



31 December 2017 Pillar 3 report

UBS Group and significant regulated subsidiaries and sub-groups

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Introduction and basis for preparation

Scope and location of Basel III Pillar 3 disclosures

The Basel III capital adequacy framework consists of three complementary pillars. Pillar 1 provides a framework for measuring minimum capital requirements for the credit, market, operational and non-counterparty-related risks faced by banks. Pillar 2 addresses the principles of the supervisory review process, emphasizing the need for a qualitative approach to supervising banks. Pillar 3 requires banks to publish a range of disclosures, mainly covering risk, capital, leverage, liquidity and remuneration.

This report provides Pillar 3 disclosures for UBS Group AG on a consolidated basis, as well as prudential key figures and regulatory information for our significant regulated subsidiaries and sub-groups. Information provided in our Annual Report 2017 or other publications may also serve to address Pillar 3 disclosure requirements. Where this is the case, a reference has been provided in this report to the UBS publication where the information can be located. These Pillar 3 disclosures are supplemented by specific additional requirements of the Swiss Financial Market Supervisory Authority (FINMA) and voluntary disclosures on our part.

As UBS is considered a systemically relevant bank (SRB) under Swiss banking law, UBS Group AG and UBS AG are required to comply with regulations based on the Basel III framework as applicable to Swiss SRBs on a consolidated basis. Capital and other regulatory information as of 31 December 2017 for UBS Group AG consolidated is provided in the "Capital management" section of our Annual Report 2017.

Capital and other regulatory information as of 31 December 2017 for UBS AG consolidated is provided in the UBS Group AG and UBS AG Annual Report 2017. We are also required to disclose certain regulatory information for UBS AG standalone, UBS Switzerland AG standalone and UBS Limited standalone, as well as UBS Americas Holding LLC consolidated. This information is provided in the "Significant regulated subsidiaries and sub-groups" sections of this report.

Local regulators may also require publication of Pillar 3 information at a subsidiary or sub-group level. Where applicable, these local disclosures are provided under "Holding company and significant regulated subsidiaries and sub-groups" at www.ubs.com/investors.

UBS Pillar 3 disclosures are based on phase-in rules under the Basel III framework, as implemented by the Swiss Capital Adequacy Ordinance (CAO) issued by the Swiss Federal Council and required by FINMA regulation.

In all instances where we refer to our Annual Report 2017 or a quarterly report, these are available under "Annual reporting" and "Quarterly reporting," respectively, at www.ubs.com/investors.

More information on our external reporting approach is provided on pages 14–15 of our Annual Report 2017.

Significant capital adequacy, liquidity and funding and related disclosure requirements

Significant BCBS and FINMA capital adequacy, liquidity and funding and related disclosure requirements

This Pillar 3 report has been prepared in accordance with FINMA Pillar 3 disclosure requirements (FINMA circular 2016/01 "Disclosure – banks"), the underlying Basel Committee on Banking Supervision (BCBS) guidance "Revised Pillar 3 disclosure requirements" issued in January 2015 and related "Frequently asked questions on the revised Pillar 3 disclosure requirements" issued in August 2016.

The legal entities UBS AG and UBS Switzerland AG are subject to standalone capital adequacy, liquidity and funding, and disclosure requirements defined by FINMA. This information is provided in the "Significant regulated subsidiaries and sub-groups" section of this report.

Changes to significant BCBS and FINMA capital adequacy, liquidity and funding and related disclosure requirements

The table CR9: IRB – Backtesting of probability of default per portfolio is published for the first time effective as of 31 December 2017.

In 2017, the abovementioned frequently asked questions (FAQs) guidance has been adopted for certain tables, as outlined in footnotes to the relevant tables.

Significant BCBS and FINMA requirements to be adopted in 2018 or later

Changes to Pillar 1 requirements

Effective 1 January 2018, we are subject to the revised Basel III securitization framework, which is not expected to result in a significant risk-weighted assets (RWA) increase.

In 2018, we anticipate that methodology changes and model updates, including adjustments to probability of default and loss given default factors, credit conversion factors and scheduled increases in the FINMA-required multiplier for Investment Bank exposures to corporates will increase credit risk RWA.

→ **Refer to "Risk-weighted assets" in the "Capital Management" section of our Annual Report 2017 for more information on expected RWA increase from methodology changes and model updates in 2018**

Following the revisions to the CAO by the Swiss Federal Council on 22 November 2017, FINMA updated its credit risk circular for consultation in December 2017. The update defers the latest mandatory effective implementation date of the standardized approach for counterparty credit risk (SA-CCR) and changes related to investments in funds in the banking book to 1 January 2020. In addition, FINMA also deferred the latest mandatory effective implementation date for exposures to central counterparties to 1 January 2020.

In December 2017, the BCBS announced the finalization of the Basel III framework. We currently estimate that the introduction of the revised Basel III framework on 1 January 2022 will likely lead to a further net increase in RWA of around CHF 35 billion, before taking into account any mitigation actions that we may take. These estimates are based on our current understanding of the relevant standards and may change as a result of new or changed regulatory interpretations, implementation of the Basel III standards into national law, changes in business growth, market conditions and other factors.

- Refer to **“Finalization of the Basel III capital framework” in the “Regulatory and legal developments” section of our Annual Report 2017 for more information on changes to the Basel III standards**
- Refer to **“Changes to the Swiss prudential regulatory framework” in the “Regulatory and legal developments” section of our Annual Report 2017 for more information on related developments in Switzerland**

Changes to IFRS standards impacting Pillar 1

In March 2017, BCBS finalized guidance on an interim approach for the regulatory treatment of accounting provisions and defined standards for transitional arrangements, following the introduction of IFRS 9, *Financial Instruments*. The BCBS confirmed that for an interim period the current treatment of accounting provisions, under both the standardized approach and the IRB approach, should continue to be applied until the longer-term treatment is confirmed. The BCBS recommended that jurisdictions issue guidance to categorize new accounting provisions as general provisions or specific provisions for regulatory purposes. Additionally, jurisdictions may implement transitional arrangements to spread the adoption impacts over time, using either a static or a dynamic approach, including limiting the transition period to a maximum of five years. The

consultation period on the related FINMA guidance ended on 31 January 2018. It includes the option of phasing the initial effect of adopting the new accounting provisions into regulatory capital, using a static approach. The final guidance is expected to be published during 2018 with an effective date of 1 January 2019.

In January 2016, the IASB issued IFRS 16, *Leases*, replacing IAS 17, *Leases*, which is mandatorily effective as of 1 January 2019. The standard substantially changes how lessees must account for operating lease commitments, requiring a lease liability with a corresponding right-of-use asset to be recognized on the balance sheet, compared with the current off-balance sheet treatment of such leases. UBS expects to report an increase in assets and liabilities from adoption as of 1 January 2019 in line with its disclosure of undiscounted operating lease commitments as set out in note 31 of our “Consolidated financial statements” in our Annual Report 2017. On 6 April 2017, the BCBS issued responses to FAQs related to changes to lease accounting arising from IFRS 16. The BCBS clarified that for regulatory capital purposes these assets should be included in the leverage ratio denominator and in the RWA, with a 100% risk weight.

Changes to Pillar 3 disclosure requirements

In March 2017, BCBS issued the “Pillar 3 disclosure requirements – consolidated and enhanced framework,” which represents the second phase of the Committee’s review of the Pillar 3 disclosure framework and builds on the revisions to the Pillar 3 disclosure requirements published in January 2015. On 31 October 2017, FINMA issued a revised draft circular, 2016/01 “Disclosure – banks,” and required banks to gradually implement the requirements with an expected effective date of 1 January 2019.

Frequency and comparability of Pillar 3 disclosures

FINMA has specified the reporting frequency for each disclosure, as outlined in the table below. We generally provide for all disclosures quantitative comparative information as of 31 December 2016. Depending on the FINMA-specified disclosure frequency, we provide additional quantitative prior period information:

- For quarterly disclosures on movements related to RWA for credit risk, counterparty credit risk and market risk, we provide additional comparative information for the third, second and first quarters of 2017.
- For the overview of RWA, we provide additional comparative information as of 30 September 2017, 30 June 2017 and 31 March 2017.
- For all other quarterly disclosures, we provide comparative information as of 30 September 2017 only, in addition to the 31 December 2016 information.
- For semiannual disclosures, we provide comparative information as of 30 June 2017 along with information as of 31 December 2016.

- For annual disclosures as well as for our disclosures on significant regulated subsidiaries and sub-groups, we present information as of 31 December 2017 and 31 December 2016.

Where required, movement commentary is aligned with the corresponding disclosure frequency required by FINMA and always refers to the latest comparative period. Throughout this report, signposts are displayed at the beginning of a section, table or chart – **Annual | Semiannual | Quarterly |** – indicating whether the disclosure is provided quarterly, semiannually or annually. A triangle symbol – **▲ ▲ ▲** – indicates the end of the signpost.

- **Refer to the UBS Group AG and significant regulated subsidiaries and sub-groups first, second and third quarter reports under “Pillar 3 disclosures” at www.ubs.com/investors for more information on previously published quarterly movement commentary**
- **Refer to the UBS Group AG 2017 semiannual Pillar 3 report under “Pillar 3 disclosures” at www.ubs.com/investors for more information on previously published semiannual movement commentary**

FINMA reference	Disclosure title	FINMA reference	Disclosure title
Annual disclosure requirements			
OVA	Bank risk management approach	CR9	IRB – backtesting of probability of default (PD) per portfolio
LI1	Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories	CCRA	Qualitative disclosure related to counterparty credit risk management
LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements (under the regulatory scope of consolidation)	SECA	Qualitative disclosure requirements related to securitization exposures
LIA	Explanations of differences between accounting and regulatory exposure amounts (under the regulatory scope of consolidation)	MRA	Qualitative disclosure requirements related to market risk
CRA	General information about credit risk	MRB	Qualitative disclosures for banks using the internal models approach (IMA)
CRB	Additional disclosures related to the credit quality of assets	N/A	Interest rate risk in the banking book
CRC	Qualitative disclosure requirements related to credit risk mitigation	N/A	Operational risk
CRD	Qualitative disclosures on banks’ use of external credit ratings under the standardized approach for credit risk	N/A	Remuneration
CRE	Qualitative disclosures related to internal ratings-based (IRB) models		

FINMA reference	Disclosure title	FINMA reference	Disclosure title
Semiannual disclosure requirements			
CR1	Credit quality of assets	CCR4	IRB – CCR exposures by portfolio and PD scale
CR2	Changes in stock of defaulted loans and debt securities	CCR5	Composition of collateral for CCR exposure
CR3	Credit risk mitigation techniques – overview	CCR6	Credit derivatives exposures
CR4	Standardized approach – credit risk exposure and credit risk mitigation (CRM) effects	CCR8	Exposures to central counterparties ¹
CR5	Standardized approach – exposures by asset classes and risk weights	SEC1	Securitization exposures in the banking book
CR6	IRB – credit risk exposures by portfolio and PD range	SEC2	Securitization exposures in the trading book
CR7	IRB – effect on risk-weighted assets (RWA) of credit derivatives used as CRM techniques	SEC3	Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor
CR10	IRB (equities under the simple risk weight method)	SEC4	Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as investor
CCR1	Analysis of counterparty credit risk (CCR) exposure by approach	MR1	Market risk under standardized approach
CCR2	Credit valuation adjustment (CVA) capital charge	MR3	IMA values for trading portfolios
CCR3	Standardized approach – CCR exposures by regulatory portfolio and risk weights	MR4	Comparison of value-at-risk (VaR) estimates with gains / losses
Quarterly disclosure requirements			
OV1	Overview of RWA	N/A	Eligible capital
CR8	RWA flow statements of credit risk exposures under IRB	N/A	Leverage ratio
CCR7	RWA flow statements of CCR exposures under the internal model method (IMM) and VaR	N/A	Liquidity coverage ratio
MR2	RWA flow statements of market risk exposures under an IMA	N/A	Prudential key figures for our significant regulated subsidiaries and sub-groups

¹ Disclosure is not required as of 31 December 2017.

Format of Pillar 3 disclosures

As defined by FINMA, certain Pillar 3 disclosures follow a fixed format, whereas other disclosures are flexible and may be modified to a certain degree to present the most relevant information. Pillar 3 requirements are presented under the relevant FINMA table / template reference (e.g., OVA, OV1, LI1, etc.). Pillar 3 disclosures may also include row labeling (1, 2, 3, etc.) as prescribed by FINMA. Naming conventions used in our Pillar 3 disclosures are based on the FINMA guidance and may not reflect UBS naming conventions.

FINMA-defined asset classes

The FINMA-defined asset classes used within this Pillar 3 report are as follows:

- Central governments and central banks, consisting of exposures relating to governments at the level of the nation state and their central banks. The European Union is also treated as a central government.
- Banks and securities dealers, consisting of exposures to legal entities holding a banking license and securities firms subject to adequate supervisory and regulatory arrangements, including risk-based capital requirements. Securities firms can only be assigned to this asset class if they are subject to a supervision equivalent to that of banks.
- Public sector entities, multilateral development banks, consisting of exposures to institutions established on the basis of public law in different forms, such as administrative entities or public companies as well as regional governments, the BCBS, the International Monetary Fund, the European Central Bank and eligible multilateral development banks recognized by FINMA.
- Corporates: specialized lending, consisting of exposures relating to income-producing real estate and high-volatility commercial real estate, commodities finance, project finance and object finance.

- Corporates: other lending, consisting of all exposures to corporates that are not specialized lending. This asset class includes private commercial entities such as corporations, partnerships or proprietorships, insurance companies and funds (including managed funds).
- Retail: residential mortgages, consisting of residential mortgages, regardless of exposure size, if the owner occupies or rents out the mortgaged property.
- Retail: qualifying revolving retail exposures, consisting of unsecured and revolving credits to individuals that exhibit appropriate loss characteristics relating to credit card relationships at UBS.
- Retail: other, consisting primarily of Lombard lending that represents loans made against the pledge of eligible marketable securities or cash, as well as exposures to small businesses, private clients and other retail customers without mortgage financing.
- Equity: consisting of instruments that have no stated or predetermined maturity and represents a residual interest in the net assets of an entity.
- Other assets: consisting of the remainder of exposures to which UBS is exposed, mainly non-counterparty related assets.

Governance over Pillar 3 disclosures

The Board of Directors (BoD) and senior management are responsible for establishing and maintaining an effective internal control structure over the disclosure of financial information, including Pillar 3 disclosures. In line with BCBS and FINMA requirements, we have a BoD-approved Pillar 3 disclosure governance policy in place, which includes information on the key internal controls and procedures designed to govern the preparation, review and sign-off of Pillar 3 disclosures. This Pillar 3 report has been verified and approved in line with this policy.

Risk management framework

Our Group-wide risk management framework is applied across all risk types. The table below presents an overview of risk management disclosures that are provided separately in our Annual Report 2017.

Annual I

OVA – Bank risk management approach

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Business model and risk profile	Operating environment and strategy	– Risk factors	45–56
		– Current market climate and industry trends	18–20
	Risk, treasury and capital management	– Overview of risks arising from our business activities	113–114
		– Risk categories	115
		– Top and emerging risks	116
		– Risk appetite framework	119–121
		– Risk measurement	123–125
		– Credit risk – Key developments, Main sources of credit risk, Overview of measurement, monitoring and management techniques	126
		– Market risk – Key developments, Main sources of market risk, Overview of measurement, monitoring and management techniques	148
		– Interest rate risk in the banking book	153–157
		– Other market risk exposures	157–158
		– Country risk framework	159
– Operational risk framework	165		
– Risk management and control principles	120		
Risk governance	Risk, treasury and capital management	– Risk categories	115
		– Risk governance	117–118
		– Treasury management – Strategy, objectives and governance	167
		– Capital management – Capital planning and Capital management activities	183
Communication and enforcement of risk culture within the bank	Risk, treasury and capital management	– Risk governance	117–118
		– Risk appetite framework	119–121
		– Internal risk reporting	122
		– Operational risk framework	165
Scope and main features of risk measurement systems	Risk, treasury and capital management	– Risk measurement	123–125
		– Credit risk – Overview of measurement, monitoring and management techniques	126
		– Market risk – Overview of measurement, monitoring and management techniques	148
		– Country risk exposure measure	159–163
		– Advanced measurement approach model	166
Risk information reporting	Risk, treasury and capital management	– Risk governance	117–118
		– Internal risk reporting	122
		– Risk management and control principles	120
Stress testing	Risk, treasury and capital management	– Risk appetite framework	119–121
		– Stress testing	123–124
		– Credit risk models – Stress loss	141
		– Market risk stress loss	149
		– Interest rate risk in the banking book	153–157
		– Other market risk exposures	157–158
		– Assets and liquidity management – Stress testing	172
Strategies and processes applied to manage, hedge and mitigate risks	Risk, treasury and capital management	– Credit risk – Overview of measurement, monitoring and management techniques	126
		– Credit risk mitigation	134–136
		– Market risk – Overview of measurement, monitoring and management techniques	148
		– Value-at-risk	149–152
		– Interest rate risk in the banking book	153–157
		– Other market risk exposures	157–158
		– Country risk exposure measure	159–163
		– Operational risk framework	165
		– Liabilities and funding management	173–176
		– Currency management	181
		– Risk management and control principles	120
	Consolidated financial statements		– Note 12 Derivative instruments and hedge accounting

Our approach to measuring risk exposure and risk-weighted assets

Measures of risk exposure may differ, depending on whether the exposures are measured for financial accounting purposes under International Financial Reporting Standards (IFRS), for deriving our regulatory capital requirement or for internal risk management and control purposes. Our Pillar 3 disclosures are generally based on measures of risk exposure to derive the regulatory capital requirements under Pillar 1.

