiaries of the bank
- discussion of the activity report by Legal, Tax & Compliance and a forward-looking assessment of statutory and regulatory developments
- critical assessment of the regulatory audit report, the comprehensive financial audit report and the special report from the external auditors for the attention of the Parliamentary Committee (AWU) regarding the bank's economic standing with respect to the state guarantee
- assessment of the performance of Audit
- assessment of the performance and compensation of the external auditors

With regard to financial management, the Audit Committee also examined the bank's financial strategic parameters in the year under review. The Audit Committee paid special attention to ensuring that risks are adequately accounted for when measuring profitability. Furthermore, the bank's financial value added was assessed and compared with other banks on the basis of the CFO's annual benchmarking study. Other important topics for the Audit Committee in the year under review included the business performance, annual and multi-year financial planning, as well as the contingency plan and the annual update of the stabilisation plan. The Audit Committee was then informed about current developments in the financial industry, such as cryptocurrencies, the expected-loss model in accounting or audit security in connection with outsourced services.

The Chairman of the Audit Committee regularly confers with the partners at the external auditors responsible for the regulatory and financial audits, as well as with the Head of Audit and the CFO. He is responsible for setting the Audit Committee's annual targets and for its systematic, thorough and critical self-assessment. He also briefs the Board of Directors – both regularly and ad hoc – on the Committee's activities as well as current issues and challenges.

Compensation and Personnel Committee

The Compensation and Personnel Committee (EPA) assists the Board of Directors in connection with the human resources strategy, as well as personnel and compensation policy. It assists the Board of Directors by providing preliminary advice and issuing recommendations on these matters.

As at 31 December 2019, the Compensation and Personnel Committee comprised Peter Ruff (Chairman), Amr Abdelaziz, Jörg Müller-Ganz, Anita Sigg and Stefan Wirth.

The Compensation and Personnel Committee met for ten regular meetings and one extraordinary meeting in the year under review, always with the participation of the Head of Human Resources or his deputy. Depending on the topic, the CEO, CFO, Head of Institutionals & Multinationals and other representatives of the specialist units participated in the meetings.

As is standard, the Compensation and Personnel Committee attended to succession planning, the implementation of the human resources strategy as well as to, in particular, matters related to compensation, promotions, disciplinary cases, dismissals, and staff training and development. For the Annual Report, it reviewed the Compensation Report and dealt with the compensation of the Executive Board, trading-related bonuses, the implementation of the group-wide salary and bonus system, and the parameters for the 2019–2021 long-term deferred component. The Compensation and Personnel Committee additionally discussed potential changes to the compensation system model and addressed the compensation systems used in subsidiaries and the 2019 equal-pay analysis. It also obtained guidance regarding salary trends on the market and the results of the 2019 employee satisfaction study.

In the year under review, the Compensation and Personnel Committee provided preliminary advice to the Board of Directors regarding the appointment of the new Head of the IT, Operations & Real Estate business unit, and on applications for branch manager appointments. The Compensation and Personnel Committee (EPA) again examined measures aimed at increasing the percentage of women in management positions in the year under review. It also sought information about the future-oriented strategic personnel projects.

Risk Committee

The Risk Committee assists the Board of Directors in monitoring the bank's risk management and compliance with regulatory requirements regarding the management of risk. It prepares the corresponding transactions for the Board of Directors.

As at 31 December 2019, this Committee comprised Rolf Walther (Chairman), János Blum, René Huber, Henrich Kisker and Anita Sigg.

The Risk Committee provides preliminary advice to the Board of Directors. It evaluates the quality, adequateness and effectiveness of the processes and procedures for identifying, assessing, limiting, controlling, monitoring and managing risks. It regularly consults standard reports, stress scenarios and risk reports. The quarterly report by the Chief Risk Officer giving an account of credit, market, liquidity, operating, compliance and reputation risks is an important tool for the Committee in terms of performing its role. It also takes note of changes relevant to risk, especially in connection with the mortgage business, international risks, a deterioration in the economic situation and other business areas. The Risk Committee keeps itself informed of credit exposures and limits, and periodically seeks information about lending and limit transactions that fall within the remit of the Board of Directors in particular. The Risk Committee provides preliminary advice on strategic credit and limit applications and other matters within the remit of the Board of Directors from a risk perspective; it evaluates annually the appropriateness of our bank's risk management processes, the completeness of the risk inventory and the risk profiles for both operational and compliance risk. It also submits to the Board of Directors recommendations concerning the group-wide risk framework, the requirements of the bank's risk policy and strategic risks. The Risk Committee also examines the findings in the risk-relevant audit reports and notes the minutes of the Risk Committee of the Executive Board.

The Risk Committee met on ten occasions in the year under review; almost all meetings were attended by the Chief Risk Officer, the Head of Risk Control and the Head of Audit. Depending on the subject matter, other representatives of the specialist areas also attended the meetings. The Committee again dealt with the risks of the real estate market and the effects of negative interest rates in the year under review, and received information on the topics of concentration risks, monitoring market risks, model validations, funding planning and liquidity management, as well as the model risk in trade valuation models. It monitored international developments in connection with country risks and dealt with the application concerning country categories. In addition, it received regular reports on liquidity risk management, cluster risks, the exposures to central counterparties, the 20 largest exposures and exception-to-policy transactions.

IT Committee

The IT Committee assists and advises the Board of Directors in the handling of all IT issues of strategic importance for the entire bank and provides it with relevant recommendations. For this purpose, it works to obtain a picture of the contribution of IT to the bank's performance. Furthermore, it assesses the cost (run) and investment framework (change) for IT by considering the potential effects on current and future courses of action as well as on business risks. Finally, it assesses the functionality of the management of IT risks with an impact on IT-related investment opportunities and risks.

As at 31 December 2019, the IT Committee comprised Walter Schoch (Chairman), Bettina Furrer, Roger Liebi and Stefan Wirth. The IT Committee held five regular meetings and one extraordinary meeting in the year under review, as well as one training event on the key topic of information management. The Head of the IT, Operations & Real Estate business unit attended each of these sessions.

The IT Committee examined strategic IT reports in detail on a quarterly basis. The Chairman of the IT Committee provided the Board of Directors with a report in each case. These reports included the key indicators for IT as well as the status of the most important IT programmes. In this respect, the Committee obtained guidance on the strategic priorities in the portfolio and the new IT operating model from individuals directly responsible for them. The strategic priorities include the programmes "Onboarding New Clients and Self Service", "Modularisation and Individualisation of Channels, Products and Service Modules" (uniform infrastructure and uniform appearance for all client segments across all channels) and "Document Management". In addition, portfolio planning and the reorganisation of financial management were dealt with in several meetings. The IT Committee was shown how financial resources are prioritised in accordance with the bank's strategic guidelines, and proactively influenced the allocation of funding in favour of the change.

The IT Committee dealt with matters related to IT security and IT compliance on a regular basis. It was informed, for instance, about the security roadmap and the projects "Identity & Access Management", "Network Structure" and "IT Service Continuity Management" contained therein, as well as about physical security. It also received an update on the status of the "Restoration of Data" project, and was introduced to the bank's new approach to managing operational risks. It also discussed with the responsible persons at ZKB Austria how they organise IT, focusing in particular on security aspects. The IT Committee examined a total of 16 audit reports with relevance to IT. It was also informed on a regular basis about the status of the findings by the external auditors.

For the purpose of gaining an overview of important IT matters, the Committee dealt with the development of IT in the investment business, as well as with IT support to secure compliance and regulation. Other key topics were the new digital workplace and cloud computing. In addition, the IT Committee was also briefed on further strategic IT projects, such as "Enterprise Application Integration", "Internet of Things", "Corporate API" and "Cash Management".

Audit

Audit is responsible for the group's internal audit. It is headed by Walter Seif and as at the end of 2019 had 52 employees (FTE). In organisational terms, Audit reports directly to the Board of Directors and is independent of the Executive Board. It assists the Board of Directors and its committees in fulfilling their supervisory and control tasks by using a systematic, risk-oriented approach to evaluate the effectiveness of risk management and controls as well as of the management, performance and monitoring processes, and submitting recommendations for optimisation. Audit also checks the bank's compliance with regulatory provisions, internal directives and guidelines in all areas of the business. To perform its audit role, Audit has unlimited rights of inspection, information and access within the bank and group companies. Audit is not bound by any directives in substantive terms in the drafting of its reports, which are generally drawn up for the attention of the Audit Committee of the Board of Directors, the Committee of the Board (which can take immediate measures), occasionally other bank committees, the members of the Executive Board, other managers and the external auditors. Audit follows strict quality guidelines and designs its procedures in accordance with recognised international auditing standards, the standards and the Code of Ethics of the Institute of Internal Auditors (IIA).

External auditor

Under the Law on Zürcher Kantonalbank, the Cantonal Parliament appoints the external auditors for a two-year period. The external auditors must be recognised by the Swiss Financial Market Supervisory Authority (FINMA). On 14 May 2018, the Cantonal Parliament confirmed the appointment of EY (since 1989) as external auditors for 2019 and 2020. Bruno Patusi was the lead auditor for the financial audit (since 2018). Prof. Andreas Blumer is the lead auditor for the regulatory audit (and has been since 2013). In the year under review, EY charged CHF 4.2 million for regulatory audits (basic and additional audits), the audit of the annual financial statements of the bank and group companies as well as the consolidated financial statements (2018: CHF 4.3 million). EY charged CHF 20,000 (2018: CHF 32,000) for additional consulting services and CHF 48,000 (2018: CHF 87,000) for audit-related services. Furthermore, EY charged CHF 3.2 million (2018: CHF 3.5 million) via group companies for auditing collective capital investments. The external auditors work together with Audit and, to the extent permitted, base their work on that of Audit. The tools used to inform the Board of Directors include reports on the regulatory and financial audits as well as reports on any interim audits and summary audits. The external auditors also attend meetings of the Board of Directors or its committees where necessary.

Cantonal Parliamentary Committee

Responsibility for the ultimate supervision of Zürcher Kantonalbank lies with the Cantonal Parliament. Its duties are set out in section 11 of the Law on Zürcher Kantonalbank. In addition to the election of the members of the Board of Directors and Committee of the Board, they include approving the guidelines on the fulfilment of the public service mandate, the regulations governing the compensation paid to members of the Board of Directors, and the annual financial statements and annual report of the bank, as well as discharging the governing bodies. The Cantonal Parliament of Zurich has charged the Parliamentary Committee for the Supervision of Commercial Undertakings (AWU) with ultimate supervision in accordance with section 12 of the Law on Zürcher Kantonalbank. This standing, supervisory Cantonal Parliamentary Committee inspects the minutes of the Board of Directors and, depending on the matter concerned, obtains information from the Chairman, the Committee of the Board, members of the Board of Directors, the Chief Executive Officer, other members of the Executive Board or representatives of the external auditors with regard to the activities, course and results of the bank's business and any important events. As at 31 December 2019, this Cantonal Parliamentary Committee comprised the following members:

André Bender, SVP	Chairman
Isabel Bartal, SP	Member of the Committee
Carola Etter, FDP	Member of the Committee
Astrid Furrer, FDP	Member of the Committee
Hanspeter Göldi, SP	Member of the Committee
Barbara Günthard Fitze, EVP	Member of the Committee
Daniel Heierli, Greens	Member of the Committee
Stefanie Huber, GLP	Member of the Committee
Selma L'Orange Seigo, Greens	Member of the Committee
Thomas Lamprecht, EDU	Member of the Committee
Orlando Wyss, SVP	Member of the Committee

Focus of the risk strategy and risk profile

For information on the focus of the risk strategy and the risk profile, please see the Risk Report from page 134 onwards.

Information and control instruments

The Board of Directors and Committee of the Board are regularly briefed on the course of business and the main activities of the Executive Board as well as on significant developments. At the invitation of the Committee of the Board, members of the Executive Board attend meetings of the Board of Directors to inform its members on current issues and are involved in the strategy and planning. The Committee of the Board scrutinises all minutes of the meetings of the Executive Board, business units and committees. If required, the remaining members of the Board of Directors request additional information to the minutes. At least once every quarter, the Board of Directors receives a detailed briefing on the course of business, developments in key risk categories (including compliance risks) and the status of important projects. This also includes monitoring of reputation risks. The Legal, Tax & Compliance business unit reports directly to the Board of Directors and Executive Board in accordance with margin no. 78 et seqq. FINMA Circular 2017/1. The Anti-Money Laundering unit also reports to Legal, Tax & Compliance. Moreover, Zürcher Kantonalbank has an Audit unit that reports directly to the Board of Directors and is independent of the Executive Board. Audit assists the Board of Directors and the Committee of the Board in fulfilling their supervisory and control tasks, and has unlimited rights of inspection and information within the bank. It reports to the Audit Committee and the Committee of the Board, and as required but at least once per year, to the Board of Directors. The Parliamentary Committee for the Supervision of Commercial Undertakings (AWU) of the Cantonal Parliament of Zurich monitors the fulfilment of the public service mandate in accordance with section 12 of the Law on Zürcher Kantonalbank. This is primarily based on an annual focus report, the theme of which changes annually depending on the AWU's requests as well as the annual report (including the sustainability report), which also accounts for the bank's fulfilment of the public service mandate.

Compensation of the members of the Board of Directors and the Executive Board

For detailed information on the compensation of the members of the Board of Directors and the Executive Board and the process underlying the determination of the amounts to be compensated, please see the Compensation Report from page 83 onwards.

Public service mandate

As part of the strategy process, the Board of Directors, Committee of the Board and Executive Board deal on a regular basis with the subject of the public service mandate. They ensure that the bank's legal requirements and strategically defined targets are met. The Committee of the Board is assigned special responsibility for control and monitoring in this regard (sections 9 and 10 of the Guidelines for the Fulfilment of the Public Service Mandate). The central body is the internal Public Service Mandate Steering Committee, which is chaired by the officer responsible for the public service mandate. The committee advises and supports the bank's governing bodies and business units on all aspects of the public service mandate and reports annually on the fulfilment of the mandate to the supervisory committee of the Cantonal Parliament. All business units are represented on the Public Service Mandate Steering Committee by a manager with responsibility for the relevant area. The Public Service Mandate specialist area is part of Corporate Development. It coordinates planning, implementation and reporting with regard to the fulfilment of the public service mandate and all associated activities. It also prepares the business of the Public Service Mandate Steering Committee. Various specialist areas within the individual business units assist with the achievement of objectives.

Executive Board

The Executive Board of Zürcher Kantonalbank has nine members. It is headed by Martin Scholl (Chief Executive Officer, CEO). Under section 17 of the Law on Zürcher Kantonalbank, the Executive Board is responsible for managing the bank's operations. The members of the Executive Board occupy an advisory role on the Board of Directors and the Committee of the Board. The Executive Board is responsible for business as well as human resources matters where they concern the management of the bank.

With the exception of Audit, it is responsible for the appointment and dismissal of members of senior management. The duties of the Executive Board are governed by the law and regulations. Its organisational structure is set out in the regulations governing the Executive Board (group and parent company) of 23 June 2011. Sections 8 to 10 of these regulations govern its joint area of responsibility. Under section 11 of the regulations, the Chief Executive Officer is responsible for managing the Executive Board, implementing the group mission statement and group strategy, the organisation and management guidelines, representing the Executive Board outside the bank, coordinating the business activities of the Executive Board, and ensuring that the duties assigned by the Board of Directors and the Committee of the Board are carried out. The Chief Executive Officer reports to the Committee of the Board and Board of Directors. Subject to the responsibilities of the Board of Directors and the Committee of the Board, the individual members of the Executive Board report to the CEO.

Members of the Executive Board

All members of the Executive Board are Swiss nationals. For information on compensation, profit-sharing and loans, please see page 89 of the Compensation Report. As at 31 December 2019, the Executive Board comprised the following members:

Martin Scholl	Chief Executive Officer Member of the Executive Board	since 01.06.2007 since 01.01.2002
Christoph Weber	Deputy Chief Executive Officer Member of the Executive Board	since 01.01.2014 since 01.08.2008
Jürg Bühlmann	Member of the Executive Board	since 01.07.2012
Stephanino Isele	Member of the Executive Board	since 01.04.2014
Heinz Kunz	Member of the Executive Board	since 01.01.2011
Roger Müller	Member of the Executive Board	since 01.01.2014
Daniel Previdoli	Member of the Executive Board	since 01.12.2007
Remo Schmidli	Member of the Executive Board	since 01.07.2019
Rudolf Sigg	Member of the Executive Board	since 27.11.2008

For further information about the individual members of the Executive Board, please see pages 79–81.

Areas of responsibility

The responsibilities of the Committee of the Board, Board of Directors, Executive Board and external auditors are governed by the Law on Zürcher Kantonalbank of 28 September 1997 (sections 15 to 18) and the organisational regulations of the Zürcher Kantonalbank group of 23 June 2011 (sections 29 to 37 and section 39).

Management contracts

No management contracts as defined in the annex to the SIX Swiss Exchange Directive Corporate Governance have been concluded by the group or its subsidiaries with any third parties.

Communication policy

Zürcher Kantonalbank pursues a transparent communication policy towards its stakeholder groups. The most important communication tools are the comprehensive annual and sustainability report, the half-yearly report and press conferences. The 2019 annual results were announced on 7 February 2020 and the Annual Report is set to be approved by the Cantonal Parliament on 18 May 2020. The bank's half-yearly results are expected to be published at the end of August 2020.

Committee of the Board

Jörg Müller-Ganz

Chairman
Dr. oec. HSG
Swiss/German national; born in 1961

Key mandates:
Member of the Boards of Trustees of Innovationspark, Zurich, Zurich Zoo, Zurich, and ETH Foundation, Zurich; member of the Boards of Directors of Technopark Immobilien AG, Zurich, and Opo Oeschger AG, Kloten

Dr. oec. Jörg Müller-Ganz, who holds a doctorate in economics from the University of St. Gallen, was elected to the Board of Directors in 2007 and the Committee of the Board in October 2010. From 1992 to 2010, he worked as a consultant, CEO and partner at the Helbling Group. He also lectured on the subject of corporate finance at various universities. Prior to that, he worked at Bank Vontobel and Credit Suisse. He is a member of the Compensation and Personnel Committee of the Board of Directors of Zürcher Kantonalbank. He was appointed Chairman of the Board of Directors of Opo Oeschger AG, Kloten, in 2015.

János Blum

Deputy Chairman
Dr. sc. math. ETH and lic. oec. HSG
Swiss/Hungarian national; born in 1957

Key mandates:
Chairman of the Management Committee and employer representative of the Pension Fund of Zürcher Kantonalbank, Zurich; Chairman of the Board of Trustees and employer representative of the Marienburg Foundation of Zürcher Kantonalbank, Zurich; member of the Boards of Trustees of the Center for Corporate Responsibility and Sustainability at the University of Zurich, Zurich, and the Chance foundation, Zurich; Chairman of the Board of Directors of Theater Winterthur AG, Winterthur; partner in Blum Real GmbH, Hungary

János Blum, who holds a doctorate in mathematics from the ETH Zurich and a master's degree in economics from the University of St. Gallen, was elected to the Board of Directors in 2002 and to the Committee of the Board in 2011. From 1989 to 2011, he worked as an actuary. Following various roles with Swiss Re, he was appointed Chief Actuary at Zurich Re and subsequently at Allianz Risk Transfer. He went on to work for Milliman AG and as partner for Prime Re Solutions AG, which both specialise in business consulting in the insurance and finance sectors. He has served as Chairman of the Board of Directors of Theater Winterthur AG since August 2019 and, since 2015, he has been Chairman of the Board of Trustees and employer representative of the Pension Fund and the Marienburg Foundation of Zürcher Kantonalbank as well as a member of the Zürcher Kantonalbank Risk Committee, which he chaired between 2003 and 2011. Dr János Blum is a partner in Blum Real GmbH, Hungary.

Roger Liebi

Deputy Chairman
Banker, BoD certification from SAQ
Swiss national; born in 1961

Key mandates:
Member of the Board of Trustees of the BlueLion Incubator, Zurich; member of the Board of Trustees of the Excellence Foundation for Economic & Social Research, University of Zurich, Zurich; member of the Advisory Board of Umwelt Arena Schweiz, Spreitenbach

Roger Liebi was elected to the Committee of the Board in June 2019 to succeed Bruno Dobler. He has been a member of the Board of Directors since 2018. He started his professional career in 1981 at the Union Bank of Switzerland in Thun. He then went on to gain more experience in commerce, the retail client business and as a foreign exchange and money market dealer in Thun, Gstaad, Berne and Neuchâtel. Next, his path led him to a position with the rank of Vice-Director in the world of international private banking. From 2004 to 2015, for instance, he worked for the partially state-owned Scandinavian Nordea Bank (Switzerland) as regional manager in charge of several countries. In 2017, Roger Liebi became a self-employed executive search consultant and sports agent. In addition to this, he was also involved in the Zurich Banking Association, entrepreneur groups and as the chairman of an NGO. He was a member of Zurich City Parliament from 2002 to 2017. From 2015 to 2018, Roger Liebi served as a member of the Cantonal Parliament, where he headed up the Committee for Economic Affairs and Taxation of the Cantonal Parliament of Zurich. He is a member of the IT Committee of the Board of Directors of Zürcher Kantonalbank.

Board of Directors

Amr Abdelaziz

Member of the Board of Directors
lic. iur. attorney-at-law
Swiss/Egyptian national; born in 1977

Key mandates: None

Amr Abdelaziz studied law at the University of Zurich and the University of Geneva, and completed a Master of European Law degree (LL.M.) at the College of Europe in Bruges, Belgium. He was elected to the Board of Directors in 2015. From 2007 to 2015, he worked as a lawyer at CMS von Erlach Poncet AG, Zurich, specialising in cartel investigations. He now runs his own law firm in Zurich. He is a member of the Audit Committee and the Compensation and Personnel Committee of the Board of Directors of Zürcher Kantonalbank.

Bettina Furrer

Member of the Board of Directors
Dr. sc. ETH Zurich and Prof. ZFH
Swiss national; born in 1970

Key mandates:
Member of the Board of Directors of Technopark Winterthur AG, Winterthur

Bettina Furrer was elected as a new member of the Board of Directors in June 2019. She studied environmental science at the Swiss Federal Institute of Technology Zurich and earned a doctorate in economics. She also completed the Executive Management Programme at the Swiss Banking School, Zurich, with distinction. From 1995 to 2003, she held a management position with the rank of Vice President at UBS AG. She was subsequently employed by Zurich University of Applied Sciences, Winterthur, where she served as a lecturer (2004–2011) as well as a professor and Head of the Institute of Sustainable Development (2012–2018). Between 2014 and 2018 she was also Deputy Head of SCCER CREST, the Swiss Competence Center for Research in Energy, Society and Transition. As a Member of the Sustainability Advisory Board, she advised the management of Basler Kantonalbank, Basel, and Bank Cler, Basel, from 2016 to 2019. She is a member of both the Audit Committee and the IT Committee of the Board of Directors of Zürcher Kantonalbank.

René Huber

Member of the Board of Directors
Swiss certified banking expert
Swiss national; born in 1956

Key mandates:
Mayor of the political municipality of Kloten; Chairman of the Board of Directors of the Glatt Valley transport authority (Verkehrsbetriebe Glattal AG), Glattbrugg; member of the Board of Directors of Seitzmeir Immobilien AG, Zurich

René Huber has been a member of the Board of Directors since 1 November 2014. He has served as the Mayor of Kloten since 2006, and has been Chairman of the Board of Directors of the Glatt Valley transport authority, Glattbrugg, since 2011 and a member of the Board of Directors of Seitzmeir Immobilien AG, Zurich, since 2016. He was a senior adviser of retail clients at UBS AG in Kloten until October 2014, after having occupied various roles at UBS AG. He is a member of the Management Committee (as employer representative) of the Pension Fund of Zürcher Kantonalbank and a member of the Audit Committee and Risk Committee of the Board of Directors of Zürcher Kantonalbank.

Henrich Kisker

Member of the Board of Directors
Swiss Certified Accountant
Swiss/German national; born in 1955

Key mandates:
Directorships in certain group companies of Senior plc, Rickmansworth (UK); Delegate of the Boards of Directors of NF Technology Holding AG, Zurich, and its subsidiaries, Schmid & Partner Engineering AG, Zurich; ZMT Zurich; MedTech AG, Zurich, and TI Solutions AG, Zurich; Member of the Board of the Kirchgemeinde Stadt Zürich (Evangelical Reformed Church of Zurich)

Henrich Kisker is a Swiss Certified Accountant. He was elected to the Board of Directors in 2015. From 1992 to March 2017, he held the position of Director of Tax and Treasury at Senior plc, Rickmansworth (UK). Between 1989 and 1992, he worked as Lead Auditor for Arthur Andersen AG, Zurich. He is a member of the Audit Committee and the Risk Committee of the Board of Directors of Zürcher Kantonalbank.

Mark Roth

Member of the Board of Directors
Swiss Certified Accountant
Swiss national; born in 1974

Key mandates:
Member of the Boards of Directors of Theodor Zemp AG, Zurich, Prewo AG and Prewo Wohnbau AG, Zurich, BTAG Management AG, Zurich, Budliger Treuhand AG, Zurich, Treuhandgesellschaft Hebeisen Kälin AG, Zurich, Delta Technik AG, Zug, and Energy Invest Consulting AG, Zurich

Mark Roth has been a member of the Board of Directors since 2013. He has been a Member of the Board of Directors of Theodor Zemp AG, Zurich, since 2019; the Chairman of the Board of Directors of Prewo AG and Prewo Wohnbau AG, Zurich, since 2018; a member of the Board of Directors of Energy Invest Consulting AG, Zurich, since 2019; BTAG Management AG, Zurich, since 2017; Delta Technik AG, Zug, since 2016; Budliger Treuhand AG, Zurich, since 2014; and Treuhandgesellschaft Hebeisen Kälin AG, Zurich, since 2014. From 2011 to 2014, he acted as finance delegate within the Executive Committee of the SP Zurich City. He has been a member of the Executive Board and Head of Auditing for Budliger Treuhand AG in Zurich since 2009. Prior to this, he worked for Itema (Switzerland) Ltd. in Rüti and Ernst & Young, Zurich, in both Zurich and Amman (Jordan). Mark Roth is Chairman of the Audit Committee of the Board of Directors of Zürcher Kantonalbank.

Peter Ruff

Member of the Board of Directors
dipl. Ing. FH
Swiss national; born in 1956

Key mandates:
member of the Boards of Directors of Exploris AG, Zurich, and Exploris Health AG, Zurich; partner in Unimex GmbH, Zug

Peter Ruff joined the Board of Directors in 2011. The certified engineer has been the owner and CEO of Exploris AG and Exploris Health AG, which specialise in diagnostic solutions and data analysis in the healthcare industry, since 2002 and 2018, respectively. From 1994 to mid-2017, he was a member of the Board of Directors and co-owner of Ruf Group, an information technology business. In 2019 he was elected as a member of the Board of Trustees of the Marienburg Foundation of Zürcher Kantonalbank. He has been a member of the Management Committee and employer representative of the Pension Fund of Zürcher Kantonalbank since 2015. Peter Ruff chairs the Compensation Committee and the Personnel Committee of the Board of Directors of Zürcher Kantonalbank.

Walter Schoch

Member of the Board of Directors
dipl. El. Ing. FH Technikum Winterthur; MA in Theology at the University of Lampeter, UK
Swiss national; born in 1956

Key mandates:
Chairman of the Supervisory Committee of Höhere Fachschule Uster; Member of the Board of Trustees of Bibelheim Männedorf

The engineer and theologian Walter Schoch was elected to the Board of Directors in 2015. He was a member of the Cantonal Parliament from 2007 to 2015 and serves as Justice of the Peace in the municipalities of Bauma, Wila and Wildberg. After working for BBC Oerlikon as a project manager (1982 to 1983) and for Imeth AG, Wetzikon, as technical director (1983 to 1987), he worked for Swisscom AG, Zurich, from 1987 to 2003 as key account manager, senior project manager and divisional director. In 2005, Walter Schoch began his studies at the University of Lampeter in the UK, while simultaneously managing the MEOS Media department at MEOS Svizzera. From 2007 to 2010, he headed up the Swiss Mission Fellowship's office in Winterthur. Since 2019, he has been a substitute member of the Management Committee and employer representative of the Pension Fund of Zürcher Kantonalbank. He chairs the IT Committee of the Board of Directors of Zürcher Kantonalbank.

Anita Sigg

Member of the Board of Directors
lic. oec. publ.
Swiss national; born in 1966

Key mandates:
Member of the awards committee of Sustainable Harvest Switzerland, Zurich; member of the Board of Trustees of Ökopolis Foundation, Zurich

Anita Sigg has been a member of the Board of Directors since 2011. Since 2003, she has been a lecturer, project manager and Head of the Centre for Banking and Finance at the Zurich University of Applied Sciences in Winterthur. An economist, she is also a trustee of the Ökopolis Foundation. She previously held various management positions at Zürcher Kantonalbank within the Corporate Centre and in sales management. Anita Sigg is a member of the Risk Committee and the Compensation and Personnel Committee of the Board of Directors of Zürcher Kantonalbank.

Rolf Walther

Member of the Board of Directors
Graduate in business management
Swiss national; born in 1951

Key mandates:
Chairman of the Board of Directors and CEO of Walther Beratungen AG, Zurich

Rolf Walther, an economist and self-employed businessman, was elected to the Board of Directors in 2010. Prior to becoming an entrepreneur, he held various positions with UBS over a period of 29 years. From 2003 to 2010, he was a member of the Cantonal Parliament. From 2015 to 2019 he was a substitute member of the Management Committee and employer representative of the Pension Fund of Zürcher Kantonalbank. He has chaired the Risk Committee of the Board of Directors of Zürcher Kantonalbank since 2011.

Audit

Stefan Wirth

Member of the Board of Directors
dipl. Ing. ETH/BWI
Swiss national; born in 1961

Key mandates:
None

Stefan Wirth has been a member of the Board of Directors since 2011. A mechanical engineer and business administrator, he headed up software development at Credit Suisse Asset Management until 2003. He is an independent IT and organisational consultant, and implements projects for various banks in his role as project manager and business engineer. Stefan Wirth is a member of the IT Committee and of the Compensation and Personnel Committee of the Board of Directors of Zürcher Kantonalbank.

Walter Seif

Head of Audit
Swiss Certified Accountant;
graduate in business management
Swiss/UK national; born in 1962

Key mandates:
Chairman of the Internal Audit Association of the Swiss Cantonal Banks; member of the Board of Directors of the Institute of Internal Auditing Switzerland (IIAS)

Walter Seif has held the position of Head of Audit since 1 January 2015. He joined Zürcher Kantonalbank in April 2014. He previously worked in various internal audit roles at a major bank over a period of 23 years.

Executive Board

Martin Scholl

Chief Executive Officer (CEO)
Swiss certified banking expert
Swiss national; born in 1961

Key mandates:
Member of the Board of Directors of the Swiss Bankers Association, Basel; member of the Board of Directors of the Association of Swiss Cantonal Banks, Basel; Chairman of the Board of Directors of ZüriBahn AG, Zurich

Martin Scholl became Chief Executive Officer in 2007. He has been a member of the Executive Board since 2002. Martin Scholl was Head of Corporate Banking until 2005, before being appointed Head of Retail Banking in 2006. After completing his apprenticeship in banking at Zürcher Kantonalbank, he was employed in various roles. In 2001, he led the credit management department, and from 1996 to 2001 was Head of Distribution for Commercial and Corporate Clients. Martin Scholl is a member of the Board of Directors of the Swiss Bankers Association; Deputy Chairman of the Association of Swiss Cantonal Banks, Basel; Chairman of the Board of ZüriBahn AG, Zurich; member of the Board of Directors of Venture Incubator AG, Zug; and member of the Board of Trustees of the FCZ Museum Foundation, Zurich.

Christoph Weber

Head of Private Banking, Deputy Chairman of the Executive Board
Swiss certified banking expert
Swiss national; born in 1959

Key mandates:
Chairman of the Supervisory Board of Zürcher Kantonalbank Österreich AG, Salzburg

Christoph Weber was appointed Head of Private Banking and a member of the Executive Board in 2008. Prior to that, he was Head of Private Banking North and a member of the Executive Board at Banca del Gottardo. From 2000 to 2006, Christoph Weber was a member of the Executive Board of AAM Privatbank AG, where he was responsible for sales to institutional and retail clients and a member of senior management at Basellandschaftliche Kantonalbank (BLKB). Christoph Weber is Chairman of the Supervisory Board of Zürcher Kantonalbank Österreich AG, Salzburg.