The table below provides a summary of the approaches we use for the main risk categories to determine the regulatory risk exposure and risk-weighted assets (RWA). Our RWA are calculated according to the BCBS Basel III framework, as implemented by the Swiss Capital Adequacy Ordinance issued by the Swiss Federal Council.

Category	Definition of risk	Regulatory risk exposure	Risk-weighted assets (RWA)
I. Credit risk			
Credit risk	Credit risk is the risk of a loss resulting from the failure of a counterparty to meet its contractual obligations toward UBS arising from transactions such as loans, debt securities held in our banking book and undrawn credit facilities. Refer to section 3 Credit risk	Exposure at default (EAD) is the amount we expect a counterparty to owe us at the time of a possible default. For banking products, the EAD equals the IFRS carrying value as of the reporting date, offset by financial collateral received. The EAD is expected to remain constant over the 12-month period. For loan commitments, a credit conversion factor is applied to model expected future drawdowns over the 12-month period.	We apply two approaches to measure credit risk RWA: – <i>Advanced internal ratings-based (A-IRB) approach</i> , applied for the majority of our businesses. Counterparty risk weights are determined by reference to internal probability of default and loss given default estimates. – <i>Standardized approach (SA)</i> , generally based on external ratings for a subset of our credit portfolio where internal measures are not available.
Non-counterparty-related risk	Non-counterparty-related risk (NCPA) denotes the risk of a loss arising from changes in value or from liquidation of assets not linked to any counterparty, for example, premises, equipment and software, and deferred tax assets on temporary differences. Refer to section 1 Regulatory exposures and risk-weighted assets.	The IFRS carrying value is the basis for measuring NCPA exposure.	We measure non-counterparty-related risk RWA by applying prescribed regulatory risk weights to the NCPA exposure.
Equity positions in the banking book	Risk from equity positions in the banking book refers to the investment risk arising from equity positions and other relevant investments or instruments held in our banking book. Refer to section 3 Credit risk	The IFRS carrying value is the basis for measuring risk exposure for equity securities held in our banking book, but reflecting a net position.	We measure the RWA from equity positions in the banking book by applying prescribed regulatory risk weights to our listed and unlisted equity exposures.

Category	Definition of risk	Regulatory risk exposure	Risk-weighted assets (RWA)
II. Counterparty credit risk			
Counterparty credit risk	<p>Counterparty credit risk is the risk that a counterparty for over-the-counter (OTC) derivatives, exchange-traded derivatives (ETD) or securities financing transactions (SFTs) will default before the final settlement of a transaction and cause a loss to the bank if the transaction has a positive economic value at the time of default.</p> <p>Refer to section 4 Counterparty credit risk.</p>	<p>We primarily use internal models to measure counterparty credit risk exposures to third parties. All internal models are approved by FINMA.</p> <p>– <i>For OTC derivatives and ETD</i> we apply the effective expected positive exposure (EEPE) and stressed expected positive exposure (stressed EPE) as defined in the Basel III framework.</p> <p>– <i>For SFTs</i> we apply the close-out period approach.</p> <p>In certain instances where risk models are not available:</p> <p>– <i>Exposure on OTC derivatives and ETD</i> is calculated considering the net positive replacement values and potential future exposure.</p> <p>– <i>Exposure for SFTs</i> is based on the IFRS carrying value, net of collateral mitigation.</p>	<p>We apply two approaches to measure counterparty credit risk RWA:</p> <p>– <i>Advanced internal ratings-based (A-IRB) approach</i>, applied for the majority of our businesses. Counterparty risk weights are determined by reference to internal counterparty ratings and loss given default estimates.</p> <p>– <i>Standardized approach (SA)</i>, generally based on external ratings for a subset of our credit portfolio, where internal measures are not available. We apply an additional credit valuation adjustment (CVA) capital charge to hold capital against the risk of mark-to-market losses associated with the deterioration of counterparty credit quality.</p>
Settlement risk	<p>Settlement risk is the risk of loss resulting from transactions that involve exchange of value (e.g., security versus cash) where we must deliver without first being able to determine with certainty that we will receive the countervalue.</p> <p>Refer to section 1 Regulatory exposures and risk-weighted assets.</p>	<p>The IFRS carrying value is the basis for measuring settlement risk exposure.</p>	<p>We measure settlement risk RWA through the application of prescribed regulatory risk weights to the settlement risk exposure.</p>
III. Securitization exposures in the banking book			
Securitization exposures in the banking book	<p>Exposures arising from traditional and synthetic securitizations held in our banking book.</p> <p>Refer to section 6 Securitizations.</p>	<p>The IFRS carrying value is the basis for measuring securitization exposure.</p>	<p>We apply two approaches to measure securitization / re-securitization exposure RWA:</p> <p>– <i>Ratings-based approach</i>, applying risk weights based on external ratings.</p> <p>– <i>Supervisory formula-based approach</i>, considering the A-IRB risk weights for certain exposures where external ratings are not available.</p>
IV. Market risk			
Value-at-risk (VaR)	<p>VaR is a statistical measure of market risk, representing the market risk losses that could potentially be realized over a set time horizon (holding period) at an established level of confidence. For regulatory VaR, the holding period is 10 days and the confidence level is 99%.</p> <p>Refer to section 7 Market risk.</p>		<p>The VaR component of market risk RWA is calculated by taking the maximum of the period-end VaR and the average VaR for the 60 trading days immediately preceding the period end, multiplied by a VaR multiplier. The quantity is then multiplied by a risk weight factor of 1,250% to determine RWA. The VaR multiplier is dependent on the number of VaR backtesting exceptions within the most recent 250-business-day window.</p>

Category	Definition of risk	Regulatory risk exposure	Risk-weighted assets (RWA)
Stressed VaR (SVaR)	SVaR is a 10-day 99% VaR measure that is estimated with model parameters that are calibrated to historical data covering a one-year period of significant financial stress relevant to the firm's current portfolio. Refer to section 7 Market risk.		The derivation of SVaR RWA is similar to the one explained above for VaR. Unlike VaR, SVaR is computed weekly, and as a result the average SVaR is computed over the most recent 12 observations.
Add-on for risks-not-in-VaR (RniV)	Potential risks that are not fully captured by our VaR model are referred to as RniV. We have a framework to identify and quantify these potential risks and underpin them with capital. Refer to section 7 Market risk.		Our RniV framework is used to derive the RniV-based component of the market risk RWA, which is approved by FINMA and, starting in 2018, subject to recalibration at least on a quarterly basis. As the RWA from RniV are add-ons, they do not reflect any diversification benefits across risks capitalized through VaR and SVaR.
Incremental risk charge (IRC)	The IRC represents an estimate of the default and rating migration risk of all trading book positions with issuer risk, except for equity products and securitization exposures, measured over a one-year time horizon at a 99.9% confidence level. Refer to section 7 Market risk.		The IRC is calculated weekly, and the results are used to derive the IRC-based component of the market risk RWA. The derivation is similar to that for VaR- and SVaR-based RWA, but without a VaR multiplier.
Comprehensive risk measure (CRM)	The CRM is an estimate of the default and complex price risk, including the convexity and cross-convexity of the CRM portfolio across credit spread, correlation and recovery, measured over a one-year time horizon at a 99.9% confidence level. Refer to section 7 Market risk.		The CRM is calculated weekly, and the results are used to derive the CRM-based component of the market risk RWA. The calculation is subject to a floor equal to 8% of the equivalent capital charge under the specific risk measure (SRM) for the correlation trading portfolio.
Securitization / re-securitization in the trading book	Risk arising from traditional and synthetic securitizations held in our trading book. Refer to section 6 Securitizations and section 7 Market risk.	The exposure is equal to the fair value of the net long or short securitization position.	We measure trading book securitization RWA using two approaches: – <i>Ratings-based approach</i> , applying risk weights based on external ratings. – <i>Supervisory formula approach</i> , considering the A-IRB risk weights for certain exposures where external ratings are not available.
V. Operational risk			
Operational risk	Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including cyber risk. Operational risk includes, among others, legal risk, conduct risk and compliance risk. Refer to section 8 Operational risk.		We use the advanced measurement approach to measure operational risk RWA in accordance with FINMA requirements.

UBS Group AG
consolidated

Section 1 Regulatory exposures and risk-weighted assets

RWA development in the fourth quarter of 2017

Quarterly | The table below provides an overview of risk-weighted assets (RWA) and the related minimum capital requirement by risk type. During the fourth quarter of 2017, phase-in RWA decreased by CHF 0.8 billion to CHF 238.4 billion, mainly due to a decrease of CHF 1.8 billion in market risk RWA, partly offset by CHF 1.3 billion increase in credit risk RWA. Information on

movements in RWA on a fully applied basis over the fourth quarter of 2017 is provided on pages 54–56 of our fourth quarter 2017 report and in the respective sections of this report. More information on capital management and RWA, including detail on movements in RWA over 2017, is provided on pages 183–198 of our Annual Report 2017. ▲

Quarterly |

OV1: Overview of RWA

CHF million	RWA ¹					Minimum capital requirements ²
	31.12.17	30.9.17	30.6.17	31.3.17	31.12.16	31.12.17
1 Credit risk (excluding counterparty credit risk)	97,678	96,349	94,647	89,317	84,899	7,814
2 of which: standardized approach (SA) ³	23,987	22,727	22,892	22,458	22,095	1,919
3 of which: internal ratings-based (IRB) approach	73,691	73,621	71,755	66,859	62,804	5,895
4 Counterparty credit risk⁴	33,363	33,362	34,060	28,808	29,362	2,669
5 of which: SA for counterparty credit risk (SA-CCR) ⁵	10,124	10,668	10,587	8,953	9,971	810
6 of which: internal model method (IMM) ⁶	23,239	22,694	23,474	19,854	19,391	1,859
7 Equity positions in banking book under market-based approach⁷	2,368	2,585	2,393	2,367	2,375	189
8 Equity investments in funds – look-through approach⁸						
9 Equity investments in funds – mandate-based approach⁹						
10 Equity investments in funds – fall-back approach⁹						
11 Settlement risk	369	256	478	340	528	30
12 Securitization exposure in banking book	1,696	1,566	1,897	1,986	2,068	136
13 of which: IRB ratings-based approach (RBA)	1,255	1,117	1,373	1,339	1,456	100
14 of which: IRB supervisory formula approach (SFA)	441	449	523	647	613	35
15 of which: SA / simplified supervisory formula approach (SSFA)						
16 Market risk	12,281	14,086	13,667	9,324	15,490	982
17 of which: standardized approach (SA)	400	617	378	378	428	32
18 of which: internal model approaches (IMM)	11,881	13,469	13,289	8,946	15,062	950
19 Operational risk	79,422	79,422	79,422	79,422	77,827	6,354
20 of which: basic indicator approach						
21 of which: standardized approach						
22 of which: advanced measurement approach	79,422	79,422	79,422	79,422	77,827	6,354
23 Amounts below thresholds for deduction (250% risk weight)⁹	11,218	11,564	11,254	11,573	12,864	897
24 Floor adjustment¹⁰	0	0	0	0	0	0
25 Total	238,394	239,190	237,818	223,137	225,412	19,071

¹ Based on phase-in rules. ² Calculated based on 8% of RWA. ³ Includes non-counterparty-related risk not subject to the threshold deduction treatment (31 December 2017: RWA CHF 8,949 million; 30 September 2017: RWA CHF 8,721 million; 30 June 2017: RWA CHF 8,493 million; 31 March 2017: RWA CHF 8,457 million; 31 December 2016: RWA CHF 8,426 million). Non-counterparty-related risk (31 December 2017: RWA CHF 9,310 million; 30 September 2017: RWA CHF 9,703 million; 30 June 2017: RWA CHF 9,449 million; 31 March 2017: RWA CHF 9,557 million; 31 December 2016: RWA CHF 10,864 million) that is subject to the threshold treatment is reported in line 23 "Amounts below thresholds for deduction (250% risk weight)". ⁴ Excludes settlement risk, which is separately reported in line 11 "Settlement risk." Includes credit valuation adjustments and RWA with central counterparties. ⁵ Calculated in accordance with the current exposure method (CEM) until SA-CCR is implemented by 1 January 2020. The split between line 5 and 6 refers to the calculation of the exposure measure. ⁶ Includes advanced credit valuation adjustment (31 December 2017: RWA CHF 1,966 million; 30 September 2017: RWA CHF 2,298 million; 30 June 2017: RWA CHF 2,707 million; 31 March 2017: RWA CHF 2,829 million; 31 December 2016: RWA CHF 4,202 million). ⁷ Includes investments in funds. Items subject to threshold deduction treatments that do not exceed their respective threshold are risk weighted at 250% (31 December 2017: RWA CHF 1,908 million; 30 September 2017: RWA CHF 1,862 million; 30 June 2017: RWA CHF 1,804 million; 31 March 2017: RWA CHF 2,015 million; 31 December 2016: RWA CHF 2,000 million) and are separately included in line 23 "Amounts below thresholds for deduction (250% risk weight)". ⁸ New regulation for the calculation of RWA for investments in funds will be implemented by 1 January 2020. ⁹ Includes items subject to threshold deduction treatments that do not exceed their respective threshold and are risk weighted at 250%. Items subject to threshold deduction treatments are significant investments in common shares of non-consolidated financial institutions (banks, insurance and other financial entities) and deferred tax assets arising from temporary differences, both of which are measured against their respective threshold. ¹⁰ No floor effect, as 80% of our Basel I RWA including the RWA equivalent of the Basel I capital deductions do not exceed our Basel III RWA including the RWA equivalent of the Basel III capital deductions. Refer to "Finalization of the Basel III capital framework" in the "Regulatory and legal developments" section of our Annual Report 2017, available under "Annual reporting" at www.ubs.com/investors, for more information on changes to our regulatory capital requirements where the proposed floor calculation would differ in significant aspects from the current approach.

The table below is aligned with the principles applied in “OV1: Overview of RWA,” and presents the net exposure at default (EAD) and RWA by risk type and FINMA-defined asset class, which forms the basis for the calculation of RWA. These exposures are then grouped into the advanced internal ratings-based (A-IRB) / model-based approaches and standardized approach. For credit risk, this defines the method used to derive the risk weight factors, through either internal ratings (A-IRB) or external ratings (standardized approach). The split between A-

IRB / model-based approaches and standardized approach for counterparty credit risk refers to the exposure measure, whereas the split in templates CCR3 and CCR4 refers to the risk weighting approach. Market and operational risk RWA are derived using model calculations and are therefore included in the model-based approach columns.

The table provides references to sections in this report containing more information on the specific topics.