Jürg Bühlmann

Head of Corporate Banking (from 1 January 2020)
Dr. oec. publ.
Swiss national; born in 1967

Key mandates:
Member of the Board of Directors of SIX Group

Dr Jürg Bühlmann was appointed to take over from Heinz Kunz as Head of Corporate Banking with effect from 1 January 2020. From 2012 to June 2019, he headed up the Logistics business unit as a member of the Executive Board. He studied business management at the University of Zurich, where he gained a doctorate. His initial role with Zürcher Kantonalbank was in Controlling. From 2002 until his appointment as a member of the Executive Board, he held a variety of positions within the Logistics business unit. His main duties were the management of strategic IT projects, a sub-area of the IT unit and the Real Estate unit.

Stephanino Isele

Head of Institutionals & Multinationals
Dr. oec. publ.
Swiss national; born in 1962

Key mandates:
Member of the Board of Directors of Swisscanto Holding Ltd. and Swisscanto Swiss Red Cross Charity Fund (SICAV), Zurich; Vice Chairman of the Boards of Trustees of Swisscanto Anlagestiftung, Zurich, and Swisscanto Anlagestiftung Avant, Zurich; member of the Regulatory Board of SIX Swiss Exchange AG, Zurich; member of the Advisory Board of Zurich University's Department of Banking and Finance (IBF); member of the Board of Trustees of the Swiss Finance Institute, Zurich

Dr Stephanino Isele has been Head of Institutionals & Multinationals since 1 April 2014. He joined Zürcher Kantonalbank on 1 January 2008 as the Head of Trading, Sales & Capital Markets after holding various national and international roles at J.P. Morgan & Co. and Morgan Stanley in London, most recently as COO, where he dealt with equity derivatives. He has been Vice Chairman of the Boards of Trustees of Swisscanto Anlagestiftung, Zurich, and Swisscanto Anlagestiftung Avant, Zurich, since 2017, as well Vice Chairman of the Board of Directors of Swisscanto Holding Ltd. since 2018. He has also been a member of the Board of Directors of Swisscanto Swiss Red Cross Charity Fund (SICAV) since 2015. He is a member of the Regulatory Board of SIX Swiss Exchange AG, Zurich, a member of the Advisory Board of Zurich University's Department of Banking and Finance (IBF) and a member of the Board of Trustees of the Swiss Finance Institute, Zurich.

Heinz Kunz

Head of Corporate Banking (until 31 December 2019)
Swiss certified banking expert
Swiss national; born in 1961

Key mandates:
Chairman of the Board of Directors of Swisscanto Pensions Ltd., Zurich; member of the Board of Directors of Swisscanto Holding Ltd.; member of the Board of Trustees of the Berufslehrverbund (BVZ), Zurich; member of the Board of Directors of the Swiss Banks' and Securities Dealers' Deposit Guarantee Association, Basel

Heinz Kunz was at the helm of Corporate Banking from the start of 2011 until the end of 2019. He had previously worked as Deputy Head of the unit and was responsible for key account management for corporate clients. After completing his apprenticeship in banking at Zürcher Kantonalbank, Heinz Kunz was employed in various roles, including Head of Corporate Banking for the Unterland region and from 2001 Head of Sales for Business and Corporate Clients. Since 2016, he has been a member of the Board of Directors of Swisscanto Holding Ltd., and Chairman of the Board of Directors of Swisscanto Pensions Ltd., Zurich, since 2015. He is a representative of the Association of Swiss Cantonal Banks (ASCB), Chairman of the Swiss Bankers Association's Management Committee for Retail Banking, and a member of the Board of Directors of the Swiss Banks' and Securities Dealers' Deposit Guarantee Association (esisuisse), Basel. He is Chairman of the Board of Directors of Gasthof Gyrenbad AG, Turbenthal, and a member of the Board of Trustees of the Berufslehrverbund (BVZ), Zurich.

Roger Müller

Chief Risk Officer (CRO)
Swiss certified banking expert
Swiss national; born in 1962

Key mandates:
None

Roger Müller has been serving as Chief Risk Officer since 1 January 2014. From 2008 until his appointment as a member of the Executive Board, he was Head of the Credit Office and Deputy Chief Risk Officer. He has held a wide variety of roles within the bank since 1978, mainly in commercial lending and corporate banking. From 2000, he headed up credit office analysis in Corporate Banking.

Daniel Previdoli

Head of Products, Services & Direct Banking
lic. rer. pol.
Swiss national; born in 1962

Key mandates:
Chairman of the Board of Directors of Swisscanto Fund Management Company Ltd., Zurich; member of the Boards of Directors of Swisscanto Holding Ltd., Zurich; TWINT AG, Zurich; Aduno Holding AG, Zurich; Viseca Card Services SA, Zurich; Homegate AG, Zurich; Deputy Chairman of the Greater Zurich Area Foundation Board, Zurich.

Daniel Previdoli has been a member of the Executive Board since 2007. He became Head of Products, Services & Direct Banking on 1 October 2014 after having led the Retail Banking business unit. Prior to that, he spent 11 years with UBS, as Head of Recovery Management Primaries between 1996 and 2002 and subsequently as Head of Retail and Corporate Banking for the Zurich region. From 1987 until 1996, he held various positions with Credit Suisse, both in Switzerland and abroad. Daniel Previdoli is Chairman of the Board of Directors of Swisscanto Fund Management Company Ltd., Zurich. He is a member of the Boards of Directors of TWINT AG, Zurich, Swisscanto Holding Ltd., Zurich, Aduno Holding AG, Zurich, Viseca Card Services SA, Zurich, and Homegate AG, Zurich, and Deputy Chairman of the Greater Zurich Area Foundation, Zurich.

Remo Schmidli

Head of IT, Operations & Real Estate
Computer science graduate,
Executive Master of Business Administration ZFH from the University of Applied Sciences, Zurich
Swiss national; born in 1978

Key mandates:
Member of the Board of Directors of Swiss Fintech Innovations

Remo Schmidli has been Head of IT, Operations & Real Estate and a member of the Executive Board since 1 July 2019. Prior to that, he held a variety of positions at Zürcher Kantonalbank, including in the areas of IT and project management, starting in 2001. He took charge of Multichannel Management in the Products, Services & Direct Banking business unit in 2014. He has been a member of the Board of Directors of Swiss Fintech Innovations since 2016.

Rudolf Sigg

Chief Financial Officer (CFO)
Swiss certified banking expert;
Certified accountant and controller
Swiss national; born in 1961

Key mandates:
Chairman of the Board of Directors of Swisscanto Holding Ltd., Zurich; member of the Board of Directors of the Central Mortgage Bond Institution of the Swiss Cantonal Banks, Zurich; member of the Management Committee and employer representative of the Pension Fund of Zürcher Kantonalbank, Zurich; Chairman of the Freizügigkeitsstiftung and Vorsorgestiftung Sparen 3 foundations of Zürcher Kantonalbank, Zurich; member of the Board of Trustees and employer representative of the Marienburg Foundation of Zürcher Kantonalbank

Rudolf Sigg has been a member of the Executive Board since 2008. He currently heads the Finance business unit after having been Head of Controlling & Accounting. For 12 years, he had overall responsibility for Controlling, which also included Central Risk Controlling from 2000 to 2008. Rudolf Sigg joined Zürcher Kantonalbank in 1977. He is Chairman of the Board of Directors of Swisscanto Holding Ltd., Zurich, a member of the Board of Directors of the Central Mortgage Bond Institution of the Swiss Cantonal Banks, Zurich, a member of the Management Committee of the Pension Fund of Zürcher Kantonalbank, Zurich, Chairman of the Freizügigkeitsstiftung and Vorsorgestiftung Sparen 3 foundations of Zürcher Kantonalbank, and a member of the Board of Trustees of the Marienburg Foundation of Zürcher Kantonalbank.

Compensation Report

Our compensation model is in line with the market and based on performance. It is geared towards the long-term financial interests of Zürcher Kantonalbank.

Basic principles

As a public-law institution, Zürcher Kantonalbank aligns its compensation policy with the corporate governance principles of the Swiss Code of Obligations, the SIX Swiss Exchange Directive Corporate Governance and the Swiss Code of Best Practice for Corporate Governance.

In accordance with the SIX directive, variable compensation is charged on an accrual basis, i.e. to the financial year to which it actually applies. Total personnel expenses include all cash compensation, deferred components of the variable compensation and changes in their value, employer contributions to the pension fund and the AHV (old-age and survivors' insurance), as well as other mandatory social security contributions. The compensation guidelines are set out in the Personnel and Compensation Regulations issued by the Board of Directors for Zürcher Kantonalbank and apply throughout the group. The procedures for determining compensation are structured and documented by the group companies. This Compensation Report refers to the parent company of Zürcher Kantonalbank. The compensation paid by the consolidated subsidiaries also fulfils the relevant requirements in an appropriate manner.

Competencies

Under the Law on Zürcher Kantonalbank, responsibility for the ultimate supervision of Zürcher Kantonalbank lies with the Cantonal Parliament of Zurich, which is also responsible for approving the regulations governing the compensation of members of the Board of Directors. The Board of Directors issues regulations governing the compensation of the members of the Board of Directors, subject to approval by the Cantonal Parliament.

The Board of Directors also issues the Personnel and Compensation Regulations for Zürcher Kantonalbank in accordance with the requirements set out in the Swiss Financial Market Supervisory Authority (FINMA) Circular 2010/1 "Remuneration Schemes". The Compensation and Personnel Committee assists the Board of Directors in matters concerning the compensation policy. It prepares the corresponding transactions for the Board of Directors, gives its view on compensation issues that fall within the remit of the Committee of the Board and Board of Directors, and reviews the market conformity of compensation for the bank as a whole. The Compensation and Personnel

Competencies and responsibilities

Competencies	Body responsible
Compensation for the Committee of the Board and other members of the Board of Directors	Cantonal Parliament, based on proposal of the Board of Directors
Setting up or amending compensation plans	Board of Directors, based on recommendation of the Compensation and Personnel Committee
Determining total amount of variable compensation	Board of Directors, based on recommendation of the Compensation and Personnel Committee
Compensation for CEO	Board of Directors, based on proposal of the Committee of the Board
Compensation for members of the Executive Board	Board of Directors, based on proposal of the Committee of the Board
Compensation for Head of Audit	Board of Directors, based on proposal of the Committee of the Board
Compensation for senior management	Executive Board

Committee has the following duties and powers for determining compensation policy:
- making recommendations to the Board of Directors on the strategic and human resource policy principles of the pension funds from the employer's viewpoint
- making recommendations on principles concerning the compensation of members of the Executive Board and Audit, as well as any profit-sharing and benefit programmes
- evaluating the bank's compensation system, specifically with regard to its sustainability and the avoidance of false incentives

In the year under review, the Compensation and Personnel Committee took part in six meetings at which compensation-related issues at Zürcher Kantonalbank were discussed.

Compensation policy

Zürcher Kantonalbank's compensation policy is aligned with the bank's business strategy, objectives and values. It takes into account the long-term financial interests of the bank and supports solid and effective risk management. It is up to the Board of Directors to reconcile the interests of the Canton of Zurich with those of Zürcher Kantonalbank and its employees. The compensation policy is also aimed at attracting and retaining highly qualified employees in the long term. Through our compensation policy, we recognise outstanding performances and motivate employees to continue their professional development. Accordingly, the compensation system of Zürcher Kantonalbank does not create any incentives to take inappropriate risks that might affect the bank's stability or good reputation. Any compensation (professional or attendance fees, etc.) received for acting as a delegate or representative of the bank must be surrendered to Zürcher Kantonalbank. Any reimbursed expenses are retained by the appointee. Zürcher Kantonalbank's principles of compensation are based on the following objectives:
- promoting close cooperation within management and ensuring that all actions are undertaken in the interests of the bank as a whole as well as its integrated business and risk model
- motivating employees to create lasting added value while taking account of the risks
- promoting a performance-led environment for the benefit of the company as a whole
- ensuring that variable compensation is adjusted for risk and only income that is sustainable in the long term is included
- offering competitive, balanced compensation for comparable jobs

Benchmarks

Zürcher Kantonalbank attaches great importance to offering compensation that is competitive within the industry in terms of structure and level. To this end, it conducts annual market comparisons in collaboration with Willis Towers Watson, SwissICT, Kienbaum and other specialist consultancy firms, comparing itself with other Swiss financial institutions. For senior managers, additional compensation parameters are taken into account, such as the size of the organisation, number of employees, hierarchy, depth of the organisation, geographical reach and internationality. Additional parameters may be used if necessary.

Sign-on and severance payments

Payments agreed in connection with the signing of an employment contract such as guaranteed bonuses or bonus buyouts are referred to as sign-on payments. Zürcher Kantonalbank agrees to such payments only on an exceptional basis and only in justified individual cases. Payments agreed in connection with the termination of an employment relationship are referred to as severance payments. Zürcher Kantonalbank's employment contracts do not contain any pre-agreed severance payments or notice periods that differ from the general terms and conditions of employment. Both sign-on and severance payments must be approved by the Committee of the Board on the basis of clear decision-making processes. The sign-on and severance payments agreed in the year under review are shown in the figure below.

Compensation groups

Board of Directors

The compensation of the members of the Board of Directors and the Committee of the Board is based on the regulations governing the compensation of members of the Board of Directors of Zürcher Kantonalbank, as approved by the Cantonal Parliament of Zurich on 25 November 2004. In principle, these regulations are identical to those prevailing in 1989 (Committee of the Board) and 1994 (Board of Directors). Part-time members of the Board of Directors receive a fixed annual salary plus compensation for each membership of a committee as well as an expense allowance. An attendance fee is paid for meetings, visits to specialist units and branch offices, as well as training and development events. No variable compensation is paid to the members of the Board of Directors.

Committee of the Board

The members of the Committee of the Board are full-time members of the Board of Directors. They each receive a fixed annual base salary, an expense allowance as well as the benefits set out in the relevant regulations for all Zürcher Kantonalbank employees. The Chairman receives an additional allowance of 10 percent of his annual base salary. No variable compensation is paid to the members of the Committee of the Board.

Audit

In view of Audit's special function, the Head of Audit and employees at the second most senior level of management who report directly to him do not receive any variable compensation. Their entire compensation takes the form of a fixed annual salary.

Executive Board

Compensation for the members of the Executive Board is based on Zürcher Kantonalbank's overall compensation policy. A variable element is paid depending on the group's result. Part of the variable compensation takes the form of a benefit deferred for three years.

Senior management

Senior management has a sustained influence on the bank's business operations (risks, image, etc.), on the group's result and therefore on the implementation of the strategy. Senior management accounts for approximately 1 percent of the total headcount. As with the Executive Board, variable compensation is paid in addition to the base salary. The variable compensation is linked to the group's result and individual managers' performance. Part of the variable compensation (long-term deferred component) is deferred as in the case of the Executive Board.

Other management and employees

In principle, all the bank's employees are entitled to a variable element of compensation for good performance. Selected employees in Trading, Sales & Capital Markets are

2019 Agreed sign-on and severance payments

in CHF 1,000	No. of employees	Total	Paid in 2019	Amounts due in 2020 or later
Total sign-on payments	3	305	–	305
– of which Key Risk Takers	1	80	–	80
Total severance payments	–	–	–	–
– of which Key Risk Takers	–	–	–	–
Total compensation	3	305	–	305

subject to a different compensation model, under which part of their variable compensation is deferred and exposed to future risk development.

Key Risk Takers

In accordance with FINMA guidance, one of the compensation groups is defined as Key Risk Takers, which is subject to the rules for deferred variable compensation. Key Risk Takers are:
- the Executive Board
- members of senior management with a substantial influence on the resources of the business and/or risk profile
- selected employees in Trading, Sales & Capital Markets who exceed a defined threshold in relation to variable compensation

A total of 78 employees are currently defined as Key Risk Takers, of which nine were members of the Executive Board in the year under review.

Components of compensation

In term of its compensation policy, Zürcher Kantonalbank applies the total compensation approach, which comprises the following compensation components:

Components of compensation

Base salary	Contractually agreed, regularly paid salary
Variable compensation	Variable component of salary that is contingent on result and performance
Deferred variable component	Element of compensation based on sustainable success of the business deferred for a longer period
Statutory allowances and additional benefits	Child and education allowances, family allowances (Agreement on Conditions of Employment for Bank Staff), allowances under the Employment Act, expense allowances, allowance for years of service, etc.

The base salary, variable compensation and deferred components are explained in greater detail below.

Base salary

Zürcher Kantonalbank tends to align its base salaries with median values for the industry. The findings of salary comparisons serve to, among other things, determine individual salaries. Base-salary levels are usually reviewed annually. The amount of the base salary is determined by the employee's position, experience and skills, and takes account of their individual sustainable performance. Adjustments are made to reflect market conditions, affordability, individual performance and the overall financial position of Zürcher Kantonalbank.

Variable compensation

Variable compensation is a central element of the bank's compensation practices and offers flexibility in making adjustments to reflect a change in the business situation. The parent bank's pool for variable compensation is based on the group's result, with capital and risk costs taken into account. The variable compensation for Trading is determined on the basis of its operating result less risk and capital costs. The amount of variable compensation allocated to each employee depends on their position, individual performance and conduct. Variable compensation is set by the bank and may be forfeited in full at its discretion due to inadequate individual performance, staff misconduct (for details, see Penalty clause) or a poor business result. The thresholds for deferred compensation components are in line with the risk profile of Zürcher Kantonalbank.

Variable compensation component deferred for three years

For members of the Executive Board and senior management, part of the variable compensation takes the form of a benefit deferred for three years. The targets for each series of these deferred benefits are set in advance and apply for the entire term. The value of the variable compensation component deferred for three years at the end of the term is determined by the achievement of targets, which in turn is dependent on the level of economic profit. The maximum value is set at 1.5 times its original amount and the minimum at 0.5 times. In the event that internal cumulated net income over the three-year deferral period is negative, the value of the deferred variable compensation component is reduced to zero.

Deferred variable compensation exposed to risk

For certain employees in Trading, Sales & Capital Markets who bear greater responsibility in terms of results and risks and whose variable compensation exceeds a defined threshold, a portion of this variable compensation is deferred for two years and exposed to risk. The CEO and Head of Human Resources, who are both independent of Trading, Sales & Capital Markets, may impose a penalty, i.e. a reduction or forfeiture of the deferred variable compensation exposed to risk for individual employees, particularly in the event of:

- significant financial losses at department, desk or individual level
- reputational damage or actions that may be detrimental to Zürcher Kantonalbank, such as activities that breach regulations and result or may result in sanctions being imposed by the Swiss Financial Market Supervisory Authority
- activities that cause significant numbers of clients to leave the bank or inappropriate risk-taking outside of the ordinary risk processes

Consideration of risks

Risk-adjusted variable compensation pool

Two different methods are used for the risk adjustment of the variable compensation pools. The variable compensation pool of the parent bank is based on the consolidated result after adjusting for risk costs. Risk costs take into account standard risk costs as well as the cost of risk capital or cost of equity.

The model for standard risk costs is based on the default rates for an entire economic cycle. This evens out the annual default risk costs, which would otherwise be irregular. By taking account of standard risk costs, the annual accounts include risk costs arising from current business volumes under the model. This means that management decisions to focus on specific products or markets immediately incur the relevant risk costs. Using this procedure ensures that the basis for calculating the variable compensation pool is geared towards sustainable growth for the bank. As equity compensation, an interest rate at market terms is applied to the total amount of equity.

The size of the variable compensation pool for Trading is calculated on the basis of the result for Trading, Sales & Capital Markets, adjusted for the default and market risk costs of the individual trading desks. These are calculated on the basis of the standard risk costs for default risks and on the cost of risk capital in accordance with internal models for default as well as market risks (internal capital-at-risk models). The capital-at-risk approach is used to determine the internally required capital that is tied up for a year on account of market and default risks in connection with trading activities. The maximum risk capital available for trading activities is allocated by the Board of Directors on an annual basis, taking into account the bank's strategic direction and capital planning for the coming years. This risk capital is charged to the result of Trading, Sales & Capital Markets using a customary interest rate.

Overview of variable compensation

	Recipient	Due	Sunset clause	Performance, penalty clause	Performance-related[1]
Variable compensation	Permanent employees	Immediately	Yes	Dependent on individual performance; may be cancelled altogether in the event of misconduct.	Yes
Variable compensation component deferred for three years	Executive Board, senior management	Payment after three years	Yes	Amount of cash sum paid out on due date depends on development of economic profit.	Yes
Deferred variable compensation exposed to risk	Certain employees in Trading, Sales & Capital Markets	Payment in equal shares over two years	Yes	Amount of cash sum paid out on due date depends on whether a penalty has been imposed.	Yes

1 Taking capital and risk costs into account

Determining the compensation for control functions

For the purpose of efficient risk monitoring, Legal, Tax & Compliance, Risk, Finance and Human Resources must be able to perform their control and escalation tasks independently. Therefore, their compensation does not directly depend on the results of the individual business units being monitored. Using the total compensation approach for these functions ensures that compensation is attractive to qualified, experienced people.

Determining the compensation of Key Risk Takers

Key Risk Takers are subject to a performance evaluation and development process in the same way as other employees. The performance evaluation also takes account of risk aspects, any breaches of internal or external directives and guidelines, misconduct that could negatively affect the bank's reputation, and ongoing disciplinary proceedings. The individual performance of a Key Risk Taker is regularly discussed with their supervisor. During the process of allocating and paying variable compensation elements to Key Risk Takers in Trading, Sales & Capital Markets, the independent control functions Legal, Tax & Compliance, Risk Management and Human Resources are consulted.

As stated in the section "Competencies and responsibilities" (page 84), the Board of Directors determines the compensation of the members of the Executive Board at the request of the Committee of the Board. The Executive Board determines the compensation of Key Risk Takers in senior management at the request of the relevant member of the Executive Board. The Head of Institutionals & Multinationals determines the compensation of Key Risk Takers in Trading, Sales & Capital Markets at the request of the head of the relevant organisational unit.

Risk adjustment in relation to deferred compensation

Deferred components of compensation are subject to further risk adjustment. They may lapse in full or in part if negative business developments or other predefined conditions occur (see "Variable compensation component deferred for three years" (page 86), "Deferred variable compensation exposed to risk" (page 87) and "Penalty clause" (page 88) for further details on possible reductions).

Risk overview

	Risk adjustments made prior to the allocation of variable compensation		Risk adjustments made after the allocation of variable compensation
Quantitative	– Equity – Risk costs – Special factors	Explicit	– Deferred compensation components – Conduct-based adjustment (penalty or forfeiture)
Qualitative	– Employee appraisal – Reporting by internal control units	Implicit	– Economic profit

Penalty clause

Employees' variable compensation is not or only partially paid out at the bank's discretion if they have violated contractual, risk or compliance requirements before the date of the intended payment or if the bank has otherwise sustained losses due to their activity. Moreover, such employees are deemed "bad leavers" under the bank's compensation models and their entitlement to any deferred compensation lapses. The breach of laws, codes of conduct, directives or internal rules may also lead to additional disciplinary measures, which may entail the reduction or forfeiture of variable compensation and/or of a deferred variable compensation component or similar elements of compensation. In the event of ongoing investigations or suspicion of misconduct that could lead to disciplinary measures, Zürcher Kantonalbank is entitled to delay payment of variable compensation and/or deferred compensation and similar elements of compensation until the matter has been definitively clarified or the sanction decided. Under the "bad leaver" rule, the long-term deferred component as well as the deferred variable compensation exposed to risk may lapse in full if Zürcher Kantonalbank parts company with the employee for certain reasons. This may in particular be the case where an employee has committed a breach of contract or caused material or non-material damage, or the relationship of trust between the employee and the bank has suffered lasting damage as a result of the employee's conduct.

Compensation in 2019

Total personnel expenses for all 4,918 (2018: 4,859) employees (full-time equivalents) amounted to CHF 986.5 million (parent company), which is slightly higher than in the previous year. Social security expenses also include payments to the bank's pension fund. All variable elements of compensation are charged to the financial year in which they are actually incurred.

Personnel expenses in 2019 (parent company)

in CHF million	2019	2018
Base salary[1]	536.0	529.8
Total amount of variable compensation	249.0	230.9
Social security contributions	169.9	165.8
Other personnel expenses[2]	31.6	32.1
Total personnel expenses	986.5	958.6

1 Fixed compensation for permanent employees, temporary staff and governing bodies as well as compensation for loss of income and payroll-related costs

2 In particular costs for training, staff support, recruitment and premiums

In its annual review of base salaries, Zürcher Kantonalbank decided to raise base salaries for 2019 by CHF 5.2 million (+1.0 percent) compared with the previous year, mainly for the purpose of bringing its employees closer in line with standard market rates as well as to better reward employees who assumed more responsibility or put in an outstanding performance. Total variable compensation rose by CHF 18.1 million. The total amount of deferred compensation was CHF 10.3 million.

Details of variable compensation (parent company)

	2019		2018	
	No. of employees[1]	in CHF million	No. of employees[1]	in CHF million
Total amount of variable compensation	4,918	249.0	4,859	230.9
– of which deferred compensation	78	10.3	79	10.7
– of which sign-on and severance-payments	3	0.3	5	0.2

1 Full-time equivalents

Compensation for members of the Board of Directors

Compensation for members of the Board of Directors is based on the regulations governing the compensation of members of the Board of Directors of Zürcher Kantonalbank, as approved by the Cantonal Parliament of Zurich on 25 November 2004. In principle, these regulations are identical to those prevailing in 1989 (Committee of the Board) and 1994 (Board of Directors). For part-time members of the Board of Directors, it comprises a fixed annual salary of CHF 18,000 plus CHF 6,000 compensation for each membership of a committee, as well as an annual expense allowance of CHF 6,000. A fixed attendance fee of CHF 700 per day and CHF 350 per half-day is paid for meetings and visits to branch offices and specialist units.

As full-time members of the Board of Directors, the members of the Committee of the Board receive an annual base salary of CHF 311,500 as well as the benefits set out in the relevant regulations for all Zürcher Kantonalbank employees. The Chairman receives an additional allowance of 10 percent of his annual base salary. The full-time members of the Board of Directors are paid an annual allowance of CHF 14,000 each. The full-time members of the Board of Directors are insured in accordance with the regulations of the bank's pension funds. No variable compensation is paid to the members of the Board of Directors.

No other compensation or benefits in kind were paid to current or former members of the Board of Directors or related parties during the year under review. There are no unusual commitments between Zürcher Kantonalbank and the members of the Board of Directors or related parties.

No loans on unusual terms were granted to part-time members of the Board of Directors or related parties.

The members of the Board of Directors and related parties received no other fees or payments for additional services rendered to the Zürcher Kantonalbank group or any of its subsidiaries during the year under review.

Compensation for members of the Executive Board

The total compensation of the individual members of the Executive Board takes account of their performance in their areas of responsibility. The succession of the Head of Corporate Clients and the Head of IT, Operations & Real Estate resulted in additional expenses in total remuneration. Total compensation for the nine (previous year: eight) members of the Executive Board in 2019 amounted to CHF 14,866,052 (2018: CHF 13,810,197). The highest sum paid to a member of the Executive Board during the year under review was CHF 2,018,125 in salary and variable compensation plus CHF 208,825 in pension payments and other remuneration, and was paid to Martin Scholl, CEO (2018: CHF 2,229,609).

In addition, deferred components amounting to CHF 2,405,000 (2018: CHF 2,297,500) were set aside for the members of the Executive Board, of which CHF 377,500 were allocated to the highest paid member (2018: CHF 382,500); provided specific conditions are met, these will be paid out in three years' time.

The members of the Executive Board and related parties received no other fees or payments for additional services rendered to the Zürcher Kantonalbank group or any of its subsidiaries during the year under review.

Total loans and mortgage lending to the Executive Board members amounted to CHF 12,337,500 (of which CHF 10,291,500 on employee terms). No loans on unusual terms were granted to related parties of the Executive Board.

Compensation and loans for members of the Board of Directors (in CHF)

	Year	Annual compensation	Attendance fee	Expense allowance[1]	Benefits in kind[2]	Employer contributions to pillar 2	Total	Loans as at 31.12. in CHF
Committee of the Board								
Jörg Müller-Ganz	2019	342,650	–	14,040	9,900	90,331	456,921	1,300,000
	2018	342,650	–	14,040	10,065	89,798	456,553	1,300,000
János Blum	2019	311,500	–	14,040	1,900	83,944	411,384	1,400,000
	2018	311,500	–	14,040	1,900	83,411	410,852	1,400,000
Roger Liebi	2019 (since 01.07.2019)	155,750	–	7,020	–	40,176	202,946	–
	2018	–	–	–	–	–	–	–
Bruno Dobler	2019 (until 30.06.2019)	155,750	–	7,020	–	23,132	185,902	–
	2018	311,500	–	14,040	–	46,019	371,559	972,000
Other members of the Board of Directors								
Amr Abdelaziz	2019	30,000	27,300	6,000	–	–	63,300	–
	2018	30,000	28,350	6,000	–	–	64,350	–
Bettina Furrer	2019 (since 01.07.2019)	15,000	13,300	3,000	–	–	31,300	–
	2018	–	–	–	–	–	–	–
René Huber	2019	30,000	26,600	6,000	–	–	62,600	3,697,000
	2018	30,000	25,900	6,000	–	–	61,900	4,262,500
Hans Kaufmann	2019	–	–	–	–	–	–	–
	2018 (until 30.06.2018)	15,000	16,450	3,000	–	–	34,450	–
Henrich Kisker	2019	30,000	23,450	6,000	–	–	59,450	–
	2018	30,000	24,850	6,000	–	–	60,850	–
Roger Liebi	2019 (until 30.06.2019)	15,000	17,850	3,000	–	–	35,850	–
	2018 (from 01.07.2018)	15,000	12,600	3,000	–	–	30,600	–
Mark Roth	2019	24,000	34,300	6,000	–	–	64,300	–
	2018	24,000	38,150	6,000	–	–	68,150	–
Peter Ruff	2019	24,000	22,750	6,000	–	–	52,750	–
	2018	24,000	30,100	6,000	–	–	60,100	–
Walter Schoch	2019	24,000	26,950	6,000	–	–	56,950	–
	2018	24,000	25,550	6,000	–	–	55,550	–
Anita Sigg[3]	2019	30,000	21,700	6,000	–	–	57,700	2,234,000
	2018	30,000	22,750	6,000	–	–	58,750	2,240,000
Rolf Walther	2019	24,000	35,000	6,000	–	–	65,000	–
	2018	24,000	27,300	6,000	–	–	57,300	–
Stefan Wirth	2019	30,000	23,800	6,000	–	–	59,800	–
	2018	30,000	23,100	6,000	–	–	59,100	–
Total	2019	1,241,651	273,000	102,120	11,800	237,583	1,866,154	8,631,000
Total	2018	1,241,651	275,100	102,120	11,965	219,228	1,850,064	10,174,500

1 For the members of the Committee of the Board, CHF 40 is attributable to rounding differences due to monthly payments.
2 Benefits in kind: child, education and family allowances (Agreement on Conditions of Employment for Bank Staff), loyalty bonuses, medical check-ups, contribution to ZVV/SBB season tickets.
3 Loans: reduced community of heirs of Anita Sigg-Meyer: CHF 1,700,000; Anita Sigg alone: CHF 534,000.

Financial Report

About the figures:
The amounts stated in this report have been rounded off. The total may therefore vary from the sum of the individual values.