Regulatory exposures and risk-weighted assets¹

31.12.17

	A-IRB / model-based approaches			Standardized approaches ²			Total	
	Net EAD	RWA	Section or table reference	Net EAD	RWA	Section or table reference	Net EAD	RWA
<i>CHF million</i>								
Credit risk (excluding counterparty credit risk)	507,294	73,691	3	49,527	23,987	3	556,821	97,678
Central governments and central banks	128,785	2,836	CR6, CR7	12,777	500	CR4, CR5	141,562	3,336
Banks and securities dealers	12,160	2,881	CR6, CR7	6,217	1,460	CR4, CR5	18,377	4,341
Public sector entities, multilateral development banks	11,401	820	CR6, CR7	2,016	636	CR4, CR5	13,416	1,456
Corporates: specialized lending	22,708	9,950	CR6, CR7				22,708	9,950
Corporates: other lending	55,542	25,136	CR6, CR7	5,727	4,409	CR4, CR5	61,269	29,545
Central counterparties				446	24	CR4, CR5	446	24
Retail	276,698	32,068	CR6, CR7	12,367	8,009	CR4, CR5	289,065	40,076
<i>Residential mortgages</i>	<i>135,212</i>	<i>23,095</i>		<i>6,714</i>	<i>2,706</i>		<i>141,926</i>	<i>25,801</i>
<i>Qualifying revolving retail exposures (QRRE)</i>	<i>1,617</i>	<i>564</i>					<i>1,617</i>	<i>564</i>
<i>Other retail³</i>	<i>139,869</i>	<i>8,409</i>		<i>5,653</i>	<i>5,303</i>		<i>145,522</i>	<i>13,712</i>
Non-counterparty-related risk ⁴				9,978	8,949	CR4, CR5	9,978	8,949
<i>Property, equipment and software</i>				<i>8,772</i>	<i>8,772</i>		<i>8,772</i>	<i>8,772</i>
<i>Other</i>				<i>1,206</i>	<i>177</i>		<i>1,206</i>	<i>177</i>
Counterparty credit risk²	104,023	23,239	4	88,589	10,124	4	192,612	33,363
Central governments and central banks	5,992	674	CCR3, CCR4	2,056	272	CCR3, CCR4	8,048	946
Banks and securities dealers	17,207	4,867	CCR3, CCR4	6,707	1,417	CCR3, CCR4	23,913	6,284
Public sector entities, multilateral development banks	2,920	397	CCR3, CCR4	790	27	CCR3, CCR4	3,710	424
Corporates incl. specialized lending	41,786	14,753	CCR3, CCR4	16,849	4,992	CCR3, CCR4	58,635	19,744
Central counterparties	36,118	582		54,545	1,784		90,663	2,366
Retail				7,643	515	CCR3, CCR4	7,643	515
Credit valuation adjustment (CVA)		1,966	CCR2		1,117	CCR2		3,084
Equity positions in the banking book (CR)	572	2,368	3, CR10				572	2,368
Settlement risk	69	77		356	293		425	369
Securitization exposure in the banking book	2,293	1,696	6				2,293	1,696
Market risk		11,881	7	284	400	6, 7	284	12,281
Value-at-risk (VaR)		1,614	MR3					1,614
Stressed value-at risk (SVaR)		3,529	MR3					3,529
Add-on for risks-not-in-VaR (RnIV)		3,201	MR3					3,201
Incremental risk charge (IRC)		3,457	MR3					3,457
Comprehensive risk measure (CRM)		79	MR3					79
Securitization / re-securitization in the trading book				284	400	SEC2, MR1	284	400
Operational risk		79,422	8					79,422
Amounts below thresholds for deduction (250% risk weight)	720	1,908		3,724	9,310		4,444	11,218
Deferred tax assets				3,724	9,310		3,724	9,310
Significant investments in non-consolidated financial institutions	720	1,908					720	1,908
Total	614,970	194,281		142,481	44,113		757,451	238,394

Regulatory exposures and risk-weighted assets (continued)¹

30.6.17

	A-IRB / model-based approaches			Standardized approaches ²			Total	
	Net EAD	RWA	Section or table reference	Net EAD	RWA	Section or table reference	Net EAD	RWA
<i>CHF million</i>								
Credit risk (excluding counterparty credit risk)	499,651	71,755	3	49,444	22,892	3	549,095	94,647
Central governments and central banks	143,461	2,751	CR6, CR7	13,195	470	CR4, CR5	156,656	3,221
Banks and securities dealers	13,679	3,222	CR6, CR7	7,094	1,912	CR4, CR5	20,774	5,134
Public sector entities, multilateral development banks	11,180	858	CR6, CR7	2,321	602	CR4, CR5	13,501	1,459
Corporates: specialized lending	22,682	9,826	CR6, CR7				22,682	9,826
Corporates: other lending	48,652	23,694	CR6, CR7	5,616	4,339	CR4, CR5	54,267	28,033
Central counterparties				584	36	CR4, CR5	584	36
Retail	259,997	31,404	CR6, CR7	11,103	7,041	CR4, CR5	271,100	38,444
<i>Residential mortgages</i>	<i>134,172</i>	<i>23,029</i>		<i>5,934</i>	<i>2,296</i>		<i>140,106</i>	<i>25,325</i>
<i>Qualifying revolving retail exposures (QRRE)</i>	<i>1,594</i>	<i>555</i>					<i>1,594</i>	<i>555</i>
<i>Other retail³</i>	<i>124,231</i>	<i>7,819</i>		<i>5,169</i>	<i>4,744</i>		<i>129,400</i>	<i>12,564</i>
Non-counterparty-related risk ⁴				9,531	8,493	CR4, CR5	9,531	8,493
<i>Property, equipment and software</i>				<i>8,364</i>	<i>8,364</i>		<i>8,364</i>	<i>8,364</i>
<i>Other</i>				<i>1,166</i>	<i>129</i>		<i>1,166</i>	<i>129</i>
Counterparty credit risk²	90,740	23,474	4	84,607	10,587	4	175,347	34,060
Central governments and central banks	4,453	1,131	CCR3, CCR4	1,530	206	CCR3, CCR4	5,984	1,337
Banks and securities dealers	18,840	4,971	CCR3, CCR4	5,702	1,231	CCR3, CCR4	24,542	6,202
Public sector entities, multilateral development banks	3,826	397	CCR3, CCR4	1,184	21	CCR3, CCR4	5,010	418
Corporates incl. specialized lending	42,409	13,969	CCR3, CCR4	18,992	5,576	CCR3, CCR4	61,401	19,545
Central counterparties	21,211	299		50,981	1,651		72,192	1,950
Retail				6,218	506	CCR3, CCR4	6,218	506
Credit valuation adjustment (CVA)		2,707	CCR2		1,394	CCR2		4,102
Equity positions in the banking book (CR)	578	2,393	3, CR10				578	2,393
Settlement risk	82	132		247	346		329	478
Securitization exposure in the banking book	2,944	1,897	6				2,944	1,897
Market risk		13,289	7	281	378	6, 7	281	13,667
Value-at-risk (VaR)		1,315	MR3					1,315
Stressed value-at risk (SVaR)		5,654	MR3					5,654
Add-on for risks-not-in-VaR (RniV)		2,840	MR3					2,840
Incremental risk charge (IRC)		3,383	MR3					3,383
Comprehensive risk measure (CRM)		97	MR3					97
Securitization / re-securitization in the trading book				281	378	SEC2, MR1	281	378
Operational risk		79,422	8					79,422
Amounts below thresholds for deduction (250% risk weight)	681	1,804		3,723	9,449		4,404	11,254
Deferred tax assets				3,723	9,449		3,723	9,449
Significant investments in non-consolidated financial institutions	681	1,804					681	1,804
Total	594,675	194,166		138,301	43,653		732,977	237,818

Regulatory exposures and risk-weighted assets (continued)¹

31.12.16

	A-IRB / model-based approaches			Standardized approaches ²			Total	
	Net EAD	RWA	Section or table reference	Net EAD	RWA	Section or table reference	Net EAD	RWA
<i>CHF million</i>								
Credit risk (excluding counterparty credit risk)	469,932	62,804	3	90,627	22,095	3	560,559	84,899
Central governments and central banks	129,371	2,074	CR6, CR7	52,930	349	CR4, CR5	182,300	2,423
Banks and securities dealers	13,937	2,753	CR6, CR7	5,334	1,290	CR4, CR5	19,272	4,043
Public sector entities, multilateral development banks	10,998	712	CR6, CR7	4,084	888	CR4, CR5	15,082	1,600
Corporates: specialized lending	23,331	8,252	CR6, CR7				23,331	8,252
Corporates: other lending	49,225	22,892	CR6, CR7	6,694	4,173	CR4, CR5	55,919	27,066
Central counterparties				971	59	CR4, CR5	971	59
Retail	243,070	26,120	CR6, CR7	10,995	6,910	CR4, CR5	254,065	33,030
<i>Residential mortgages</i>	<i>133,470</i>	<i>19,985</i>		<i>5,790</i>	<i>2,182</i>		<i>139,260</i>	<i>22,167</i>
<i>Qualifying revolving retail exposures (QRRE)</i>	<i>1,552</i>	<i>541</i>					<i>1,552</i>	<i>541</i>
<i>Other retail³</i>	<i>108,048</i>	<i>5,594</i>		<i>5,205</i>	<i>4,728</i>		<i>113,253</i>	<i>10,322</i>
Non-counterparty-related risk ⁴				9,620	8,426	CR4, CR5	9,620	8,426
<i>Property, equipment and software</i>				<i>8,259</i>	<i>8,259</i>		<i>8,259</i>	<i>8,259</i>
<i>Other</i>				<i>1,361</i>	<i>168</i>		<i>1,361</i>	<i>168</i>
Counterparty credit risk²	85,619	19,666	4	84,223	9,696	4	169,842	29,362
Central governments and central banks	4,282	444	CCR3, CCR4	1,673	157	CCR3, CCR4	5,955	601
Banks and securities dealers	18,492	3,838	CCR3, CCR4	5,232	944	CCR3, CCR4	23,724	4,782
Public sector entities, multilateral development banks	4,182	320	CCR3, CCR4	2,444	51	CCR3, CCR4	6,627	371
Corporates incl. specialized lending	42,378	10,586	CCR3, CCR4	16,018	4,287	CCR3, CCR4	58,396	14,873
Central counterparties	16,284	275		53,429	2,117		69,713	2,392
Retail				5,426	616	CCR3, CCR4	5,426	616
Credit valuation adjustment (CVA)		4,202	CCR2		1,524	CCR2		5,726
Equity positions in the banking book (CR)	602	2,375	3, CR10				602	2,375
Settlement risk	76	87		432	440		508	528
Securitization exposure in the banking book	3,350	2,068	6				3,350	2,068
Market risk		15,062	7	345	428	6, 7	345	15,490
Value-at-risk (VaR)		2,158	MR3					2,158
Stressed value-at risk (SVaR)		6,128	MR3					6,128
Add-on for risks-not-in-VaR (RniV)		3,709	MR3					3,709
Incremental risk charge (IRC)		2,963	MR3					2,963
Comprehensive risk measure (CRM)		104	MR3					104
Securitization / re-securitization in the trading book				345	428	SEC2, MR1	345	428
Operational risk		77,827	8					77,827
Amounts below thresholds for deduction (250% risk weight)	756	2,000		3,823	10,864		4,579	12,864
Deferred tax assets				3,823	10,864		3,823	10,864
Significant investments in non-consolidated financial institutions	756	2,000					756	2,000
Total	560,336	181,888		179,450	43,524		739,786	225,412

¹ The presentation of this table is aligned with the principles applied in "OV1: Overview of RWA." ² The split between A-IRB / model-based approaches and Standardized approaches for counterparty credit risk refers to the exposure measure, whereas the split in CCR3 and CCR4 refers to the risk weighting approach. As of 31 December 2017, CHF 100,439 million of EAD (30 June 2017: CHF 101,665 million; 31 December 2016: CHF 98,194 million) was subject to the advanced risk weighting approach, and CHF 1,510 million of EAD (30 June 2017: 1,490 million; 31 December 2016: CHF 1,934 million) was subject to the standardized risk weighting approach. ³ Consists primarily of Lombard lending, which represents loans made against the pledge of eligible marketable securities or cash, as well as exposures to small businesses, private clients and other retail customers without mortgage financing. ⁴ Excludes EAD for deferred tax assets on net operating losses (31 December 2017: CHF 1,160 million; 30 June 2017: CHF 1,708 million; 31 December 2016: CHF 3,877 million), which is not subject to credit risk RWA calculation.

Section 2 Linkage between financial statements and regulatory exposures

This section provides information about the differences between our regulatory exposures and carrying values presented in our financial statements prepared in accordance with the International Financial Reporting Standards (IFRS). Assets and liabilities presented in our IFRS financial statements may be subject to more than one risk framework as explained further on the next page.

Annual 1

L11: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

31.12.17

	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items:				Not subject to capital requirements or subject to deduction from capital
			Subject to credit risk framework ¹	Subject to counterparty credit risk framework ²	Subject to securitization framework ³	Subject to market risk framework	
<i>CHF million</i>							
Assets							
Cash and balances with central banks	87,775	87,775	87,775				
Due from banks	13,739	13,523	12,991	532 ⁴			
Cash collateral on securities borrowed	12,393	12,393		12,393		8	
Reverse repurchase agreements	77,240	77,240		77,240		6,754	
Trading portfolio assets	130,707	119,034	6,386 ⁵	35,363 ⁶	288	112,359	
Positive replacement values	118,227	118,239		118,239		112,253	
Cash collateral receivables on derivative instruments	23,434	23,434		23,434		6,959	
Loans	319,568	319,632	312,219	7,023 ⁴	390		
Financial assets designated at fair value	58,933	58,844	58,040	623 ^{6,7}	79		
Financial assets available for sale	8,665	8,634	8,634	172 ⁶			
Financial assets held to maturity	9,166	9,166	9,166				
Consolidated participations		102	102				
Investments in associates	1,018	1,018	722				296 ⁸
Property, equipment and software	8,829	8,772	8,772				
Goodwill and intangible assets	6,398	6,398					6,398
Deferred tax assets	9,844	9,844	4,718				5,127 ⁹
Other assets	29,706	29,453	10,186	19,266 ¹⁰			
Total assets	915,642	903,500	519,713	294,284	757	238,332	11,821
Liabilities							
Due to banks	7,533	7,499					7,499
Cash collateral on securities lent	1,789	1,789		1,789			
Repurchase agreements	15,255	15,255		15,255		1,478	
Trading portfolio liabilities	30,463	30,463				30,463	
Negative replacement values	116,133	116,143		116,143		110,927	
Cash collateral payables on derivative instruments	30,247	30,247		30,247		7,602	
Due to customers	408,999	408,955					408,955
Financial liabilities designated at fair value	54,202	54,099					54,099
Debt issued	139,551	139,541					139,541
Provisions	3,133	3,133					3,133
Other liabilities	57,064	45,149					45,149
Total liabilities	864,371	852,273	0	163,434	0	150,469	658,376

¹ Includes non-counterparty-related risk and equity positions in the banking book subject to the simple risk weight method of CHF 16,677 million, which are excluded from the credit risk tables CR1, CR2, CR3 and CRB in section 3 of this report, resulting in IFRS carrying values reflected in the credit risk section of CHF 503,036 million. However, credit risk tables CR4 and CR5 include non-counterparty-related risk and credit risk table CR10 includes equity positions in the banking book, both not subject to the threshold deduction approach. ² Includes settlement risk, which is not included in section 5 of this report. ³ This column only consists of securitization positions in the banking book. Trading book securitizations are included in column "Subject to market risk framework." ⁴ Consists of settlement risk and margin loans, which are both subject to counterparty credit risk. ⁵ Includes trading portfolio assets in the banking book and traded loans. ⁶ Includes assets pledged as collateral, since collateral posted is subject to counterparty credit risk. ⁷ Includes structured reverse repurchase and securities borrowing agreements, as well as other exposures subject to the counterparty credit risk framework. ⁸ Consists of goodwill on investments in associates of CHF 350 million net of a deferred tax liability (DTL) on goodwill of CHF 54 million. ⁹ Consists of phase-in deduction for deferred tax assets recognized for tax loss carry-forwards (CHF 4,637 million) and for deferred tax assets related to temporary differences (CHF 489 million). ¹⁰ Primarily includes prime brokerage receivables and accrued income related to exposures subject to counterparty credit risk.

Annual I The table above provides a breakdown of the IFRS balance sheet into the risk types used to calculate our regulatory capital requirements. Cash collateral on securities borrowed and lent, repurchase and reverse repurchase agreements, positive and negative replacement values and cash collateral receivables and payables on derivative instruments are subject to regulatory capital charges in both the market risk and the counterparty credit risk categories. In addition, trading portfolio assets, financial assets designated at fair value and financial assets available for sale include securities that were pledged as collateral. These securities are also considered in the counterparty credit risk framework, as collateral posted is subject to counterparty credit risk. ▲

Explanation of the difference between the IFRS and regulatory scope of consolidation

Quarterly I The scope of consolidation for the purpose of calculating Group regulatory capital is generally the same as the consolidation scope under IFRS and includes subsidiaries that are directly or indirectly controlled by UBS Group AG and active in banking and finance. However, subsidiaries consolidated under IFRS whose business is outside the banking and finance sector are excluded from the regulatory scope of consolidation.

The key difference between the IFRS and regulatory capital scope of consolidation related to the following entities as of 31 December 2017:

- investments in insurance, real estate and commercial companies as well as investment vehicles that are consolidated under IFRS, but not for regulatory capital purposes, where they are subject to risk-weighting
- joint ventures that are fully consolidated for regulatory capital purposes, but which are accounted for using the equity method under IFRS

Quarterly I

Main legal entities consolidated under IFRS but not included in the regulatory scope of consolidation

31.12.17

<i>CHF million</i>	Total assets ¹	Total equity ¹	Purpose
UBS Asset Management Life Ltd	11,568	41	Life insurance
A&Q Alternative Solution Limited	334	330 ²	Investment vehicle for multiple investors
A&Q Alternative Solution Master Limited	329	327 ²	Investment vehicle for multiple investors
A&Q Alpha Select Hedge Fund XL	173	87 ²	Investment vehicle for multiple investors
UBS Life Insurance Company USA	164	42	Life insurance
A&Q Alpha Select Hedge Fund Limited	115	98 ²	Investment vehicle for multiple investors
A&Q Global Alpha Strategies XL Limited	106	53 ²	Investment vehicle for multiple investors

¹ Total assets and total equity on a standalone basis. ² Represents the net asset value of issued fund units. These fund units are subject to liability treatment in the consolidated financial statements in accordance with IFRS.