The following rules apply to the tables:

0 (0 or 0.0) Figure that is smaller than half the unit of account used
– Figure not available or not meaningful

Consolidated income statement

in CHF million	Notes	2019	2018	Change	Change in %
Result from interest operations					
Interest and discount income		1,861	1,812	50	2.7
Interest and dividend income from financial investments		35	44	–9	–20.5
Interest expense		–687	–633	–54	8.5
Gross result from interest operations	33	1,210	1,223	–13	–1.1
Changes in value adjustments for default risk and losses from interest operations		6	–10	17	–
Subtotal net result from interest operations		1,216	1,213	3	0.3
Result from commission business and services					
Commission income from securities trading and investment activities		786	803	–17	–2.1
Commission income from lending activities		58	50	9	17.3
Commission income from other services		150	147	3	2.1
Commission expense		–218	–224	6	–2.8
Subtotal result from commission business and services		777	776	1	0.1
Result from trading activities					
Result from trading activities and the fair value option	32	319	286	33	11.7
Other result from ordinary activities					
Result from the disposal of financial investments		6	2	4	198.2
Income from participations		25	32	–7	–21.9
– of which, participations valued using the equity method		2	2	0	2.6
– of which, from other non-consolidated participations		23	30	–7	–23.3
Result from real estate		5	6	–1	–10.4
Other ordinary income		68	9	58	–
Other ordinary expenses		–2	–4	2	–41.6
Subtotal other result from ordinary activities		102	46	56	122.1
Operating income		2,414	2,320	94	4.0
Operating expenses					
Personnel expenses	34	–1,026	–1,002	–24	2.4
General and administrative expenses	35	–417	–428	11	–2.6
Subtotal operating expenses		–1,443	–1,430	–13	0.9
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets		–113	–192	79	41.2
Changes to provisions and other value adjustments and losses		–12	194	–206	–106.0
Operating result		846	892	–46	–5.2
Extraordinary income	36	4	103	–99	–95.9
Extraordinary expenses	36	–0	–0	–0	38.5
Changes in reserves for general banking risks	36	–	–200	200	–100.0
Taxes	39	–5	–7	2	–23.8
Consolidated profit		845	788	57	7.2

Consolidated balance sheet

as at 31 December

in CHF million	Notes	2019	2018	Change	Change in %
Assets					
Liquid assets		36,786	40,989	–4,202	–10.3
Amounts due from banks		4,917	4,803	115	2.4
Amounts due from securities financing transactions	1	15,588	17,004	–1,416	–8.3
Amounts due from customers	2	8,905	8,469	436	5.1
Mortgage loans	2	84,311	81,256	3,055	3.8
Trading portfolio assets	3	9,168	9,364	–196	–2.1
Positive replacement values of derivative financial instruments	4	1,486	1,278	208	16.3
Other financial instruments at fair value	3	–	–	–	–
Financial investments	5	4,422	4,705	–283	–6.0
Accrued income and prepaid expenses		293	293	–0	–0.2
Non-consolidated participations	6, 7	138	138	0	0.1
Tangible fixed assets	8	651	677	–26	–3.9
Intangible assets	9	123	142	–19	–13.5
Other assets	10	267	291	–24	–8.4
Total assets		167,054	169,408	–2,354	–1.4
Total subordinated claims		337	166	171	102.8
– of which subject to conversion and/or debt waiver		37	46	–9	–19.2
Liabilities					
Amounts due to banks		34,082	37,019	–2,937	–7.9
Liabilities from securities financing transactions	1	4,969	6,876	–1,907	–27.7
Amounts due in respect of customer deposits		85,089	85,537	–448	–0.5
Trading portfolio liabilities	3	2,058	2,418	–360	–14.9
Negative replacement values of derivative financial instruments	4	1,303	752	551	73.4
Liabilities from other financial instruments at fair value	3, 14	2,844	2,472	372	15.1
Cash bonds	15	143	167	–24	–14.5
Bond issues	15	13,329	11,666	1,663	14.3
Central mortgage institution loans	15	9,778	9,463	315	3.3
Accrued expenses and deferred income		674	725	–51	–7.0
Other liabilities	10	205	205	1	0.3
Provisions	16	242	255	–14	–5.4
Reserves for general banking risks	16	200	200	–	–
Bank's capital	21	2,425	2,425	–	–
Retained earnings reserve	21	8,875	8,445	430	5.1
Foreign currency translation reserve	21	–7	–6	–2	26.1
Consolidated profit	21	845	788	57	7.2
Shareholders' equity	21	12,337	11,852	485	4.1
Total liabilities		167,054	169,408	–2,354	–1.4
Total subordinated liabilities		1,471	1,491	–20	–1.3
– of which subject to conversion and/or debt waiver		1,471	1,491	–20	–1.3
Off-balance-sheet transactions					
Contingent liabilities	2, 28	3,885	4,102	–218	–5.3
Irrevocable commitments	2	8,718	7,698	1,020	13.2
Obligations to pay up shares and make further contributions	2	257	263	–6	–2.3
Credit commitments	2, 29	–	–	–	–

Consolidated cash flow statement

in CHF million	Cash inflow 2019	Cash outflow 2019	Cash inflow 2018	Cash outflow 2018
Cash flow from operating activities (internal financing):				
Result of the period	845	–	788	–
Change in reserves for general banking risks	–	–	200	–
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets	113	–	192	–
Provisions and other value adjustments	69	83	91	420
Changes in value adjustments for default risks and losses	51	73	64	60
Accrued income and prepaid expenses	0	–	–	13
Accrued expenses and deferred income	–	51	91	–
Other items	–	5	0	1
Previous year's dividend	–	358	–	363
Balance	509	–	569	–
Cash flow from equity transactions:				
Share capital / participation capital / cantonal banks' endowment capital etc.	–	–	–	–
Recognised in reserves	–	2	–	2
Balance	–	2	–	2
Cash flow from transactions in respect of non-consolidated participations, tangible fixed assets and intangible assets:				
Non-consolidated participations	–	0	1	15
Real estate	0	32	54	22
Other tangible fixed assets	0	16	1	18
Intangible assets	0	16	0	53
Mortgages on own real estate	–	–	–	–
Balance	–	63	–	52

Consolidated cash flow statement
(continued)

in CHF million	Cash inflow 2019	Cash outflow 2019	Cash inflow 2018	Cash outflow 2018
Cash flow from banking operations:				
Medium and long-term business (> 1 year):				
Amounts due to banks	–	4	–	249
Amounts due in respect of customer deposits	–	150	–	6
Liabilities from other financial instruments at fair value	235	–	–	40
Cash bonds	2	28	0	25
Bonds	8,512	6,753	5,802	6,619
Central mortgage institution loans	1,057	742	1,314	1,126
Loans from central issuing institutions	–	–	–	–
Other obligations (other liabilities)	1	–	–	353
Amounts due from banks	–	61	119	–
Amounts due from customers	151	–	–	154
Mortgage loans	–	3,044	–	2,179
Other financial instruments at fair value	–	–	–	–
Financial investments	168	–	132	–
Other accounts receivable (other assets)	24	–	167	–
Short-term business:				
Amounts due to banks	–	2,933	1,876	–
Liabilities from securities financing transactions	–	1,907	254	–
Amounts due in respect of customer deposits	–	299	4,162	–
Trading portfolio liabilities	–	360	559	–
Negative replacement values of derivative financial instruments	551	–	–	115
Liabilities from other financial instruments at fair value	137	–	–	357
Amounts due from banks	–	54	–	464
Amounts due from securities financing transactions	1,416	–	–	2,678
Amounts due from customers	–	576	–	477
Trading portfolio assets	101	–	–	377
Positive replacement values of derivative financial instruments	–	208	257	–
Other financial instruments at fair value	–	–	–	–
Financial investments	116	–	–	97
Liquidity:				
Liquid assets	4,202	–	158	–
Balance	–	445	–	516

Consolidated statement of changes in equity

in CHF million	Bank's capital	Retained earnings reserve	Reserves for general banking risks	Consolidated profit	Currency translation reserves	Total equity
2018						
Opening amount	2,425	8,808	–	–	–4	11,228
Effect of any restatement	–	–	–	–	–	–
Capital increase	–	–	–	–	–	–
Capital decrease	–	–	–	–	–	–
Increase in scope of capital consolidation	–	–	–	–	–	–
Decrease in scope of capital consolidation	–	–	–	–	–	–
Other grants/other capital contributions	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–
Currency translation differences	–	–	–	–	–2	–2
Dividends and other distributions	–	–363	–	–	–	–363
Valuation adjustments not affecting net income	–	–0	–	–	–	–0
Other allocations to (transfers from) the reserves for general banking risks	–	–	200	–	–	200
Other allocations to (transfers from) the other reserves	–	–	–	–	–	–
Consolidated profit	–	–	–	788	–	788
Total equity as at 31.12.2018	2,425	8,445	200	788	–6	11,852
2019						
Opening amount	2,425	9,233	200	–	–6	11,852
Effect of any restatement	–	–	–	–	–	–
Capital increase	–	–	–	–	–	–
Capital decrease	–	–	–	–	–	–
Increase in scope of capital consolidation	–	–	–	–	–	–
Decrease in scope of capital consolidation	–	–	–	–	–	–
Other grants/other capital contributions	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–
Currency translation differences	–	–	–	–	–2	–2
Dividends and other distributions	–	–358	–	–	–	–358
Valuation adjustments not affecting net income	–	–0	–	–	–	–0
Other allocations to (transfers from) the reserves for general banking risks	–	–	–	–	–	–
Other allocations to (transfers from) the other reserves	–	–	–	–	–	–
Consolidated profit	–	–	–	845	–	845
Total equity as at 31.12.2019	2,425	8,875	200	845	–7	12,337

Notes

a) Portrait

Zürcher Kantonalbank is "Close to you". We have successfully positioned ourselves as a universal bank with a regional base as well as an international network. Within the Greater Zurich Area we are the leaders in universal banking. Our clients profit from a broad range of products and services. Our core business includes the following: financing, investment and asset management, trading and capital markets, the borrowing business, payment transactions and the card business.

Zürcher Kantonalbank was founded in 1870 and is an independent public-law institution of the Canton of Zurich. In 2020, we will therefore be celebrating our 150th anniversary.

Broad diversification

The business model of Zürcher Kantonalbank focuses on sustainability and diversification of earnings. Sustainability is an integral aspect of our business model. That means we incorporate environmental, social and economic criteria into everything we do. Our earnings base is spread across various business areas. This reduces our dependence on individual income components and thus our entrepreneurial risk. We therefore continue to aim for qualitative growth in the investment and asset management business. We wish to grow mainly organically. Our focus is on the Greater Zurich Area. We are not planning either substantial expansion abroad or disproportionately risky business.

The group includes as parent company the largest cantonal bank in Switzerland and the fourth-largest Swiss bank. The broadly diversified group also includes Swisscanto Holding AG with its subsidiaries and their subsidiaries (Swisscanto Fund Management Company Ltd., Swisscanto Pensions Ltd., Swisscanto Private Equity CH I Ltd and Swisscanto Asset Management International SA), which are mainly engaged in asset management business. Zürcher Kantonalbank Finance (Guernsey) Ltd., which focuses on issuing structured investment products, Zürcher Kantonalbank Österreich AG, which operates in international private banking, the representative office Zürcher Kantonalbank Representações Ltda. and ZüriBahn AG are also part of the group.

b) Accounting and valuation principles

Changes in accounting and valuation principles

The following changes were made during the year to accounting and valuation principles: The depreciation period for IT resources no longer distinguishes between centralised and decentralised IT. IT resources are now uniformly depreciated over four years (instead of the previous two to a maximum of five years). For further information, please see Note 8 Presentation of tangible fixed assets.

General principles

Pursuant to the Listing Rules of the Swiss Exchange, the consolidated financial statements of the Zürcher Kantonalbank Group are prepared in line with the accounting rules for banks, securities dealers, financial groups and conglomerates (ARB). The consolidated financial statements provide a true and fair view of the financial position, results of operations and cash flows.

Scope of consolidation

The consolidated annual financial statements comprise the accounts of the parent company and the directly and indirectly owned significant subsidiaries in which the bank has a participation of more than 50 percent of the voting capital or which it controls in another way. The majority shareholdings in Zürcher Kantonalbank Representações Ltda. and ZüriBahn AG, which are immaterial for accounting purposes, are an exception. Please refer to the section "Non-consolidated participations" for further information.

The consolidated financial statements are prepared in accordance with the principle of substance-over-form. The individual accounts of the group companies are included in the consolidated financial statements on the basis of uniform accounting standards that are applied throughout the group.

Method of consolidation

Capital is consolidated in accordance with the purchase method. This involves offsetting the equity of the group companies at the time of acquisition or at the time of incorporation against the book value of the parent company's interest. Please refer to the section on "intangible assets" for details of the treatment of any goodwill. All the assets and liabilities as well as expenses and income of the subsidiaries to be consolidated are included in the consolidated financial statements. Intragroup transactions and intercompany earnings are eliminated on consolidation.

Period of consolidation

The period of consolidation corresponds to the calendar year.

Recognition of transactions

All business transactions are recorded and measured in accordance with recognised principles on the day they occur. Foreign exchange and precious metal transactions (spot and forward) concluded but not yet executed are booked in accordance with the settlement-day principle. These transactions are stated between the trade and settlement dates (value date) at replacement value under the corresponding item (Positive or negative replacement values of derivative financial instruments). Securities and options transactions are recognised in the balance sheet as of the trade date. Balance sheet fixed-term transactions are booked as of the settlement day.

Foreign exchange translation

Transactions in foreign currency are translated at the corresponding daily rate. Assets and liabilities in foreign currency, with the exception of bank notes, are translated at the average rate as at the balance sheet date. The bid rates on the balance sheet date are applied for foreign bank notes. Translation gains and losses are recognised under "Result from trading activities and the fair value option". The annual financial statements of Zürcher Kantonalbank Österreich AG are prepared in euros. The assets and liabilities are translated at the rate on the balance sheet date, and income and expenses at the average exchange rate for the year. The difference between these exchange rates is reported directly in equity as a currency translation difference effect under the item "Currency translation reserve".

	2019		2018	
	Rates on the balance sheet date	Average annual rates	Rates on the balance sheet date	Average annual rates
USD	0.9684	0.9929	0.9858	0.9769
EUR	1.0870	1.1111	1.1269	1.1506

Offsetting assets and liabilities

There is generally no offsetting of assets and liabilities. An exception is made in the cases listed below.

Receivables and liabilities are offset if they arise from similar transactions with the same counterparty; and have the same or earlier due date; and are in the same currency and do not result in a counterparty risk. These conditions must be met cumulatively.

Holdings of own bonds and cash bonds are offset against the corresponding liability items. The same applies to positive and negative changes in book value with no income effect in the compensation account.

For over-the-counter (OTC) transactions, the positive and negative replacement values of derivative financial instruments as well as the related cash collateral are offset (netting). For this purpose, a relevant bilateral agreement with the affected counterparties must be in place. This agreement must be proven to be recognised and legally enforceable.

Liquid assets

Liquid assets include cash holdings in Swiss francs and foreign bank notes, as well as sight deposits with the Swiss National Bank. These items are recognised at nominal value.

Amounts due from and to banks

Unless stated otherwise in a different item, amounts due from and to banks are stated in this item. These items are recognised at nominal value. Appropriate allowances are created for default risks on existing positions and directly deducted from assets (see also the section "Value adjustments for default risks and losses from interest operations").

Claims and liabilities from securities financing transactions

The amounts due from securities financing transactions include reverse repo transactions, which are treated as advances against collateral in the form of securities. This underscores the financing nature of the transactions. The securities are transferred in the same way as if they had been pledged as collateral for a loan. Reimbursement claims in the context of securities borrowing which arise from cash collateral for the borrowed, non-monetary values are also included. Repo transactions in the sense of a collateralised refinancing are entered in the balance sheet under Liabilities from securities financing transactions. Within the framework of securities lending, Zürcher Kantonalbank lends non-monetary assets, such as securities, on its own account and at its own risk (principal status).

The repayment obligation for cash deposits received is also shown here. The bank conducts lending and borrowing transactions within the framework of trading operations. Loan transactions involving securities or money market instruments that are not collateralised with cash are not recognised in the balance sheet but reported in the Notes.

Amounts due from customers, mortgage loans and amounts due in respect of customer deposits

These items are recognised at nominal value. Book claims in precious metals are stated at market values. Appropriate value adjustments are made for default risks on existing positions and directly deducted from the relevant asset item (see the next section). Default risks on credit limits granted but not utilised on the balance sheet date are accounted for by means of provisions (see “Provisions”). Leasing arrangements are reported in the balance sheet under Loans, at their nominal value (or property value) less accumulated amortisation plus instalments due but not paid, interest on arrears and fees. The element of the leasing instalment representing the interest for the period in question is included in Interest income. The remaining amount of the leasing instalment represents the repayment element and reduces the claim amount. Explanations on the valuation of collateral for loans can be found in section e), under “Valuation of collateral”.

Value adjustments for default risks and losses from interest operations

Loss risks on existing exposures are allowed for by appropriate value adjustments. They are recognised in the item “Changes in value adjustments for default risks and losses from interest operations” and deducted directly from the asset affected.

The amount of the value adjustments is determined using a systematic approach that takes account of the risks of Zürcher Kantonalbank’s portfolio.

The bank considers loans/receivables to be impaired if there are indications that the debtor will not be able to meet his future liabilities, but at the latest when the contractually defined amortisation, interest and commission payments are due for 90 days or more. The corresponding interest and commission is fully covered by provisions.

Impaired loans/receivables are valued on an individual basis. Individual value adjustments for credit risks are established in accordance with the following principles:

- Claims are valued individually taking into account the borrower’s creditworthiness and any collateral at liquidation value.
- As soon as it is no longer assured that the loan repayments can be recovered, a value adjustment is made for the probable credit default (book value less estimated recoverable amount). Exposures rated as impaired are subjected to a creditworthiness test at least twice a year. If necessary, an appropriate value adjustment is made or existing ones are altered in line with the current circumstances. Value adjustments for impaired loans are released if there is reasonable assurance of timely collection of the interest and principal in accordance with the contractual terms of the claim agreement. In the case of small risks in homogeneous credit portfolios, the need for a value adjustment is assessed collectively (collective individual value adjustments).

Zürcher Kantonalbank does not set up a collective value adjustment for latent risks because the method used to determine an individual allowance ensures the correct valuation of a loan. Country-specific risks in connection with loans/receivables are accounted for separately. Among other factors, country assessments of various rating agencies are taken into consideration. Such value adjustments take into account any existing collateral as well as existing individual value adjustments and are reviewed at least every six months. If all or part of a claim is deemed uncollectible or in case of a debt waiver, it is written off accordingly.

Trading portfolio assets and liabilities

Trading positions including money market paper held in the context of the trading business are recognised at fair value. This is defined as the amount for which an asset could be exchanged or a liability settled between knowledgeable, willing and independent parties. This corresponds to the price set on a price-efficient and liquid market or determined on the basis of a valuation model. Where, as an exception, no fair value is ascertainable, valuation and recognition are to follow the principle of the lower of cost or market value.

Valuation differences are recognised in the income statement. Interest and dividend income on securities trading portfolios are credited to the item "Result from trading activities and the fair value option". Results from securities lending and borrowing transactions are also recognised under "Result from trading activities and the fair value option". The refinancing result for trading portfolio assets is recognised by compensating the result from trading activities within net interest. With the exception of the physical precious metal portfolios accounted for under Financial investments, all other precious metals that are physical and held in account form are accounted for as Trading portfolio assets and at fair value.

Short positions are also accounted for at fair value and stated under the item "Trading portfolio liabilities". In the case of trading in combinations of money market transactions and currency swaps, the aim is to report the interest income or trading result in the way that most closely captures the economic impact, following the principle of substance over form. As a result, the gain on the currency swaps is compensated under the result from interest operations. Hence the results from these combined transactions are posted uniformly in the result from interest operations. This avoids inflating the income statement and shifting amounts between interest operations and trading activities with no substantive or economic rationale.

Positive and negative replacement values of derivative financial instruments

Derivative financial instruments are valued at fair value and, in principle, represent trading activities. Comments on the business policy parameters for the use of derivative financial instruments and explanations in connection with the application of hedge accounting can be found under section f). Replacement values of derivative financial instruments from client transactions resulting from contracts traded over-the-counter (bank as agent) are, in principle, accounted for. Exchange-traded contracts from client transactions are accounted for if no daily margining takes place. Replacement values from trading activities are accounted for under "Positive replacement values of derivative financial instruments" on the asset side or the item "Negative replacement values of derivative financial instruments" on the liability side. Valuation gains are recognised through income in the item "Result from trading activities and the fair value option".

Hedging transactions are also measured at fair value, except for the derivative financial instruments used to hedge interest rate risk within the scope of asset and liability management. In this case, value changes are recognised in the compensation account as "not affecting net income". The net balance of this compensation account is included in "Other assets" or "Other liabilities". If the gains from the hedging transaction exceed those from the hedged underlying transaction, the hedge is considered ineffective. The excess part of the derivative instrument is treated like a trading transaction.

Please see the statements in the section "Offsetting assets and liabilities" with respect to the recognition of netting agreements for derivative financial instruments.

Other financial instruments at fair value or liabilities from other financial instruments at fair value

Structured products with own debenture components issued by the bank are valued as a whole at fair value (no separation of the derivative from the underlying instrument) provided that the following conditions have been met on a cumulative basis:

- The financial instruments are part of a trade-related strategy and are based on a documented risk management and investment strategy which ensures correct recording, measuring and limitation of the various risks.
- There is an economic hedging relationship between the financial instruments on the asset side and those on the liability side that is largely neutralised in terms of income by the fair value valuation (avoidance of an accounting mismatch).
- Any impact of a change in own creditworthiness on the fair value is neutralised and does not affect the income statement where it arises.

The amounts are accounted for under "Liabilities from other financial instruments at fair value". Investments by subsidiaries managed in the trading book and connected to self-issued structured products are stated at market value. These are recognised in "Other financial instruments at fair value".

Financial investments

The item includes money market securities which are not held in the context of trading business. Accounting takes place at nominal value taking a discount provision into account. Financial assets also include fixed-income securities. Securities held to maturity are valued in accordance with the accrual method (at acquisition cost with amortisation of the premium or discount over the maturity). Realised gains from sales prior to maturity are amortised to maturity. The lower of cost or market rule is applied in the case of value losses resulting from changes in credit standing.

Fixed-interest securities not intended to be held until maturity are recorded based on the same rule. The same applies for shares and other equity securities that, irrespective of the share of voting rights, are also booked under this item provided that they were not acquired as a permanent investment.

Financial investments also include real estate taken over from the lending business and intended for sale. They are also valued according to the lower of cost or market principle (acquisition value or prudently estimated lower liquidation value). Non-realised losses and market-related revaluations up to the original cost of the securities components are stated under "Other ordinary expenses" or "Other ordinary income". Realised gains or losses on the securities components from the sale of financial investments are booked under "Result from the disposal of financial investments". Unrealised and realised gains in foreign currency components are booked under "Results from foreign exchange trading". Physical stocks of precious metals held as a financial investment are recognised at fair value.

Non-consolidated participations

Shares and other equity securities are considered as participations regardless of the share of voting rights held, provided they have been acquired as a permanent investment. Participations with voting rights of up to 20 percent are valued at lower of cost or market. Participations are subject to impairment testing at least once a year.

Non-consolidated participations with voting rights of between 20 percent and 49.9 percent, together with the non-material (from an accounting perspective) majority participations in Zürcher Kantonalbank Representações Ltda. and ZüriBahn AG, are stated in accordance with the equity method in proportion to the equity held on the balance sheet date. The proportionate net annual result is included in the equity valuation and is recognised in the consolidated income statement as participation income.

Tangible fixed assets

Bank premises, including installations and fittings in rented properties, are recognised at cost value plus major investments and amortised on a straight-line basis over their estimated useful life. Other properties acquired as a long-term investment are also recognised at the lower of cost value less straight-line amortisation or capitalised earnings value.

The remaining tangible fixed assets comprise IT systems and equipment, furniture, vehicles and machinery. Smaller acquisitions are charged in full to General and administrative expenses in the year of acquisition. Larger investments are capitalised and amortised in full over their estimated useful life on the basis of business criteria or, in the case of acquired data processing programs, generally over 12 months. Estimated useful life for depreciation purposes (in years):

Land	no depreciation
Bank premises and other properties – Shell – Building envelope	 max. 80 max. 30
Installations (fitting out, technical installations)	 max. 25
Fittings in rented properties	remaining duration of rental agreement[1]
IT systems and equipment	4
Acquired IT programmes	max. 1
Furniture / vehicles / machines	max. 5

1 In the case of rental agreements with an option to extend, depreciation is extended to the option date should the investment be made with the intention of taking up the option.

An impairment test of all tangible fixed assets is undertaken on a regular basis. An asset is subject to impairment if its book value exceeds the recoverable amount. In the real estate sector, the recoverable amount is determined by a property valuer. For other tangible fixed assets, the recoverable amount is equivalent to the value-in-use, which is defined according to business criteria.

Intangible assets

Goodwill. If the purchase cost of an acquisition is greater than the net assets valued in accordance with standard group-wide accounting principles, the remaining amount is capitalised as goodwill. This goodwill is amortised over the estimated useful life on a straight-line basis. The amortisation period is generally five years, from the date of acceptance, but a maximum of ten years, in justified instances. If the recoverability of goodwill is no longer ensured on the balance sheet date (impairment), an impairment is recognised.

Licences. These include purchased software licences. Smaller acquisitions are charged in full to General and administrative expenses in the year of acquisition. Larger investments are capitalised and normally fully amortised over 12 months.

Other intangible assets. This item includes acquired non-monetary assets with no physical existence which will provide the bank with measurable benefits over several years. Amortisation is over the estimated useful life on a straight-line basis. The amortisation period is generally five years, from the date of acceptance, but a maximum of ten years, in justified instances.

Cash bonds, bond issues and central mortgage institution loans

These items are recognised at nominal value. Holdings of own bonds and cash bonds are offset against the corresponding liability items (see also the section “Offsetting assets and liabilities”).

Provisions

Loss risks in connection with off-balance-sheet transactions (e.g. credit limits confirmed but not utilised) as well as other identifiable and foreseeable risks as of the balance sheet date are accounted for by means of appropriate, operationally necessary provisions. Creation and dissolution takes place via the item “Changes to provisions and other value adjustments and losses”.

Reserves for general banking risks

These items include reserves for general banking risks created and/or released since 2018. Creation and release of such reserves is shown in the income statement under Changes in reserves for general banking risks. Please see the next section “Retained earnings reserve” for reserves for general banking risks created/released prior to 2018 and solely at the parent company.

Retained earnings reserve

The retained earnings reserve includes retained earnings, i.e. the equity generated by the Group itself. This item includes reserves for general banking risks created at the parent company prior to 2018.

Pension schemes

An annual evaluation is performed to assess whether, from the group’s perspective, an economic benefit or economic obligation arises for the bank or the group as a result of a pension fund. The determination is based on agreements and annual financial statements of the pension funds, which, in Switzerland, are prepared according to Swiss GAAP FER 26. Other calculations showing the financial situation and existing surplus/shortfall for each pension fund in accordance with actual circumstances are also taken into account. Zürcher Kantonalbank has no obligations that go beyond the legal and regulatory basis, with the exception of the assumption of certain costs, as indicated in Note 16, to finance the transitional solution in connection with the restructuring of the pension fund due to the changed environment discussed. The employer contribution reserve is capitalised in the "Other assets" item. Additions and withdrawals are included in "Personnel expenses". Please see Note 13 for additional information.

Contingent liabilities, irrevocable commitments, obligations to pay up shares and make further contributions, credit commitments and fiduciary investments

With the exception of commitments under currency swaps facilities, off-balance-sheet transactions are reported at nominal value. Commitments under currency swaps facilities are reported in accordance with the principle of substance over form at 5 % of the nominal value. Appropriate provisions are set aside for identifiable risks. Irrevocable commitments also include forward commitment mortgages.

Taxes

As an independent public-law institution, Zürcher Kantonalbank is exempt from taxes on its income and capital under cantonal tax law (§ 61) and the federal law on direct taxation (§ 56).

The subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. is a finance company under Companies Law in Guernsey. In terms of tax law, as of 1 January 2008 the company is deemed to be resident and is liable to pay tax. As it does not perform any banking activities that are subject to income tax or any other regulated transactions that are subject to tax, Zürcher Kantonalbank Finance (Guernsey) Ltd. pays only a fixed "validation fee", which is included in General and administrative expenses. Zürcher Kantonalbank Finance (Guernsey) Ltd. is not liable for any federal, cantonal or municipal taxes in Switzerland.

The Swisscanto companies are subject to cantonal and federal taxes or the tax regime of Luxembourg in accordance with their domicile.

Zürcher Kantonalbank Österreich AG is subject to Austrian corporation tax. Its taxable income is taxed at a fixed rate of 25 percent.

The tax implications of time differences between the balance sheet values reported in the consolidated financial statements and the tax values in the individual accounts are reported as deferred tax claims or liabilities.

Deferred tax claims from loss carry-forwards are capitalised where it is likely that sufficient taxable profits will be generated within the statutory time limits, against which these differences/corresponding loss carry-forwards may be offset. Changes in deferred taxes are stated in the income statement via the Taxes item.

The property gains tax charged on the sale of land is separated from the gain on the sale of properties and booked to the income statement under taxes.

c) Explanations on risk management

For explanations on risk management in general and the treatment of the interest rate risk, other market risks and credit risks specifically, please refer to the statements in section l) Risk report (page 134 ff).

d) Explanation on the methods used for identifying default risks and determining the need for value adjustments

The methods used to identify default risks and determine the need for value adjustments are set out in the section "Value adjustments for default risks, provisions and losses from interest operations" in the accounting and valuation principles. Further information can also be found in section l) Risk report, under the sub-section "Credit risks" (page 143 ff).

e) Explanation on the valuation of collateral

The valuation of collateral for loans is specified in comprehensive internal regulations. They define the methods, procedures and competencies. These rules are continually reviewed and aligned with regulatory requirements and market changes. The bank distinguishes between mortgage claims and readily realisable collateral.

Mortgage claims

Zürcher Kantonalbank uses recognised estimation methods appropriate to the type of property for the valuation of mortgage claims. The lower of cost or market principle is applied: accordingly, the lower of estimated value or purchase price is taken as the lending value. This corresponds to the guidelines for the examination, valuation and processing of mortgage-secured loans issued by the Swiss Bankers Association. The key valuation factors for a property assessment are:

- Land (macro and micro position, area)
- Building (construction standard, condition, room concept, sustainability)
- Type of use (private, commercial, non-profit)
- Legal regulations
- Situation under property law and contractual agreements (rights, encumbrances)
- Result from rented properties

Model-based valuation processes are used in the first instance in the financing of single-family houses and owner-occupied apartments.

In the bank's internal hedonic model, the estimated value is determined based on the characteristics of the property to be valued and with the assistance of the data from similar market transactions.

Depending on the type of property, client and complexity, Zürcher Kantonalbank also makes use of expert appraisals. The assessment criteria, the valuation procedures and methods to be used and the required valuation skills of the experts are set out in the bank's internal regulations.

The valuation of mortgage claims is reviewed on a regular basis. The frequency depends on the type of property. Special developments in the real estate market or macroeconomic framework conditions may require an adjustment to the valuation intervals or portfolio-specific, extraordinary revaluations. The maximum permitted loan for the financed property is based on the class of collateral. This reflects the expected volatility of the value of the property or the usability of the property. It is determined by the type of property (e.g. single-family house, commercial property), the type of use (owner-occupied, rented) and other property-specific criteria (e.g. location, size of property).

Other collateral

Other collateral includes account balances, marketable securities as well as other readily realisable assets (precious metals, fiduciary investments, claims from life insurance policies, etc.). To the extent possible, lending values are based on market values. Other collateral is subject to the deduction of specified margins. These take into account the likelihood of fluctuations in value and concentration risks within the coverage.

f) Explanation on the bank's business policy regarding the use of derivative financial instruments and the use of hedge accounting

Use of derivative financial instruments

Trading in derivative financial instruments must comply with business policy requirements. It may be conducted for the purposes of proprietary and client trading as well as for hedging, and comprises both over-the-counter (OTC) and exchange-traded transactions.

Derivative financial instruments may only be established on underlyings that fulfil the following conditions:

- Prices are set regularly via a stock exchange or an alternative organised exchange or according to recognised, transparent regulations determined in advance.
- The prices are published.
- The underlying instrument may only be physically delivered for participation rights, bonds, fund units and precious metals.

Explanations regarding the application of hedge accounting

Hedge accounting is a balance sheet depiction of collateral relationships. It aims to reduce the volatility of the results figures or equity capital stated and adjust them to the economic risk. The Zürcher Kantonalbank Group applies hedge accounting to limit the interest rate risk in connection with balance sheet structure management. In this process, there is both a present value and an income consideration.

Contractually agreed client transactions, financial investments as well as debt financing in the banking book qualify as underlying transactions to be hedged. For the underlying instrument, a distinction is made between direct and indirect transactions. For direct transactions, Treasury has a direct influence on the timing and terms of the underlying instrument (purchase of financial investments, bond issues). Indirect transactions are understood to be all the transactions concluded by Sales and transferred to Treasury for interest risk management. For direct transactions, the result of individual transactions is taken into account, whilst for indirect transactions only the market value of the positions, based on changed market conditions (in particular the yield curve), is included. Appropriate derivative financial instruments (mainly interest swaps) are used for hedging purposes. For each hedging relationship, a review is undertaken to determine whether it meets the conditions for the application of hedge accounting (e.g. the hedging transactions must be concluded with an external counterparty).