Annual I

LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements (under the regulatory scope of consolidation)

31.12.17

	Total	Items subject to:			
		Credit risk framework	Counterparty credit risk framework	Securitization framework	Market risk framework
<i>CHF million</i>					
1 Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	903,500	519,713 ¹	294,284	757	238,332
2 Liabilities carrying value amount under scope of regulatory consolidation (as per template LI1) ²	(119,313)		(119,313)		
3 Total net amount under regulatory scope of consolidation	784,188	519,713	174,972	757	238,332
4 Off-balance sheet amounts (post CCF; e.g., guarantees, commitments)	70,491	56,442	12,514 ³	1,536	
5 Differences due to prudential filters	(11,821)				
6 PFE, differences in netting and collateral mitigation on derivatives	103,780		103,780		
7 SFTs including collateral mitigation	(98,228)		(98,228)		
8 Other differences including collateral mitigation in the banking book	(90,960) ⁴	(14,317)			(238,048) ⁴
9 Exposure amounts considered for regulatory purposes	757,451	561,837	193,037	2,293	284

¹ Includes non-counterparty-related risk and equity positions in the banking book subject to the simple risk weight method of CHF 16,677 million, which are excluded from the credit risk tables CR1, CR2, CR3 and CRB in section 3 of this report, resulting in IFRS carrying values reflected in the credit risk section of CHF 503,036 million. However, credit risk tables CR4 and CR5 include non-counterparty-related risk and credit risk table CR10 includes equity positions in the banking book, both not subject to the threshold deduction approach. ² Includes the amounts of financial instruments and cash collateral considered as netting per relevant netting agreement so as not to exceed the net amount of financial assets presented on the balance sheet; i.e., over-collateralization, where it exists, is not reflected in the table. ³ Includes exposure amounts considered for regulatory purposes for non-cash collateral provided on derivative transactions. ⁴ Exposure at default is only calculated for securitization exposures in the trading book, resulting in a difference between carrying values and exposure amounts considered for regulatory purposes. The effect on the total exposure is higher, since certain exposures are subject to regulatory capital charges in both the market risk and the counterparty credit risk categories.

Regulatory exposures

Annual I The table above illustrates the key differences between regulatory exposure amounts and accounting carrying values under the regulatory scope of consolidation. In addition to the accounting carrying values, the regulatory exposure amount includes:

- off-balance sheet amounts (row 4)
- potential future exposure (PFE) for derivatives, offset by netting where an enforceable master netting agreement is in place, and by eligible financial collateral deductions (row 6)
- effects from the model calculation of effective expected positive exposure (EEPE) applied to derivatives (row 6)

- any netting and collateral mitigation on securities financing transactions (SFTs) through the application of the close-out period approach or the comprehensive measurement approach (row 7)
- effect of collateral mitigation in the banking book (row 8)

The regulatory exposure amount excludes prudential filters (row 5), comprising items subject to deduction from capital, which are not risk weighted. In addition, exposures that are only subject to market risk do not create any regulatory exposure, as their risk is reflected as part of our market risk RWA calculation (row 8). ▲

Fair value measurement

The table below references more information on fair value measurement, which is provided in our Annual Report 2017.

Annual I

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Valuation methodologies applied, including mark-to-market and mark-to-model methodologies in use	Consolidated financial statements	– Note 22 a) Valuation principles	385
		– Note 22 c) Fair value hierarchy	387–393
		– Note 22 f) Level 3 instruments: valuation techniques and inputs	396–398
Description of the independent price verification process	Consolidated financial statements	– Note 22 b) Valuation governance	386
Procedures for valuation adjustments or reserves for valuing trading positions by type of instrument	Consolidated financial statements	– Note 22 d) Valuation adjustments	393–395

Prudent valuation

Annual I To ensure compliance with the prudent valuation guidance contained in the BCBS framework, UBS has established systems, controls and governance around the valuation of positions measured on the balance sheet at fair value. More information on this framework is provided in our Annual Report 2017 as outlined above.

UBS makes adjustments to tier 1 regulatory capital in accordance with FINMA's prudent valuation guidance. These adjustments are in addition to those made under financial accounting standards, as provided on page 189 of our Annual Report 2017. ▲

Section 3 Credit risk

Introduction

This section provides information on the exposures subject to the Basel III credit risk framework, as presented in the “Regulatory exposures and risk-weighted assets” table on page 13 of this report. Information on counterparty credit risk is reflected in the “Counterparty credit risk” section on page 48 of this report. Securitization positions are reported in the “Securitized positions” section on page 65 of this report.

The tables in this section provide details on the exposures used to determine the firm’s credit risk-related regulatory capital requirement. The parameters applied under the advanced internal ratings-based (A-IRB) approach are generally based on the same methodologies, data and systems we use for internal credit risk quantification, except where certain treatments are specified by regulatory requirements. These include, for example, the application of regulatory prescribed floors and multipliers, and differences with respect to eligibility criteria and exposure definitions. The exposure information presented in this section may therefore differ from our internal management view disclosed in the “Risk management and control” sections of our quarterly and annual reports. Similarly, the regulatory capital prescribed measure of credit risk exposure also differs from that defined under International Financial Reporting Standards (IFRS).

Credit risk exposure categories

Annual | A loan is a financial instrument causing actual or potential credit exposure concluded in a bilateral agreement, with determinable payments, resulting from interest, fees or amortization, or derivative cash-flows dependent on exogenous variables. In this section, we use the term “loans” in three different contexts:

- Balances subject to credit risk in the IFRS balance sheet line *Loans* as referred to in the “CRB: Breakdown of exposures by industry,” “CRB: Breakdown of exposures by geographical area” and “CRB: Breakdown of exposures by residual maturity” tables in this section.

- Balances that are by nature loans (including the IFRS balance sheet lines *Loans* and *Due from banks*) as referred to in the “CRB: Past-due loans” table in this section.
- The FINMA-defined Pillar 3 exposure category “Loans” as referred to in the “CR1: Credit quality of assets” and “CR3: Credit risk mitigation techniques – overview” tables in this section.

The Pillar 3 category “Loans” comprises financial instruments held with the intent to collect the contractual payments and includes the following IFRS balances to the extent that they are subject to the credit risk framework:

- balances with central banks
- due from banks
- loans, excluding securities presented in the IFRS balance sheet line *Loans*
- traded loans in the banking book that are included within *Trading portfolio assets*
- financial assets designated at fair value, excluding money market instruments, checks and bills and other debt instruments in the trading book
- other assets

The Pillar 3 category “Debt securities” includes the following IFRS balances to the extent that they are subject to the credit risk framework:

- trading portfolio assets, excluding traded loans
- money market instruments, checks and bills and other debt instruments in the IFRS balance sheet line *Financial assets designated at fair value*
- financial assets available for sale
- financial assets held to maturity
- securities presented in the IFRS balance sheet line *Loans* ▲

This section is structured into seven sub-sections:

Credit risk management

Annual | Includes a reference to disclosures on our risk management objectives and risk management process, our organizational structure and our risk governance. ▲

Credit risk exposure and credit quality of assets

Annual | Semiannual | Provides information on our credit risk exposures and credit quality of assets. ▲▲

Credit risk mitigation

Annual | Semiannual | Refers to disclosures on policies and processes for collateral evaluation and management, the use of netting and credit risk mitigation instruments. We also disclose information on our credit risk mitigation (CRM) techniques used to reduce credit risk for loans and debt securities. All secured exposures are presented in a table, irrespective of whether the standardized approach or the A-IRB approach is used for the risk-weighted asset (RWA) calculation. ▲▲

Credit risk under the standardized approach

Annual | Semiannual | Provides information on the use of external credit assessment institutions (ECAI) to determine risk weightings applied to rated counterparties, as well as quantitative information on credit risk exposures and the effect of CRM under the standardized approach. ▲▲

Credit risk under internal risk-based approaches

Annual | Semiannual | Refers to disclosures on our internal risk-based models used to calculate RWA, including information on internal model development and control, as well as characteristics of our models. Includes tables that provide information on credit risk exposures under the A-IRB approach, including the main parameters used in A-IRB models for the calculation of capital requirements, presented by portfolio and probability of default (PD) range. ▲▲

Credit risk risk-weighted assets under the A-IRB approach

Quarterly | Comprises disclosures on the quarterly credit risk RWA development under the A-IRB approach. ▲

Backtesting

Annual | Refers to disclosures on backtesting. ▲

Credit risk management

The table below presents an overview of Pillar 3 disclosures that are provided separately in our Annual Report 2017.

Annual I

CRA – Credit risk management

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Translation of the business model into the components of the bank's credit risk profile	Risk, treasury and capital management	– Key risks, risk measures and performance by business division and Corporate Center unit	114
		– Risk category and risk definitions	115
		– Credit risk profile of the Group	127–134
		– Main sources of credit risk	126
	Consolidated financial statements	– Note 25 b) Maximum exposure to credit risk	409–410
Criteria and approach used for defining credit risk management policy and for setting credit risk limits	Risk, treasury and capital management	– Risk governance	117–118
		– Risk appetite framework	119–121
		– Risk measurement	123–125
		– Credit risk – Overview of measurement, monitoring and management techniques	126
Structure and organization of the credit risk management and control function	Risk, treasury and capital management	– Risk governance	117–118
Interaction between the credit risk management, risk control, compliance and internal audit functions	Risk, treasury and capital management	– Risk governance	117–118
		– Risk appetite framework	119–121
Scope and content of the reporting on credit risk exposure to the executive management and to the board of directors	Risk, treasury and capital management	– Risk governance	117–118
		– Internal risk reporting	122
		– Credit risk profile of the Group	127–134
		– Risk appetite framework	119–121



Credit risk exposure and credit quality of assets

Amounts shown in the tables below are IFRS carrying values according to the regulatory scope of consolidation that are subject to the credit risk framework.

Annual 1

CRB: Breakdown of exposures by industry

31.12.17

<i>CHF million</i>	Banks	Construc- tion	Electricity, gas, water supply	Financial services	Hotels and restaurants	Manufac- turing ²	Mining	Private households	Public authorities	Real estate and rentals	Retail and wholesale ³	Services	Other ⁴	Total carrying value of assets
Balances with central banks	87,078													87,078
Due from banks	12,991													12,991
Trading portfolio assets	37	2	16	69	47	26	22		5,609	167	0	281	9	6,285
Loans ¹		2,221	862	58,952	1,773	4,283	849	191,777	3,225	15,392	6,896	20,845	5,144	312,219
Financial assets designated at fair value	14,605	1	1	13,483			11	708	27,585	1,005			265	57,663
Financial assets available for sale	299			4,495					3,088			10	6	7,898
Financial assets held to maturity	2,701								6,465					9,166
Other assets	635	2	2				3	4,521	1,393	300	9	2,826	45	9,735
Total	118,346	2,226	881	76,998	1,821	4,309	884	197,005	47,366	16,864	6,906	23,963	5,469	503,036

31.12.16

<i>CHF million</i>	Banks	Construc- tion	Electricity, gas, water supply	Financial services	Hotels and restaurants	Manufac- turing ²	Mining	Private households	Public authorities	Real estate and rentals	Retail and wholesale ³	Services	Other ⁴	Total carrying value of assets
Balances with central banks	107,100													107,100
Due from banks	12,296													12,296
Trading portfolio assets	664	18	166	161	79	103	14		5,682	205	120	37	7	7,255
Loans ¹		2,011	746	51,338	1,652	4,045	861	186,231	3,908	14,796	6,372	23,548	5,126	300,634
Financial assets designated at fair value	12,053	2	92	4,336			85	620	44,322	1,878		8	195	63,590
Financial assets available for sale	2,833			5,633					6,170			18	252	14,906
Financial assets held to maturity	2,856			0					6,433					9,289
Other assets	828	3	2	1,312	1	21	2	3,339	1,395	10	14	2,441	85	9,453
Total	138,630	2,033	1,006	62,780	1,732	4,168	962	190,190	67,911	16,889	6,506	26,052	5,666	524,524

1 Loan exposure is reported in line with the IFRS definition. 2 Includes the chemicals industry. 3 Includes the food and beverages industry. 4 Consists of Transport, storage, communications and other.

Annual | The table below provides a breakdown of our credit risk exposures by geographical area. The geographical distribution is based on the legal domicile of the counterparty or issuer. ▲

Annual |

CRB: Breakdown of exposures by geographical area

31.12.17

<i>CHF million</i>	Asia Pacific	Latin America	Middle East and Africa	North America	Switzerland	Rest of Europe	Total carrying value of assets
Balances with central banks	5,761	0	0	14,434	53,790	13,092	87,078
Due from banks	3,177	173	389	4,766	700	3,786	12,991
Trading portfolio assets	60	292	0	2,678	13	3,241	6,285
Loans ¹	21,220	5,103	4,692	85,093	160,445	35,667	312,219
Financial assets designated at fair value	15,168			17,785	2,101	22,609	57,663
Financial assets available for sale	529	93		6,627	627	22	7,898
Financial assets held to maturity	434			6,007		2,724	9,166
Other assets	518	49	19	5,030	1,042	3,077	9,735
Total	46,866	5,710	5,099	142,422	218,719	84,219	503,036

31.12.16

<i>CHF million</i>	Asia Pacific	Latin America	Middle East and Africa	North America	Switzerland	Rest of Europe	Total carrying value of assets
Balances with central banks	5,661			16,990	64,059	20,390	107,100
Due from banks	3,219	97	522	4,225	747	3,486	12,296
Trading portfolio assets	148	4		4,093	11	3,001	7,255
Loans ¹	17,750	5,869	4,290	82,199	160,551	29,976	300,634
Financial assets designated at fair value	7,881			28,556	2,645	24,509	63,590
Financial assets available for sale	684	75		8,442	1,119	4,586	14,906
Financial assets held to maturity	418			5,830		3,041	9,289
Other assets	518	51	18	5,382	874	2,611	9,453
Total	36,278	6,096	4,830	155,715	230,005	91,601	524,524

¹ Loan exposure is reported in line with the IFRS definition. ▲

Annual | The table below provides a breakdown of our credit risk exposure by residual maturity. Residual maturity is presented based on contract end date and does not include potential early redemption features. ▲

Annual |

CRB: Breakdown of exposures by residual maturity

31.12.17

<i>CHF million</i>	Due in 1 year or less	Due between 1 year and 5 years	Due over 5 years	Total carrying value of assets
Balances with central banks	87,078			87,078
Due from banks	12,878	90	23	12,991
Trading portfolio assets	167	599	5,519	6,285
Loans ¹	182,064	82,979	47,177	312,219
Financial assets designated at fair value	34,233	22,473	956	57,663
Financial assets available for sale	1,574	2,269	4,055	7,898
Financial assets held to maturity	2,600	3,515	3,051	9,166
Other assets	5,548	2,305	1,883	9,735
Total	326,141	114,231	62,664	503,036

31.12.16

<i>CHF million</i>	Due in 1 year or less	Due between 1 year and 5 years	Due over 5 years	Total carrying value of assets
Balances with central banks	107,100			107,100
Due from banks	12,204	68	24	12,296
Trading portfolio assets	1,110	938	5,207	7,255
Loans ¹	178,171	72,512	49,952	300,634
Financial assets designated at fair value	35,184	27,441	965	63,590
Financial assets available for sale	5,130	6,323	3,453	14,906
Financial assets held to maturity	1,626	4,519	3,145	9,289
Other assets	4,809	2,713	1,931	9,453
Total	345,335	114,513	64,676	524,524

¹ Loan exposure is reported in line with the IFRS definition. ▲

Policies for past-due, non-performing and impaired claims

Annual 1 A past-due claim is considered non-performing when (i) the payment of interest, principal or fees is past-due by more than 90 days, or more than 180 days for certain specified retail portfolios. Claims are also classified as non-performing when (ii) the counterparty is subject to bankruptcy, or insolvency proceedings or enforced liquidation have commenced; or (iii) obligations of the counterparty have been restructured on preferential terms, such as preferential interest rates, extension of maturity, modifying the schedule of repayments or subordination. Claims are classified as impaired if, following an individual impairment assessment, an allowance or provision for

credit losses is established. Accordingly, both performing and non-performing loans may be classified as impaired. When a financial asset against a counterparty has become non-performing, individually impaired or otherwise has defaulted, the counterparty is rated as in default according to our UBS internal rating scale. Refer to pages 143–147 in our Annual Report 2017 for more information on our policies for past-due, non-performing and impaired claims.

The tables below provide a breakdown of impaired exposures by geographical region and industry. The amounts shown are IFRS carrying values. The geographical distribution is based on the legal domicile of the counterparty or issuer. ▲

Annual 1 CRB: Breakdown of impaired exposures by industry

<i>CHF million</i>	Impaired financial instruments	Specific allowances and provisions	Collective allowances	Total allowances and provisions	Write-offs for the year ended
Industry					
Banks	3	(3)	0	(3)	(0)
Construction	144	(16)	0	(16)	(6)
Electricity, gas, water supply	53	(19)	0	(19)	0
Financial services	53	(51)	0	(51)	(27)
Hotels and restaurants	35	(9)	0	(9)	(0)
Manufacturing	211	(139)	0	(139)	(2)
Mining	57	(34)	0	(34)	(16)
Private households	153	(83)	(3)	(86)	(38)
Public authorities	39	(10)	0	(10)	(0)
Real estate and rentals	50	(14)	0	(14)	(0)
Retail and wholesale ²	230	(157)	0	(157)	(11)
Services	81	(42)	0	(42)	(14)
Transport, storage, communications and other ³	164	(103)	(10)	(113)	(3)
Total 31.12.17	1,275	(681)	(13)	(694)	(117)

<i>CHF million</i>	Impaired financial instruments	Specific allowances and provisions	Collective allowances	Total allowances and provisions	Write-offs for the year ended
Industry					
Banks	1	(3)	0	(3)	0
Construction	196	(18)	0	(18)	(1)
Electricity, gas, water supply	65	(15)	0	(15)	0
Financial services	59	(62)	0	(62)	(7)
Hotels and restaurants	50	(10)	0	(10)	0
Manufacturing ¹	122	(67)	0	(67)	(16)
Mining	44	(30)	0	(30)	(37)
Private households	162	(104)	(2)	(106)	(28)
Public authorities	11	(11)	0	(11)	0
Real estate and rentals	58	(12)	0	(12)	(1)
Retail and wholesale ²	227	(149)	0	(149)	(10)
Services	86	(46)	0	(46)	(19)
Transport, storage, communications and other ³	153	(113)	(10)	(123)	(25)
Total 31.12.16	1,235	(642)	(12)	(653)	(145)

¹ Includes the chemicals industry. ² Includes the food and beverages industry. ³ Includes provisions for off-balance sheet items and collective loan loss allowances for non-credit-card-related activities.