All hedging transactions are treated as direct transactions. Zürcher Kantonalbank hedges the underlying transaction by means of a macro hedge. It optimises the total exposure on the basis of key rate sensitivities while adhering to the risk policy requirements. The result from the hedging transactions runs counter to the result of the underlying transactions and indicates the economic risk assumption and cover. The hedge effectiveness is measured every six months as of the balance sheet date at the end of June and the end of December. It is based on the effects on the result from the interest exposures of the underlying transactions and the hedging transactions. Specifically, the result from the underlying transaction is compared to the result from the hedging transaction as of the balance sheet date.

The cumulative absolute amounts from the monthly result from the underlying and hedging transactions are compared for the aggregate view of the hedge effectiveness over the six-month horizon. The hedge is regarded as effective as long as the result from the hedging transactions does not exceed the result from the underlying transactions. If the result from the hedging transactions, accumulated over six months, exceeds the result from the underlying transactions, the excessive part of the hedge is regarded as ineffective. The transactions responsible for the ineffectiveness of the hedge are then identified in the hedging portfolio. These transactions are derecognised from the hedging portfolio and allocated to the trading portfolio. This is carried out until the hedge is effective in the period under review. No ineffectiveness was recorded in the year under review.

g) Explanation on material events occurring after the balance sheet date

No significant events affecting the assets, liabilities, financial position and the results of operations of the group occurred between the balance sheet date and the date on which the consolidated financial statements were prepared.

i) Information on the balance sheet

1 Breakdown of securities financing transactions

in CHF million	2019	2018
Book value of receivables from cash collateral delivered in connection with securities borrowing and reverse repurchase transactions	15,588	17,004
Book value of obligations from cash collateral received in connection with securities lending and repurchase transactions	4,969	6,876
Book value of securities lent in connection with securities lending or delivered as collateral in connection with securities borrowing as well as securities in own portfolio transferred in connection with repurchase agreements	4,454	4,480
– of which, with unrestricted right to resell or pledge	4,454	4,480
Fair value of securities received and serving as collateral in connection with securities lending or securities borrowed in connection with securities borrowing as well as securities received in connection with reverse repurchase agreements with an unrestricted right to resell or repledge	45,792	49,237
– of which, repledged securities	160	114
– of which, resold securities	30,924	34,889

2 Overview of collateral for loans/receivables and off-balance-sheet transactions, as well as impaired loans/receivables

Overview by collateral

	Type of collateral			
in CHF million	Mortgage collateral	Other collateral	Unsecured	Total
Loans (before netting with value adjustments)				
Amounts due from customers	45	1,276	7,684	9,005
Mortgage loans				
– Residential property	70,188	14	17	70,219
– Office and business premises	9,305	–	9	9,314
– Commercial and industrial premises	2,417	1	26	2,444
– Other	2,386	–	2	2,388
Total mortgage loans	84,295	15	54	84,365
Total loans (before netting with value adjustments) 2019	84,341	1,291	7,738	93,369
Total loans (before netting with value adjustments) 2018	81,307	1,249	7,344	89,900
Total loans (after netting with value adjustments) 2019	84,341	1,291	7,584	93,215
Total loans (after netting with value adjustments) 2018	81,307	1,249	7,168	89,725
Off-balance-sheet				
Contingent liabilities	55	996	2,834	3,885
Irrevocable commitments	1,359	149	7,210	8,718
Obligations to pay up shares and make further contributions	–	–	257	257
Credit commitments	–	–	–	–
Total off-balance-sheet transactions 2019	1,414	1,145	10,301	12,860
Total off-balance-sheet transactions 2018	1,125	1,305	9,634	12,064

2 Overview of collateral for loans/receivables and off-balance-sheet transactions, as well as impaired loans/receivables (continued)

Information on impaired loans

Impaired loans	in CHF million	Gross debt amount	Estimated liquidation value of collateral	Net debt amount	Individual value adjustments[1]
2019		435	257	179	159
2018		504	286	218	181

1 Individual value adjustments of 100 percent of the net debt amount are normally made. Individual value adjustment rates may apply in the case of major positions.

3 Trading portfolios and other financial instruments at fair value

Assets in CHF million	2019	2018
Debt securities, money market securities/transactions	4,803	4,970
– of which, listed[1]	4,702	4,897
Equity securities	2,477	2,671
Precious metals and commodities	1,888	1,724
Other trading portfolio assets	–	–
Total trading transactions	9,168	9,364
Debt securities	–	–
Structured products	–	–
Other	–	–
Total other financial instruments at fair value	–	–
Total assets	9,168	9,364
– of which, determined using a valuation model	101	73
– of which, securities eligible for repo transactions in accordance with liquidity requirements	1,559	1,308

1 Listed = traded on a recognised exchange.

Liabilities in CHF million	2019	2018
Debt securities, money market securities/transactions	2,033	2,400
– of which, listed[1]	2,006	2,392
Equity securities	18	9
Precious metals and commodities	1	2
Other trading portfolio liabilities	6	7
Total trading transactions	2,058	2,418
Debt securities	–	–
Structured products	2,844	2,472
Other	–	–
Total other financial instruments at fair value	2,844	2,472
Total liabilities	4,902	4,890
– of which, determined using a valuation model	2,871	2,479

1 Listed = traded on a recognised exchange.

4 Derivative financial instruments (assets and liabilities)

in CHF million	Trading instruments: Positive replacement values	Trading instruments: Negative replacement values	Trading instruments: Contract volume[1]	Hedging instruments: Positive replacement values	Hedging instruments: Negative replacement values	Hedging instruments: Contract volume
Interest rate instruments						
Forward contracts including FRAs	4	3	13,294	–	–	–
Swaps	7,224	6,561	511,408	357	404	13,879
Futures	–	–	15,537	–	–	–
Options (OTC)	61	21	3,462	–	–	–
Options (exchange-traded)	–	–	–	–	–	–
Total	7,290	6,586	543,701	357	404	13,879
Foreign exchange/precious metals						
Forward contracts	2,781	3,181	442,229	–	–	–
Combined interest rate/currency swaps	342	617	3,388	185	–	1,614
Futures	–	–	306	–	–	–
Options (OTC)	68	67	45,403	–	–	–
Options (exchange-traded)	0	–	6	–	–	–
Total	3,191	3,865	491,332	185	–	1,614
Equity securities/indices						
Forward contracts	–	–	–	–	–	–
Swaps	5	7	291	–	–	–
Futures	–	–	2,240	–	–	–
Options (OTC)	5	40	978	–	–	–
Options (exchange-traded)	144	211	7,875	–	–	–
Total	154	258	11,385	–	–	–
Credit derivatives						
Credit default swaps	5	8	440	–	–	–
Total return swaps	2	0	124	–	–	–
First-to-default swaps	–	–	–	–	–	–
Other credit derivatives	–	–	–	–	–	–
Total	7	9	564	–	–	–
Other[2]						
Forward contracts	–	–	–	–	–	–
Swaps	10	10	538	–	–	–
Futures	–	–	574	–	–	–
Options (OTC)	0	–	0	–	–	–
Options (exchange-traded)	0	–	1	–	–	–
Total	10	10	1,113	–	–	–
Total before netting agreements						
2019	10,651	10,728	1,048,096	541	404	15,493
– of which, determined using a valuation model	10,651	10,728	–	541	404	–
2018	7,652	7,191	803,333	452	468	16,168
– of which, determined using a valuation model	7,652	7,191	–	452	468	–

1 The contract volume shows the amount of underlying on which a derivative is based or the notional amount underlying the derivative in accordance with the requirements of FINMA Circular 2015/01, irrespective of whether the derivative is traded long or short. The contract volume is determined differently depending on the type of contract and does not permit any direct conclusions to be drawn about the risk exposure.

2 Includes commodities and hybrid derivatives.

4 Derivative financial instruments (assets and liabilities) (continued)

Total after netting agreements[3] in CHF million	Positive replacement values (cumulative)	Negative replacement values (cumulative)
2019	1,486	1,303
2018	1,278	752

Breakdown by counterparty

Positive replacement values (after netting agreements)	Central clearing houses	Banks and securities dealers	Other customers
2019	70	457	960

3 For over-the-counter (OTC) transactions, the positive and negative replacement values of derivative financial instruments as well as the related cash collateral are offset (netting). For this purpose, a relevant bilateral agreement with the affected counterparties must be in place. This agreement must be proven to be recognised and legally enforceable.

5 Financial investments

	Book value		Fair value	
in CHF million	2019	2018	2019	2018
Debt securities	4,074	4,431	4,238	4,579
– of which, intended to be held to maturity	4,074	4,431	4,238	4,579
– of which, not intended to be held to maturity (available for sale)	–	–	–	–
Equity securities	90[1]	51	160[1]	67
of which, qualified participations[2]	20[1]	–	28[1]	–
Precious metals	255	219	255	219
Real estate[3]	3	4	3	4
Total financial investments	4,422	4,705	4,656	4,869
– of which, securities eligible for repo transactions in accordance with liquidity requirements	4,000	4,341	4,161	4,486

1 Mainly in connection with positive value adjustments in equity securities.
2 At least 10 percent of the capital or votes.
3 The insurance value of the real estate within financial investments amounted to CHF 3.0 million.

Counterparties by rating

in CHF million						
Moody's	Aaa – Aa3	A1 – A3	Baa1 – Baa3	Ba1 – Ba3	Lower than Ba3	Unrated
Standard & Poor's, Fitch	AAA – AA–	A+ – A–	BBB+ – BBB–	BB+ – B–	Below B–	Unrated
Debt securities: Book values						
2019	3,723	26	–	–	–	326

All but CHF 0.5 million of debt instruments without a rating fulfil the conditions for high-quality liquid assets (HQLA) according to the Liquidity Ordinance (LiqV).
If two ratings exist with different risk weightings, the rating with the lower risk weighting is used.
If more than two ratings exist with different risk weightings, those ratings which correspond to the two lowest risk weightings are taken into consideration.
The higher of the two risk weightings is used. Top priority is given to the issue rating and second priority to the issuer rating.

6 Presentation of non-consolidated participations

in CHF million	Cost value	Accumulated value adjustments/ changes in book value (equity valuation)	Book value end of 2018	Reclassifi-cations	Addi-tions	Disposals (incl. any FC differences)	Value adjustments	Changes in book value for participations using the equity method/depre-ciation reversals	Book value end of 2019	Market value end of 2019
Participations valued using the equity method										
– with market value	–	–	–	–	–	–	–	–	–	–
– without market value	23	−0	22	–	–	–	−2	1	21	–
Other participations										
– with market value	–	–	–	–	–	–	–	–	–	–
– without market value	126	−10	116	–	0	–	−2	4	117	–
Total participations[1]	148	−10	138	–	0	–	−5	5	138	–

1 No material impairment losses or partial or full reversals of impairment to be recorded.

7 Disclosures on companies in which the bank holds a permanent direct or indirect significant participation

Company name	Registered office	Business activity	Currency bank's capital	Bank's capital in CHF million	Zürcher Kantonalbank share of capital (in %)	Zürcher Kantonalbank voting rights (in %)	Held directly	Held indirectly
Fully consolidated participations								
Swisscanto Asset Management International S.A.	Luxembourg	Fund management	CHF	0	100.0	100.0		■
Swisscanto Fund Management Company Ltd.[1]	Zurich	Fund management	CHF	5	100.0	100.0		■
Swisscanto Holding Ltd.[2]	Zurich	Participations	CHF	24	100.0	100.0	■	
Swisscanto Private Equity CH I Ltd	Zurich	Financial services	CHF	0	100.0	100.0		■
Swisscanto Pensions Ltd.	Zurich	Financial services	CHF	1	100.0	100.0		■
Zürcher Kantonalbank Finance (Guernsey) Ltd.	Guernsey	Financial services	CHF	1	100.0	100.0	■	
Zürcher Kantonalbank Österreich AG	Salzburg	Financial services	EUR	6	100.0	100.0	■	
Reported under non-consolidated participations:[3]								
– of which, participations valued using the equity method								
Technopark Real Estate Ltd.	Zurich	Project planning, construction, maintenance	CHF	40	33.3	33.3	■	
– of which, from other non-consolidated participations								
Aduno Holding AG[4]	Zurich	Participations	CHF	25	14.7	14.7	■	
Pfandbriefzentrale der schweizerischen Kantonalbanken AG	Zurich	Pfandbrief institution	CHF	1,625[5]	17.8	17.8	■	
Subsidiaries not fully consolidated								
ZüriBahn AG[6]	Zurich	Cable car	CHF	5	100.0	100.0	■	
Zürcher Kantonalbank Representações Ltda.[7]	São Paulo	Representative office	BRL	0	100.0	100.0	■	

1 Swisscanto Fund Management Ltd holds 100 percent of the shares of Swisscanto Private Equity CH I Ltd.
2 Swisscanto Holding Ltd. holds 100 percent of the shares in Swisscanto Fund Management Company Ltd., Swisscanto Pensions Ltd. and Swisscanto Asset Management International S.A.
3 All non-consolidated participations whose share of capital is more than 10 percent are shown. In addition, either the share of the participations in the bank's capital must be more than CHF 2 million or the book value must be more than CHF 15 million.
4 Requirement to surrender shares when new shareholders are admitted in accordance with the shareholder agreement.
5 Of which CHF 325 million has been paid up.
6 Total assets in CHF thousand (2019: 5,395; 2018: 5,000); loss for the period in CHF thousand (2019: 705; 2018: 145).
7 Total assets in CHF thousand (2018: 279, 2017: 208); result for the period in CHF thousand (2018: 32, 2017: 42).

8 Presentation of tangible fixed assets

in CHF million	Cost value	Accumulated depreciation	Book value at end 2018	Change to scope of consolidation	Additions	Disposals	Depreciation	Reversals	Book value at end 2019
Bank buildings	1,306	–663	644	–	32	–0	–53	–	622
Other real estate	8	–6	2	–	–	–	–0	–	2
Proprietary or separately acquired software	0	–0	–	–	–	–	–	–	–
Other tangible fixed assets	229	–198	32	–	16	–0	–20[1]	–	27
Tangible assets acquired under finance leases	–	–	–	–	–	–	–	–	–
– of which, bank buildings	–	–	–	–	–	–	–	–	–
– of which, other real estate	–	–	–	–	–	–	–	–	–
– of which, other tangible fixed assets	–	–	–	–	–	–	–	–	–
Total tangible fixed assets	1,545	–867	677	–	48	–0	–74	–	651

1 The amortisation period for IT equipment is now four years for all servers instead of two years. As a result of this extension of the amortisation period, amortisation is reduced in 2019 from CHF 2.5 million to CHF 0.8 million.

The insurance value of the real estate within tangible fixed assets amounted to CHF 1,259 million.
The insurance value of the other tangible fixed assets amounted to CHF 394 million.

8 Presentation of tangible fixed assets (continued)

Operating leases

Leasing obligations not recognised in the balance sheet in CHF million	2019	2018
Due within 12 months	0	0
Due between 12 months and 5 years	0	0
Due after more than 5 years	–	–
Total of leasing obligations not recognised in the balance sheet	0	0
– of which, cancellable within 1 year	–	–

9 Presentation of intangible assets

in CHF million	Cost value	Accumulated amortisation	Book value end of 2018	Changes to scope of consolidation	Additions	Disposals	Amortisation	Reversals	Book value end of 2019
Goodwill	315	–174	141	–	–	–	–33	–	108
Patents	–	–	–	–	–	–	–	–	–
Licences	50	–50	0	–	1	–0	–1	–	0
Other intangible assets	–	–	–	–	15[1]	–	–1	–	14
Total intangible assets	365	–224	142	–	16	–0	–35	–	123

1 In connection with the agreed takeover of the investment management and marketing of GAM precious metals and money market funds.

10 Other assets and liabilities

in CHF million	Other assets 2019	Other assets 2018	Other liabilities 2019	Other liabilities 2018
Compensation account	–	124	29	–
Deferred income taxes recognised as assets	8	9	–	–
Amount recognised as assets in respect of employer contribution reserves	1	1	–	–
Amount recognised as assets relating to other assets from pension schemes	–	–	–	–
Negative goodwill	–	–	–	–
Settlement accounts	196	45	133	135
Indirect taxes	53	64	26	33
Other	8	47	17	37
Total	267	291	205	205

11 Assets pledged or assigned to secure own commitments, and assets under reservation of ownership

in CHF million	2019 Book value	2019 Effective commitment	2018 Book value	2018 Effective commitment
Pledged/assigned assets				
Amounts due from banks	1,329	1,310	1,289	1,271
Amounts due from customers	2,624	2,596	1,980	1,910
Mortgage loans	12,127	9,778	11,828	9,463
Trading portfolio assets	13	13	2	2
Financial investments	–	–	–	–
Total pledged/assigned assets	16,092	13,696	15,100	12,646

No assets are subject to reservation of ownership.
Note 1 shows instruments serving as collateral for which a right of resale or pledging has been granted in connection with securities financing.

12 Liabilities relating to own pension schemes and number and nature of equity instruments of the bank held by own pension schemes

Liabilities to own pension schemes from balance-sheet transactions (in CHF million)	2019	2018	Change
Amounts due in respect of customer deposits	105	148	–43
Cash bonds	–	–	–
Negative replacement values of derivative financial instruments	12	4	8
Accrued expenses and deferred income	–	–	–
Other liabilities	–	0	–0
Total	117	152	–35

Own pension schemes do not hold any of the bank's equity instruments.

13 Information on pension schemes

The Zürcher Kantonalbank pension fund is a public-law institution and is a separate legal entity. The purpose of the pension fund is to insure the bank's employees against the economic consequences of age, death and disability. The pension fund's pension plan comprises three different pension vehicles. The annuity plan insures the basic salary (annual salary) according to the combined defined benefit/defined contribution[1] principle. The capital plan insures any paid variable compensation (bonus) subject to AHV. The capital plan is also based on a combined defined benefit/defined contribution principle. The third vehicle – the supplementary account – enables insured individuals to pre-finance the reduction in benefits on early retirement between the ages of 58 and 64.

The premiums required for these plans constitute a component of personnel expenses. Contributions to the annuity and capital plans are funded jointly by the insured individual and the bank. The supplementary account is funded exclusively by the insured individuals.

An additional plan is operated in the form of a separate trust, the Marienburg Foundation of Zürcher Kantonalbank, for the senior management of affiliated employers. Structured on a defined contribution basis, this solution insures the element of the base salary in

1 Retirement benefits are based on the individually accumulated savings assets, while death and disability benefits are calculated as a percentage of the insured salary. Disability pensions are paid for life, and the pension is recalculated when the insured individual reaches normal retirement age.

excess of a specific minimum amount. The Marienburg Foundation of Zürcher Kantonalbank is funded jointly by the insured individuals and the bank. However, employer contributions for salary components insured in the Marienburg Foundation are lower than those in the pension fund after the age of 45. Also, unlike the pension fund, the Marienburg Foundation does not pay pensions, only retirement capital. Investment and longevity risk are therefore borne by the retired members.

The following employers are affiliated to Zürcher Kantonalbank's pension fund:
- Zürcher Kantonalbank's Grüningen Botanical Garden Trust
- Zürcher Kantonalbank pension fund
- Zürcher Kantonalbank's SanArena Trust
- Swisscanto Fund Management Company Ltd.
- Swisscanto Pensions Ltd.
- Zürcher Kantonalbank

in %	Coverage ratio as at 31.12.2019 (not yet audited)	Coverage ratio as at 31.12.2018 (audited)
Zürcher Kantonalbank pension fund	117	108
Marienburg Foundation of Zürcher Kantonalbank (solution for senior management)	110	108

Coverage ratio pursuant to Article 44 BVV2

Occupational pension provision for the employees of the Austrian subsidiary is outsourced to a collective scheme governed by Austrian law. The pension plan is structured on a defined contribution basis. The employees of subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. are not affiliated to any pension scheme.

Swisscanto Asset Management International SA in Luxembourg has set up a pension plan for all employees. The plan, including the investment of employee assets, is managed by an insurance company. The savings contributions are fully financed by the employer. The risks are comprehensively covered by the insurance company. The office in Germany is a member of the pension fund for the banking industry. The employees can save taxfree contributions for retirement, with the employer paying part of the contributions.

There is no possibility of a shortfall or surplus for pension solutions in other countries as the investment risk is fully borne by the employee.

13 Information on pension schemes (continued)

a) Employer contribution reserves (ECR)

in CHF million	Nominal value End of 2019	Waiver of use End of 2019	Net amount End of 2019	Net amount End of 2018	Influence of ECR on personnel expenses 2019	Influence of ECR on personnel expenses 2018
Zürcher Kantonalbank pension fund	1	–	1	1	–0	0
Total	1	–	1	1	–0	0

b) Economic benefit/obligations and the pension expenses

in CHF million	Over-/underfunding End of 2019	Economic interest of the bank 2019	Economic interest of the bank 2018	Change in economic interest versus previous year 2019	Contributions paid 2019	Pension expenses in personnel expenses 2019	Pension expenses in personnel expenses 2018
Employer-sponsored funds/employer-sponsored pension schemes	–	–	–	–	–	–	–
Pension plans without overfunding/underfunding	–	–	–	–	0	0	108
Pension plans with overfunding[1]	45[2]	–	–	–	111	111	–
Pension plans with underfunding	–	–	–	–	–	–	–
Pension schemes without own assets	–	–	–	–	–	–	–
Total	45	–	–	–	112	112	108

1 Including change in provisions for pension benefit obligations (2019: release CHF 1 million/2018: release CHF 1 million).

2 provisional, not yet audited.

14 Issued structured products

Underlying risk of the embedded derivative in CHF million		Book value – Valued as a whole: Booked in trading portfolio	Book value – Valued as a whole: Booked in other financial instruments at fair value	Book value – Valued separately: Value of the host instrument	Book value – Valued separately: Value of the derivative	Total
Interest rate instruments	With own debenture component	–	14	–	–	14
	Without oDC	–	–	–	–	–
Equity securities	With own debenture component	–	2,310	–	–	2,310
	Without oDC	–	–	–	–	–
Foreign currencies	With own debenture component	–	355	–	–	355
	Without oDC	–	–	–	–	–
Commodities/precious metals	With own debenture component	–	13	–	–	13
	Without oDC	–	–	–	–	–
Loans	With own debenture component	–	145	–	–	145
	Without oDC	–	–	–	–	–
Real estate	With own debenture component	–	–	–	–	–
	Without oDC	–	–	–	–	–
Hybrid instruments	With own debenture component	–	7	–	–	7
	Without oDC	–	–	–	–	–
Total 2019		–	2,844	–	–	2,844
Total 2018		–	2,472	–	–	2,472

15 Presentation of bonds outstanding and mandatory convertible bonds (incl. cash bonds and central mortgage institution loans)

Cash bonds

	Outstanding amount in CHF million	Weighted average interest rate	Maturities
31.12.2019	143	0.61	2020–2029
31.12.2018	167	0.70	2019–2028

Maturity structure in CHF million	2020	2021	2022	2023	2024	after 2024	Total
Cash bonds	16	33	39	3	22	30	143

Bonds and mandatory convertible bonds

	Outstanding amount in CHF million	Weighted average interest rate	Maturities
31.12.2019 (Issuer: Zürcher Kantonalbank)	13,329		
– of which, non-subordinated	11,858	0.60	2020–2044
of which, subordinated without PONV clause[1]	–	–	–
– of which, subordinated with PONV clause	1,471	2.17	2025–perpetual
31.12.2018 (Issuer: Zürcher Kantonalbank)	11,666		
– of which, non-subordinated	10,176	0.72	2019–2044
of which, subordinated without PONV clause[1]	–	–	–
– of which, subordinated with PONV clause	1,491	2.18	2025–perpetual

Maturity structure in CHF million	2020	2021	2022	2023	2024	after 2024	Total
Bond issues	5,039	1,095	1,299	247	308	5,341	13,329

1 Point of non-viability (PONV).

Central mortgage institution loans

	Outstanding amount in CHF million	Weighted average interest rate	Maturities
31.12.2019	9,778	0.61	2020–2039
31.12.2018	9,463	0.64	2019–2030

Maturity structure in CHF million	2020	2021	2022	2023	2024	after 2024	Total
Central mortgage institution loans[1]	962	794	616	1,229	1,923	4,254	9,778

1 Pfandbriefzentrale der schweizerischen Kantonalbanken AG loans.

16 Presentation of value adjustments and provisions, reserves for general banking risks, and changes therein during the current year

in CHF million	Balance at end of 2018	Changes to scope of consolidation	Use in conformity with designated purpose and reversals	Reclassifi-cations	Currency differences	Past due interest, recoveries	New creations charged to income	Releases to income statement	Balance at end of 2019
Provisions for deferred taxes	0	–	–	–	–	–	–	–0	0
Provisions for pension benefit obligations[1]	30	–	–12	–	–	–	–	–1	17
Provisions for default risks	133	–	–6	–	–	–	50	–50	127
Provisions for other business risks[2]	62	–	–3	–	–	–	7	–6	59
Provisions for restructuring	–	–	–	–	–	–	–	–	–
Other provisions[3]	31	–	–4	–	–0	–	12	–1	38
Total provisions	255	–	–25	–	–0	–	69	–58	242
Reserves for general banking risks	200	–	–	–	–	–	–	–	200
Value adjustments for default and country risks	181	–	–10	–	–0	2	49	–62	159
– of which, value adjustments for default risks in respect of impaired loans/receivables[4]	181	–	–10	–	–0	2	49	–62	159
– of which, value adjustments for latent risks	–	–	–	–	–	–	–	–	–

1 In line with its sustainable human resources policy, the Board of Directors decided in December 2016 that the bank would assume certain costs for the financing of transitional solutions in connection with the realignment of the pension fund to the changed environment.

2 Provisions for other business risks relate to provisions for settlement risks, for example, which cover identifiable risks as at the balance sheet date.

3 Other provisions include provisions for litigation, provisions for employees' holiday credits and provisions for the ZKB company anniversary in 2020.

4 Default risks consist primarily of counterparty risks, for which value adjustments of 100 percent of the net debt amount are generally made. Individual value adjustment rates may apply in the case of major positions.

Recoveries from amounts due derecognised in previous periods are reported directly in Changes in value adjustments for default risk and losses from interest operations (2019: CHF 1 million/2018: CHF 7 million).
For more details on the management of credit risks, operational risks and legal and compliance risks, please refer to section I) Risk report.

17 Presentation of the bank's capital

The disclosure pursuant to the accounting rules for banks (ARB) is only made by the parent company (page 174).

18 Number and value of equity securities or options on equity securities held by all executives and directors and by employees, and disclosures on any employee participation schemes

Neither Zürcher Kantonalbank nor its subsidiaries have employee participation schemes.

19 Amounts due from/to related parties

in CHF million	Due from 2019	Due from 2018	Due to 2019	Due to 2018
Holders of qualified participations	12	7	938	839
Group companies	1	–	0	4
Linked companies	493	573	875	810
Transactions with members of governing bodies	17	21	28	24
Other related parties	–	–	–	–

Affiliated companies are public-law institutions of the respective canton or public-private enterprises in which the canton holds qualified participations.
On- and off-balance-sheet transactions with related parties are conducted at usual market conditions, with the exception of loans to members of governing bodies. Loans to governing bodies are granted on employee terms in some cases.
This primarily involved the usual balance sheet banking business, i.e. it was mainly amounts due from and due to customers.
The totals above also include securities items and claims and liabilities from transactions in derivatives (positive and negative replacement values).
The off-balance-sheet transactions with related parties in the amount of CHF 232 million (2018: CHF 182 million) primarily include irrevocable loan commitments and other contingent liabilities.

20 Disclosure of holders of significant participations

The disclosure pursuant to the accounting rules for banks (ARB) is only made by the parent company (page 175).

21 Disclosure of own shares and composition of equity capital

in CHF million	2019	2018
Reserves for general banking risks	200	200
Bank's capital	2,425	2,425
Retained earnings reserve	8,875	8,445
Foreign currency translation reserve	–7	–6
Consolidated profit	845	788
Total shareholders' equity	12,337	11,852

The bank does not hold any of its own shares.

22 Disclosures in accordance with the Ordinance against Excessive Compensation with respect to Listed Stock Corporations and Article 663c para. 3 CO for banks whose equity securities are listed

The disclosure pursuant to the accounting rules for banks (ARB) is only made by the parent company (page 176).

23 Maturity structure of financial instruments

in CHF million	At sight	Cancellable	Due: within 3 months	Due: within 3 to 12 months	Due: after 1 to 5 years	Due: after 5 years	No maturity	Total
Assets/financial instruments								
Liquid assets	36,786	–	–	–	–	–	–	36,786
Amounts due from banks	1,383	12	1,666	1,573	238	44	–	4,917
Amounts due from securities financing transactions	–	6,731	7,313	1,435	109	–	–	15,588
Amounts due from customers	194	1,613	3,086	1,169	2,161	682	–	8,905
Mortgage loans	116	481	9,641	10,478	40,722	22,872	–	84,311
Trading portfolio assets	9,168	–	–	–	–	–	–	9,168
Positive replacement values of derivative financial instruments	1,486	–	–	–	–	–	–	1,486
Other financial instruments at fair value	–	–	–	–	–	–	–	–
Financial investments	345	–	87	258	2,378	1,352	3	4,422
Total assets/financial instruments 2019	49,478	8,838	21,793	14,912	45,608	24,950	3	165,583
Total assets/financial instruments 2018	53,674	3,886	26,380	14,467	46,100	23,356	4	167,867
Debt capital/ financial instruments								
Amounts due to banks	2,146	7	28,418	2,803	–	709	–	34,082
Liabilities from securities financing transactions	–	2,967	2,003	–	–	–	–	4,969
Amounts due in respect of customer deposits	46,834	33,867	2,197	587	347	1,257	–	85,089
Trading portfolio liabilities	2,058	–	–	–	–	–	–	2,058
Negative replacement values of derivative financial instruments	1,303	–	–	–	–	–	–	1,303
Liabilities from other financial instruments at fair value	2,844	–	–	–	–	–	–	2,844
Cash bonds	–	–	2	14	97	30	–	143
Bond issues	–	1,471	2,394	2,644	2,949	3,871	–	13,329
Central mortgage institution loans	–	–	270	692	4,562	4,254	–	9,778
Total debt capital/financial instruments 2019	55,185	38,311	35,284	6,740	7,955	10,120	–	153,595
Total debt capital/financial instruments 2018	32,825	60,663	39,303	5,134	7,605	10,842	–	156,371

24 Assets, liabilities and off-balance-sheet positions by domestic and foreign origin in accordance with the domicile principle

	2019		2018	
in CHF million	Domestic	Foreign	Domestic	Foreign
Assets				
Liquid assets	36,668	119	40,937	52
Amounts due from banks	807	4,110	777	4,026
Amounts due from securities financing transactions	8,141	7,447	7,277	9,727
Amounts due from customers	6,724	2,180	6,508	1,960
Mortgage loans	84,310	0	81,255	0
Trading portfolio assets	5,105	4,063	5,566	3,798
Positive replacement values of derivative financial instruments	1,102	384	970	308
Other financial instruments at fair value	–	–	–	–
Financial investments	2,989	1,433	3,147	1,558
Accrued income and prepaid expenses	274	19	274	19
Non-consolidated participations	137	1	137	1
Tangible fixed assets	648	3	674	3
Intangible assets	122	0	141	0
Other assets	258	9	282	9
Total assets	147,286	19,768	147,947	21,461
Liabilities				
Amounts due to banks	1,935	32,147	2,835	34,184
Liabilities from securities financing transactions	4	4,965	9	6,868
Amounts due in respect of customer deposits	78,220	6,869	78,803	6,735
Trading portfolio liabilities	974	1,085	1,029	1,390
Negative replacement values of derivative financial instruments	872	431	329	422
Liabilities from other financial instruments at fair value	1,657	1,187	1,351	1,120
Cash bonds	143	–	167	–
Bond issues	13,329	–	11,666	–
Central mortgage institution loans	9,778	–	9,463	–
Accrued expenses and deferred income	662	12	711	14
Other liabilities	203	2	204	1
Provisions	240	1	254	2
Reserves for general banking risks	200	–	200	–
Bank's capital	2,425	–	2,425	–
Retained earnings reserve	8,752	123	8,326	118
Foreign currency translation reserve	–7	–	–6	–
Consolidated profit	838	6	781	7
Total liabilities	120,226	46,828	118,547	50,861
Off-balance-sheet transactions				
Contingent liabilities	1,776	2,108	1,749	2,353
Irrevocable commitments	7,741	977	6,668	1,030
Obligations to pay up shares and make further contributions	257	0	262	1
Credit commitments	–	–	–	–

25A Assets by country or group of countries

	2019		2018	
	in CHF million	Share as %	in CHF million	Share as %
Switzerland	147,286	88.2	147,947	87.3
Rest of Europe	13,351	8.0	14,272	8.4
– of which, Germany	1,972	1.2	4,256	2.5
– of which, France	1,009	0.6	554	0.3
– of which, United Kingdom	4,408	2.6	3,972	2.3
– of which, Guernsey	27	0.0	55	0.0
Americas	4,086	2.4	4,911	2.9
– of which, USA	2,764	1.7	3,442	2.0
Asia and Oceania	2,192	1.3	2,255	1.3
Africa	139	0.1	23	0.0
Total assets	167,054	100.0	169,408	100.0

25B Liabilities by country or group of countries

	2019		2018	
	in CHF million	Share as %	in CHF million	Share as %
Switzerland	120,226	72.0	118,547	70.0
Rest of Europe	23,008	13.8	24,217	14.3
– of which, Germany	3,953	2.4	3,487	2.1
– of which, France	3,138	1.9	1,930	1.1
– of which, United Kingdom	2,978	1.8	5,614	3.3
– of which, Guernsey	1,843	1.1	1,795	1.1
Americas	12,693	7.6	15,071	8.9
– of which, USA	3,696	2.2	5,833	3.4
Asia and Oceania	9,342	5.6	10,445	6.2
Africa	1,785	1.1	1,128	0.7
Total liabilities	167,054	100.0	169,408	100.0

25C Contingent liabilities, irrevocable commitments, obligations to pay up shares and make further contributions by country or group of countries

	2019		2018	
	in CHF million	Share as %	in CHF million	Share as %
Switzerland	9,774	76.0	8,679	71.9
Rest of Europe	1,675	13.0	2,127	17.6
– of which, Germany	136	1.1	57	0.5
– of which, France	73	0.6	0	0.0
– of which, United Kingdom	178	1.4	210	1.7
– of which, Guernsey	903	7.0	1,484	12.3
Americas	738	5.7	693	5.7
– of which, USA	61	0.5	40	0.3
Asia and Oceania	634	4.9	525	4.4
Africa	39	0.3	39	0.3
Total	12,860	100.0	12,064	100.0

26 Breakdown of total assets by credit rating of country groups (risk domicile view)

Rating system		2019 Net foreign exposure		2018 Net foreign exposure	
ZKB's own country rating	Moody's	in CHF million	Share as %	in CHF million	Share as %
A	Aaa / Aa1 / Aa2 / Aa3	12,306	82.1	11,383	82.1
B	A1 / A2 / A3	1,162	7.7	915	6.6
C	Baa1 / Baa2 / Baa3	833	5.6	792	5.7
D	Ba1 / Ba2	351	2.3	430	3.1
E	Ba3	57	0.4	256	1.8
F	B1 / B2 / B3	256	1.7	90	0.6
G	Caa1 / Caa2 / Caa3 / Ca / C	29	0.2	1	0.0
Total		14,994	100.0	13,867	100.0

For further information, please see the "Credit risks" section in the Risk Report.

27 Balance sheet by currencies

	Currencies translated in CHF million				
	CHF	USD	EUR	Other	Total in CHF million
Assets					
Liquid assets	36,601	6	175	5	36,786
Amounts due from banks	835	3,468	484	130	4,917
Amounts due from securities financing transactions	5,501	5,402	4,672	13	15,588
Amounts due from customers	5,920	1,534	1,089	363	8,905
Mortgage loans	84,126	126	58	–	84,311
Trading portfolio assets	7,038	1,153	578	399	9,168
Positive replacement values of derivative financial instruments	1,230	137	104	15	1,486
Other financial instruments at fair value	–	–	–	–	–
Financial investments	3,581	82	759	0	4,422
Accrued income and prepaid expenses	236	31	20	6	293
Non-consolidated participations	137	0	1	0	138
Tangible fixed assets	648	–	3	–	651
Intangible assets	122	–	0	–	123
Other assets	249	7	10	0	267
Total assets shown in balance sheet	146,223	11,947	7,953	931	167,054
Delivery entitlements from spot exchange, forward forex, forex options and precious metal transactions	119,027	160,153	117,597	53,937	450,715
Total assets	265,250	172,100	125,550	54,868	617,769
Liabilities					
Amounts due to banks	8,069	19,247	4,512	2,254	34,082
Liabilities from securities financing transactions	61	1,754	3,154	–	4,969
Amounts due in respect of customer deposits	75,450	3,589	5,091	959	85,089
Trading portfolio liabilities	1,355	495	83	126	2,058
Negative replacement values of derivative financial instruments	923	141	222	18	1,303
Liabilities from other financial instruments at fair value	1,751	509	573	11	2,844
Cash bonds	143	–	–	–	143
Bond issues	9,952	–	3,377	–	13,329
Central mortgage institution loans	9,778	–	–	–	9,778
Accrued expenses and deferred income	594	48	28	4	674
Other liabilities	158	40	3	3	205
Provisions	240	–	1	–	242
Reserves for general banking risks	200	–	–	–	200
Bank's capital	2,425	–	–	–	2,425
Retained earnings reserve	8,891	–	–16	–	8,875
Foreign currency translation reserve	–	–	–7	–	–7
Consolidated profit	844	–	1	–	845
Total liabilities shown in the balance sheet	120,835	25,823	17,021	3,375	167,054
Delivery obligations from spot exchange, forward forex, forex options and precious metal transactions	144,781	146,574	108,438	51,360	451,154
Total liabilities	265,616	172,397	125,460	54,735	618,208
Net position per currency in 2019	–366	–297	90	134	–439
Net position per currency in 2018	–197	172	–47	161	89

j) Information on off-balance-sheet transactions

The following gives more detailed information on off-balance-sheet positions as well as managed assets and other liabilities not included in the balance sheet.

28 Contingent liabilities and contingent assets

in CHF million	2019	2018
Guarantees to secure credits and similar	449	372
Performance guarantees and similar	2,617	2,893
Irrevocable commitments arising from documentary letters of credit	819	838
Other contingent liabilities	0	–
Total contingent liabilities	3,885	4,102
Contingent assets arising from tax losses carried forward	–	–
Other contingent assets	–	–
Total contingent assets	–	–

29 Breakdown of credit commitments

There are no credit commitments as of 31 December 2019 and 31 December 2018.

30 Breakdown of fiduciary transactions

in CHF million	2019	2018
Fiduciary investments with third-party companies	558	398
Fiduciary investments with linked companies	–	–
Fiduciary loans	–	–
Fiduciary transactions arising from securities lending and borrowing (in the bank's own name for the account of customers)	–	–
Other fiduciary transactions	–	–
Total	558	398

31 Breakdown of managed assets and presentation of their development

a) Breakdown of managed assets

Type of managed assets in CHF million	2019	2018
Assets in collective investment schemes managed by the bank	96,540[2]	80,345
Assets under discretionary asset management agreements	72,412	63,272
Other managed assets	164,390	151,577
Total managed assets (including double counting)[1]	333,341[3]	295,194
– of which, double counting	54,601	46,108

1 The client assets shown include all client assets of an investment nature held with Zürcher Kantonalbank, as well as client assets held with third-party banks that are managed by Zürcher Kantonalbank. Zürcher Kantonalbank also includes client deposits that are not of an investment nature in its reported client assets. Non-inclusion of accounts that do not have an investment element would lead to greater volatility in managed client assets and thus distort the meaningfulness of trends in client assets. Assets held with Zürcher Kantonalbank but managed by third parties (custody-only) are not included. Banks and significant investment fund companies (including collective pension fund foundations, investment trusts, pension foundations and pension funds) for which Zürcher Kantonalbank acts exclusively as custodian bank are treated as custody-only.
2 This includes the precious metals funds acquired from GAM (CHF 1.9 billion).
3 The main reason for the higher value compared to the previous year is the general market trend.

b) Presentation of the development of managed assets

in CHF million	2019	2018
Total managed assets (including double counting) at beginning	295,194	288,802
+/– net new money inflow or net new money outflow[1]	11,656[2]	17,995
+/– price gains/losses, interest, dividends and currency gains/losses	27,006[3]	–11,497
+/– other effects	–515	–106
Total managed assets (including double counting) at end	333,341	295,194

1 The net new money inflow/outflow corresponds to the development of managed client assets adjusted for fluctuations in prices and exchange rates, interest and dividend payments, fees and expenses charged to clients, and reclassification of assets. Changes due to acquisitions/disposals of subsidiaries are not included. The interest billed to loan clients is included in the change in net new money inflow/outflow.
2 This includes the precious metals funds acquired from GAM (CHF 1.9 billion).
3 The main reason for the high value is the general market trend.

k) Information on the income statement

In this section, individual income statement items are broken down in greater detail and the components of the return on equity explained.

32 Breakdown of the result from trading activities and the fair value option

a) Breakdown by business area (in accordance with the organisation of the bank/financial group)

in CHF million	2019	2018
Result from trading in foreign exchange, bank notes and precious metals	112	105
Result from trading in bonds, interest rate and credit derivatives	100	65
Result from trading in equities and structured products	52	63
Result from other trading activities[1]	54	52
Total	319	286

1 The result from other trading activities includes results from securities lending and borrowing as well as positions for which the Executive Board or Asset Management is responsible.

b) Breakdown by underlying risk and based on the use of the fair value option

		Result from trading activities from:						
in CHF million	2019	Foreign exchange and bank notes	Precious metals	Securities lending and borrowing	Bonds, interest rate and credit derivatives	Equities and equity derivatives	Commodities and commodity derivatives	Other products[2]
Result from trading in foreign exchange, bank notes and precious metals	112	108	6	–	−1	–	–	–
Result from trading in bonds, interest rate and credit derivatives	100	−4	–	–	104	0	–	–
Result from trading in equities and structured products	52	6	−1	–	−7	56	−0	−1
Result from other trading activities	54	0	–	54	−3	3	−0	1
Total	319	110	5	54	92	59	−1	−1
– of which, from fair value option on assets	–	–	–	–	–	–	–	–
– of which, from fair value option on liabilities	−380	6	−0	–	4	−385	−2	−3

2 Trading income from other products includes hybrid products and real estate derivatives.

33 Disclosure of material refinancing income in the item Interest and discount income as well as material negative interest

During financial year 2019, refinancing income from trading activities of CHF –41.3 million (previous year: CHF –50.0 million) was included in the item Interest and discount income.

The item Interest and discount income also includes the result of currency swaps in the amount of CHF 692.4 million (previous year: CHF 626.5 million), which were entered into solely for the purpose of engaging in interest arbitrage.

Negative interest on lending business is shown as a reduction in the interest and discount income. Negative interest on deposit-taking business is shown as a reduction in interest expenses.

in CHF million	2019	2018
Negative interest on lending business (reduction in interest and discount income)	240	204
Negative interest on deposit-taking business (reduction in interest expenses)	125	117

34 Breakdown of personnel expenses

in CHF million	2019	2018
Salaries for members of the bank's governing bodies and personnel	816	795
– of which, alternative forms of variable compensation	–	–
AHV, IV, ALV and other social security contributions[1]	178	174
Changes in book value for economic benefits and obligations arising from pension schemes	–	–
Other personnel expenses	33	33
Total	1,026	1,002

1 Including change in provisions for pension benefit obligations (2019: release CHF 1 million/2018: release CHF 1 million).

35 Breakdown of general and administrative expenses

in CHF million	2019	2018
Office space expenses	34	33
Expenses for information and communications technology	154	163
Expenses for vehicles, equipment, furniture and other fixtures, as well as operating lease expenses	2	2
Fees of audit firms	7	8
– of which, for financial and regulatory audits	7	8
– of which, for other services	0	0
Other operating expenses	221	222
– of which, compensation for state guarantee	22	22
Total	417	428

36 Explanations regarding material losses, extraordinary income and expenses, reserves for general banking risks and value adjustments and provisions no longer required

in CHF million	2019	2018
Extraordinary income		
Reversal of impairment on other participations	4	0
Income from sale of other real estate / bank premises	0	21
Income from sale of participations	0	80
Other	0	1
Total	4	103
Extraordinary expenses		
Losses from disposal of other real estate / bank premises	0	0
Losses from disposal of participations	–	0
Other	0	0
Total	0	0
Changes in reserves for general banking risks		
Creation of reserves for general banking risks	–	200[1]
Release of reserves for general banking risks	–	–
Total	–	200

1 Creation of CHF 200 million of reserves for general banking risks. This was directly related to the release of provisions for other business risks and other provisions that were no longer required following the completion of the investigation by the US Department of Justice into the bank's legacy business with US clients. In the financial year, no material value adjustments or provisions no longer required were recorded.

37 Disclosure of and reasons for revaluations of participations and tangible fixed assets up to acquisition cost at maximum

in CHF million		2019	2018
Participations	Registered office		
CLS Group Holdings AG	Lucerne	–	0
Venture Incubator AG	Altendorf	3	–
Total		3	0

Appreciation is applied to non-listed participations in accordance with the mean value method and, for listed participations, in accordance with the market value method.

38 Income statement broken down according to domestic and foreign origin, according to the principle of permanent establishment

	2019		2018	
in CHF million	Domestic	Foreign	Domestic	Foreign
Result from interest operations				
Interest and discount income	1,861	0	1,811	1
Interest and dividend income from financial investments	35	0	44	0
Interest expense	–687	–0	–633	–0
Gross result from interest operations	1,209	0	1,222	1
Changes in value adjustments for default risks and losses from interest operations	6	0	–10	0
Subtotal net result from interest operations	1,216	1	1,212	1
Result from commission business and services				
Commission income from securities trading and investment activities	685	101	679	124
Commission income from lending activities	58	0	50	0
Commission income from other services	149	1	145	2
Commission expense	–181	–36	–181	–43
Subtotal result from commission business and services	711	66	693	83
Result from trading activities				
Result from trading activities and the fair value option	302	16	274	12
Other result from ordinary activities				
Result from the disposal of financial investments	6	–	2	–0
Income from participations	25	0	32	0
– of which, participations valued using the equity method	2	0	2	0
– of which, from other non-consolidated participations	23	0	30	0
Result from real estate	5	0	6	0
Other ordinary income	68	0	9	0
Other ordinary expenses	–2	–	–3	–0
Subtotal other result from ordinary activities	102	0	46	–0
Operating expenses				
Personnel expenses	–1,011	–15	–983	–18
General and administrative expenses	–408	–9	–416	–12
Subtotal operating expenses	–1,419	–24	–1,400	–31
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets	–111	–1	–190	–2
Changes to provisions and other value adjustments and losses	–12	0	194	–0
Operating result	789	58	829	63
Extraordinary income	4	0	103	0
Extraordinary expenses	–0	–0	–0	–
Changes in reserves for general banking risks	–	–	–200	–
Taxes	–4	–1	–5	–1
Consolidated profit	788	57	727	61

39 Presentation of current taxes, deferred taxes, and disclosure of tax rate

in CHF million	2019	2018
Creation of provisions for deferred taxes	–	–0
Reversal of provisions for deferred taxes	0	–
Recognition of deferred taxes on losses carried forward	–0	–0
Recognition of other deferred taxes	–	–0
Expenses for current income and capital taxes	–5	–6
Expenses for property gains taxes	–	–0
Total	–5	–7
Unrecognised tax reductions on losses carried forward, and tax credits not recognised under the principle of prudence	–	–
Hypothetical deferred income taxes calculated at theoretical tax rates on revaluations of investments not relevant for tax purposes	–	–

Figures in table: minus = expense; plus = income

As Zürcher Kantonalbank is exempt from direct income and capital taxes, no weighted average interest rate is disclosed.

40 Disclosures and explanations of the earnings per equity security in the case of listed banks

Zürcher Kantonalbank has no listed equity securities.

41 Components of return on equity

in %	2019	2018
Return on equity (RoE)	7.2	7.1

in CHF million	2019	2018
Relevant net annual result for calculating ROE		
Consolidated profit	845	788
Total	845	788
Relevant average equity[1] for calculating ROE		
Average bank's capital	2,425	2,425
Average other equity components	9,282	8,683
Total	11,707	11,108

1 The average bank's capital and other equity components are calculated on a monthly basis.

I) Risk report

1.1.1 Risk profile

In the lending business, the volume of mortgage loans increased by 3.8 percent to CHF 84.3 billion. At CHF 60.8 billion, nearly three quarters of real estate financing can be attributed to retail clients. The bank closely monitors the developments in prices and vacancies, which vary by region, and continually adjusts its mortgage lending policy accordingly. The self-regulation announced in the summer of 2019 stipulating a reduction of the maximum permitted loan-to-value ratio for new financing of investment properties was already implemented by Zürcher Kantonalbank in 2018 in its lending criteria policy. There were no material changes in the rating structure of the various credit portfolios.

The value at risk for market risks in the trading book shows a less volatile trend for 2019. The low risk figures for Trading reflects its strategy of focusing on the client business and the lack of major shocks to the financial markets in 2019.

Asset and liability risk management continues to be impacted by the negative interest rates in Swiss francs. The interest-rate sensitivity of the banking book is slightly higher than in the previous year. The interest rate position still serves to stabilise interest gains and as a strategic hedge against persistently low interest rates. The key figures for liquidity risk indicate a comfortable liquidity situation for Zürcher Kantonalbank.

In the area of operational risks, the management of process and cyber risks continues to require a high level of attention. Compliance risks remain stable. Adapting to the changing regulatory framework for financial service providers and its increasing complexity is still tying up substantial resources. In 2019, the more stringent requirements for investor protection, data protection and the fight against money laundering required particular attention.

1.1.2 Internal control system (ICS)

The ICS comprises all of the control structures and processes that constitute the basis for the achievement of the group's business policy objectives and its proper operation at all levels. The ICS comprises not only retrospective checks but also planning and management activities. An effective ICS includes control activities that are integrated into workflows, suitable risk management and compliance processes, and appropriate supervisory bodies compared to the size, complexity and risk profile of the institution, in particular an independent risk control and compliance function.

1.1.3 Principles of risk management

The objective of risk management is to support the bank in generating added value while maintaining 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 that entail 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, restricted and monitored.
- Risk and return: The bank seeks to achieve a balanced relationship between risk and return for all transactions. Assessment of the risk/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 processes of group-wide risk management.

1.1.4 Principles of compliance

The objective of compliance is to ensure that Zürcher Kantonalbank conducts its business operations in accordance with legal and ethical norms. The principles of the compliance policy are as follows: relevant legal and ethical norms; ethical and performance-related basic values in a code of conduct; duty of all employees and members of governing bodies to comply with laws, regulations, internal rules, industry standards and codes of conduct, including appropriate sanctions for any violations; special reporting procedure available to employees for identified violations of the rules (whistleblowing). Primary responsibility for compliance lies with the Executive Board. The Compliance function prepares an annual assessment of compliance risk and a corresponding action plan based on a risk inventory. The Compliance function is organisationally independent of the income-driven business units. 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.

1.1.5 Risk and compliance organisation

The risk management organisation is based on the Three Lines of Defence model. The profit-driven business units form the first line. They actively manage risks and are responsible for constant compliance with internal and external risk tolerance and compliance requirements. The risk management and control units that are independent of management represent the second line of defence. Under the stewardship of the Chief Risk Officer (CRO) or the General Counsel, they identify, evaluate and monitor risks and submit regular reports to the Executive Board and the Board of Directors. The third line of defence is the Audit organisation unit, which is responsible for the internal auditing of the Zürcher Kantonalbank under the applicable laws and regulations. Each line is supported by the appropriate committees (see Fig. 1).

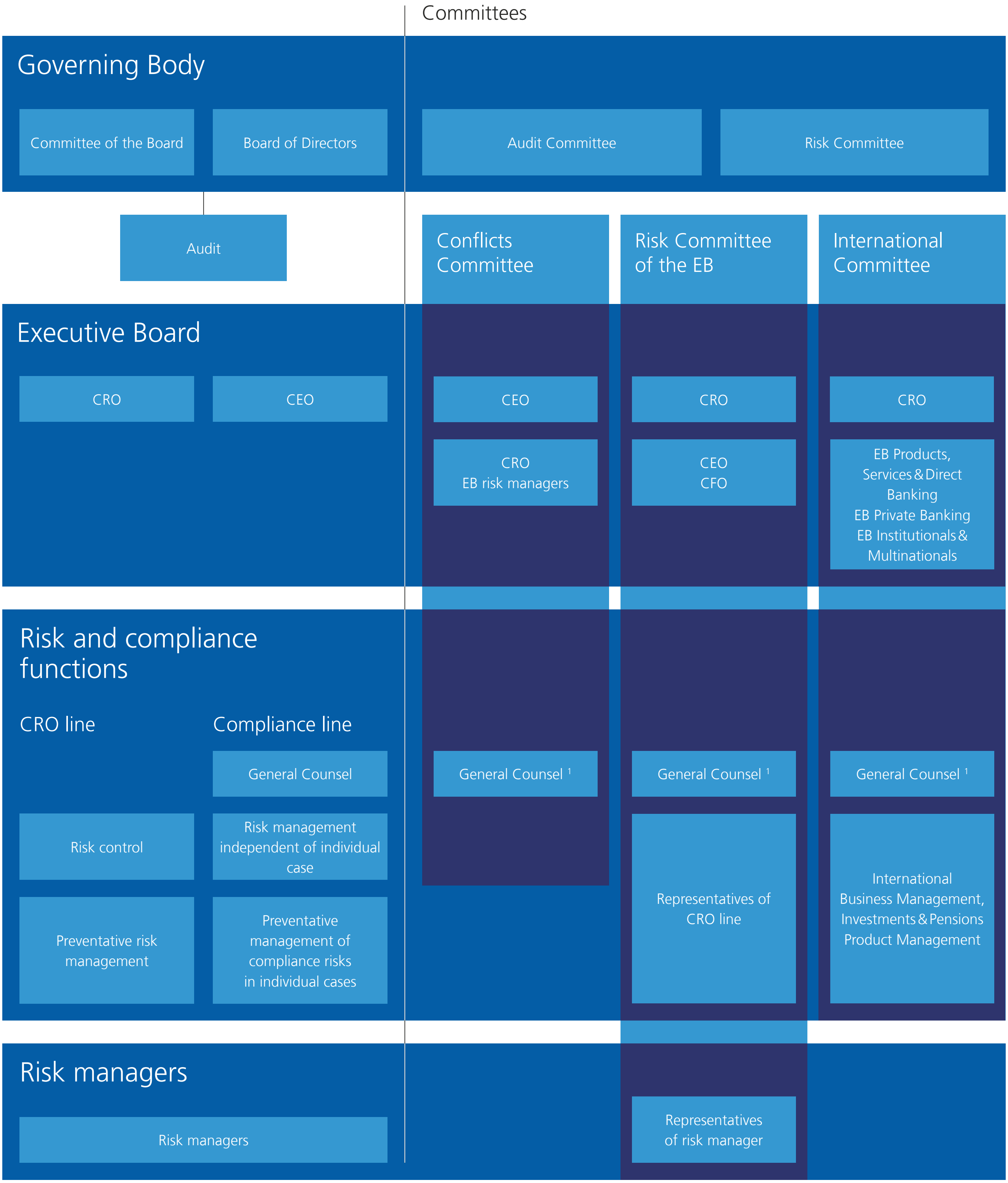
Board of Directors and Committee of the Board. The Board of Directors approves the principles for risk management and compliance, the Code of Conduct, the framework for group-wide risk management and the risk tolerance regulations at group level. It is responsible for the regulation, organisation and monitoring of an effective risk management system as well as the management of overall risks. The Board of Directors is responsible for assuring a suitable risk and control environment within the group and arranges for an effective internal control system (ICS). It also approves transactions involving major financial exposure. The Risk Committee and Audit Committee of the Board of Directors support the Board in its tasks and duties in the areas of risk management and the internal control system.

The Committee of the Board approves limits and deals with transactions involving particular business policy risks, conflicts of interest or particular effects on the group's reputation where these exceed the remit of the Executive Board and do not fall within the remit of the Board of Directors.

Audit. Audit supports the Board of Directors in fulfilling its statutory supervisory and control tasks and discharges the monitoring tasks assigned to it by the Board of Directors. In particular, Audit independently and objectively evaluates the appropriateness and effectiveness of the internal control and risk management processes and contributes towards their improvement. Audit also checks the bank's compliance with regulatory provisions, internal directives and guidelines. Audit has unlimited rights of inspection, information and access within the entire group. Audit provides line managers with support in the form of consulting services that help to increase the efficiency of organisational structures and processes.

Executive Board. The Executive Board issues provisions for the identification, evaluation, control, management, monitoring and reporting of risks in the form of directives. The Executive Board is also responsible for approving transactions that entail particular business policy risks, conflicts of interest or particular effects on the reputation of Zürcher Kantonalbank, unless they are assigned to another officer under the applicable regulations.

Fig. 1: Risk and compliance organisation



1 General Counsel has the right of escalation to the Committee of the Board at any time.

Conflicts Committee. Based on the responsibilities delegated to them, the members of the Executive Board represented on the Conflicts Committee take decisions regarding transactions that entail particular business policy risks, conflicts of interest or particular effects on the group's reputation. The Conflicts Committee is chaired by the CEO; its escalation body is the Committee of the Board.

Risk Committee of the Executive Board. The Risk Committee assists the Executive Board in defining risk management processes. The Committee is chaired by the CRO and approves the methods of risk measurement on the basis of the responsibilities delegated to it. The risk managers represented on four separate subcommittees (credit, trading, treasury and operational risk) and members of the risk and compliance organisation discuss the Risk Committee's business and formulate proposals for its attention. 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 chaired by the CRO. It is responsible for defining the specific business policy requirements for transactions with an international dimension, monitoring and reporting on such transactions, and approving the permissible business activities per country.

Risk unit. The Chief Risk Officer (CRO) is a member of the Executive Board and heads 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. The CRO also enjoys direct access to the Committee of the Board at all times.

Risk Control is responsible for identifying and monitoring risks at portfolio level, monitoring compliance with the risk tolerance requirements set out by the Board of Directors, and integrated risk reporting to the Executive Board and Board of Directors. The risk control function is responsible for defining methods of risk measurement, model validation, as well as execution and quality assurance in relation to the risk measurement implemented.

Preventative risk management is responsible for the analysis and examination of transactions and systems prior to their conclusion or introduction in line with existing delineations of power and consultation duties, the definition of requirements at individual transaction or system level, the continuous local monitoring of risks, and the provision of support in the training of risk managers. Preventive risk management in the area of operational risk security is carried out outside the Risk business unit by the respective process managers and in the Security department of the IT, Operations & Real Estate business unit.

Compliance line. The General Counsel reports directly to the CEO and manages the Compliance unit. As a member of the Risk, Conflicts and International Committees of the Executive Board, 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 has the following duties: examining the compliance risk inventory on an annual basis and preparing the action plan with focal points relating to the management of compliance risks, formulating proposals and if necessary carrying out defined monitoring and control duties (e.g. as pre-deal or post-deal control), as well as defining risk management tools. The Compliance function also defines risk management measures independently of the individual case, such as the editing of directives in the context of the implementation of new directives and provision of training courses. The Compliance function is further responsible for providing forward-looking legal advice with the objective of avoiding or minimising individual identified risks and threats arising from legal requirements. Legal advice is provided in the context of existing mandatory consultations, as a pre-deal consultation or on request.

Risk managers. The risk managers 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 internal risk tolerance regulations, relevant laws, ordinances, circulars and standards. The sales units are responsible for credit risks as risk managers and the Trading and Capital Markets organisational unit for market risks in the trading book. Interest rate risks in the banking book and liquidity risks are the responsibility of Treasury in the Finance unit. All units of the bank are responsible for managing operational and compliance risks.

Risk reporting. The Risk Control and Compliance functions report on a quarterly basis as part 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 analyses on relevant topics. Besides quarterly reporting, various reports are produced for the individual types of risk. In terms of the frequency with which they are published and the group of recipients, they are tailored to individual risks, and they provide comprehensive, objective and transparent information for decision-makers and supervisory bodies.

1.2 Regulatory capital adequacy and liquidity requirements

This section includes the regulatory key figures (Table KM1) to be published in the Annual Report in accordance with FINMA Circular 2016/01. The other tables on qualitative and quantitative disclosure as at 31 December 2019 will be available online from the end of April 2020 at www.zkb.ch/disclosures.

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. The capital required for credit risks has been calculated using the IRB approach (F-IRB) since the end of 2017. For market risks, the model-based approach is used in combination with the international standard approach (SA-BIS) for specific interest rate risks. The capital base needed for operational risks is calculated using the basic indicator approach.

A FINMA Directive from 2012 permits Zürcher Kantonalbank to solo-consolidate the subsidiary Zürcher Kantonalbank Finance (Guernsey) Ltd. in line with the individual institution provisions. Accordingly, the required capital is calculated on a solo-consolidated basis by the parent company.

Fig. 2a: Table KM1: Key regulatory figures group

	in CHF million (unless indicated otherwise)	a 31.12.2019	b 30.09.2019	c 30.06.2019	d 31.03.2019	e 31.12.2018
Eligible capital [1]						
1	Common equity Tier 1 (CET1)	11,516	11,019	11,030	11,173	11,171
2	Tier 1 capital (T1)	12,261	11,760	11,776	11,915	11,910
3	Total capital	12,986	12,486	12,513	12,657	12,658
Risk-weighted assets (RWA)						
4	RWA	64,983	66,720	64,187	64,580	62,674
Minimum required capital						
4a	Minimum required capital	5,199	5,338	5,135	5,166	5,014
Risk-based capital ratios (as a % of RWA) [1,2]						
5	CET1 ratio	17.7 %	16.5 %	17.2 %	17.3 %	17.8 %
6	Tier 1 capital ratio	18.9 %	17.6 %	18.3 %	18.5 %	19.0 %
7	Total capital ratio	20.0 %	18.7 %	19.5 %	19.6 %	20.2 %
CET1 buffer requirements (in % of RWA)						
8	Capital conservation buffer as per the Basel minimum standards (2.5 % from 2019)	2.5 %	2.5 %	2.5 %	2.5 %	1.9 %
9	Countercyclical capital buffer (Art. 44a CAO) in accordance with Basel minimum standards	–	–	–	–	–
10	Additional capital buffer due to international or national system relevance	–	–	–	–	–
11	Total of bank CET1 specific buffer requirements	2.5 %	2.5 %	2.5 %	2.5 %	1.9 %
12	CET1 available after meeting the bank's minimum requirements	12.0 %	10.7 %	11.5 %	11.6 %	12.2 %
Capital target ratios as per Annex 8 to the CAO (as a % of RWA) [3]						
12a	Capital conservation buffer in accordance with Annex 8 to the CAO	–	–	–	–	–
12b	Countercyclical capital buffers (Art. 44 and 44a CAO)	–	–	–	–	–
	Countercyclical capital buffer (Art. 44 CAO)	0.7 %	0.7 %	0.7 %	0.7 %	0.7 %
12c	CET1 target ratio in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
12d	T1 target ratio in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
12e	Total capital target ratio (in %) in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
Basel III leverage ratio [1]						
13	Total Basel III leverage ratio exposure measure	185,628	189,879	187,040	187,693	185,574
14	Basel III leverage ratio (Tier 1 capital in % of leverage exposure measure)	6.6 %	6.2 %	6.3 %	6.3 %	6.4 %
Liquidity coverage ratio (LCR) [4]						
15	LCR numerator: total high-quality liquid assets (HQLA)	43,679	49,119	48,017	48,692	43,393
16	LCR denominator: total net outflows of funds	35,594	38,539	38,430	37,199	34,184
17	Liquidity coverage ratio (LCR)	123 %	127 %	125 %	131 %	127 %
Financing ratio (NSFR) [5]						
18	Available stable refinancing	–	–	–	–	–
19	Required stable refinancing	–	–	–	–	–
20	Financing ratio (NSFR)	–	–	–	–	–

1 Banks for which expected loss accounting is not applicable as well as banks that are not using the transitional regulations can ignore the relevant rows in accordance with FINMA Circular 16/1. Zürcher Kantonalbank does not use expected loss accounting, which is why these rows are not applicable and not listed in this table.
2 The figures are calculated in accordance with the provisions of the CAO for non-systemically-important banks.
3 Systemically important banks can forego the information in rows 12a to 12e, as Annex 8 to the CAO does not apply to them. In this instance, they must nevertheless provide information on the countercyclical capital buffer in accordance with Art. 44 CAO.
4 Simple average of the closing values on the business days during the quarter under review.
5 Rows 18–20 must be disclosed only after the NSFR regulation has entered into force.

As at 31 December 2019, the group had a minimum required capital of CHF 5,199 million, compared with eligible capital of CHF 12,986 million. Both the total capital ratio of 20.0 percent of risk-weighted assets and the leverage ratio of 6.6 percent reflect Zürcher Kantonalbank's solid equity base. The liquidity coverage ratio (LCR) of 123 percent points to a comfortable liquidity situation (Figure 2a). The following key regulatory figures for the parent company essentially present the same picture of the capital and liquidity situation.