Annual I The table below provides a breakdown of our credit risk exposures by geographical region. The geographical distribution is based on the legal domicile of the counterparty or issuer. ▲

Annual I

CRB: Impaired financial instruments by geographical region

<i>CHF million</i>	Impaired financial instruments	Specific allowances and provisions	Impaired financial instruments net of specific allowances and provisions	Collective allowances	Total allowances and provisions	Write-offs for the year ended
Asia Pacific	68	(36)	32	0	(36)	(31)
Latin America	35	(29)	6	0	(29)	(9)
Middle East and Africa	16	(6)	10	0	(6)	(0)
North America	126	(64)	62	(8)	(72)	(6)
Switzerland	673	(305)	368	(5)	(310)	(51)
Rest of Europe	357	(240)	117	0	(240)	(20)
Total 31.12.17	1,275	(681)	594	(13)	(694)	(117)
Asia Pacific	77	(61)	16	0	(61)	(19)
Latin America	27	(21)	6	0	(21)	(17)
Middle East and Africa	11	(6)	5	0	(6)	(0)
North America	129	(58)	70	(7)	(65)	(54)
Switzerland	753	(324)	429	(5)	(329)	(50)
Rest of Europe	238	(171)	67	0	(171)	(4)
Total 31.12.16	1,235	(642)	593	(12)	(653)	(145)

Semiannual I The table below provides a breakdown of defaulted and non-defaulted loans, debt securities and off-balance sheet exposures. ▲

Semiannual I

CR1: Credit quality of assets

<i>CHF million</i>	Gross carrying values of:						Allowances / impairments			Net values		
	Defaulted exposures			Non-defaulted exposures								
	31.12.17	30.6.17	31.12.16	31.12.17	30.6.17	31.12.16	31.12.17	30.6.17	31.12.16	31.12.17	30.6.17	31.12.16
1 Loans ¹	2,432 ²	2,087	2,190	428,856	426,167	428,758	(661) ²	(577)	(599)	430,628	427,677	430,348
2 Debt securities	0	0	0	72,409	78,375	94,175	0	0	0	72,409	78,375	94,175
3 Off-balance sheet exposures	274	332	267	202,078	166,762	178,637	(33)	(53)	(54)	202,318	167,041	178,849
4 Total	2,705²	2,420	2,456	703,343	671,304	701,569	(694)²	(630)	(653)	705,354	673,093	703,372

¹ Loan exposure is reported in line with the Pillar 3 definition. ² Does not include exposures within Other assets of CHF 352 million, with associated allowances of CHF 19 million.

Semiannual I The total amount of defaulted loans and debt securities amounted to CHF 2.7 billion as of 31 December 2017. The gross CHF 286 million increase in total defaulted exposures compared with 30 June 2017 was mainly driven by loans secured by securities and loans secured by residential property. ▲

Semiannual I

CR2: Changes in stock of defaulted loans and debt securities

<i>CHF million</i>	<i>For the half year ended 31.12.17</i>	<i>For the half year ended 30.6.17</i>
1 Defaulted loans and debt securities as of the beginning of the half year	2,420	2,456
2 Loans and debt securities that have defaulted since the last reporting period	650	504
3 Returned to non-defaulted status	(87)	(257)
4 Amounts written off	(53)	(65)
5 Other changes	(224)	(220)
6 Defaulted loans and debt securities as of the end of the half year	2,705	2,420

Annual I The table below shows a breakdown of total loan balances where payments have been missed. The loan balances in the table are predominantly in Personal & Corporate Banking, where delayed payments are routinely observed. The amount of past-due mortgage loans was not significant compared with the

overall size of the mortgage portfolio. Amounts in the table below are IFRS carrying values and include the IFRS balance sheet lines *Loans* and *Due from banks*. Information on past-due but not impaired loans is provided on page 147 of our Annual Report 2017. ▲

Annual I

CRB: Past-due exposures

<i>CHF million</i>	31.12.17	31.12.16
1–10 days	130	57
11–30 days	116	115
31–60 days	130	75
61–90 days	196	12
>90 days	1,023	1,060
<i>of which: mortgage loans</i>	<i>410¹</i>	<i>619¹</i>
Total	1,593	1,320

¹ Total mortgage loans: CHF 153,729 million (31 December 2016: 153,006 million). ▲

Restructured exposures

Annual I Under imminent payment default or where default has already occurred, we sometimes restructure claims by providing concessions that we would otherwise not consider and that are outside our normal risk appetite, such as preferential interest rates, extension of maturity, modifying the schedule of repayments, debt / equity swap and subordination. When a credit restructuring takes place, each case is considered individually and the exposure is classified as defaulted and assessed for impairment. It will remain so until the loan is collected or written off, non-preferential conditions are granted that supersede the preferential conditions or until the counterparty has recovered and the preferential conditions no longer exceed our risk appetite.

Contractual adjustments when there is no evidence of imminent payment default, or where changes to terms and conditions are within our usual risk appetite, are not considered to be a credit restructuring.

Refer to pages 143 in our Annual Report 2017 for more information on our policies for restructured exposures.

The table below provides more information on restructured exposures as of 31 December 2017. ▲

Annual I

CRB: Breakdown of restructured exposures between impaired and non-impaired

<i>CHF million</i>	Impaired		Non-impaired		Total	
	31.12.17	31.12.16	31.12.17	31.12.16	31.12.17	31.12.16
Restructured exposures	400	289	736	756	1,136	1,045

Credit risk mitigation

The table below presents an overview of Pillar 3 disclosures that are provided separately in our Annual Report 2017.

Annual I

CRC – Credit risk mitigation

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Core features of policies and processes for, and an indication of the extent to which the bank makes use of, on- and off-balance sheet netting	Risk, treasury and capital management	– Traded products	133–134
		– Counterparty credit risk	136
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	362–368
		– Note 24 Offsetting financial assets and financial liabilities	406–407
Core features of policies and processes for collateral evaluation and management	Risk, treasury and capital management	– Note 1a item 3j Netting	333
		– Credit risk mitigation	134–136
		Information about market or credit risk concentrations under the credit risk mitigation instruments used	
Risk, treasury and capital management	– Risk concentrations	125	
	– Credit risk mitigation	134–136	
Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	362–368	

Additional information on counterparty credit risk mitigation is provided in the “Counterparty credit risk” section on pages 48–59 of this report.

Semiannual I The table below provides a breakdown of unsecured and partially or fully secured exposures, including security type, for the categories *Loans* and *Debt securities*.

The total carrying amount of loans increased by CHF 3.0 billion in the second half of 2017. This was mainly driven by an increase in Lombard lending in Wealth Management of CHF 9.0 billion including currency effects, as well as an increase in financial assets designated at fair value of CHF 6.5 billion in our Investment Bank’s Equities business, both

contributing to our partially or fully secured carrying amounts. These increases were partly offset by lower unsecured cash and balances with central banks of CHF 12.4 billion, primarily due to higher funding consumption by the business divisions, maturities of various fixed-term deposits and a rebalancing within our high-quality liquid assets (HQLA), partly offset by debt issuances.

The reduction of CHF 6.0 billion in debt securities mainly reflected rebalancing within our HQLA portfolio. ▲

Semiannual I

CR3: Credit risk mitigation techniques – overview¹

CHF million	Exposures unsecured: carrying amount	Exposures partially or fully secured: carrying amount	Total: carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
31.12.17						
1 Loans ²	118,517	312,111	430,628	300,637 ³	1,347	44
2 Debt securities	72,409	0	72,409	0	0	0
3 Total	190,926	312,111	503,036	300,637	1,347	44
4 of which: defaulted	385	1,386	1,771	870	288	0
30.6.17						
1 Loans ²	133,340	294,337	427,677	290,773	1,444	96
2 Debt securities	78,375	0	78,375	0	0	0
3 Total	211,715	294,337	506,052	290,773	1,444	96
4 of which: defaulted	203	1,308	1,511	697	258	0
31.12.16						
1 Loans ²	137,267	293,081	430,348	288,314	1,930	751
2 Debt securities	94,175	0	94,175	0	0	0
3 Total	231,442	293,082	524,524	288,314	1,930	751
4 of which: defaulted	130	1,461	1,591	665	318	0

¹ Exposures in this table represent carrying values in accordance with the regulatory scope of consolidation. ² Loan exposure is reported in line with the Pillar 3 definition. ³ As of 31 December 2017, exposures secured by collateral are subject to haircuts where the collateral is not included in the loss given default (LGD). This change has been prospectively adopted in accordance with the feedback provided by FINMA in the fourth quarter of 2017 and the “Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)” issued by BCBS in August 2016, and resulted in a decrease in Exposures secured by collateral of approximately CHF 6 billion.

Standardized approach – credit risk mitigation

Semiannual I The table below illustrates the effect of credit risk mitigation on the calculation of capital requirements under the standardized approach.

Credit risk exposure post-credit conversion factors (CCF) and post-CRM measured under the standardized approach increased

by CHF 0.1 billion. The increase of CHF 1.7 billion in Retail and Other asset exposures was largely offset by a decrease of CHF 1.6 billion among the other asset classes. Risk-weighted assets increased by CHF 1.1 billion, due to higher risk weights applicable to the increased Retail and Other assets component, compared with other asset classes. ▲

Semiannual I

CR4: Standardized approach – credit risk exposure and credit risk mitigation (CRM) effects

	Exposures before CCF and CRM			Exposures post CCF and CRM			RWA and RWA density		
	On-balance sheet amount	Off-balance sheet amount	Total	On-balance sheet amount	Off-balance sheet amount	Total	RWA	RWA density in %	
<i>CHF million, except where indicated</i>									
31.12.17									
Asset classes¹									
1	Central governments and central banks	12,746	0	12,746	12,745	0	12,745	471	3.7
2	Banks and securities dealers	5,689	1,031	6,720	5,687	541	6,228	1,476	23.7
3	Public sector entities and multilateral development banks	1,883	282	2,165	1,881	140	2,020	639	31.6
4	Corporates ²	6,255	3,712	9,967	5,814	467	6,281	4,475	71.3
5	Retail	14,018	3,002	17,020	12,109	167	12,275	7,976	65.0
6	Equity								
7	Other assets	9,978		9,978	9,978		9,978	8,949	89.7
8	Total	50,568	8,027	58,595	48,212	1,314	49,527	23,987	48.4
30.6.17									
Asset classes¹									
1	Central governments and central banks	13,187	106	13,293	13,187	0	13,187	493	3.7
2	Banks and securities dealers	6,680	897	7,576	6,677	437	7,115	1,932	27.2
3	Public sector entities and multilateral development banks	2,321	2	2,323	2,329	0	2,329	606	26.0
4	Corporates ²	6,695	3,621	10,316	5,674	600	6,273	4,391	70.0
5	Retail	11,739	2,188	13,927	10,754	255	11,009	6,977	63.4
6	Equity								
7	Other assets	9,531		9,531	9,531		9,531	8,493	89.1
8	Total	50,153	6,813	56,967	48,152	1,292	49,444	22,892	46.3
31.12.16									
Asset classes¹									
1	Central governments and central banks	52,921	0	52,921	52,921	0	52,921	354	0.7
2	Banks and securities dealers	4,919	877	5,796	4,898	437	5,334	1,290	24.2
3	Public sector entities and multilateral development banks	4,093	2	4,094	4,093	0	4,093	892	21.8
4	Corporates	7,364	5,027	12,391	6,605	168	6,774	4,200	62.0
5	Retail	11,520	3,212	14,732	10,679	236	10,915	6,873	63.0
6	Equity								
7	Other assets	9,620		9,620	9,620		9,620	8,426	87.6
8	Total	90,437	9,117	99,554	88,816	841	89,657	22,036	24.6

¹ The CRM effect is reflected on the original asset class. ² As of 30 June 2017, we have prospectively included loan exposures to central counterparties in accordance with the "Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)" document published by BCBS in August 2016.

IRB approach – credit derivatives used as credit risk mitigation

Semiannual I We actively manage the credit risk in our corporate loan portfolios by utilizing credit derivatives. Single-name credit derivatives that fulfill the operational requirements prescribed by FINMA are recognized in the RWA calculation using the PD or rating (and asset class) assigned to the hedge provider. The PD (or rating) substitution is only applied in the RWA calculation when the PD (or rating) of the hedge provider is lower than the PD (or rating) of the obligor. In addition, default correlation

between the obligor and hedge provider is taken into account through the double default approach. Credit derivatives with tranching cover or first-loss protection are recognized through the securitization framework. Refer to the “CCR6: Credit derivatives exposures” table in the “Counterparty credit risk” section on page 59 of this report for notional and fair value information on credit derivatives used as credit risk mitigation. ▲

Semiannual I

CR7: IRB – effect on RWA of credit derivatives used as CRM techniques¹

CHF million	31.12.17		30.6.17		31.12.16	
	Pre-credit derivatives RWA	Actual RWA	Pre-credit derivatives RWA	Actual RWA	Pre-credit derivatives RWA	Actual RWA
1 Central governments and central banks – FIRB						
2 Central governments and central banks – AIRB	2,716	2,705	2,750	2,733	2,085	2,061
3 Banks and securities dealers – FIRB						
4 Banks and securities dealers – AIRB	2,653	2,653	2,978	2,978	2,437	2,437
5 Public sector entities, multilateral development banks – FIRB						
6 Public sector entities, multilateral development banks – AIRB	852	852	889	889	748	748
7 Corporates: Specialized lending – FIRB						
8 Corporates: Specialized lending – AIRB	10,014	10,014	9,877	9,877	8,326	8,326
9 Corporates: Other lending – FIRB						
10 Corporates: Other lending – AIRB	26,156	25,398	25,100	23,874	24,855	23,110
11 Retail: mortgage loans	23,095	23,095	23,029	23,029	19,985	19,985
12 Retail exposures: qualifying revolving retail (QRRE)	564	564	555	555	541	541
13 Retail: other	8,409	8,409	7,820	7,820	5,594	5,594
14 Equity positions (PD/LGD approach)						
15 Total	74,459	73,691	72,997	71,755	64,572	62,804

¹ The CRM effect is reflected on the original asset class.



Credit risk under the standardized approach

Annual I The standardized approach is generally applied where it is not possible to use the advanced internal ratings-based (A-IRB) approach. The standardized approach requires banks, where possible, to use risk assessments prepared by external credit assessment institutions (ECAI) or export credit agencies to determine the risk weightings applied to rated counterparties. We use three FINMA-recognized ECAI to determine the risk weights for certain counterparties according to the BCBS-defined asset classes: Standard & Poor's, Moody's Investors Service and Fitch Ratings.

The mapping of external ratings to the standardized approach risk weights is determined by FINMA and published on its website. There were no changes in the ECAI used compared with 31 December 2016.

We risk-weight debt instruments in accordance with the specific issue ratings available. In case there is no specific issue rating published by the ECAI, the issuer rating is applied to the senior unsecured claims of that issuer subject to the conditions prescribed by FINMA. For the asset classes Retail, Equity and Other assets, we apply the regulatory prescribed risk weights independent of an external credit rating. ▲

Annual I

CRD: Qualitative disclosures on banks' use of external credit ratings under the standardized approach for credit risk

		31.12.17		
		External rating equivalent		
Asset classes		Moody's	Standard & Poor's	Fitch
1	Central governments and central banks	●	●	●
2	Banks and securities dealers	●	●	●
3	Public sector entities and multilateral development banks	●	●	●
4	Corporates	●	●	●

▲

More information on the movements shown in the table below is provided on page 29 under "Standardized approach – credit risk mitigation."

Semiannual I

CR5: Standardized approach – exposures by asset classes and risk weights

CHF million

Risk weight										Total credit exposures amount (post CCF and CRM)	
	0%	10%	20%	35%	50%	75%	100%	150%	Others		
31.12.17											
Asset classes											
1	Central governments and central banks	12,173		119		20		466		0	12,777
2	Banks and securities dealers			5,533		659		24			6,217
3	Public sector entities and multilateral development banks	210		1,153		494		158		0	2,016
4	Corporates ¹	67		1,909		173		4,014		11	6,173
5	Retail				6,108		1,771	4,377		110	12,367
6	Equity										
7	Other assets	1,030						8,948			9,978
8	Total	13,481		8,713	6,108	1,346	1,771	17,988	121	0	49,527
9	of which: mortgage loans				6,108		152	453			6,714
10	of which: past due ²				2		2	57		16	77

30.6.17

Asset classes											
1	Central governments and central banks	12,308		123		638		125		1	13,195
2	Banks and securities dealers			5,539		1,501		54			7,094
3	Public sector entities and multilateral development banks	524		1,041		726		30		0	2,321
4	Corporates ¹	64		2,042		143		3,885		64	6,199
5	Retail				5,536		1,857	3,711			11,104
6	Equity										
7	Other assets	1,038						8,493			9,531
8	Total	13,933		8,745	5,536	3,008	1,857	16,299	65	0	49,444
9	of which: mortgage loans				5,536		158	240			5,934
10	of which: past due ²									59	59

31.12.16

Asset classes											
1	Central governments and central banks	51,862		879		31		156		1	52,930
2	Banks and securities dealers			4,650		645		39		0	5,334
3	Public sector entities and multilateral development banks	1,811		1,226		810		237		0	4,084
4	Corporates			3,057		149		3,482		6	6,694
5	Retail				5,518		1,993	3,483			10,995
6	Equity										
7	Other assets	1,194						8,426			9,620
8	Total	54,867		9,812	5,518	1,636	1,993	15,823	7	0	89,657
9	of which: mortgage loans				5,518		87	257			5,861
10	of which: past due							0		0	0

¹ As of 30 June 2017, we have prospectively included loan exposures to central counterparties in accordance with the "Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)" document published by BCBS in August 2016. ² Includes mortgage loans.