Fig. 2b: Table KM1: Key regulatory figures parent company

in CHF million (unless indicated otherwise)		a 31.12.2019	b 30.09.2019	c 30.06.2019	d 31.03.2019	e 31.12.18
Eligible capital [1]						
1	Common equity Tier 1 (CET1)	11,781	11,193	11,212	11,363	10,931
2	Tier 1 capital (T1)	12,526	11,934	11,958	12,105	11,671
3	Total capital	13,252	12,660	12,694	12,847	12,418
Risk-weighted assets (RWA)						
4	RWA	65,936	67,532	65,008	65,515	62,493
Minimum required capital						
4a	Minimum required capital	5,275	5,403	5,201	5,241	4,999
Risk-based capital ratios (as a % of RWA) [1,2]						
5	CET1 ratio	17.9 %	16.6 %	17.2 %	17.3 %	17.5 %
6	Tier 1 capital ratio	19.0 %	17.7 %	18.4 %	18.5 %	18.7 %
7	Total capital ratio	20.1 %	18.7 %	19.5 %	19.6 %	19.9 %
CET1 buffer requirements (in % of RWA)						
8	Capital conservation buffer as per the Basel minimum standards (2.5 % from 2019)	2.5 %	2.5 %	2.5 %	2.5 %	1.9 %
9	Countercyclical capital buffer (Art. 44a CAO) in accordance with Basel minimum standards	–	–	–	–	–
10	Additional capital buffer due to international or national system relevance	–	–	–	–	–
11	Total of bank CET1 specific buffer requirements	2.5 %	2.5 %	2.5 %	2.5 %	1.9 %
12	CET1 available after meeting the bank's minimum requirements	12.1 %	10.7 %	11.5 %	11.6 %	11.9 %
Capital target ratios as per Annex 8 to the CAO (as a % of RWA) [3]						
12a	Capital conservation buffer in accordance with Annex 8 to the CAO	–	–	–	–	–
12b	Countercyclical capital buffers (Art. 44 and 44a CAO)	–	–	–	–	–
	Countercyclical capital buffer (Art. 44 CAO)	0.7 %	0.7 %	0.7 %	0.7 %	0.7 %
12c	CET1 target ratio in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
12d	T1 target ratio in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
12e	Total capital target ratio (in %) in accordance with Annex 8 to the CAO plus countercyclical capital buffers in accordance with Art. 44 and 44a CAO	–	–	–	–	–
Basel III leverage ratio [1]						
13	Total Basel III leverage ratio exposure measure	185,801	190,094	187,198	187,893	185,361
14	Basel III leverage ratio (Tier 1 capital in % of leverage exposure measure)	6.7 %	6.3 %	6.4 %	6.4 %	6.3 %
Liquidity coverage ratio (LCR) [4]						
15	LCR numerator: total high-quality liquid assets (HQLA)	43,661	49,102	47,996	48,675	43,370
16	LCR denominator: total net outflows of funds	35,732	38,692	38,611	37,396	34,366
17	Liquidity coverage ratio (LCR)	122 %	127 %	124 %	130 %	126 %
Financing ratio (NSFR) [5]						
18	Available stable refinancing	–	–	–	–	–
19	Required stable refinancing	–	–	–	–	–
20	Financing ratio (NSFR)	–	–	–	–	–

1 Banks for which expected loss accounting is not applicable as well as banks that are not using the transitional regulations can ignore the relevant rows in accordance with FINMA Circular 16/1. Zürcher Kantonalbank does not use expected loss accounting, which is why these rows are not applicable and not listed in this table.
2 The figures are calculated in accordance with the provisions of the CAO for non-systemically-important banks.
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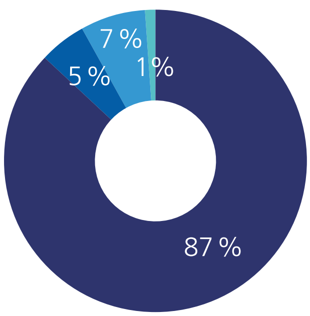
4 Simple average of the closing values on the business days during the quarter under review.
5 Rows 18–20 must be disclosed only after the NSFR regulation has entered into force.

Fig. 3: Breakdown of the regulatory risk-weighted minimum required capital as at 31.12.2019, by risk category



The breakdown of the regulatory minimum required capital within the group of CHF 5,199 million shows the importance of the lending business to Zürcher Kantonalbank.

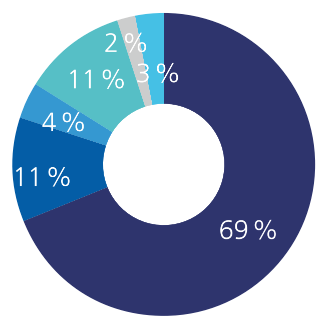
1.3 Capital allocation within internal risk management

Zürcher Kantonalbank employs a capital at risk approach to internal risk management. The Board of Directors defines the risk tolerance with the maximum risk capital. The Board of Directors determines the quantitative risk tolerance requirements by means of the allocation of risk capital to the risk categories credit risks, market risks and operational [1] risks. The models are based on a time horizon of one year and a maximum default probability of 0.1 percent per year. The risk capital for market and credit risks is allocated to the individual organisational units, and the cost of capital is charged to the units. In the case of operational risks, there is no internal allocation of the cost of capital.

1 The risk capital for operational risks also covers compliance risks.

Of the CHF 12,658 million in eligible capital at the end of 2018, a total of CHF 5,510 million was allocated to the risk business in 2019. The percentage breakdown by risk category of the allocated capital is shown in Figure 4.

Fig. 4: Risk capital assigned by the Board of Directors, by risk category



1.4 Risk categories

Zürcher Kantonalbank divides risks into the following categories.

Fig. 5: Risk categories

Credit risk

Credit risk constitutes the risk of financial losses that can arise if clients or counterparties do not fulfil contractual obligations that are falling due or do not fulfil them on time. Loans, promises of payment and trading transactions all involve credit risks. Credit risks also include:

- Counterparty risks refer to credit risks in trading transactions (e.g. OTC derivatives and SLB transactions). Trading transactions usually include mutual claims, which also depend on market parameters. Counterparty risks are also referred to as counterparty default risks.
- Settlement risks describe the risk of losses in connection with transactions involving mutual payment and delivery obligations, where the bank must meet its delivery obligation without first being able to ensure that counter-payment will be made.
- Country risks: The risk of losses as the result of country-specific events, such as transfer risks (payment of a liability is restricted or prevented by a country) and risks arising from political and/or macroeconomic events.

Market risk

Market risks comprise the risk of financial losses on securities and derivatives in the bank's own portfolio as a result of changes in market factors, such as share prices, interest rates, volatilities or exchange rates (general market risks), as well as for issuer-specific reasons (specific market risks). Market risks also include:

- Balance sheet interest rate risk is the risk that changes in market interest rates will impact negatively on the financial situation of the banking book. As well as affecting current interest income, changes in interest rates have implications for future results. The interest rate risk is managed based on the market interest method.
- Market liquidity risk is the risk that a product can no longer be easily sold (or purchased) on a market. The higher the market liquidity, the greater the chance of purchasing or selling a product for an appropriate price at the desired time.
- Issuer (default) risk is the risk of a loss arising from a change in fair value resulting from a credit event affecting an issuer to which the bank is exposed through marketable securities or derivatives from this issuer.

Liquidity risk

Liquidity refers to the bank's capacity to settle its liabilities promptly and without restrictions. Liquidity risk is the risk that this capacity to pay will be impaired under institution or market-related stress conditions. Liquidity risks also include (re)financing risk. Refinancing refers to the procurement of funds for the financing of assets. Refinancing risk is the risk that the bank is not in a position to procure sufficient funds at appropriate conditions for the ongoing financing of its lending business.

- Short-term liquidity ensures that the bank is able to make payments over a short period of time in the event of a systemic or institution-specific liquidity crisis by holding a sufficiently large inventory of high-quality liquid and unencumbered assets as a financial precaution against a temporary liquidity gap. Often, 30 calendar days are used as the definition period. The regulatory indicator for short-term liquidity is the liquidity coverage ratio (LCR).
- Structural liquidity has a medium-term horizon and ensures that refinancing as per the liquidity profile of the assets takes place with stable liabilities. Structural liquidity requirements specify that illiquid assets such as loans to private individuals and companies, as well as parts of the trading portfolio, are to be refinanced through long-term liabilities. The regulatory indicator for structural liquidity is the net stable funding ratio (NSFR).

Operational risk

Operational risks refer to potential damage caused by the inappropriateness or failure of persons, systems or processes or due to external events. Operational risks also include:

- IT risks refer to the potential damage caused by the loss of confidentiality, integrity and availability of data and functions in IT systems.
- Cyber risks comprise the risk of attacks from the Internet or similar networks (referred to as hacker attacks) on the confidentiality, integrity and availability of data and functions in IT systems.

Compliance risk

Compliance risks are behavioural risks. These are risks that are caused by breaches of the law, regulations or contracts and can result in legal and regulatory sanctions, financial losses and reputational damage.

Compliance is the observance of legal, regulatory and internal regulations as well as the adherence to industry standards and codes of conduct. Compliance involves ensuring the behaviour and actions of the Zürcher Kantonalbank and its employees meet applicable legal and ethical standards, and also comprises all organisational measures designed to prevent violations of the law and breaches of rules and ethical norms by Zürcher Kantonalbank, its governing bodies and its employees.

Strategic risk

Strategic risks are all possible factors of influence, events and decisions that have the potential to endanger the long-term success of the company.

Business risk

Business risk is the risk that lower business volumes and margins will reduce the group's operating income if the decline in income is not offset by a simultaneous drop in operating expenses. Business risks also include unplanned additional costs in the absence of correspondingly higher income. Business risks materialise when actual income falls short of the budgeted income. This can occur on a one-off and a recurring basis. Typical examples of business risks are unexpectedly decreasing margins and a lack of client demand following an economic downturn.

Reputation risk

Reputation risks involve the risk of damage to the bank's good reputation or, in extreme cases, the risk of losing the bank's good reputation altogether. Aligning business activities to the central core values of the company is the best way in which to guarantee that the company's excellent reputation is maintained and to prevent instances in which activities have a negative impact on the bank's reputation.

Reputation denotes the image that a company enjoys among its stakeholders, i.e. the bank's standing in terms of its integrity, competency, performance and reliability from the perspective of stakeholders. Reputational damage occurs when the perception of a stakeholder group differs from its expectations. The trustworthiness and credibility of the bank as aspects of its reputation are negatively influenced by this difference. Reputation is determined by constantly comparing perceptions and expectations over a period of time and is reflected in the company's values and identity.

Although Zürcher Kantonalbank treats reputational risks as a separate category, it also sees them as a derived risk: they are considered a reputation-affecting component of strategic risks, market and credit risks, liquidity risks, compliance risks, operational risks and business risks. Strategic risks and business risks are managed as part of the bank's strategy and controlling process. Risk management and the risk profile in the other risk categories are described in the following sections.

1.5 Credit risks

1.5.1 Strategy, organisation and processes

The strategy applied in the management of credit risks is set out in the internal lending policy. The strategy is revised and updated by the risk organisation as part of an annual, structured process and is 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, and the 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 acquisition of financing business. Particular attention is paid to environmental and social risks in the credit assessment process. In recognition of the total commitment of owners, higher risks may deliberately be accepted on occasion for SMEs from the Greater Zurich Area.

The preventative risk management and risk control functions are separated from risk management at Executive Board level. Preventative risk management is responsible for defining lending policy requirements, analysing and examining transactions in line with existing delineations of power, continuous local monitoring of risks, and providing support in the training of risk managers. Risk control is responsible for monitoring risks and risk reporting at portfolio level, as well as defining methods of risk measurement.

Credit risks are managed and limited by means of detailed parameters and areas of responsibility within the credit process at individual exposure level and by means of limiting the risk capital for the credit business in accordance with the capital at risk approach at portfolio level. 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 the level of 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 clients as well as banks combines statistical procedures with many years of practical experience in the lending 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, correlations between debtors are particularly significant for the modelling of unexpected losses. In principle, the model covers balance-sheet and off-balance-sheet items.

The valuation of collateral for loans, and in particular the calculation of market and collateral values, is governed by an extensive set of internal rules setting out the relevant methods, procedures and responsibilities. These rules are continually reviewed 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, including hedonic models, income capitalisation approaches and expert appraisals, among others.

The models used as well as the individual valuations are reviewed on a regular basis. The maximum loan-to-value ratio for mortgages depends on how realisable the collateral is and is influenced by factors such as location and type of property (family home or commercial property, for example). Readily marketable collateral (securities, precious metals, account balances, for example) is generally valued at current market prices. The lending of readily marketable collateral is subject to the deduction of specified margins. These margins differ primarily in terms of the collateral's susceptibility to fluctuations in value.

Credit exposures are restricted by limits. 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 monitored on a daily basis, exposures from trading transactions on a real-time basis. In the case of trading transactions, pre-deal checks can be undertaken to examine and ensure adherence to counterparty limits. Any breaches of limits are reported promptly to the competent management level. An early-warning system identifies negative developments, which are communicated to the officers responsible. The rating of corporate clients is generally reviewed once a year on the basis of the annual financial statements. A supplementary review of ratings, limits and exposures in the retail and corporate client 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.

Value adjustments. 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 impairment of value. Should any signs be found, a standardised impairment test is used to determine whether a loan should be classed as impaired. Impaired loans 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 loan, taking into account the borrower's creditworthiness. In determining the required value adjustment, mortgage collateral (including valuation discounts, settlement and holding costs) and readily marketable collateral (freely tradeable securities as well as other easily realised assets such as deposits, precious metals, fiduciary investments, etc.) are considered at their current liquidation value. The recoverability of other collateral (e.g. leased assets, guarantees) has to be demonstrated in particular. The authority to approve the creation of new individual value adjustments rests with the risk managers. Above a certain amount, the approval of the risk organisation is also required.

Interest and associated commission payments that have not been received in full 90 days after becoming due are classified as past due. They are deemed to be impaired and are usually fully adjusted if they are not covered by collateral. Individual value adjustment rates may apply to the principal in the case of major positions. Collective individual valuation adjustments are made for overdrafts of up to CHF 30,000 and for interest and associated commission payments outstanding for more than 90 days; in all other cases, individual value adjustments are generally made.

A central, specialised unit manages impaired positions across all client segments. This unit steers the positions through the stabilisation and resolution process and ensures that existing value adjustments are regularly reviewed and adjusted where necessary.

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 domicile of the collateral is taken into account when determining the risk domicile. The risks for each country, total country risks and total country risks outside the bank's best internal rating category are subject to limits, adherence to which is monitored on a constant basis.

Settlement risks. 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 counterpayment 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 is a member of the CLS Bank International Ltd. joint venture, a clearing centre for the settlement of foreign exchange transactions on a "delivery versus payment" basis, which helps ensure that a substantial element of the settlement risk arising as a result of foreign exchange trading is eliminated.

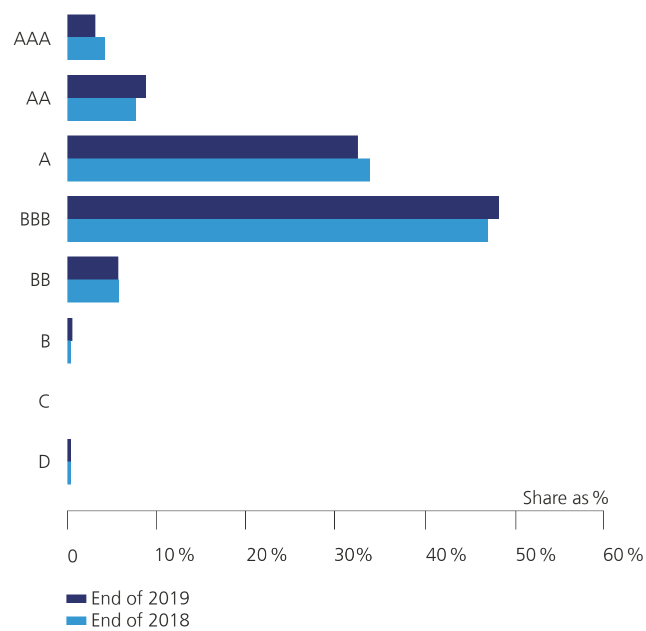
Concentration risks. Zürcher Kantonalbank uses a systems-based method for monitoring concentration risks. Besides measurement for the purpose of preparing regulatory reports, concentration risks are limited at product and client level using benchmarks that are reflected in the corresponding powers of authorisation. Internal concentration risk reporting includes information on product, sector and individual position concentrations. Due to the bank's roots within the Greater Zurich Area, a large concentration risk in the credit portfolio takes the form of geographical concentration risk in the mortgage portfolio.

1.5.2 Risk profile

The following sections provide information about the most important sub-portfolios in the credit exposures of Zürcher Kantonalbank on the basis of various criteria.

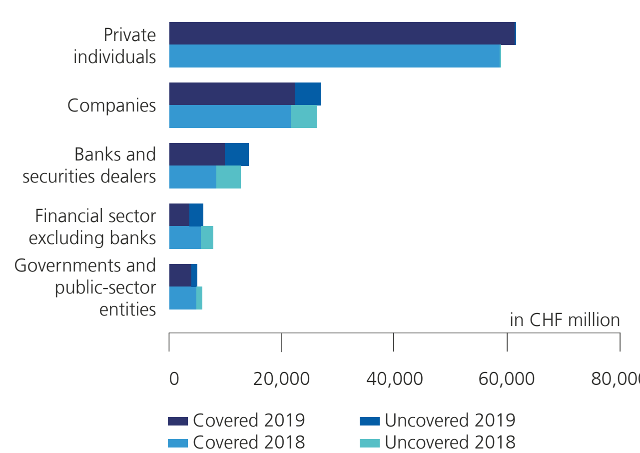
Credit exposures by rating category. Default probability ratings are assigned internally on the basis of a scale from 1 to 19. Figure 6 shows the credit exposures broken down by rating of the counterparties, mapped to the rating scale of Standard & Poor's. Figure 7 shows the credit exposures broken down by client portfolio.

Fig. 6: Credit exposures by rating category



Credit exposures by client portfolio. Figure 7 shows credit exposures classified in accordance with the bank's internally defined client portfolios.

Fig. 7: Credit exposures by client portfolio



Credit exposures in relation to "private individuals" consist almost entirely of receivables secured by mortgages and represent 54 percent (2018: 53 percent) of total credit exposures. The "corporates" portfolio consists of credit exposures in relation to clients of a commercial nature (incl. real estate companies and cooperative building associations). The share of this client group in total credit exposures is 24 percent (2018: 23 percent), 83 percent (2018: 83 percent) of which is secured by mortgages or cash. In the "banks and securities dealers" portfolio, the largest 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 international trade 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 loans to private individuals. Real estate financing for private individuals is part of Zürcher Kantonalbank's core business. Around two-thirds of mortgage loans relate to owner-occupied residential property. The remaining loans are secured with rented residential properties or properties that are used for commercial purposes. Mortgage loans to private individuals increased by 3.8 percent in 2019. The median gross loan-to-value ratio for all properties in the private client portfolio was 49 percent (2018: 49 percent).

Unsecured loans. Of the unsecured loans in the "corporates" portfolio (Figure 8), 77 percent (2018: 76 percent) relate to clients in the AAA to BBB (investment grade) rating categories. The volume of unsecured loans in the corporate clients portfolio grew by approximately 3 percent in comparison with the previous year. The year-on-year change in exposures is within the usual fluctuation range resulting from the respective use of credit limits by clients.

Fig. 8: Unsecured credit exposures to corporate clients by rating category

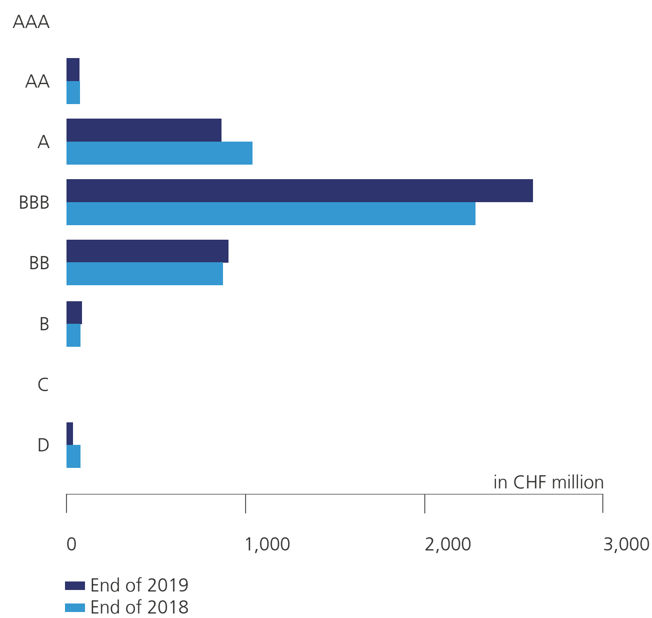
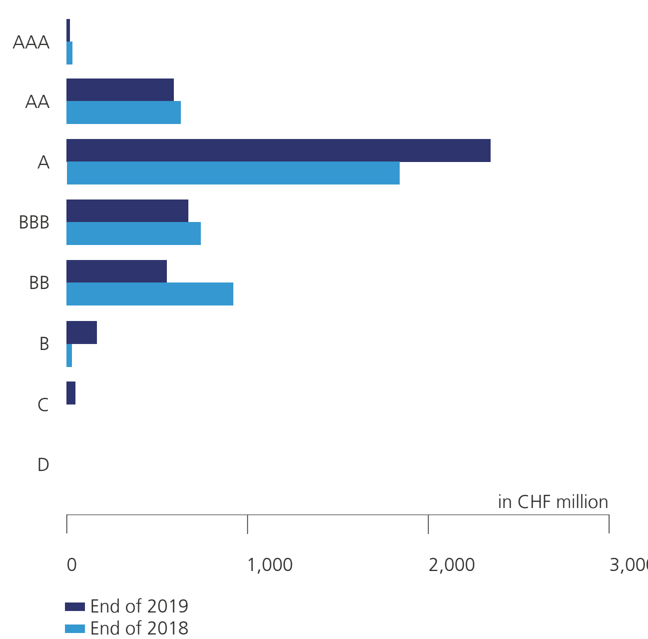


Fig. 9: Unsecured credit exposures to banks and securities traders by rating category



In the "banks and securities traders" client portfolio (Figure 9), the volume of unsecured loans is some 2 percent higher than on the reporting date at the end of 2018. The level of this exposure can change significantly every day, unlike other forms of lending, due to the influence of the bank's trading transactions. 82 percent (2018: 75 percent) relates to clients in rating categories AAA to BBB (investment grade). The decline in exposures with a BB rating relates mainly to trade finance in various emerging markets.

Impaired loans / receivables. Impaired loans amounted to CHF 435 million (2018: CHF 504 million). After deducting the estimated liquidation value of collateral, this equals net debt of CHF 179 million (2018: CHF 218 million, see also Note 2 to the balance sheet).

Non-performing loans / receivables. The nominal value of non-performing loans amounted to CHF 113 million at the end of the reporting period (2018: CHF 125 million). Loans are classified as non-performing when interest, commission or amortisation payments 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. Non-performing loans are also often a component of impaired loans.

Value adjustments and provisions. The volume of value adjustments and provisions for default risks decreased by CHF 28 million to CHF 286 million in 2019 (see also Note 16 to the balance sheet).

1.6 Market risk

1.6.1 Strategy, organisation and processes

In the trading business, Zürcher Kantonalbank pursues a strategy focused on client transactions. The individual desks hold trading mandates approved by the Risk Committee of the Executive Board, 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.

The preventative risk management and risk control functions are separated from risk management at Executive Board level. The responsibilities of the preventative risk management function, which is independent of Trading, and the risk control function downstream of it include the monitoring of compliance with risk limits and trading mandates, the calculation and analysis of the result from trading activities (P&L) and risk figures, as well as the preventative analysis of potentially high-risk transactions. The risk organisation is also responsible for defining and implementing methods of risk measurement, their independent validation, and internal and external risk reporting.

Market risks are 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. This 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 "trading market risks" capital at risk corresponds to the assigned risk capital for the market risks of trading transactions on a one-year horizon and at a confidence level of 99.9 percent. 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.

Zürcher Kantonalbank calculates value at risk for a 10-day period and at a confidence level of 99 percent using a Monte Carlo simulation. 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, with more recent observations being accorded a higher weighting for the forecasting of volatility than less recent ones. As a result, value at risk responds rapidly to any changes in 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 both separately and on a combined basis (Figure 10).

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. This enables the risk of losses due to general changes in price and volatility to be identified. Non-linearity or asymmetry of risks can also be observed in the matrix scenarios. In addition to the matrix scenarios, Zürcher Kantonalbank further identifies probability-based scenarios which are accorded a 0.1 percent probability of occurring. These scenarios are calculated with increased correlations between risk factors so as to take account of 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 event 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 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 the value at risk. Regulatory back-testing is based on a comparison of the value at risk for a holding period of one day with the back-testing result. Breaches of limits are notified immediately to the competent authorities if the number of breaches exceeds expectations.

The market risk model is validated annually on the basis of a defined process. Validation includes quantitative as well as qualitative aspects. The quantitative validation focuses on the back-testing of the risk-factor distribution, while the qualitative validation focuses 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.

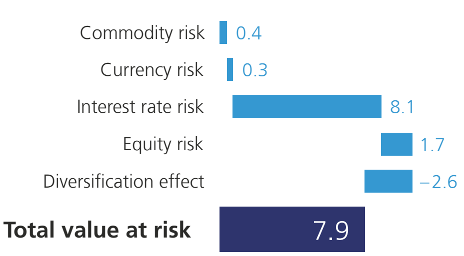
Fig. 10: Market risks in the group trading book

Risks including volatility risks in CHF million	Commodities[1]	Currencies[2]	Interest rates	Equities	Diversification	Modelled total risk	Total risk[3]
Risks based on the model approach (value at risk with 10-day holding period)							
As at 31.12.2019	0	0	8	2	–3	8	11
Average current year 2019	0	1	10	3	–4	10	13
Maximum	2	4	17	8	–8	17	22
Minimum	0	0	8	1	–2	7	10
As at 31.12.2018	1	1	10	6	–7	11	13

1 Excluding gold.
2 Incl. gold.
3 Sum of modelled total risk and risk premium for trading products not fully modelled.

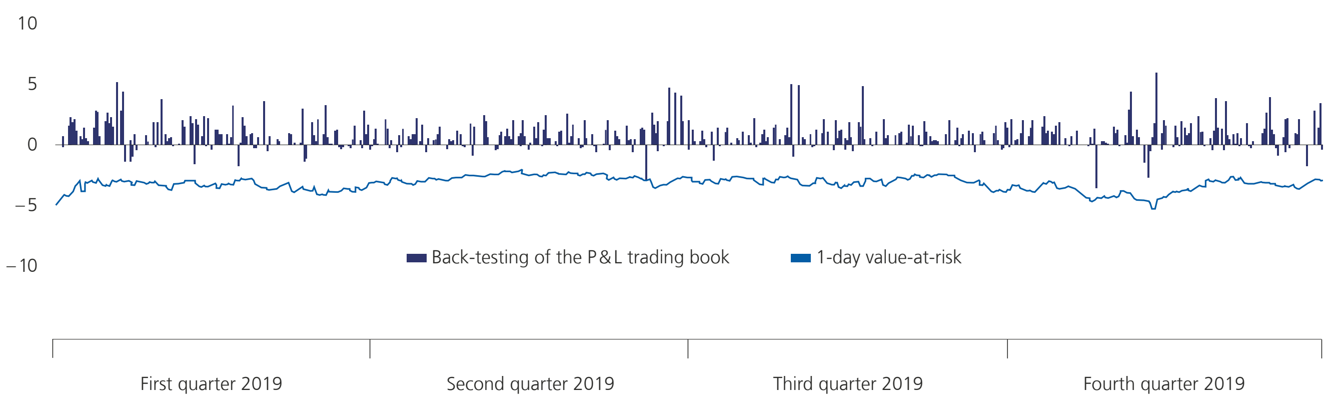
Risk profile. At CHF 13 million, the annual average value at risk remained on a par with the prior year (CHF 12 million) (Figure 10). Interest rate risks continue to dominate in the composition of value at risk (Figure 11).

Fig. 11: Components of value at risk as at 31.12.2019 (in CHF million)



Back-testing results. The quality of the value at risk approach used is assessed by comparing the value at risk for a holding period of one day with the realised daily back-testing result (Figure 12). In the case of a one-day holding period and 99-percent quantile, the value at risk is expected to be exceeded two to three times each year. The value at risk was not exceeded in 2019.

Fig. 12: Comparison of back-testing results[1] and value at risk (in CHF million)



1 The back-testing result corresponds to the trading income used and adjusted for the purpose of methodological reviewing of the quality of the risk model.

1.6.2. Strategy, organisation and processes for the management of market risks in the bank book

1.6.2.1 Interest rate risks in the balance sheet

Strategy, organisation and processes. In managing the banking book, Zürcher Kantonalbank pursues a strategy focused on medium-term optimisation of net interest income. The interest rate risk is managed based on the market interest method. For client 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 and client behaviour, and is reviewed at least once a year.

The interest rate risk in the bank 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 set 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.

Banking book products without defined interest rates and capital commitment are variable products. These include, in particular, savings and transaction accounts as well as to a comparatively low extent variable mortgages. These products are modelled by replicating these (real) variable products through synthetic products with defined fixed interest rates on the basis of econometric analyses and expert-based empirical values. A key component of this modelling approach is the definition of a "floor", which can be considered a non-interest-rate-sensitive partial volume in terms of capital commitment. The duration of the replication of the floor is determined by the assumed setting of conditions in the event of interest rate changes. The model is subject to an annual review and is approved by the Risk Committee of the Executive Board.

Interest rate risk management takes account of the present value as well as earnings prospects. From the present value perspective, interest rate risks are managed by allocating risk capital in accordance with the capital at risk approach (risk horizon of one year, confidence level of 99.9 percent) and by applying value at risk limits (holding period of 20 trading days, confidence level of 99 percent). In addition, stress scenarios are simulated in order to analyse and limit the impact of extraordinary changes in the interest rate environment.

From the prospective earnings perspective, stress tests provide an indication of the structural contribution in the event of extraordinary changes in market interest rates with unchanged positioning over a one-year period. Besides the structural contribution, margin effects are particularly significant for client deposits with variable interest rates. This applies especially in an environment of negative market interest rates for balance sheet items such as retail client deposits on which no negative interest is charged. Additional monitoring tools allow such margin effects to be analysed for different interest rate scenarios over a period of several years.

Risk profile. The maturity-dependent sensitivity data shown in Figure 13 indicate the change in value in Swiss francs when interest rates for each maturity band fall by one basis point (0.01 percentage points). The client deposits contained in the hedged item are represented via replicating portfolios with average maturities of between 23 months (savings accounts) and 24 months (private and current accounts).

The interest rate sensitivity of the CHF banking book stood at CHF 8.4 million per basis point as at 31 December 2019, approximately 8 percent up on the previous year. The increase in interest rate exposure stems mainly from mortgage lending, which was characterised not only by a high volume of renewal business and a 3.8 percent increase in volume, but also longer maturities. The interest rate exposure serves as a strategic hedge against persistently low Swiss franc interest rates as well as the stabilisation of interest gains. In the event of an interest rate rise, the positive margin effects successively compensate the anticipated losses in terms of the structural contribution. The euro and US dollar interest rate exposures were almost fully hedged as of the end of 2019.

The value at risk of the interest rate risk position in the banking book rose accordingly, from CHF 118 million to CHF 180 million. This increase was in line with the higher interest rate exposure and, above all, with the more volatile interest rate markets compared with the previous year (Figure 14).

Fig. 14: Value at risk of interest rate risk in the banking book

in CHF million	Value at risk (99 % quantile)
As at 31.12.2019	– 180
As at 31.12.2018	– 118

1.6.2.2 Risks in the investment portfolio

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

Strategy, organisation and processes. 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 within the financial market infrastructure, and the real estate position consists almost entirely of property in use by the bank.

Fig. 13: Interest rate sensitivity of the banking book CHF

Basis point sensitivity [1]	in CHF 1,000	up to 12 months	1 to 5 years	over 5 years	Total
Hedged item		– 192	3,637	6,268	9,712
Hedge		312	– 1,368	– 283	– 1,340
Total as at 31.12.2019		119	2,269	5,984	8,372
Total as at 31.12.2018 [2]		134	1,590	6,036	7,760

1 Basis point sensitivity is measured as a cash value effect when the interest rate in the maturity band concerned falls by one basis point (bp). A basis point equals 0.01 percentage points.