Credit risk under internal ratings-based approaches

Annual I We use the A-IRB approach for calculating certain credit risk exposures. Under the A-IRB approach, the required capital for credit risk is quantified through empirical models that we

have developed to estimate the probability of default (PD), loss given default (LGD), exposure at default (EAD) and other parameters, subject to FINMA approval. The table below presents an overview of Pillar 3 disclosures that are provided separately in our Annual Report 2017. ▲

Annual I

CRE – Internal ratings-based models

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Internal model development, controls and changes	Risk, treasury and capital management	– Risk measurement	123–125
		– Credit risk models	137–142
		– Key features of our main credit risk models	138
		– Risk governance	117–118
Relationships between risk management and internal audit and independent review of IRB models	Risk, treasury and capital management	– Risk governance – Risk measurement	117–118 123–125
Scope and content of the reporting related to credit risk models	Risk, treasury and capital management	– Risk measurement	123–125
		– Credit risk – Overview of measurement, monitoring and management techniques	126
		– Credit risk models	137–142
Supervisor approval of applied approaches	Risk, treasury and capital management	– Risk measurement	123–125
		– Changes to models and model parameters during the period	142
		– Stress testing	123–124
		– Key features of our main credit risk models	138
Number of key models used by portfolio and the main differences between models	Risk, treasury and capital management	– Credit risk models	137–142
Description of the main characteristics of approved models	Risk, treasury and capital management	– Credit risk models	137–142

Annual I The proportion of EAD covered by either the standardized or A-IRB approach is provided in the “Regulatory exposures and risk-weighted assets” table on page 13 of this report. The majority of our exposure in the FINMA-defined asset class “Central governments and central banks” is included in portfolios held for liquidity purposes, which are measured under the A-IRB approach.

The table on the following pages provides information on credit risk exposures under the A-IRB approach, including the main parameters used in the A-IRB models for the calculation of capital requirements, presented by portfolio and probability of default (PD) range across FINMA-defined asset classes. ▲

Semiannual I Exposures before the application of CCFs increased by CHF 32.1 billion to CHF 640.7 billion as of 31 December 2017 and exposures post-CCF and post-credit risk mitigation (CRM) increased by CHF 7.6 billion to CHF 507.3 billion as of 31 December 2017. This increase was primarily driven by a model update required by FINMA to apply CCFs for unutilized Lombard loan facilities in Wealth Management Americas that were previously excluded from the RWA calculation. It resulted in an increase of CHF 45.2 billion exposures before CCF in the asset class “Retail: other retail” and, with a contribution of CHF 12.3 billion, was also the main driver for the increase in EADs post CCF and post CRM in this portfolio. RWA increased by CHF 0.6 billion from this change. A further increase in the asset class “Corporates: other lending” of CHF 10.2 billion exposures before the application of CCFs and of CHF 6.9 billion post-CCF and post-CRM was mainly driven by an increase in financial assets designated at fair value in the

Investment Bank’s Equities business, with an RWA increase of CHF 1.4 billion as a result. These increases were partly offset by lower exposures with “Central governments and central banks” of CHF 14.8 billion exposures pre-CCF and CHF 14.7 billion EAD post-CCF, primarily as a result of a decrease in cash and balances with central banks in Corporate Center – Group Asset and Liability management (Group ALM) due to higher funding consumption by the business divisions, maturities of various fixed-term deposits and a rebalancing within our HQLA-portfolio, partly offset by debt issuances, with no significant effect on RWA.

In the second half of 2017, we implemented changes to the PD and LGD parameters for residential mortgages, as part of our continuous efforts to enhance models to reflect market developments and newly available data. These changes primarily impacted average LGDs, which increased 9.2 percentage points, mainly reflected in “Retail: residential mortgages,” and were the main driver of the total increase in average LGD of 4.1 percentage points. The associated RWA increase is being phased in from the first quarter of 2018 until the second quarter of 2019.

Expected loss increased by CHF 96 million, primarily due to the aforementioned changes to LGD and PD parameters.

Information on RWA, including details on movements in RWA, is provided on pages 3–4 in our UBS Group AG and significant regulated subsidiaries and sub-groups report for the third quarter of 2017, available under “Pillar 3 disclosures” at www.ubs.com/investors and on pages 42–43 of this report. ▲

Semiannual I

CR6: IRB – Credit risk exposures by portfolio and PD range

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Central governments and central banks							31.12.17						
0.00 to <0.15	128,670	125	128,796	49	128,731	0.0	0.1	39.0	1.0	2,783	2.2	4	
0.15 to <0.25	0	0	0	0	0	0.2	<0.1	61.8	1.0	0	39.4	0	
0.25 to <0.50	5	0	5	19	5	0.3	<0.1	70.0	1.8	4	83.3	0	
0.50 to <0.75	4	0	4	0	4	0.7	<0.1	65.9	1.2	4	96.9	0	
0.75 to <2.50	1	50	50	54	27	1.2	<0.1	6.9	4.6	28	100.6	0	
2.50 to <10.00	0	3	3	36	1	2.7	<0.1	8.0	3.8	0	26.2	0	
10.00 to <100.00	0	0	0	0	0	13.3	<0.1	10.0	1.0	0	46.4	0	
100.00 (default)	26	1	27	55	16	<0.1				17	106.0	10	
Subtotal	128,707	178	128,885	50	128,785	0.0	0.1	39.0	1.0	2,836	2.2	14	8
Central governments and central banks							30.6.17						
0.00 to <0.15	143,335	334	143,669	29	143,431	0.0	0.1	34.2	1.0	2,731	1.9	5	
0.15 to <0.25	0	0	0	55	0	0.2	<0.1	28.3	1.0	0	18.4	0	
0.25 to <0.50	6	0	6	14	6	0.3	<0.1	70.0	2.3	6	92.2	0	
0.50 to <0.75	6	0	6	15	6	0.6	<0.1	24.2	2.7	2	38.9	0	
0.75 to <2.50	0	5	5	27	1	1.3	<0.1	10.1	5.0	0	31.0	0	
2.50 to <10.00	5	5	10	37	7	3.9	<0.1	9.9	4.2	3	36.8	0	
10.00 to <100.00	0	0	0	0	0	16.4	<0.1	15.5	1.0	0	72.1	0	
100.00 (default)	20	1	21	55	9	<0.1				9	106.0	12	
Subtotal	143,373	345	143,718	29	143,461	0.0	0.1	34.2	1.0	2,751	1.9	17	9
Central governments and central banks							31.12.16						
0.00 to <0.15	129,277	227	129,504	16	129,312	0.0	<0.1	33.7	1.0	2,035	1.6	5	
0.15 to <0.25													
0.25 to <0.50	8	0	8	14	8	0.3	<0.1	72.9	2.8	8	105.2	0	
0.50 to <0.75	7	0	7	13	7	0.6	<0.1	23.8	3.0	3	39.2	0	
0.75 to <2.50	0	0	0	55	0	1.4	<0.1	19.7	3.6	0	44.2	0	
2.50 to <10.00	4	18	22	29	9	3.9	<0.1	19.2	3.3	6	67.8	0	
10.00 to <100.00	27	0	27	48	27	10.2	<0.1	10.0	5.0	14	52.7	0	
100.00 (default)	18	1	19	55	8	<0.1				8	106.0	11	
Subtotal	129,341	245	129,587	17	129,371	0.0	0.2	33.7	1.0	2,074	1.6	16	9

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Banks and securities dealers							31.12.17						
0.00 to <0.15	8,148	3,123	11,271	47	9,584	0.0	0.5	40.6	1.1	1,379	14.4	2	
0.15 to <0.25	781	663	1,444	46	928	0.2	0.3	46.9	1.3	328	35.3	2	
0.25 to <0.50	361	286	647	37	487	0.4	0.2	66.8	1.1	291	59.8	1	
0.50 to <0.75	225	240	464	34	264	0.6	0.1	64.3	1.0	159	60.3	1	
0.75 to <2.50	698	554	1,252	40	648	1.2	0.2	61.4	1.2	488	75.2	5	
2.50 to <10.00	224	223	447	20	215	4.4	0.2	65.1	1.0	227	105.4	6	
10.00 to <100.00	32	6	39	39	34	12.3	<0.1	7.6	1.3	10	29.8	0	
100.00 (default)													
Subtotal	10,469	5,095	15,564	43	12,160	0.3	1.4	44.1	1.1	2,881	23.7	17	5
Banks and securities dealers							30.6.17						
0.00 to <0.15	8,892	5,827	14,719	47	10,972	0.0	0.5	40.8	1.2	1,606	14.6	3	
0.15 to <0.25	1,309	729	2,038	46	1,467	0.2	0.3	46.7	1.3	627	42.7	4	
0.25 to <0.50	595	219	814	37	674	0.4	0.2	53.9	1.2	473	70.3	1	
0.50 to <0.75	477	219	697	34	239	0.7	0.1	44.4	1.1	181	75.9	1	
0.75 to <2.50	317	285	602	40	171	1.2	0.2	43.6	1.0	164	96.1	1	
2.50 to <10.00	197	205	402	20	106	4.3	0.2	42.4	1.0	139	130.6	2	
10.00 to <100.00	63	29	92	39	49	11.0	<0.1	12.9	2.4	30	61.9	1	
100.00 (default)	3	0	3	0	1		<0.1			1	106.0	3	
Subtotal	11,853	7,513	19,367	43	13,679	0.2	1.5	42.1	1.2	3,222	23.6	15	5
Banks and securities dealers							31.12.16						
0.00 to <0.15	8,245	8,638	16,883	45	11,446	0.0	0.5	35.7	1.4	1,407	12.3	2	
0.15 to <0.25	1,299	907	2,206	44	1,356	0.2	0.4	39.2	1.3	490	36.2	4	
0.25 to <0.50	565	388	953	31	541	0.4	0.2	43.1	1.2	288	53.2	1	
0.50 to <0.75	339	267	606	43	227	0.6	0.1	44.3	1.1	175	77.4	1	
0.75 to <2.50	319	217	536	42	156	1.3	0.2	43.2	1.0	149	95.3	1	
2.50 to <10.00	295	191	486	21	196	3.7	0.2	37.5	1.3	228	116.2	3	
10.00 to <100.00	13	28	41	41	15	12.4	<0.1	20.8	3.4	15	101.5	0	
100.00 (default)	3		3				<0.1			0	106.0	3	
Subtotal	11,078	10,636	21,714	42	13,937	0.2	1.5	36.6	1.4	2,753	19.8	15	5

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Public sector entities, multilateral development banks						31.12.17							
0.00 to <0.15	10,089	1,004	11,093	19	10,277	0.0	0.3	36.4	1.1	563	5.5	1	
0.15 to <0.25	353	253	606	11	381	0.2	0.1	30.8	2.8	107	28.2	0	
0.25 to <0.50	557	331	889	28	649	0.3	0.2	17.2	2.4	127	19.6	0	
0.50 to <0.75	48	3	51	12	49	0.6	<0.1	17.8	2.7	15	30.3	0	
0.75 to <2.50	2	3	4	99	4	1.3	<0.1	11.8	2.2	1	22.1	0	
2.50 to <10.00	3	38	41	98	40	2.7	<0.1	8.8	1.0	7	17.9	0	
10.00 to <100.00													
100.00 (default)													
Subtotal	11,052	1,632	12,684	21	11,401	0.1	0.7	34.9	1.3	820	7.2	1	0
Public sector entities, multilateral development banks						30.6.17							
0.00 to <0.15	9,631	1,634	11,265	15	9,881	0.0	0.3	34.9	1.2	528	5.3	1	
0.15 to <0.25	457	254	710	11	485	0.2	0.2	30.3	3.1	141	29.0	0	
0.25 to <0.50	682	329	1,011	21	752	0.3	0.2	19.8	2.5	170	22.6	1	
0.50 to <0.75	51	5	55	10	51	0.6	<0.1	19.8	2.5	15	30.1	0	
0.75 to <2.50	7	3	10	12	8	1.3	<0.1	18.8	2.0	2	28.7	0	
2.50 to <10.00	3	0	3	70	3	2.7	<0.1	27.0	1.0	2	53.6	0	
10.00 to <100.00													
100.00 (default)													
Subtotal	10,830	2,224	13,055	16	11,180	0.0	0.7	33.6	1.3	858	7.7	2	0
Public sector entities, multilateral development banks						31.12.16							
0.00 to <0.15	9,452	1,812	11,264	15	9,722	0.0	0.4	29.6	1.2	457	4.7	0	
0.15 to <0.25	464	376	840	11	507	0.2	0.2	21.8	3.0	102	20.1	0	
0.25 to <0.50	646	318	964	22	716	0.3	0.2	17.3	2.5	140	19.6	0	
0.50 to <0.75	44	4	48	10	44	0.6	<0.1	15.6	2.6	11	24.5	0	
0.75 to <2.50	3	1	4	20	3	1.2	<0.1	14.0	2.1	1	37.5	0	
2.50 to <10.00	4	0	5	70	4	2.7	<0.1	8.8	1.0	1	17.2	0	
10.00 to <100.00													
100.00 (default)													
Subtotal	10,614	2,510	13,125	15	10,998	0.0	0.8	28.4	1.4	712	6.5	1	0

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Corporates: specialized lending						31.12.17							
0.00 to <0.15	1,128	446	1,573	62	1,402	0.1	0.3	16.7	1.9	88	6.3	0	
0.15 to <0.25	864	347	1,211	72	1,115	0.2	0.3	19.6	2.0	154	13.8	0	
0.25 to <0.50	3,847	2,878	6,725	35	4,856	0.4	0.6	28.1	1.7	1,395	28.7	5	
0.50 to <0.75	4,280	2,087	6,367	33	4,892	0.6	0.6	31.5	1.5	2,116	43.2	10	
0.75 to <2.50	7,813	2,214	10,027	40	8,660	1.4	1.7	30.8	1.7	4,711	54.4	38	
2.50 to <10.00	1,427	323	1,750	70	1,643	3.2	0.4	35.8	1.6	1,342	81.6	19	
10.00 to <100.00	6	0	6	43	6	11.7	<0.1	16.0	1.0	4	57.1	0	
100.00 (default)	222	19	242	67	133	<0.1				142	106.0	101	
Subtotal	19,588	8,315	27,902	40	22,708	1.6	3.9	29.4	1.7	9,950	43.8	174	95
Corporates: specialized lending						30.6.17							
0.00 to <0.15	1,134	343	1,477	64	1,352	0.1	0.3	16.4	2.0	83	6.1	0	
0.15 to <0.25	793	715	1,509	41	1,090	0.2	0.3	24.6	1.8	176	16.2	1	
0.25 to <0.50	3,124	2,570	5,694	24	3,705	0.4	0.5	31.7	1.7	1,161	31.3	4	
0.50 to <0.75	4,681	2,059	6,740	32	5,270	0.6	0.7	29.6	1.7	2,012	38.2	10	
0.75 to <2.50	8,462	2,373	10,835	41	9,401	1.4	1.9	32.2	1.7	4,832	51.4	44	
2.50 to <10.00	1,640	271	1,911	54	1,786	3.4	0.4	40.6	1.6	1,480	82.9	25	
10.00 to <100.00	4	2	6	94	6	13.1	<0.1	29.2	1.4	6	95.1	0	
100.00 (default)	154	10	164	35	72	<0.1				76	106.0	85	
Subtotal	19,993	8,343	28,336	35	22,682	1.4	4.1	30.9	1.7	9,826	43.3	169	55
Corporates: specialized lending						31.12.16							
0.00 to <0.15	2,162	711	2,872	65	2,635	0.1	0.7	15.1	2.0	286	10.8	0	
0.15 to <0.25	1,372	740	2,112	38	1,651	0.2	0.3	18.2	1.8	307	18.6	1	
0.25 to <0.50	2,874	2,256	5,130	26	3,432	0.3	0.5	29.1	1.5	1,146	33.4	3	
0.50 to <0.75	5,027	2,188	7,215	31	5,685	0.6	0.6	18.8	1.8	1,923	33.8	6	
0.75 to <2.50	7,986	2,367	10,353	37	8,818	1.3	1.7	18.2	1.6	3,841	43.6	19	
2.50 to <10.00	975	103	1,079	36	1,010	3.5	0.2	17.6	1.8	608	60.2	6	
10.00 to <100.00	52	16	68	29	56	14.2	<0.1	28.9	1.6	84	148.5	2	
100.00 (default)	127	20	147	50	44	<0.1				57	106.0	83	
Subtotal	20,575	8,401	28,976	35	23,331	1.1	4.2	19.7	1.7	8,252	35.4	121	54

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Corporates: other lending							31.12.17						
0.00 to <0.15	13,891	21,403	35,294	36	16,381	0.1	2.2	33.5	2.1	3,975	24.3	6	
0.15 to <0.25	5,247	6,516	11,762	38	5,480	0.2	1.1	33.3	2.1	1,867	34.1	4	
0.25 to <0.50	3,406	4,516	7,922	39	4,958	0.4	1.8	28.1	2.0	2,093	42.2	5	
0.50 to <0.75	3,115	3,069	6,184	35	4,332	0.6	1.7	27.1	2.0	2,232	51.5	7	
0.75 to <2.50	6,970	6,262	13,232	40	9,513	1.4	8.0	23.0	2.0	5,274	55.4	31	
2.50 to <10.00	10,425	7,385	17,810	42	13,268	3.4	4.3	13.9	2.3	7,931	59.8	77	
10.00 to <100.00	343	426	769	54	547	14.8	0.1	16.5	2.1	636	116.4	13	
100.00 (default)	1,280	231	1,512	46	1,064	0.5				1,127	106.0	340	
Subtotal	44,678	49,808	94,486	38	55,542	3.2	19.8	25.9	2.1	25,136	45.3	483	406
Corporates: other lending							30.6.17						
0.00 to <0.15	12,718	20,497	33,214	36	15,590	0.1	2.2	33.1	2.2	3,764	24.1	6	
0.15 to <0.25	3,986	5,832	9,817	38	5,071	0.2	1.3	33.5	2.1	1,729	34.1	4	
0.25 to <0.50	2,235	4,758	6,993	39	4,001	0.4	1.5	31.8	1.8	1,832	45.8	5	
0.50 to <0.75	3,238	3,944	7,182	35	4,635	0.6	1.7	28.1	2.1	2,345	50.6	8	
0.75 to <2.50	8,149	5,791	13,941	40	10,580	1.3	8.1	22.6	1.8	5,859	55.4	31	
2.50 to <10.00	4,181	6,234	10,415	42	6,814	4.1	4.4	22.3	2.0	6,045	88.7	62	
10.00 to <100.00	399	513	912	54	672	15.6	0.3	16.4	2.3	753	112.1	16	
100.00 (default)	1,458	347	1,806	46	1,290	0.5				1,367	106.0	343	
Subtotal	36,363	47,917	84,280	38	48,652	3.8	19.9	28.7	2.0	23,694	48.7	474	458
Corporates: other lending							31.12.16						
0.00 to <0.15	10,023	17,209	27,232	36	14,214	0.1	1.7	32.9	2.3	3,227	22.4	6	
0.15 to <0.25	3,101	9,992	13,093	33	5,068	0.2	1.0	39.4	1.8	2,025	40.0	4	
0.25 to <0.50	3,717	9,150	12,867	38	6,421	0.4	1.4	34.6	1.8	3,040	47.3	8	
0.50 to <0.75	2,841	3,332	6,173	38	3,936	0.6	1.5	26.8	1.6	1,768	44.9	7	
0.75 to <2.50	7,159	10,831	17,989	36	10,575	1.3	8.1	22.3	1.6	5,262	49.8	29	
2.50 to <10.00	4,491	7,029	11,520	41	6,880	4.1	4.3	21.0	1.9	5,308	77.1	58	
10.00 to <100.00	473	471	944	52	708	16.9	0.1	16.7	2.3	753	106.4	19	
100.00 (default)	1,612	398	2,010	55	1,423	0.5				1,508	106.0	348	
Subtotal	33,417	58,412	91,829	36	49,225	4.3	18.7	29.2	1.8	22,892	46.5	479	468

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Retail: residential mortgages							31.12.17						
0.00 to <0.15	51,907	739	52,646	75	52,461	0.1	127.4	17.5		1,629	3.1	8	
0.15 to <0.25	13,756	237	13,994	83	13,917	0.2	21.1	22.1		1,007	7.2	6	
0.25 to <0.50	21,324	378	21,702	87	21,608	0.4	25.4	23.7		2,613	12.1	18	
0.50 to <0.75	14,547	330	14,877	89	14,795	0.6	14.1	24.5		2,809	19.0	23	
0.75 to <2.50	23,025	1,202	24,227	77	23,886	1.3	27.5	29.2		8,819	36.9	95	
2.50 to <10.00	7,094	219	7,313	87	7,238	4.3	10.7	26.7		4,850	67.0	82	
10.00 to <100.00	616	16	632	91	628	15.9	0.8	22.7		648	103.2	23	
100.00 (default)	701	4	705	83	679		1.0			719	106.0	25	
Subtotal	132,970	3,125	136,096	80	135,212	1.2	228.1	22.4		23,095	17.1	280	28
Retail: residential mortgages							30.6.17						
0.00 to <0.15	61,616	1,017	62,633	74	62,366	0.1	127.2	10.7		2,033	3.3	3	
0.15 to <0.25	12,869	182	13,051	77	12,983	0.2	21.2	11.4		1,114	8.6	3	
0.25 to <0.50	16,213	256	16,469	79	16,357	0.3	25.4	13.2		2,117	12.9	7	
0.50 to <0.75	10,195	184	10,378	82	10,307	0.6	14.2	16.6		2,018	19.6	11	
0.75 to <2.50	20,775	1,497	22,272	66	21,700	1.4	28.5	18.7		8,186	37.7	55	
2.50 to <10.00	8,918	750	9,668	45	9,209	4.2	11.2	14.5		6,197	67.3	51	
10.00 to <100.00	747	22	769	90	763	15.3	0.9	11.4		849	111.3	13	
100.00 (default)	515	1	516	49	486		0.7			515	106.0	29	
Subtotal	131,848	3,908	135,757	66	134,172	1.1	229.3	13.2		23,029	17.2	172	28
Retail: residential mortgages							31.12.16						
0.00 to <0.15	60,210	1,209	61,419	64	60,987	0.1	124.7	10.7		1,841	3.0	3	
0.15 to <0.25	12,473	167	12,639	68	12,586	0.2	21.2	11.1		1,017	8.1	2	
0.25 to <0.50	15,405	214	15,618	66	15,546	0.3	25.6	11.3		1,847	11.9	6	
0.50 to <0.75	11,294	1,011	12,305	15	11,449	0.6	14.5	12.3		1,978	17.3	8	
0.75 to <2.50	21,820	2,189	24,009	39	22,679	1.4	29.7	12.1		6,818	30.1	35	
2.50 to <10.00	8,743	197	8,940	68	8,877	4.3	11.1	10.8		5,105	57.5	39	
10.00 to <100.00	849	27	876	70	868	15.4	1.0	10.7		873	100.6	13	
100.00 (default)	510	1	511	36	478		0.7			507	106.0	33	
Subtotal	131,305	5,013	136,318	44	133,470	1.1	228.4	11.3		19,985	15.0	139	31

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Retail: qualifying revolving retail exposures (QRRE)³						31.12.17							
0.00 to <0.15													
0.15 to <0.25													
0.25 to <0.50													
0.50 to <0.75													
0.75 to <2.50	96	330	426		135	1.7	34.1	47.0		38	28.0	1	
2.50 to <10.00	1,054	4,804	5,858		1,476	2.7	818.5	42.0		519	35.2	16	
10.00 to <100.00													
100.00 (default)	25	0	25		7		21.8			7	106.0	0	
Subtotal	1,175	5,133	6,309		1,617	3.0	874.4	42.2		564	34.9	17	16
Retail: qualifying revolving retail exposures (QRRE)³						30.6.17							
0.00 to <0.15													
0.15 to <0.25													
0.25 to <0.50													
0.50 to <0.75													
0.75 to <2.50	98	322	420		137	1.7	34.4	47.0		38	28.0	1	
2.50 to <10.00	1,035	4,814	5,850		1,450	2.7	796.2	42.0		510	35.2	16	
10.00 to <100.00													
100.00 (default)	24	0	24		7		19.6			7	106.0	0	
Subtotal	1,158	5,136	6,294		1,594	3.0	850.1	42.3		555	34.8	17	18
Retail: qualifying revolving retail exposures (QRRE)³						31.12.16							
0.00 to <0.15													
0.15 to <0.25													
0.25 to <0.50													
0.50 to <0.75													
0.75 to <2.50	90	329	419		126	1.7	32.7	47.0		35	28.0	1	
2.50 to <10.00	1,015	4,789	5,804		1,420	2.7	764.4	42.0		500	35.2	16	
10.00 to <100.00													
100.00 (default)	24	0	24		6		19.8			7	106.0	0	
Subtotal	1,128	5,119	6,247		1,552	2.6	816.9	42.4		541	34.9	17	16

CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

<i>CHF million, except where indicated</i>	Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Total exposures pre-CCF	Average CCF in %	EAD post CCF and post CRM ¹	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %	EL	Provisions ²
Retail: other retail							31.12.17						
0.00 to <0.15	104,827	95,987	200,814	25	129,164	0.0	206.2	30.5		5,265	4.1	17	
0.15 to <0.25	2,010	2,260	4,270	26	2,603	0.2	5.5	27.4		273	10.5	1	
0.25 to <0.50	1,717	1,652	3,369	19	2,031	0.4	3.6	29.7		372	18.3	2	
0.50 to <0.75	760	856	1,616	27	992	0.6	2.0	35.9		308	31.0	2	
0.75 to <2.50	3,131	3,153	6,284	25	3,850	1.1	55.9	34.3		1,519	39.4	16	
2.50 to <10.00	744	878	1,622	22	939	3.7	2.5	35.7		500	53.3	12	
10.00 to <100.00	172	594	766	20	290	16.8	3.6	27.5		170	58.7	13	
100.00 (default)	0	8	8	5	1		<0.1			1	106.0	0	
Subtotal	113,361	105,387	218,749	25	139,869	0.1	279.3	30.6		8,409	6.0	62	136
Retail: other retail⁴							30.6.17						
0.00 to <0.15	91,957	62,255	154,212	25	107,515	0.0	203.4	26.9		4,104	3.8	13	
0.15 to <0.25	2,737	857	3,594	21	2,915	0.2	5.4	28.3		317	10.9	1	
0.25 to <0.50	6,238	3,206	9,443	11	6,597	0.3	3.6	22.3		890	13.5	5	
0.50 to <0.75	1,382	625	2,007	23	1,529	0.6	2.0	26.0		344	22.5	3	
0.75 to <2.50	2,819	1,683	4,502	30	3,320	1.2	70.4	32.2		1,205	36.3	12	
2.50 to <10.00	1,927	1,626	3,553	13	2,146	6.1	2.5	24.7		836	39.0	29	
10.00 to <100.00	149	299	448	17	200	16.6	3.4	26.4		114	57.2	9	
100.00 (default)	24	0	25	33	8		<0.1			9	106.0	16	
Subtotal	107,232	70,551	177,783	24	124,231	0.2	290.8	26.8		7,819	6.3	88	57
Retail: other retail							31.12.16						
0.00 to <0.15	90,111	7,191	97,301	26	91,943	0.1	167.3	20.0		3,052	3.3	10	
0.15 to <0.25	2,513	99	2,612	32	2,546	0.2	0.9	20.0		196	7.7	1	
0.25 to <0.50	8,342	522	8,864	8	8,384	0.4	4.4	20.0		1,035	12.3	6	
0.50 to <0.75	1,932	300	2,232	11	1,965	0.6	1.0	20.0		340	17.3	2	
0.75 to <2.50	1,734	1,054	2,788	63	2,396	1.1	12.9	23.1		632	26.4	6	
2.50 to <10.00	769	320	1,089	11	803	5.4	1.0	26.3		329	41.0	10	
10.00 to <100.00													
100.00 (default)	38	0	38	0	11		<0.1			11	106.0	27	
Subtotal	105,439	9,485	114,925	28	108,048	0.2	187.5	20.1		5,594	5.2	63	70
Total 31.12.17	462,000	178,674	640,674	30	507,294	0.8	1,407.7	30.4	1.4	73,691	14.5	1,049	694⁵
Total 30.6.17	462,652	145,938	608,590	29	499,651	0.8	1,396.5	26.3	1.3	71,755	14.4	953	630
Total 31.12.16	442,898	99,821	542,719	33	469,932	0.9	1,258.5	23.0	1.3	62,804	13.4	850	653

¹ CRM through financial collateral is considered in the EAD post CCF and post CRM, but not in the calculation of average CCF. ² In line with the Pillar 3 guidance, provisions are only provided for the subtotals by asset class. ³ For the calculation of column "EAD post CCF and post CRM," a balance factor approach is used instead of a CCF approach. The EAD is calculated by multiplying the on-balance sheet exposure with a fixed factor of 1.4. ⁴ Reporting has been enhanced to include debit balances outside approved Lombard lending facilities, which resulted in an increase for Number of obligors. ⁵ Does not include allowances of CHF 19 million associated with exposures within Other assets.



Credit risk risk-weighted assets under the A-IRB approach

This section provides disclosures on the quarterly credit risk RWA development for the credit risk measured under the A-IRB approach. The table below provides definitions of components driving the RWA as applied in the table on the following page.

Definitions of credit risk and counterparty credit risk RWA movement table components for CR8 and CCR7

References in the table below link to the line numbers provided in the movement tables below and on the next page.

Reference	Description	Definition
2	Asset size	Movements arising in the ordinary course of business, such as new transactions, sales and write-offs.
3	Asset quality / Credit quality of counterparties	Movements resulting from changes in the underlying credit quality of counterparties. These are caused by changes to risk parameters, such as counterparty ratings, loss given default estimates or credit hedges.
4	Model updates	Movements arising from the implementation of new models and from parameter changes to existing models. The RWA effect of model updates is estimated based on the portfolio at the time of the change.
5	Methodology and policy	Movements due to methodological changes in calculations driven by regulatory policy changes, including revisions to existing regulations, new regulations and add-ons mandated by the regulator. The effect of methodology and policy changes on RWA is estimated based on the portfolio at the time of the change.
6	Acquisitions and disposals	Movements as a result of disposal or acquisition of business operations, quantified based on the credit risk exposures as of the end of the quarter preceding a disposal or following an acquisition. Purchases and sales of exposures in the ordinary course of business are reflected under asset size.
7	Foreign exchange movements	Movements as a result of exchange rate changes of the transaction currencies against the Swiss franc.
8	Other	Movements due to changes that cannot be attributed to any other category.

Development in the fourth quarter of 2017

Quarterly | Credit risk RWA under the A-IRB increased by CHF 0.1 billion to CHF 73.7 billion as of 31 December 2017.

The CHF 1.2 billion increase from model updates was primarily driven by the implementation of revised credit conversion factors (CCFs) for letters of credit, trade finance-related guarantees and deferred payments of CHF 0.9 billion in Personal & Corporate Banking and for Lombard facilities in Wealth Management Americas of CHF 0.6 billion. This was partly offset by the implementation of changes to the probability of default and loss given default model for Lombard exposures in Wealth Management, which resulted in a CHF 0.3 billion

decrease.

The increase from foreign exchange movements was offset by improvements in the overall asset quality of the portfolio.

Methodology and policy updates consisted of an increase in the internal ratings-based (IRB) multiplier on Investment Bank exposures to corporates, partly offset by other methodology and policy changes.