2 Due to the entry into force of FINMA Circular 2019/2 "Interest rate risk – banks" as of 1 January 2019, the bank reports banking book sensitivity without margin components. Margin components totalling CHF 0.9 million were therefore deducted from the figures as at 31 December 2018 in the previous year's report in order to improve comparability.

The purchase of financial investments and real estate as well as the acquisition of participations are subject to detailed regulations and responsibilities. The investment strategy for the financial investments managed by Treasury is laid down in the risk tolerance requirements approved by the Risk Committee of the Executive Board. Only debt instruments with a first-class credit rating that are considered 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.

Risks relating to the investment portfolio are managed internally by assigning risk capital.

For the determination of this risk capital for financial investments and participations, Zürcher Kantonalbank uses an internal default model that takes diversification effects into account. For real estate owned by the bank, risk capital is allocated based on regulatory minimum capital adequacy requirements.

Risk profile. The carrying amount of debt securities in financial investments was CHF 4.1 billion as at 31 December 2019 (2018: CHF 4.4 billion). The portfolio consists of first-class bonds and is diversified in terms of counterparty groups and countries. The presentation of Financial investments and Participations can be found in Notes 5 and 6 to the balance sheet.

1.7 Operational risks

1.7.1 Strategy, organisation and processes

The objective of Zürcher Kantonalbank's management of operational risk is the risk-oriented protection of people, information, services and assets, and the maintenance and restoration of critical business functions in an operational emergency. The management of operational risk is therefore an essential part ensuring that the canton, clients, partners, public and regulator have confidence in the bank. The assessment of operational risks takes account of both direct financial losses and the consequences of a loss of client confidence and reputation.

The group-wide inventory of operational risks constitutes the basis for the management of operational risks. Besides periodic, systematic assessments, the operational risks with respect to individuals, critical information, services and assets are assessed, managed and documented on an event-driven basis as well.

The measurement of operational risks is based on an estimate of potential claims and the probability of occurrence. To calculate the operational residual risks, inherent risks are set against existing risk-mitigating measures. If the residual risks exceed the risk tolerance, additional risk-mitigating measures are defined and implemented. The effectiveness of the risk-mitigating measures is monitored as part of the bank-wide internal control system (ICS). The specialist operational risk function of the Risk unit specifies the processes and methods, and provides tools for monitoring the internal control system.

1.7.2 Risk profile

There was no fundamental change in the bank's environment for the management of operational risks compared with the previous year. There are two significant risk factors – a professional cyber-crime industry that is constantly specialising and an increase in the potential for attacks due to the continuing advance of digitisation. Zürcher Kantonalbank is therefore continuing to give the management of cyber and process risks a high level of attention. Fraud attempts that are detected too late and operational errors can quickly result in consequential damage in the digitally interconnected business environment. The bank is responding to this challenging environment with a large number of technical protective measures, by raising the awareness of employees and clients, and by developing rule- and model-based instruments for detecting erroneous or fraudulent transactions, and other attacks.

1.8 Liquidity and refinancing risks

1.8.1 Strategy, organisation and processes

The Treasury organisational unit, which reports to the CFO, is responsible for managing the liquidity risks and refinancing of Zürcher Kantonalbank. Treasury delegates operational liquidity management to the Money Trading unit, which ensures the efficient use of liquidity based on internal and regulatory rules. In line with the requirements of the bank's risk policy, the Board of Directors defines the liquidity risk tolerance using an internal model. The risk organisation oversees compliance with the rules and reports to the Board of Directors in this regard on a regular basis.

The measurement, management and control of short-term liquidity risks are based both on the internal model and on the liquidity coverage ratio (LCR), a regulatory indicator. The internal model is based on a bank-specific stress scenario for balance-sheet and off-balance-sheet transactions. In this scenario, substantial outflows of varying intensity in the client and interbank business are assumed, among other things. The result of the liquidity risk measurement is an automatically produced daily report on the availability of liquid assets and securities eligible for unencumbered repo transactions in financial investments and trading positions, liquidity inflows and outflows under the stress scenario as well the liquidity position left after the stress scenario. The related emergency plan constitutes a significant element of liquidity risk management. This supports the situationally appropriate conduct of the relevant functions in a crisis.

The bank uses an internal model to divide wholesale deposits into operational and non-operational categories. Net outflows of funds from the collateralisation of derivatives due to changes in market values are calculated using the look-back method. 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.

Zürcher Kantonalbank pursues a long-term refinancing policy that includes both cost and risk aspects. Refinancing risks are managed via a deliberate diversification in terms of maturities, refinancing instruments used and related markets, to limit dependence on funding sources. For this purpose, Treasury uses both 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 client deposits, bank deposits and money and capital market refinancing.

1.8.2 Risk profile

The liquidity ratios in 2019 were slightly below the previous year's figures. The average LCR, which is calculated as a simple average of the end-of-day values of the business days during the quarter under review, lies between 123 percent and 131 percent. High-quality liquid assets (HQLA) average between CHF 43.7 billion and CHF 49.1 billion. These HQLA 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 liquidity risk profile is actively managed, particularly through targeted management of time deposits, money-market instruments as well as SLB and repo transactions. The changes in the LCR and the internal statistical measures of liquidity risk are mainly driven by fluctuations in non-operational sight deposits, time deposits, money-market instruments and SLB and repo transactions with banks and major clients.

Figure 15 shows a year-on-year comparison of the coverage ratio for asset-side client transactions. Loans to clients amounted to CHF 93.2 billion and client assets to CHF 85.2 billion as at 31 December 2019. This results in a coverage ratio of 91.4 percent, which is slightly lower than in the previous year.

Fig. 15: Coverage ratio of client business (in CHF billion)

1.9 Compliance and legal risks

1.9.1 Processes and methods

The risk management instruments used to manage compliance and legal risks include information on the relevant legal frameworks, internal legal advice, training and education of employees, the implementation of ordinances through internal bank directives, and the embedding of compliance and legal requirements into the bank's internal processes. They also include monitoring and controlling, investigations and clarifications in the event of violation of the rules, as well as the conducting and overseeing of civil, criminal and administrative proceedings. The Compliance function maintains the bank-wide compliance risk inventory. It defines the risk management tools for compliance risks and supports the preventative management of compliance risks on a case-by-case basis. To fulfil its role, the Compliance function has unlimited rights of information, access and inspection.

1.9.2 Risk profile

The regulatory framework for Zürcher Kantonalbank again became more demanding in the reporting period, which also increased the bank's regulatory exposure.

Regulatory initiatives that required particularly significant efforts in the management of compliance and legal risks included the stricter requirements for investor protection set out in the Swiss Financial Services Act (FinSA), which came into force at the end of 2019, the revision of the provisions on data protection at the Swiss and European level, and the ongoing tightening of regulations to combat money laundering. When performing the aforementioned compliance risk inventory, Zürcher Kantonalbank continuously assesses not only the issues mentioned above, but also all its legal and regulatory risks and, where necessary, takes the appropriate risk provisioning measures.

m) Multi-year comparison

All figures in the multi-year comparison are based on the accounting rules for banks, securities dealers, financial groups and conglomerates (ARB).

	2019	2018	2017	2016	2015
Income statement in CHF million					
Net result from interest operations	1,216	1,213	1,202	1,187	1,162
Result from commission business and services	777	776	770	728	668
Result from trading activities and the fair value option	319	286	334	379	328
Other result from ordinary activities	102	46	31	31	47
Operating income	**2,414**	**2,320**	**2,336**	**2,325**	**2,204**
Operating expenses	–1,443	–1,430	–1,434	–1,441[1]	–1,374
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets	–113	–192	–120	–124	–106
Changes to provisions and other value adjustments and losses	–12	194	2	–8	–61
Operating result	**846**	**892**	**784**	**752**[1]	**664**
Extraordinary result	4	103	8	16	66
Changes in reserves for general banking risks	–	–200	–	–	–
Taxes	–5	–7	–11	–7	–8
Consolidated profit	**845**	**788**	**782**	**761**[1]	**722**
Balance sheet (before appropriation of profit) in CHF million					
Balance sheet total	167,054	169,408	163,881	157,985	154,410
Mortgage loans	84,311	81,256	79,087	77,275	73,623
Amounts due in respect of customer deposits	85,089	85,537	81,381	80,890	80,820
Provisions	242	255	585	636	584
Shareholders' equity	12,337	11,852	11,228	10,793	10,429
Key figures in %					
Return on equity (RoE)	7.2	7.1	7.3	7.4[1]	7.5
Cost/income ratio (CIR)[2]	59.9	61.4	61.1	61.7[1]	62.4
Common equity Tier 1 ratio (CET1)[3]	17.7	17.8	16.5[5]	15.6	15.8
Risk-based capital ratio (going concern)[3]	20.0	20.2	18.8[5]	17.5	16.8
Risk-based capital ratio (gone concern)[3/4]	1.4	–	–	–	–
Leverage ratio (going concern)[3]	7.0	6.8	6.8	6.7	7.0
Leverage ratio (gone concern)[3/4]	0.5	–	–	–	–
Liquidity coverage ratio (LCR)[6]	123	127	153	132	128
Customers' assets in CHF million					
Total customers' assets	333,341	295,194	288,802	264,754	257,505
Headcount/branches Number					
Headcount after adjustment for part-time employees, as at the reporting date	5,145	5,087	5,117	5,173	5,179
Branches[7]	66	75	78	89	91

1 Excludes the CHF 70 million non-recurring personnel expense related to the creation of provisions for pension benefit obligations.
2 Calculation: Cost/income ratio (excl. changes in default-related value adjustments and losses from interest operations).
3 In accordance with the provisions for systemically important banks.
4 Effective since 1 January 2019.
5 Including effects stemming from the changeover to IRB and SA-CCR.
6 Up until 2016 – average for the quarter; from 2017, a simple average of the end-of-day values on business days during the quarter under review.
7 Including branches of Zürcher Kantonalbank Österreich AG in Salzburg and Vienna.

Multi-year comparison (continued)

Profit distribution (in CHF million)	2019	2018	2017	2016	2015
Share paid to canton to cover actual costs	11	13	18	21	26
Distribution to canton	330[8]	230	230	220	200
Distribution to municipalities	165[8]	115	115	110	100
Total profit distribution	506	358	363	351	326
Additional compensation for state guarantee	22	22	23	22	21
Additional payments from public service mandate	125	140	131	119	128

Rating agencies (Rating)	2019	2018	2017	2016	2015
Fitch	AAA	AAA	AAA	AAA	AAA
Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Standard & Poor's	AAA	AAA	AAA	AAA	AAA

8 Including anniversary dividend.

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Report of the statutory auditor to the Cantonal Parliament of Zurich on our audit of the consolidated financial statements as of 31 December 2019 of

Zurich, 27 February 2020

Zürcher Kantonalbank, Zurich

Report of the statutory auditor on the consolidated financial statements

Mr. President
Ladies and Gentlemen

As statutory auditor, we have audited the consolidated financial statements of Zürcher Kantonalbank, which comprise the consolidated balance sheet, consolidated statement of income, consolidated statement of cash flows, consolidated statement of changes in equity and the notes to the consolidated financial statements (pages 94 to 154), for the year ended 31 December 2019.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the consolidated financial statements in accordance with the Swiss accounting principles for banks and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility
Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Opinion
In our opinion, the consolidated financial statements for the year ended 31 December 2019 give a true and fair view of the financial position, the results of operations and the cash flows in accordance with the Swiss accounting principles for banks and comply with Swiss law.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibility* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the consolidated financial statements.

Loans – impairment of client loans and amounts due from banks as well as determination of allowances and provisions

Audit matter Zürcher Kantonalbank discloses client loans, which consist of amounts due from clients and mortgage receivables, as well as amounts due from banks at nominal value less any necessary allowances. If required, provisions are recorded for limits that are set but not used as of the balance sheet date. The need for an allowance or provision is determined on a case-by-case basis and is based on the difference between the carrying amount of a receivable, or, if greater, the limit, and the prospective recoverable amount, taking into account the counterparty risk and the net income from the use of any collateral. Determining allowances and provisions requires making estimates and assumptions, which by definition involve judgments and can vary depending on the valuation.

As of 31 December 2019, Zürcher Kantonalbank discloses client loans and amounts due from banks totaling CHF 98.1 billion. Their share as a percentage of total assets amounted to 58.7% as of the reporting date. Therefore, the valuation of the impairment of client loans and the amounts due from banks as well as the determination of allowances and provisions represent a key audit matter.

Significant accounting principles regarding client loans, amounts due from banks as well as allowances and provisions are described by Zürcher Kantonalbank on pages 101, 102, 105, 106 and 107 as well as on pages 143 to 147 of the bank's annual report. Furthermore, we refer to notes 2 and 16 on pages 109, 110 and 120 in the notes to the consolidated financial statements.

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Our audit response

Our audit included auditing the processes and controls in connection with granting and monitoring loans as well as assessing the identification and calculation of allowances and provisions. Moreover, we performed sample tests on the impairment of selected client loans and amounts due from banks, and evaluated the compliance of significant accounting principles as well as the appropriateness of the disclosures in the notes to the consolidated financial statements.

Our audit procedures did not lead to any reservations concerning the impairment of client loans and amounts due from banks as well as determination of allowances and provisions.

Fair value measurement of financial instruments

Audit matter

Fair value is defined as the amount for which an asset is exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction. This amount corresponds to the price requested in a price-efficient and liquid market or, if this is missing, to the price determined on the basis of a valuation model. Valuation models are significantly affected by the assumptions that are used, including interest, forward and swap rates, spread curves and the volatility and estimates of future cash flows. There is a significant degree of judgment involved in making these assumptions.

Zürcher Kantonalbank discloses financial instruments at fair value measurement – largely in connection with client business – in different balance sheet items. As of 31 December 2019, the fair value of positive replacement values of derivative financial instruments amounts to CHF 1.5 billion, while that of the negative replacement values comes to CHF 1.3 billion. The underlying contract volume before taking into account netting agreements amounts to CHF 1'064 billion. Furthermore, as of 31 December 2019, Zürcher Kantonalbank discloses obligations that were determined using a valuation model from other financial instruments at fair value measurement totaling CHF 2.8 billion. As a result of the inherent scope of judgment and the significance of the listed balance sheet items in the consolidated financial statements of Zürcher Kantonalbank, the valuation of these items represents a key audit matter.

Zürcher Kantonalbank explains the relevant accounting principles on pages 102, 103, 107, 108 as well as on pages 147 to 152 of their annual report. Further-more, we refer to notes 3, 4 and 14 on pages 110, 111, 112 and 118 in the notes to the consolidated financial statements

Our audit response

We audited the processes and controls with regard to fair value measurement, the validation and application of valuation models as well as the significant assumptions on which these are based. Moreover, we assessed the assumptions made in connection with the valuation and their appropriateness on the basis of sample testing. We compared the prices considered on price-efficient and liquid markets with independent sources using sample testing.

Our audit procedures did not lead to any reservations concerning the fair value measurement of financial instruments.

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Report on other legal requirements
We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a para. 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

Ernst & Young Ltd

Bruno Patusi Licensed audit expert (Auditor in charge)	Timo D'Ambrosio Licensed audit expert

Parent Company Financial Statements

Income statement

in CHF million	Notes	2019	2018	Change	Change in %
Result from interest operations					
Interest and discount income		1,861	1,811	50	2.8
Interest and dividend income from financial investments		35	43	–8	–18.4
Interest expense		–687	–632	–54	8.6
Gross result from interest operations	33	1,209	1,221	–12	–1.0
Changes in value adjustments for default risk and losses from interest operations		6	–10	17	–161.2
Subtotal net result from interest operations		1,216	1,211	5	0.4
Result from commission business and services					
Commission income from securities trading and investment activities		636	622	14	2.3
Commission income from lending activities		58	50	9	17.4
Commission income from other services		111	110	1	1.3
Commission expense		–115	–110	–5	4.2
Subtotal result from commission business and services		691	671	20	2.9
Result from trading activities					
Result from trading activities and the fair value option	32	301	272	28	10.4
Other result from ordinary activities					
Result from the disposal of financial investments		6	2	4	198.8
Income from participations		144	91	53	57.9
Result from real estate		8	9	–1	–7.8
Other ordinary income		82	24	58	241.5
Other ordinary expenses		–2	–3	1	–29.2
Subtotal other result from ordinary activities		238	123	115	93.1
Operating income		2,445	2,278	167	7.4
Operating expenses					
Personnel expenses	34	–987	–959	–28	2.9
General and administrative expenses	35	–401	–407	6	–1.5
Subtotal operating expenses		–1,388	–1,366	–22	1.6
Value adjustments on participations and depreciation and amortisation of tangible fixed assets and intangible assets		–111	–189	78	–41.4
Changes to provisions and other value adjustments and losses		–12	195	–206	–106.0
Operating result		935	917	18	1.9
Extraordinary income	36	5	24	–19	–79.8
Extraordinary expenses	36	–0	–0	–0	115.6
Changes in reserves for general banking risks	36	–	–200	200	–100.0
Taxes	39	–	–0	–0	100.0
Result of the period		940	741	199	26.9

Appropriation of profit

in CHF million	2019	2018	Change	Change in %
Result of the period	940	741	199	26.9
Profit carried forward	1	1	−0	−33.1
Distributable profit	941	742	199	26.8
Appropriation of profit				
Profit distribution				
Dividend	506	358	148	41.4
– of which, paid to cover actual costs	11	13	−2	−15.1
– of which, ordinary dividends for the benefit of the canton	230	230	–	0.0
– of which, anniversary dividends for the benefit of the canton	100	–	100	100.0
– of which, ordinary dividends for the benefit of the municipalities	115	115	–	0.0
– of which, anniversary dividends for the benefit of the municipalities	50	–	50	100.0
Profit retained				
Allocated to reserves	433	383	50	13.1
– of which, allocated to voluntary retained earnings reserve	433	383	50	13.1
Profit carried forward	2	1	1	124.0

The profit distribution takes place on the basis of the provisions in Section 26f of the Law on Zürcher Kantonalbank of 28 September 1997, as amended on 1 January 2015, and has no direct link to the endowment capital.

The appropriation of profit was approved by the Board of Directors on 23 January 2020. Approval of the annual financial statements and the appropriation of profit by the Cantonal Parliament is scheduled for 18 May 2020.

Balance sheet
as at 31 December

in CHF million	Notes	2019	2018	Change	Change in %
Assets					
Liquid assets		36,671	40,940	–4,270	–10.4
Amounts due from banks		4,902	4,792	110	2.3
Amounts due from securities financing transactions	1	15,588	17,004	–1,416	–8.3
Amounts due from customers	2	8,880	8,435	445	5.3
Mortgage loans	2	84,311	81,256	3,055	3.8
Trading portfolio assets	3	7,881	8,017	–136	–1.7
Positive replacement values of derivative financial instruments	4	1,494	1,431	62	4.4
Other financial instruments at fair value	3	–	–	–	–
Financial investments	5	4,360	4,606	–245	–5.3
Accrued income and prepaid expenses		325	322	4	1.1
Participations		540	574	–34	–5.9
Tangible fixed assets		648	674	–26	–3.9
Intangible assets		14	0	14	–
Other assets	10	254	274	–21	–7.5
Total assets		165,867	168,326	–2,459	–1.5
Total subordinated claims		337	166	171	102.8
– of which subject to conversion and/or debt waiver		37	46	–9	–19.2
Liabilities					
Amounts due to banks		34,108	37,049	–2,941	–7.9
Liabilities from securities financing transactions	1	4,969	6,876	–1,907	–27.7
Amounts due in respect of customer deposits		85,036	85,618	–582	–0.7
Trading portfolio liabilities	3	2,058	2,418	–360	–14.9
Negative replacement values of derivative financial instruments	4	1,303	753	550	73.0
Liabilities from other financial instruments at fair value	3.14	1,657	1,351	305	22.6
Cash bonds		143	167	–24	–14.5
Bond issues		13,329	11,666	1,663	14.3
Central mortgage institution loans		9,778	9,463	315	3.3
Accrued expenses and deferred income		666	712	–46	–6.4
Other liabilities	10	199	199	0	0.1
Provisions	16	240	253	–14	–5.4
Reserves for general banking risks	16	5,036	5,036	–	–
Bank’s capital	17.21	2,425	2,425	–	–
Statutory retained earnings reserve	21	1,213	1,213	–	–
Voluntary retained earnings reserve	21	2,766	2,383	383	16.1
Profit carried forward	21	1	1	–0	–33.1
Result of the period	21	940	741	199	26.9
Shareholders’ equity	21	12,381	11,799	582	4.9
Total liabilities		165,867	168,326	–2,459	–1.5
Total subordinated liabilities		1,471	1,491	–20	–1.3
– of which subject to conversion and/or debt waiver		1,471	1,491	–20	–1.3
Off-balance-sheet transactions					
Contingent liabilities	2	3,882	4,100	–218	–5.3
Irrevocable commitments	2	9,908	8,806	1,102	12.5
Obligations to pay up shares and make further contributions	2	257	263	–6	–2.3
Credit commitments	2	–	–	–	–

Statement of changes in equity

in CHF million	Bank's capital	Statutory retained earnings reserve	Reserves for general banking risks	Voluntary retained earnings reserve	Distributable profit	Total equity
2018						
Opening amount	2,425	1,213	4,836	1,946	801	11,221
Capital increase	–	–	–	–	–	–
Capital decrease	–	–	–	–	–	–
Other grants/other capital contributions	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–
Capital costs of endowment capital	–	–	–	–	–18	–18
Allocation to the canton from previous year's profit	–	–	–	–	–230	–230
Allocation to municipalities from previous year's profit	–	–	–	–	–115	–115
Valuation adjustments not affecting net income	–	–	–	–	–	–
Other allocations to (transfers from) the reserves for general banking risks	–	–	200	–	–	200
Other allocations to (transfers from) the other reserves	–	–	–	437	–437	–
Result of the period	–	–	–	–	741	741
Total equity as at 31.12.2018	2,425	1,213	5,036	2,383	742	11,799
2019						
Opening amount	2,425	1,213	5,036	2,383	742	11,799
Capital increase	–	–	–	–	–	–
Capital decrease	–	–	–	–	–	–
Other grants/other capital contributions	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–
Capital costs of endowment capital	–	–	–	–	–13	–13
Allocation to the canton from previous year's profit	–	–	–	–	–230	–230
Allocation to municipalities from previous year's profit	–	–	–	–	–115	–115
Valuation adjustments not affecting net income	–	–	–	–	–	–
Other allocations to (transfers from) the reserves for general banking risks	–	–	–	–	–	–
Other allocations to (transfers from) the other reserves	–	–	–	383	–383	–
Result of the period	–	–	–	–	940	940
Total equity as at 31.12.2019	2,425	1,213	5,036	2,766	941	12,381

Notes Parent Company

Under Art. 36 of the Swiss Ordinance on Banks and Savings Banks, institutions that draw up consolidated financial statements are exempt from disclosing certain information in the individual financial statements. For reasons of clarity, the same numbering has been used for the required tables as in the consolidated financial statements. The portrait details, explanations relating to risk management, identification of default risks and definition of the need for value adjustments, valuation of coverage and details of business policy on the use of derivative financial instruments as well as on the use of hedge accounting in the group also apply to the parent company. This is also the case for material events occurring after the balance sheet date.

Accounting and valuation principles

Accounting, valuation and reporting are based on the provisions of the Code of Obligations and Swiss banking law, the accounting rules for banks, securities dealers, financial groups and conglomerates (ARB) according to Circular 2015/01 issued by the Swiss Financial Market Supervisory Authority of 28 September 1997 and the regulations based on it. The statutory financial statements of the parent company are prepared in compliance with the provisions of Art. 25 para. 1 a) Banking Ordinance ("Reliable assessment statutory single-entity financial statements").

They are generally based on the accounting and valuation principles of the group, with the following exceptions: All participations are recognised at the lower of cost or market in the statutory financial statements. Goodwill from acquisitions is included under participations. In the single-entity financial statement, the reserves for general banking risks are shown as an individual item in the balance sheet. At group level, retained earnings reserves include reserves for general banking risks created before 2018. Creation and release of such reserves is shown under Changes in reserves for general banking risks.

i) Information on the balance sheet

1 Breakdown of securities financing transactions

in CHF million	2019	2018
Book value of receivables from cash collateral delivered in connection with securities borrowing and reverse repurchase transactions	15,588	17,004
Book value of obligations from cash collateral received in connection with securities lending and repurchase transactions	4,969	6,876
Book value of securities lent in connection with securities lending or delivered as collateral in connection with securities borrowing as well as securities in own portfolio transferred in connection with repurchase agreements	4,454	4,480
– of which, with unrestricted right to resell or pledge	4,454	4,480
Fair value of securities received and serving as collateral in connection with securities lending or securities borrowed in connection with securities borrowing as well as securities received in connection with reverse repurchase agreements with an unrestricted right to resell or repledge	45,792	49,237
– of which, repledged securities	160	114
– of which, resold securities	30,924	34,889

2 Overview of collateral for loans/receivables and off-balance-sheet transactions, as well as impaired loans/receivables

Overview by collateral

in CHF million	Type of collateral: Mortgage collateral	Other collateral	Unsecured	Total
Loans (before netting with value adjustments)				
Amounts due from customers	45	1,203	7,732	8,980
Mortgage loans				
– Residential property	70,188	14	17	70,219
– Office and business premises	9,305	–	9	9,314
– Commercial and industrial premises	2,417	1	26	2,444
– Other	2,386	–	2	2,388
Total mortgage loans	84,295	15	54	84,365
Total loans (before netting with value adjustments) 2019	84,341	1,218	7,786	93,344
Total loans (before netting with value adjustments) 2018	81,307	1,174	7,385	89,867
Total loans (after netting with value adjustments) 2019	84,341	1,218	7,632	93,190
Total loans (after netting with value adjustments) 2018	81,307	1,174	7,209	89,691
Off-balance-sheet				
Contingent liabilities	55	994	2,833	3,882
Irrevocable commitments	1,359	130	8,419	9,908
Obligations to pay up shares and make further contributions	–	–	257	257
Credit commitments	–	–	–	–
Total off-balance-sheet transactions 2019	1,414	1,124	11,510	14,048
Total off-balance-sheet transactions 2018	1,125	1,290	10,754	13,169

2 Overview of collateral for loans/receivables and off-balance-sheet transactions, as well as impaired loans/receivables (continued)

Information on impaired loans

Impaired loans in CHF million	Gross debt amount	Estimated liquidation value of collateral	Net debt amount	Individual value adjustments[1]
2019	435	257	178	159
2018	503	286	217	181

1 Individual value adjustments of 100 percent of the net debt amount are normally made. Individual value adjustment rates may apply in the case of major positions.

3 Trading portfolios and other financial instruments at fair value

Assets in CHF million	2019	2018
Debt securities, money market securities/transactions	3,418	3,513
– of which, listed[1]	3,366	3,467
Equity securities	2,477	2,671
Precious metals and commodities	1,888	1,724
Other trading portfolio assets	98	110
Total trading transactions	7,881	8,017
Debt securities	–	–
Structured products	–	–
Other	–	–
Total other financial instruments at fair value	–	–
Total assets	7,881	8,017
– of which, determined using a valuation model	150	156
– of which, securities eligible for repo transactions in accordance with liquidity requirements	1,313	1,143

1 Listed = traded on a recognised exchange.

Liabilities in CHF million	2019	2018
Debt securities, money market securities/transactions	2,033	2,400
– of which, listed[1]	2,006	2,392
Equity securities	18	9
Precious metals and commodities	1	2
Other trading portfolio liabilities	6	7
Total trading transactions	2,058	2,418
Debt securities	–	–
Structured products	1,657	1,351
Other	–	–
Total other financial instruments at fair value	1,657	1,351
Total liabilities	3,715	3,770
– of which, determined using a valuation model	1,684	1,359

1 Listed = traded on a recognised exchange.

4 Derivative financial instruments (assets and liabilities)

in CHF million	Trading instruments: Positive replacement values	Trading instruments: Negative replacement values	Trading instruments: Contract volume[1]	Hedging instruments: Positive replacement values	Hedging instruments: Negative replacement values	Hedging instruments: Contract volume
Interest rate instruments						
Forward contracts including FRAs	4	3	13,294	–	–	–
Swaps	7,233	6,574	512,917	357	404	13,879
Futures	–	–	15,537	–	–	–
Options (OTC)	61	21	3,462	–	–	–
Options (exchange-traded)	–	–	–	–	–	–
Total	7,298	6,598	545,211	357	404	13,879
Foreign exchange/ precious metals						
Forward contracts	2,781	3,181	442,229	–	–	–
Combined interest rate/currency swaps	342	617	3,388	185	–	1,614
Futures	–	–	306	–	–	–
Options (OTC)	68	67	45,427	–	–	–
Options (exchange-traded)	0	–	6	–	–	–
Total	3,191	3,866	491,356	185	–	1,614
Equity securities/indices						
Forward contracts	–	–	–	–	–	–
Swaps	13	11	819	–	–	–
Futures	–	–	2,240	–	–	–
Options (OTC)	22	48	1,310	–	–	–
Options (exchange-traded)	144	211	7,875	–	–	–
Total	180	270	12,245	–	–	–
Credit derivatives						
Credit default swaps	5	8	443	–	–	–
Total return swaps	2	2	249	–	–	–
First-to-default swaps	–	–	–	–	–	–
Other credit derivatives	–	–	–	–	–	–
Total	7	10	692	–	–	–
Other[2]						
Forward contracts	–	–	–	–	–	–
Swaps	10	10	544	–	–	–
Futures	–	–	574	–	–	–
Options (OTC)	0	0	1	–	–	–
Options (exchange-traded)	0	–	1	–	–	–
Total	11	10	1,121	–	–	–
Total before netting agreements						
2019	10,686	10,755	1,050,624	541	404	15,493
– of which, determined using a valuation model	10,686	10,755	–	541	404	–
2018	7,821	7,209	806,354	452	468	16,168
– of which, determined using a valuation model	7,821	7,209	–	452	468	–

1 The contract volume shows the amount of underlying on which a derivative is based or the notional amount underlying the derivative in accordance with the requirements of FINMA Circular 2015/01, irrespective of whether the derivative is traded long or short. The contract volume is determined differently depending on the type of contract and does not permit any direct conclusions to be drawn about the risk exposure.
2 Includes commodities and hybrid derivatives.

4 Derivative financial instruments (assets and liabilities) (continued)

Total after netting agreements[3]

in CHF million	Positive replacement values (cumulative)	Negative replacement values (cumulative)
2019	1,494	1,303
2018	1,431	753

Breakdown by counterparty

Positive replacement values (after netting agreements)	Central clearing houses	Banks and securities dealers	Other customers
2019	70	457	967

3 For over-the-counter (OTC) transactions, the positive and negative replacement values of derivative financial instruments as well as the related cash collateral are offset (netting). For this purpose, a relevant bilateral agreement with the affected counterparties must be in place. This agreement must be proven to be recognised and legally enforceable.

5 Financial investments

	Book value		Fair value	
in CHF million	**2019**	2018	**2019**	2018
Debt securities	4,013	4,332	4,176	4,478
– of which, intended to be held to maturity	4,013	4,332	4,176	4,478
– of which, not intended to be held to maturity (available for sale)	–	–	–	–
Equity securities	90[1]	51	160[1]	67
of which, qualified participations[2]	20[1]	–	28[1]	–
Precious metals	255	219	255	219
Real estate[3]	3	4	3	4
Total financial investments	4,360	4,606	4,594	4,768
– of which, securities eligible for repo transactions in accordance with liquidity requirements	3,950	4,258	4,111	4,402

1 Mainly in connection with positive value adjustments in equity securities.
2 At least 10 percent of the capital or voting rights.
3 The insurance value of the real estate within financial investments amounted to CHF 3.0 million.

Counterparties by rating

in CHF million						
Moody's	Aaa – Aa3	A1 – A3	Baa1 – Baa3	Ba1 – Ba3	Lower than Ba3	Unrated
Standard & Poor's, Fitch	AAA – AA–	A+ – A–	BBB+ – BBB–	BB+ – B–	Below B–	Unrated
Debt securities: Book values						
2019	3,664	24	–	–	–	324

All debt instruments without a rating fulfil the conditions of high-quality liquid assets (HQLA) according to the Liquidity Ordinance (LiqV).
If two ratings exist with different risk weightings, the rating with the lower risk weighting is used.
If more than two ratings exist with different risk weightings, those ratings which correspond to the two lowest risk weightings are taken into consideration.
The higher of the two risk weightings is used. Top priority is given to the issue rating and second priority to the issuer rating.

10 Other assets and liabilities

in CHF million	Other assets 2019	Other assets 2018	Other liabilities 2019	Other liabilities 2018
Compensation account	–	124	29	–
Deferred income taxes recognised as assets	–	–	–	–
Amount recognised as assets in respect of employer contribution reserves	–	–	–	–
Amount recognised as assets relating to other assets from pension schemes	–	–	–	–
Negative goodwill	–	–	–	–
Settlement accounts	196	45	133	135
Indirect taxes	53	63	24	33
Other	4	41	12	31
Total	254	274	199	199

11 Assets pledged or assigned to secure own commitments, and assets under reservation of ownership

	2019		2018	
in CHF million	Book value	Effective commitment	Book value	Effective commitment
Pledged/assigned assets				
Amounts due from banks	1,329	1,310	1,289	1,271
Amounts due from customers	2,624	2,596	1,980	1,910
Mortgage loans	12,127	9,778	11,828	9,463
Trading portfolio assets	13	13	2	2
Financial investments	–	–	–	–
Total pledged/assigned assets	16,092	13,696	15,100	12,646

No assets are subject to reservation of ownership.
Note 1 shows instruments serving as collateral for which a right of resale or pledging has been granted in connection with securities financing.

12 Liabilities relating to own pension schemes and number and nature of equity instruments of the bank held by own pension schemes

Liabilities to own pension schemes from balance-sheet transactions — in CHF million	2019	2018	Change
Amounts due in respect of customer deposits	105	148	–43
Cash bonds	–	–	–
Negative replacement values of derivative financial instruments	12	4	8
Accrued expenses and deferred income	–	–	–
Other liabilities	–	–	–
Total	117	152	–35

Own pension schemes do not hold any of the bank's equity instruments.

13 Information on pension schemes

a) Employer contribution reserves (ECR)

in CHF million	Nominal value End of 2019	Waiver of use End of 2019	Net amount End of 2019	Net amount End of 2018	Influence of ECR on personnel expenses 2019	Influence of ECR on personnel expenses 2018
Zürcher Kantonalbank pension fund	–	–	–	–	–	–
Total	–	–	–	–	–	–

b) Economic benefit/obligations and the pension expenses

in CHF million	Over-/underfunding End of 2019	Economic interest of the bank 2019	Economic interest of the bank 2018	Change in economic interest versus previous year 2019	Contributions paid 2019	Pension expenses in personnel expenses 2019	Pension expenses in personnel expenses 2018
Employer-sponsored funds/employer-sponsored pension schemes	–	–	–	–	–	–	–
Pension plans without overfunding/underfunding	–	–	–	–	–	–	105
Pension plans with overfunding[1]	45[2]	–	–	–	108	108	–
Pension plans with underfunding	–	–	–	–	–	–	–
Pension schemes without own assets	–	–	–	–	–	–	–
Total	45	–	–	–	108	108	105

1 Including change in provisions for pension benefit obligations (2019: release CHF 1 million/2018: release CHF 1 million).

2 provisional, not yet audited.

14 Issued structured products

Underlying risk of the embedded derivative		Book value: Valued as a whole		Book value: Valued separately		Total
in CHF million		Booked in trading portfolio	Booked in other financial instruments at fair value	Value of the host instrument	Value of the derivative	
Interest rate instruments	With own debenture component	–	–	–	–	–
	Without oDC	–	–	–	–	–
Equity securities	With own debenture component	–	1,382	–	–	1,382
	Without oDC	–	–	–	–	–
Foreign currencies	With own debenture component	–	254	–	–	254
	Without oDC	–	–	–	–	–
Commodities/precious metals	With own debenture component	–	12	–	–	12
	Without oDC	–	–	–	–	–
Loans	With own debenture component	–	9	–	–	9
	Without oDC	–	–	–	–	–
Real estate	With own debenture component	–	–	–	–	–
	Without oDC	–	–	–	–	–
Hybrid instruments	With own debenture component	–	–	–	–	–
	Without oDC	–	–	–	–	–
Total 2019		–	1,657	–	–	1,657
Total 2018		–	1,351	–	–	1,351

16 Presentation of value adjustments and provisions, reserves for general banking risks, and changes therein during the current year

in CHF million	Balance at end of 2018	Use in conformity with designated purpose and reversals	Reclassifi-cations	Currency differences	Past due interest, recoveries	New creations charged to income	Releases to income statement	Balance at end of 2019
Provisions for deferred taxes	–	–	–	–	–	–	–	–
Provisions for pension benefit obligations[1]	30	–12	–	–	–	–	–1	17
Provisions for default risks	133	–6	–	–	–	50	–50	127
Provisions for other business risks[2]	62	–3	–	–	–	6	–6	59
Provisions for restructuring	–	–	–	–	–	–	–	–
Other provisions[3]	29	–4	–	–	–	12	–1	37
Total provisions	253	–25	–	–	–	69	–58	240
Reserves for general banking risks	5,036	–	–	–	–	–	–	5,036
Value adjustments for default and country risks	181	–10	–	–	2	49	–62	159
– of which, value adjustments for default risks in respect of impaired loans/receivables[4]	181	–10	–	–	2	49	–62	159
– of which, value adjustments for latent risks	–	–	–	–	–	–	–	–

1 In line with its sustainable human resources policy, the Board of Directors decided in December 2016 that the bank would assume certain costs for the financing of transitional solutions in connection with the realignment of the pension fund to the changed environment.
2 Provisions for other business risks relate to provisions for settlement risks, for example, which cover identifiable risks as at the balance sheet date.
3 Other provisions include provisions for litigation, provisions for employees' holiday credits and provisions for the ZKB company anniversary in 2020.
4 Default risks consist primarily of counterparty risks, for which value adjustments of 100 percent of the net debt amount are generally made. Individual value adjustment rates may apply in the case of major positions.

Recoveries from amounts due derecognised in previous periods are reported directly in Changes in value adjustments for default risk and losses from interest operations (2019: CHF 1 million/2018: CHF 7 million).
For more details on the management of credit risks, operational risks and legal and compliance risks, please refer to section I) Risk report.

17 Presentation of the bank's capital

in CHF million	Total par value 2019	Total par value 2018
Endowment capital	2,425	2,425
Total bank's capital	2,425	2,425

In April 2014, the Cantonal Parliament set the endowment capital ceiling, which has an indefinite time limit, of CHF 3,000 million.
Zürcher Kantonalbank's capital consists of endowment capital in the amount of CHF 2,425 million. The endowment capital of CHF 575 million (endowment capital reserve), which has been approved by the Cantonal Parliament and has not yet been called on, has been reserved in full for the Bank's contingency plan by resolution of the Board of Directors and will be counted towards the gone concern capital component. As a result, the endowment capital reserve can now only be called on by order of FINMA or a FINMA-appointed restructuring official.

18 Number and value of equity securities or options on equity securities held by all executives and directors and by employees, and disclosures on any employee participation schemes

Neither Zürcher Kantonalbank nor its subsidiaries have employee participation schemes.

19 Amounts due from / to related parties

	Due from		Due to	
in CHF million	2019	2018	2019	2018
Holders of qualified participations	11	6	938	839
Group companies	264	397	262	337
Linked companies	493	573	875	810
Transactions with members of governing bodies	17	21	28	24
Other related parties	–	–	–	–

Affiliated companies are public-law institutions of the respective canton or public-private enterprises in which the canton holds qualified participations.
On- and off-balance-sheet transactions with related parties are conducted at usual market conditions, with the exception of loans to members of governing bodies. Loans to governing bodies are granted on employee terms in some cases.

This primarily involved the usual balance sheet banking business, i.e. it was mainly amounts due from and due to customers. The totals above also include securities items and claims and liabilities from transactions in derivatives (positive and negative replacement values).

The off-balance-sheet transactions with related parties in the amount of CHF 1,442 million (2018: CHF 1,303 million) primarily include irrevocable loan commitments, in particular the keepwell agreement with Zürcher Kantonalbank Finance (Guernsey) Ltd., and other contingent liabilities.

20 Disclosure of holders of significant participations

Zürcher Kantonalbank is an independent public-law institution of the Canton of Zurich.

21 Disclosure of own shares and composition of equity capital

in CHF million	2019	2018
Reserves for general banking risks	5,036	5,036
Bank's capital	2,425	2,425
Statutory retained earnings reserve	1,213	1,213
Voluntary retained earnings reserve	2,766	2,383
Profit carried forward	1	1
Result of the period	940	741
Total equity	12,381	11,799

The bank does not hold any of its own shares.
The statutory retained earnings reserve cannot be distributed.

22 Disclosures in accordance with the Ordinance against Excessive Compensation with respect to Listed Stock Corporations and Article 663c para. 3 CO for banks whose equity securities are listed

The requirements are not applicable for Zürcher Kantonalbank.

26 Breakdown of total assets by credit rating of country groups (risk domicile view)

		2019 Net foreign exposure		2018 Net foreign exposure	
Rating system ZKB's own country rating	Moody's	in CHF million	Share as %	in CHF million	Share as %
A	Aaa / Aa1 / Aa2 / Aa3	11,330	81.5	10,414	81.8
B	A1 / A2 / A3	1,050	7.5	743	5.8
C	Baa1 / Baa2 / Baa3	833	6.0	792	6.2
D	Ba1 / Ba2	351	2.5	430	3.4
E	Ba3	57	0.4	256	2.0
F	B1 / B2 / B3	256	1.8	90	0.7
G	Caa1 / Caa2 / Caa3 / Ca / C	29	0.2	1	0.0
Total		13,907	100.0	12,725	100.0

For further information, please see the "Credit risks" section in the Risk Report.

j) Information on off-balance-sheet transactions

30 Breakdown of fiduciary transactions

in CHF million	2019	2018
Fiduciary investments with third-party companies	558	398
Fiduciary investments with group companies and linked companies	–	–
Fiduciary loans	–	–
Fiduciary transactions arising from securities lending and borrowing (in the bank's own name for the account of customers)	–	–
Other fiduciary transactions	–	–
Total	558	398

31 Breakdown of managed assets and presentation of their development

a) Breakdown of managed assets

Type of managed assets in CHF million	2019	2018
Assets in collective investment schemes managed by the bank	94,607 [2]	78,821
Assets under discretionary asset management agreements	71,743	62,735
Other managed assets	163,181	150,484
Total managed assets (including double counting)[1]	329,532 [3]	292,040
– of which, double counting	53,507	45,296

1 The client assets shown include all client assets of an investment nature held with Zürcher Kantonalbank, as well as client assets held with third-party banks that are managed by Zürcher Kantonalbank. Zürcher Kantonalbank also includes client deposits that are not of an investment nature in its reported client assets. Non-inclusion of accounts that do not have an investment element would lead to greater volatility in managed client assets and thus distort the meaningfulness of trends in client assets. Assets held with Zürcher Kantonalbank but managed by third parties (custody-only) are not included. Banks and significant investment fund companies (including collective pension fund foundations, investment trusts, pension foundations and pension funds) for which Zürcher Kantonalbank acts exclusively as custodian bank are treated as custody-only.
2 This includes the precious metals funds acquired from GAM (CHF 1.9 billion).
3 The main reason for the higher value compared to the previous year is the general market trend.

b) Presentation of the development of managed assets

in CHF million	2019	2018
Total managed assets (including double counting) at beginning	292,040	286,506
+/- net new money inflow or net new money outflow [1]	11,466 [2]	17,671
+/- price gains/losses, interest, dividends and currency gains/losses	26,559 [3]	–11,140
+/- other effects	–532	–997
Total managed assets (including double counting) at end	329,532	292,040

1 The net new money inflow/outflow corresponds to the development of managed client assets adjusted for fluctuations in prices and exchange rates, interest and dividend payments, fees and expenses charged to clients, and reclassification of assets. Changes due to acquisitions/disposals of subsidiaries are not included. The interest billed to loan clients is included in the change in net new money inflow/outflow.
2 This includes the precious metals funds acquired from GAM (CHF 1.9 billion).
3 The main reason for the high value is the general market trend.

k) Information on the income statement

32 Breakdown of the result from trading activities and the fair value option

a) Breakdown by business area (in accordance with the organisation of the bank/financial group)

in CHF million	2019	2018
Result from trading in foreign exchange, bank notes and precious metals	110	102
Result from trading in bonds, interest rate and credit derivatives	100	65
Result from trading in equities and structured products	36	52
Result from other trading activities[1]	54	52
Total	301	272

1 The result from other trading activities includes results from securities lending and borrowing as well as positions for which the Executive Board or Asset Management is responsible.

b) Breakdown by underlying risk and based on the use of the fair value option

		Result from trading activities from:						
in CHF million	2019	Foreign exchange and bank notes	Precious metals	Securities lending and borrowing	Bonds, interest rate and credit derivatives	Equities and equity derivatives	Commodities and commodity derivatives	Other products[2]
Result from trading in foreign exchange, bank notes and precious metals	110	106	6	–	–1	–	–	–
Result from trading in bonds, interest rate and credit derivatives	100	–4	–	–	104	0	–	–
Result from trading in equities and structured products	36	7	–1	–	–4	37	–0	–1
Result from other trading activities	54	0	–	54	–3	3	–0	1
Total	301	109	5	54	95	40	–1	–1
– of which, from fair value option on assets	–	–	–	–	–	–	–	–
– of which, from fair value option on liabilities	–251	6	–0	–	–1	–253	–2	–1

2 Trading income from other products includes hybrid products and real estate derivatives.

33 Disclosure of material refinancing income in the item Interest and discount income as well as material negative interest

During financial year 2019, refinancing income from trading activities of CHF –41.3 million (previous year: CHF –50.0 million) was included in the item Interest and discount income.

The item Interest and discount income also includes the result of currency swaps in the amount of CHF 692.4 million (previous year: CHF 626.5 million), which were entered into solely for the purpose of engaging in interest arbitrage.

Negative interest on lending business is shown as a reduction in the interest and discount income. Negative interest on deposit-taking business is shown as a reduction in interest expenses.

in CHF million	2019	2018
Negative interest on lending business (reduction in interest and discount income)	240	204
Negative interest on deposit-taking business (reduction in interest expenses)	125	117

34 Breakdown of personnel expenses

in CHF million	2019	2018
Salaries for members of the bank's governing bodies and personnel	785	761
– of which, alternative forms of variable compensation	–	–
AHV, IV, ALV and other social security contributions[1]	170	166
Changes in book value for economic benefits and obligations arising from pension schemes	–	–
Other personnel expenses	32	32
Total	987	959

1 Including change in provisions for pension benefit obligations (2019: release CHF 1 million/2018: release CHF 1 million).

35 Breakdown of general and administrative expenses

in CHF million	2019	2018
Office space expenses	33	32
Expenses for information and communications technology	151	158
Expenses for vehicles, equipment, furniture and other fixtures, as well as operating lease expenses	1	1
Fees of audit firms	4	4
– of which, for financial and regulatory audits	4	4
– of which, for other services	0	0
Other operating expenses	213	212
– of which, compensation for state guarantee	22	22
Total	401	407

36 Explanations regarding material losses, extraordinary income and expenses, as well as material releases of hidden reserves, reserves for general banking risks, and value adjustments and provisions no longer required

in CHF million	2019	2018
Extraordinary income		
Reversal of impairment on other participations	5	1
Income from sale of other real estate/bank premises	0	21
Income from sale of participations	0	0
Other	0	1
Total	5	24
Extraordinary expenses		
Losses from disposal of other real estate/bank premises	0	0
Losses from disposal of participations	–	0
Other	–	0
Total	0	0
Changes in reserves for general banking risks		
Creation of reserves for general banking risks	–	200[1]
Release of reserves for general banking risks	–	–
Total	–	200

1 Creation of CHF 200 million of reserves for general banking risks. This was directly related to the release of provisions for other business risks and other provisions that were no longer required following the completion of the investigation by the US Department of Justice into the bank's legacy business with US clients. In the financial year, no releases of hidden reserves or material freed-up value adjustments and provisions were recorded.

37 Disclosure of and reasons for revaluations of participations and tangible fixed assets up to acquisition cost at maximum

in CHF million		2019	2018
Participations	Registered office		
CLS Group Holdings AG	Lucerne	–	0
Zürcher Kantonalbank Österreich AG	Salzburg	1	1
Venture Incubator AG	Altendorf	3	–
Total		4	1

Appreciation is applied to non-listed participations in accordance with the mean value method and, for listed participations, in accordance with the market value method.

39 Presentation of current taxes, deferred taxes, and disclosure of tax rate

in CHF million	2019	2018
Creation of provisions for deferred taxes	–	–
Reversal of provisions for deferred taxes	–	–
Recognition of deferred taxes on losses carried forward	–	–
Recognition of other deferred taxes	–	–
Expenses for current income and capital taxes	–	–
Expenses for property gains taxes	–	–0
Total	–	–0
Unrecognised tax reductions on losses carried forward, and tax credits not recognised under the principle of prudence	–	–
Hypothetical deferred income taxes calculated at theoretical tax rates on revaluations of investments not relevant for tax purposes	–	–

Figures in table: minus = expense; plus = income

As Zürcher Kantonalbank is an independent public-law institution that is exempt from taxes on its income and capital under both cantonal tax law (Art. 61) and the federal law on direct taxation (Art. 56), no weighted average tax rate is disclosed.

Pawnbroking agency

of Zürcher Kantonalbank

Zürcher Kantonalbank is required to operate a pawnbroking agency (Art. 7 para. 3 of the Law on Zürcher Kantonalbank). Since 1872, the pawnbroking agency has been granting loans in return for the depositing of pledged items. It is managed as an independent business operation in Zurich, at Zurlindenstrasse 105. The following section shows the balance sheet, income statement and loan transactions of the pawnbroking agency.

Balance sheet (before appropriation of profit)

Assets in CHF 1,000	2019	2018
Liquid assets	309	371
Amounts due from banks	383	19
Accounts receivable	–	–
Loans	6,293	6,357
Inventory	–	–
Furniture, IT system	0	0
Transitory assets/accrued interest	240	245
Total assets	7,225	6,992

Liabilities in CHF 1,000	2019	2018
Amounts due to banks	5,650	5,555
Surplus from auctions	213	185
Accounts payable	11	10
Provisions	140	140
Reserve fund	1,100	1,088
Profit carried forward	1	1
Operating profit	110	12
Total assets	7,225	6,992

Income statement

Expenses in CHF 1,000	2019	2018
Operating expenses	845	946
Refinancing expenses	41	41
Losses	0	1
Depreciation and provisions	–	–
Operating profit	110	12
Total	996	1,000

Income in CHF 1,000	2019	2018
Interest on loans	837	816
Other income	159	183
	–	–
	–	–
	–	–
Total	996	1,000

Loan transactions

	Items	in CHF 1,000	Items	in CHF 1,000
Total loans at 31.12.2018	–	–	5,111	6,357
New loans in 2019 (incl. renewals)	–	–	10,384	13,620
Repayments in 2019	10,431	13,558	–	–
Proceeds from auctions incl. inventory receipts	193	126	–	–
Total loans at 31.12.2019	–	–	4,871	6,293

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Report of the statutory auditor to the Cantonal Parliament of Zurich on our audit of the financial statements as of 31 December 2019 of

Zurich, 27 February 2020

Zürcher Kantonalbank, Zurich

Report of the statutory auditor on the financial statements

Mr. President
Ladies and Gentlemen

As statutory auditor, we have audited the financial statements of Zürcher Kantonalbank, which comprise the balance sheet, income statement, statement of changes in equity and notes (pages 163 to 181), for the year ended 31 December 2019.

Board of Directors' responsibility
The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the Law on Zürcher Kantonalbank. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements for the year ended 31 December 2019 comply with Swiss law and the Law on Zürcher Kantonalbank.

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Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities in the Auditor's responsibility section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

Loans – impairment of client loans and amounts due from banks as well as determination of allowances and provisions

Audit Matter Zürcher Kantonalbank discloses client loans, which consist of amounts due from clients and mortgage receivables, as well as amounts due from banks at nominal value less any necessary allowances. If required, provisions are recorded for limits that are set but not used as of the balance sheet date. The need for an allowance or provision is determined on a case-by-case basis and is based on the difference between the carrying amount of a receivable, or, if greater, the limit, and the prospective recoverable amount, taking into account the counterparty risk and the net income from the use of any collateral. Determining allowances and provisions requires making estimates and assumptions, which by definition involve judgments and can vary depending on the valuation.

As of 31 December 2019, Zürcher Kantonalbank discloses client loans and amounts due from banks totaling CHF 98.1 billion. Their share as a percentage of total assets amounted to 59.1% as of the reporting date. Therefore, the valuation of the impairment of client loans and the amounts due from banks as well as the determination of allowances and provisions represent a key audit matter.

Significant accounting principles regarding client loans, amounts due from banks as well as allowances and provisions are described by Zürcher Kantonalbank on pages 101, 102, 105, 106 and 107 as well as on pages 143 to 147 of the bank's annual report. Furthermore, we refer to notes 2 and 16 on pages 168, 169 and 174 in the notes to the financial statements.

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Our audit response

Our audit included auditing the processes and controls in connection with granting and monitoring loans as well as assessing the identification and calculation of allowances and provisions. Moreover, we performed sample tests on the impairment of selected client loans and amounts due from banks, and evaluated the compliance of significant accounting principles as well as the appropriateness of the disclosures in the notes to the financial statements. Our audit procedures did not lead to any reservations concerning the impairment of client loans and amounts due from banks as well as determination of allowances and provisions.

Fair value measurement of financial instruments

Audit matter

Fair value is defined as the amount for which an asset is exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction. This amount corresponds to the price requested in a price-efficient and liquid market or, if this is missing, to the price determined on the basis of a valuation model. Valuation models are significantly affected by the assumptions that are used, including interest, forward and swap rates, spread curves and the volatility and estimates of future cash flows. There is a significant degree of judgment involved in making these assumptions.

Zürcher Kantonalbank discloses financial instruments at fair value measurement – largely in connection with client business – in different balance sheet items. As of 31 December 2019, the fair value of positive replacement values of derivative financial instruments amounts to CHF 1.5 billion, while that of the negative replacement values comes to CHF 1.3 billion. The underlying contract volume before taking into account netting agreements amounts to CHF 1'066 billion. Furthermore, as of 31 December 2019, Zürcher Kantonalbank discloses obligations that were determined using a valuation model from other financial instruments at fair value measurement totaling CHF 1.7 billion. As a result of the inherent scope of judgment and the significance of the listed balance sheet items in the financial statements of Zürcher Kantonalbank, the valuation of these items represents a key audit matter.

Zürcher Kantonalbank explains the relevant accounting principles on pages 102, 103, 107, 108 as well as on pages 147 to 152 of their annual report. Furthermore, we refer to notes 3, 4 and 14 on pages 169 to 171 and 173 in the notes to the financial statements.

Our audit response

We audited the processes and controls with regard to fair value measurement, the validation and application of valuation models as well as the significant assumptions on which these are based. Moreover, we assessed the assumptions made in connection with the valuation and their appropriateness on the basis of sample testing. We compared the prices considered on price-efficient and liquid markets with independent sources using sample testing.

Our audit procedures did not lead to any reservations concerning the fair value measurement of financial instruments.

EY
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Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a para. 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the Law on Zürcher Kantonalbank. We recommend that the financial statements submitted to you be approved.

Ernst & Young Ltd

Bruno Patusi
Licensed audit expert
(Auditor in charge)

Timo D'Ambrosio
Licensed audit expert

Glossary

A

Assessment — Appraisal of a project, situation or participant.

Audit — The business unit Audit (the Inspectorate) is responsible for the group's internal auditing. In organisational terms, it reports directly to the Board of Directors and assists the latter in fulfilling its supervisory and control tasks.

B

Basel III — The reforms published by the Basel Committee for Banking Supervision in 2010, Basel III, include a further revision of the Basel Capital Accord. Besides stricter, risk-based capital requirements with a countercyclical effect, Basel III sets limits on leverage for the first time (leverage ratio). It also specifies a global minimum liquidity standard.

Basel Committee on Banking Supervision — The Basel Committee on Banking Supervision was established by the Bank for International Settlements (BIS) in 1974 and is made up of representatives of central banks and banking supervisory authorities from 27 countries. Switzerland is represented by SNB and FINMA. The Basel Committee serves as a forum for cooperation on banking supervision issues and is the world's most important standard-setting body for banking regulation. Of particular importance is the Basel Capital Accord, also known as Basel I, Basel II and Basel III.

Bid-ask spread — Difference between the buying and selling price of a financial instrument or currency.

Business continuity management — Business continuity management ensures a company's critical business functions are maintained or restored in the case of internal or external events.

C

Capital at risk — The maximum risk capital specified by the Board of Directors, divided between the various risk categories of credit, market and operational risks in order to limit the various business activities.

Capital budgeting — Planning process for determining risk capital. The available funds (risk capital) are allocated to the various investment opportunities (risk categories, risk managers).

Clearing house — Financial sector institution that ensures the orderly settlement of financial transactions between two counterparties by acting as a central counterparty through which financial transactions between different parties are processed.

Commodity trade finance — Financing for commodities trading in the form of loans.

Compliance — Compliance involves ensuring that the conduct and actions of the bank and its employees meet applicable legal and ethical standards and also covers all organisational measures designed to prevent violations of the law and breaches of rules and ethical norms by the bank.

Confidence level — Also known as confidence interval or expectancy range. Indicates an interval for the accuracy of the estimated position of a parameter. The confidence interval is the range that contains the true position of the parameter with a specific frequency (confidence level) when random samples are drawn an infinite number of times.

Core capital — This term was introduced as part of the Basel Capital Accord (Basel III) and refers to the equity available to a company on a permanent basis in order to cover losses in its operations. It consists primarily of paid-up corporate capital or endowment capital, as well as capital and profit reserves (Common Equity Tier 1). Additional Tier 1 capital, such as perpetual hybrid capital, is also included.

Core capital ratio (Tier 1) — This term was introduced as part of the Basel Capital Accord (Basel III) and describes the level of required core capital as a percentage of risk-weighted assets.

Corporate governance — Corporate governance is the totality of principles aimed at safeguarding the owner's interests; it is intended to guarantee transparency and provide a proper system of checks and balances at the highest level of the company while preserving decision-making powers and efficiency.

Cost / income ratio (CIR) — The cost / income ratio is a key measure of the efficiency of a participant in the financial sector.

Countercyclical capital buffer — The countercyclical capital buffer is a preventative capital measure within the Basel III framework aimed at preventing excessive bank lending.

The level and implementation timescale for the capital buffer are determined by the Federal Council at the Swiss National Bank's (SNB) request, with FINMA monitoring implementation of the measure at bank level. The SNB can confine the countercyclical capital buffer to just one sector of the credit market (e.g. residential mortgages).

Credit valuation adjustment (CVA) — Additional capital requirement to account for the risk of a change in a counterparty's credit quality where OTC derivatives are not settled via a central counterparty.

Creditworthiness — Ability and willingness of an individual, company or country to repay debts.

E

Endowment capital — Equity made available to Zürcher Kantonalbank, as a public-law institution, by the canton, as owner.

Exception to policy — Procedure or approach that deviates from internal guidelines on an exceptional basis.

F

Fair value — Fair value is the amount for which mutually independent, knowledgeable business partners would exchange an asset or repay a debt.

FATCA — The United States Foreign Account Tax Compliance Act aims to prevent US taxpayers from minimising their taxes, particularly through using financial institutions located abroad. The law came into effect for financial institutions worldwide on 1 July 2014.

FINMA — The Swiss Financial Market Supervisory Authority (FINMA) is responsible for supervising banks, insurance companies, exchanges, securities dealers, collective investment schemes, as well as distributors and insurance brokers. An independent authority, it works to protect creditors, investors and policyholders, as well as to ensure the effectiveness of the financial markets.

I

Impairment — Decrease in value where the book value of an asset (participation, tangible fixed asset or intangible asset) exceeds the recoverable amount (the greater of net market value or value-in-use).

IRB approach — The internal ratings-based (IRB) approach is an institution-specific modelling approach based on internal ratings, used to determine risk-based capital requirements for credit risk. IRB approaches are more risk-sensitive than the standard approach and have to be approved by FINMA.

Issuer — Issuer of securities such as equities or bonds.

K

Key rate sensitivity — The degree of sensitivity of an asset's net present value to minor changes in an interest rate, e.g. the effect on the net present value of a portfolio of financial investments of a reduction in the market interest rate by 0.01 percent.

Key risk takers — Key risk takers have a sustained influence on the bank's business operations (risks, image, etc.), on the group's result and therefore on the implementation of the strategy (see compensation report, p. 86).

L

Letter of credit — The (documentary) letter of credit is an instrument guaranteeing the settlement of payment and credit transactions in connection with international trade. An importer's bank issues a written commitment in which it agrees to make payment to the exporter of a good upon receipt of the documents specified in the letter of credit.

Leverage ratio — The leverage ratio is an unweighted equity ratio and measures a bank's degree of indebtedness. It defines the relationship between equity and the sum of all assets and various off-balance-sheet items.

Liquidity — A company's ability to meet its commitments in full and on time. The Banking Act requires banks in Switzerland to have adequate liquidity. The money market is central to the liquidity management of banks. The SNB provides the money market with liquidity to implement its monetary policy.

M

Monte Carlo simulation — Stochastic process based on very frequently conducted random experiments. The aim is to use probability theory to analytically solve problems that are difficult or impossible to solve.

N

Negative replacement value — The replacement value corresponds to the market value of outstanding derivative financial instruments. Negative replacement values constitute a financial obligation and thus a liability.

Netting — The term netting describes the offsetting of receivables and payables under a netting agreement between two counterparties. Netting agreements must be enforceable under bankruptcy law. As a result of netting, the level of gross receivables/payables is reduced to a net position.

O

OTC transaction — Transaction that takes place over the counter (OTC), i.e. not on an exchange but on a direct, individual basis between two counterparties.

P

Positive replacement value — The replacement value corresponds to the market value of outstanding derivative financial instruments. Positive replacement values constitute a receivable and thus an asset.

R

Repo (repurchase agreement) — Financial transaction where the borrower agrees to transfer securities to the lender in return for an agreed sum of money and redeem them for payment plus interest at the end of the term.

Return on equity (RoE) — The return on equity measures the profitability of equity and is calculated from the relationship between net profit and equity.

Risk-adjusted pricing — Pricing where the price level depends on the level of risk entered into.

Risk capital allocation — The allocation of risk capital (capital at risk) to the various risk categories (or risk managers) as part of the planning process.

Risk-weighted assets (RWA) — The term risk-weighted assets was introduced as part of the Basel Capital Accord (Basel III) and constitutes the main basis for measuring risk-based capital ratios such as the core capital ratio. Risk weighting assumes that not every position entails the same level of risk. For this reason, less risky positions require less equity to underpin them than riskier ones.

S

Securities lending and borrowing (SLB) transaction — SLB transactions involve a lender transferring a security to a borrower to use for a fixed or indefinite, but callable period; in return, they receive a fee from the borrower.

SME — Small and medium-sized enterprises with fewer than 250 employees. Microbusinesses and small enterprises are those with fewer than 20 employees. Companies with 20 to 249 employees are considered medium-sized enterprises.

Systemically important banks — A bank or group of banks is systemically important if it performs functions in the domestic lending and deposit business as well as payment transactions that are indispensable to the Swiss economy and not substitutable at short notice. Other criteria such as size, risk profile and integration are also taken into account. Systemically important banks in Switzerland are subject to particularly strict requirements ("too big to fail").

U

Universal bank – A universal bank is a financial institution that fundamentally conducts all banking transactions and offers them to all client groups. All banking transactions means payment transactions, deposit business (accounts), financing as well as investment, trading and capital market business. All client groups are retail clients (Retail Banking), high-net-worth individuals (Private Banking), corporate clients (Corporate Banking) and large corporations (Investment Banking). A universal bank generates income from interest margin business, commission business and services (from securities and investments), as well as trading activities.

V

Value at risk (VaR) — The maximum loss not exceeded on a specific risk position (e.g. a securities portfolio) with a given probability (e.g. 95 percent) over a given period of time (e.g. 10 days).

Variable compensation component — An unsecured entitlement to a future allocation of a cash sum that is deferred for a period of three years. It is also subject to additional conditions, in particular the sustainable success of the business.

Volatility — Fluctuation, e.g. in the price of a security.

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Branches

Canton of Zurich

We have a strong local base. With 64 branches and around 320 ATMs we have the densest network of branches and ATMs in the Canton of Zurich.

International

- Branches/Locations Zürcher Kantonalbank
- Locations Swisscanto Holding AG

* Representation offices

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