These increases were partly offset by a CHF 1.2 billion decrease from asset size movements, primarily resulting from lower lending assets in Personal & Corporate Banking and Corporate Center – Group Asset and Liability Management. ▲

Quarterly |

CR8: RWA flow statements of credit risk exposures under IRB

<i>CHF million</i>	For the quarter ended 31.12.17	For the quarter ended 30.9.17	For the quarter ended 30.6.17	For the quarter ended 31.3.17
1 RWA as of the beginning of the quarter	73,621	71,755	66,859	62,804
2 Asset size	(1,201)	2,440	(289)	(1,442)
3 Asset quality	(277)	(1,126)	589	474
4 Model updates	1,170	40	6,842	1,560
5 Methodology and policy	49	349	(1,399)	3,082
5a of which: regulatory add-ons	349	349	(1,946)	2,450
6 Acquisitions and disposals	0	0	0	0
7 Foreign exchange movements	329	432	(847)	(258)
8 Other	0	(269)	0	640
9 RWA as of the end of the quarter	73,691	73,621	71,755	66,859



Backtesting

Annual | The below table is provided for the first time. More information on backtesting of credit models is provided on pages 142 of our Annual Report 2017. ▲

Annual |

CR9: IRB – Backtesting of probability of default (PD) per portfolio¹

PD range	External rating equivalent			Weighted average PD in %	Arithmetic average PD by obligors in %	Number of obligors (in thousands)		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate in % ²
	Moody's	Standard & Poor's	Fitch			End of previous year	End of the year			
Central governments and central banks as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.0	0.0	< 0.1	< 0.1	0	0	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB				< 0.1	0	0	0.0
0.25 to <0.50	Baa3	BBB-	BBB-	0.3	0.4	< 0.1	< 0.1	0	0	0.0
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.7	< 0.1	< 0.1	0	0	0.0
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.4	1.4	< 0.1	< 0.1	0	0	0.0
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	3.9	4.2	< 0.1	< 0.1	0	0	0.0
10.00 to <100.00	Caa to C	CCC to C	CCC to C	10.2	13.0	< 0.1	< 0.1	0	0	0.0
Subtotal				0.0	2.4	0.1	0.1	0	0	0.0
Banks and securities dealers as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.0	0.1	0.5	0.5	0	0	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	0.4	0.3	0	0	0.1
0.25 to <0.50	Baa3	BBB-	BBB-	0.4	0.4	0.2	0.2	0	0	0.0
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	0.1	0.1	0	0	0.2
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.3	1.3	0.2	0.1	2	0	0.2
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	3.7	3.4	0.2	0.2	2	0	0.4
10.00 to <100.00	Caa to C	CCC to C	CCC to C	12.4	15.3	< 0.1	< 0.1	0	0	1.3
Subtotal				0.2	0.8	1.5	1.4	4	0	0.1
Public sector entities, multilateral development banks as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.0	0.1	0.4	0.3	0	0	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	0.2	0.1	0	0	0.0
0.25 to <0.50	Baa3	BBB-	BBB-	0.3	0.3	0.2	0.2	0	0	0.0
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	< 0.1	< 0.1	0	0	0.0
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.2	1.2	< 0.1	< 0.1	0	0	0.0
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	2.7	2.7	< 0.1	0	0	0	0.0
10.00 to <100.00	Caa to C	CCC to C	CCC to C			0	0	0	0	10.0
Subtotal				0.0	0.2	0.8	0.7	0	0	0.0

CR9: IRB – Backtesting of probability of default (PD) per portfolio (continued)¹

PD range	External rating equivalent		External rating equivalent Fitch	Weighted average PD in %	Arithmetic average PD by obligors in %	Number of obligors (in thousands)		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate in % ²
	Moody's	Standard & Poor's				End of previous year	End of the year			
Corporates: specialized lending as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.1	0.1	0.7	0.3	2	0	0.1
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	0.3	0.3	1	0	0.0
0.25 to <0.50	Baa3	BBB-	BBB-	0.3	0.4	0.5	0.6	1	0	0.1
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	0.6	0.6	1	0	0.2
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.3	1.3	1.7	1.7	8	0	0.4
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	3.5	3.9	0.2	0.4	2	0	1.2
10.00 to <100.00	Caa to C	CCC to C	CCC to C	14.2	15.5	< 0.1	< 0.1	1	0	2.4
Subtotal				1.1	1.0	4.2	3.9	16	0	0.3
Corporates: other lending as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.1	0.1	1.7	2.2	2	0	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	1.0	1.1	3	0	0.0
0.25 to <0.50	Baa3	BBB-	BBB-	0.4	0.4	1.4	1.8	1	0	0.1
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	1.5	1.7	2	0	0.3
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.3	1.5	8.1	7.9	59	1	0.4
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	4.1	4.1	4.3	4.3	138	2	1.5
10.00 to <100.00	Caa to C	CCC to C	CCC to C	16.9	14.7	0.1	0.1	24	0	10.4
Subtotal				4.3	1.8	18.3	19.1	229	3	0.3
Retail: residential mortgages as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A-	AAA to AA-	0.1	0.0	124.7	112.2	95	1	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	21.2	22.3	27	0	0.1
0.25 to <0.50	Baa3	BBB-	BBB-	0.3	0.3	25.6	31.6	42	0	0.1
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	14.5	17.1	85	3	0.3
0.75 to <2.50	Baa2 to Baa3	BB to BB-	BB to BB-	1.4	1.4	29.7	29.8	174	1	0.4
2.50 to <10.00	B1 to B3	B+ to B-	B+ to B-	4.4	4.3	11.1	13.3	168	0	1.2
10.00 to <100.00	Caa to C	CCC to C	CCC to C	15.1	14.9	1.0	0.8	37	0	3.4
Subtotal				1.1	0.6	227.7	227.1	628	5	0.2

CR9: IRB – Backtesting of probability of default (PD) per portfolio (continued)¹

PD range	External rating equivalent			Weighted average PD in %	Arithmetic average PD by obligors in %	Number of obligors (in thousands)		Defaulted obligors in the year	of which: new defaulted obligors in the year	Average historical annual default rate in % ²
	Moody's	Standard & Poor's	Fitch			End of previous year	End of the year			
Retail: other retail as of 31.12.17										
0.00 to <0.15	Aaa to A3	AAA to A–	AAA to AA–	0.1	0.0	167.2	206.2	5	3	0.0
0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	BBB+ to BBB	0.2	0.2	0.9	5.5	0	0	0.1
0.25 to <0.50	Baa3	BBB–	BBB–	0.4	0.4	4.4	3.6	0	0	0.1
0.50 to <0.75	Ba1	BB+	BB+	0.6	0.6	1.0	2.0	0	0	0.1
0.75 to <2.50	Baa2 to Baa3	BB to BB–	BB to BB–	1.1	1.5	8.4	55.9	0	0	0.0
2.50 to <10.00	B1 to B3	B+ to B–	B+ to B–	5.5	4.6	0.9	2.5	0	0	0.1
10.00 to <100.00	Caa to C	CCC to C	CCC to C			0	3.6	0	0	0.0
Subtotal				0.2	0.1	182.8	279.3	5	3	0.0

¹ CR9 covers all Pillar 1 PD models that are approved by FINMA and are subject to a yearly confirmation / backtesting (refer to the table “Key features of our main credit risk models” in Annual Report 2017 on page 138). ² We use 10 years of data for the calculation of the “average historical annual default rate.”



Equity exposures

The table below provides information on our equity exposures under the simple risk weight method.

Semiannual I

CR10: IRB (equities under the simple risk weight method)¹

<i>CHF million, except where indicated</i>	On-balance sheet amount	Off-balance sheet amount	Risk weight in %	Exposure amount ²	RWA ³
31.12.17					
Exchange-traded equity exposures	58		300	58	183
Other equity exposures	851		400	516	2,185
Total	908	0		572	2,368
30.6.17					
Exchange-traded equity exposures	59		300	59	187
Other equity exposures	871		400	519	2,205
Total	930	0		578	2,393
31.12.16					
Exchange-traded equity exposures	586		300	168	535
Other equity exposures	791		400	434	1,840
Total	1,377	0		602	2,375

¹ This table excludes significant investments in the common shares of non-consolidated financial institutions (banks, insurance and other financial entities) that are subject to the threshold treatment and risk weighted at 250%. ² The exposure amount for equities in the banking book is based on the net position. ³ RWA are calculated post application of the A-IRB multiplier of 6%, therefore the respective risk weight is higher than 300% and 400%.

Section 4 Counterparty credit risk

Introduction

Annual I Counterparty credit risk (CCR) arises from over-the-counter (OTC) and exchange-traded derivatives (ETD), securities financing transactions (SFTs) and long settlement transactions. Within traded products, we determine the regulatory credit exposure on the majority of our derivatives portfolio by applying the effective expected positive exposure (EPE) and stressed expected positive exposure (stressed EPE) as defined in the Basel III framework. For the rest of the portfolio we apply the current exposure method (CEM) based on the replacement value of derivatives in combination with a regulatory prescribed add-on. For the majority of securities financing transactions (securities borrowing, securities lending, margin lending, repurchase agreements and reverse repurchase agreements), we determine the regulatory credit exposure using the close-out period (COP) approach.

The counterparty credit risk-related tables in this report are based on Swiss systemically relevant bank (SRB) phase-in requirements and correspond to the CCR by asset class that is provided in the “Regulatory exposures and risk-weighted assets” table on page 13 of this report. ▲

This section is structured into three sub-sections:

Counterparty credit risk management

Annual I Refers to disclosures on our risk management objectives, policies and risk management process, operating limits for counterparty credit risk exposures, wrong-way risks and the impact of a credit rating downgrade. ▲

Counterparty credit risk risk-weighted assets

Quarterly I Comprises disclosures on the quarterly credit risk RWA development. ▲

Counterparty credit risk exposure

Semiannual I Provides information on our counterparty credit risk exposures, credit valuation adjustment (CVA) capital charge and credit derivatives exposures. This section excludes counterparty credit risk exposures to central counterparties and CVA is separately covered in table CCR2. ▲

Counterparty credit risk management

The table below presents an overview of Pillar 3 disclosures that are provided separately in our Annual Report 2017.

Annual I

CCRA – Counterparty credit risk management

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Risk management objectives and policies related to counterparty credit risk	Risk, treasury and capital management	– Traded products	133–134
		– Counterparty credit risk	136
		– Credit hedging	136
		– Mitigation of settlement risk	136
	Consolidated financial statements	– Note 1a item 3e. Securities borrowing / lending and repurchase / reverse repurchase transactions	331
		– Note 1a item 3k Hedge accounting	333
– Note 12 Derivative instruments and hedge accounting		362–368	
The method used to assign the operating limits defined in terms of internal capacity for counterparty credit exposures and for CCP exposures	Risk, treasury and capital management	– Risk governance	117–118
		– Portfolio and position limits	125
		– Credit risk – Overview of measurement, monitoring and management techniques	126
		– Counterparty credit risk	136
		– Credit hedging	136
		– Credit risk models	137–142
Policies relating to guarantees and other risk mitigants and counterparty risk assessment	Risk, treasury and capital management	– Credit risk mitigation	134–136
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	362–368
		– Note 24 Offsetting financial assets and financial liabilities	406–407
Policies with respect to wrong-way risk exposures	Risk, treasury and capital management	– Exposure at default	140
The impact on the bank of a credit rating downgrade (i.e., amount of collateral that the bank would be required to provide)	Risk, treasury and capital management	– Credit ratings	176



Counterparty credit risk risk-weighted assets

Quarterly | CCR RWA under the internal model method (IMM) and value-at-risk (VaR) increased by CHF 0.9 billion during the fourth quarter of 2017. This was mainly driven by a CHF 0.4 billion increase from methodology and policy changes, driven by a

higher internal ratings-based (IRB) multiplier on Investment Bank exposures to corporates, and currency effects. For definitions of counterparty credit risk RWA movement table components, refer to "Definitions of credit risk and counterparty credit risk RWA movement table components for CR8 and CCR7" in the "Credit risk" section on page 42 of this report. ▲

Quarterly |

CCR7: RWA flow statements of CCR exposures under internal model method (IMM) and value-at-risk (VaR)¹

CHF million	For the quarter ended 31.12.17			For the quarter ended 30.9.17			For the quarter ended 30.6.17			For the quarter ended 31.3.17		
	Derivatives	SFTs	Total	Derivatives	SFTs	Total	Derivatives	SFTs	Total	Derivatives	SFTs	Total
	Subject to IMM	Subject to VaR		Subject to IMM	Subject to VaR		Subject to IMM	Subject to VaR		Subject to IMM	Subject to VaR	
RWA as of the beginning of the												
1 quarter	16,301	4,096	20,397	16,648	4,118	20,766	13,250	3,775	17,025	12,482	2,706	15,188
2 Asset size	449	(297)	152	(273)	63	(211)	(905)	24	(881)	774	1,102	1,877
3 Credit quality of counterparties	93	99	192	(396)	(227)	(623)	143	(37)	106	(160)	(78)	(238)
4 Model updates	0	0	0	0	0	0	4,485	606	5,090	0	0	0
5 Methodology and policy	297	64	361	278	71	349	(33)	(186)	(219)	216	55	272
5a of which: regulatory add-ons	297	64	361	278	71	349	(33)	(186)	(219)	216	55	272
6 Acquisitions and disposals	0	0	0	0	0	0	0	0	0	0	0	0
7 Foreign exchange movements	134	37	171	294	72	366	(292)	(64)	(356)	(63)	(10)	(73)
8 Other	0	0	0	(250)	0	(250)	0	0	0	0	0	0
RWA as of the end of the												
9 quarter	17,274	3,999	21,273	16,301	4,096	20,397	16,648	4,118	20,766	13,250	3,775	17,025

¹ Excludes advanced credit valuation adjustment RWA of CHF 1,966 million as of 31 December 2017 (30 September 2017: CHF 2,298 million; 30 June 2017: CHF 2,707 million; 31 March 2017: CHF 2,829 million; 31 December 2016: CHF 4,202 million).

Counterparty credit exposure

Semiannual I

CCR1: Analysis of counterparty credit risk (CCR) exposure by approach

<i>CHF million, except where indicated</i>	Replacement cost	Potential future exposure	EEPE	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
31.12.17						
1 SA-CCR (for derivatives) ¹	10,665 ²	7,647		1.0 ¹	18,313	3,803
2 Internal model method (for derivatives)			28,193	1.6	45,109	16,832
3 Simple approach for credit risk mitigation (for SFTs)						
4 Comprehensive approach for credit risk mitigation (for SFTs)					15,732	3,420
5 VaR (for SFTs)					22,796	3,859
6 Total					101,950	27,913
30.6.17						
1 SA-CCR (for derivatives) ¹	11,117 ²	6,647		1.0 ¹	17,764	3,981
2 Internal model method (for derivatives)			29,801	1.6	47,682	16,495
3 Simple approach for credit risk mitigation (for SFTs)						
4 Comprehensive approach for credit risk mitigation (for SFTs)					15,862	3,560
5 VaR (for SFTs)					21,846	3,972
6 Total					103,155	28,008
31.12.16						
1 SA-CCR (for derivatives) ¹	13,642 ²	4,092		1.0 ¹	17,734	3,744
2 Internal model method (for derivatives)			30,163	1.6	48,260	12,482
3 Simple approach for credit risk mitigation (for SFTs)						
4 Comprehensive approach for credit risk mitigation (for SFTs)					13,059	2,312
5 VaR (for SFTs)					21,075	2,706
6 Total					100,128	21,244

¹ Standardized approach for CCR. Calculated in accordance with the current exposure method (CEM) until the implementation of SA-CCR with expected effective date 1 January 2020, when an alpha factor of 1.4 will be used for calculating regulatory EAD. ² Replacement costs include collateral mitigation for on- and off-balance sheet exposures related to CCR for derivative transactions.

Semiannual I In addition to the default risk capital requirements for CCR based on the A-IRB or standardized approach, we are required to add a capital charge to derivatives to cover the risk of mark-to-market losses associated with the deterioration of counterparty credit quality, referred to as the CVA. The advanced CVA VaR approach has been used to calculate the

CVA capital charge where we apply the internal model method (IMM). Where this is not the case, the standardized CVA approach has been applied. More information on our portfolios subject to the CVA capital charge as of 31 December 2017 is provided in the table below. ▲

Semiannual I

CCR2: Credit valuation adjustment (CVA) capital charge

<i>CHF million</i>	31.12.17		30.6.17		31.12.16	
	EAD post CRM ¹	RWA	EAD post CRM ¹	RWA	EAD post CRM ¹	RWA
Total portfolios subject to the advanced CVA capital charge	24,062	1,966	29,102	2,707	37,663	4,202
1 (i) VaR component (including the 3× multiplier)		461		614		1,326
2 (ii) Stressed VaR component (including the 3× multiplier)		1,505		2,093		2,876
3 All portfolios subject to the standardized CVA capital charge	8,019	1,117	7,472	1,394	8,034	1,524
4 Total subject to the CVA capital charge	32,081	3,084	36,574	4,102	45,698	5,726

¹ Includes EAD of the underlying portfolio subject to the respective CVA charge.

Semiannual I

CCR3: Standardized approach – CCR exposures by regulatory portfolio and risk weights

CHF million

<i>Risk weight</i>	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
Regulatory portfolio as of 31.12.17									
1 Central governments and central banks	202								202
2 Banks and securities dealers			99	236		1			337
3 Public sector entities and multilateral development banks						4			4
4 Corporates				60		806			867
5 Retail					4	97			101
6 Equity									
7 Other assets									
8 Total	202		99	296	4	908	0	0	1,510
Regulatory portfolio as of 30.6.17									
1 Central governments and central banks	194								194
2 Banks and securities dealers			311	76		2			389
3 Public sector entities and multilateral development banks	4					3			7
4 Corporates						819			819
5 Retail					8	74			82
6 Equity									
7 Other assets									
8 Total	198		311	76	8	898	0	0	1,490
Regulatory portfolio as of 31.12.16									
1 Central governments and central banks	206								206
2 Banks and securities dealers			314	61					375
3 Public sector entities and multilateral development banks						4			4
4 Corporates						984	0		984
5 Retail						365			365
6 Equity									
7 Other assets									
8 Total	206		314	61		1,353	0	0	1,934



Semiannual I Information on RWA, including details on movements in RWA, is provided on pages 4–5 in our UBS Group AG and significant regulated subsidiaries and sub-groups report for the third quarter of 2017, available under “Pillar 3 disclosures” at www.ubs.com/investors and on page 50 of this report.

Semiannual I

CCR4: IRB – CCR exposures by portfolio and PD scale

<i>CHF million, except where indicated</i>	EAD post CRM	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %
Central governments and central banks							
31.12.17							
0.00 to <0.15	7,551	0.0	0.1	47.3	0.6	770	10.2
0.15 to <0.25	218	0.2	<0.1	68.1	0.9	105	48.2
0.25 to <0.50	26	0.3	<0.1	79.2	1.0	20	79.1
0.50 to <0.75	19	0.7	<0.1	70.0	0.1	17	87.8
0.75 to <2.50	31	1.0	<0.1	60.0	0.5	29	95.2
2.50 to <10.00	2	6.2	<0.1	70.0	1.0	5	281.5
10.00 to <100.00							
100.00 (default)							
Subtotal	7,847	0.1	0.2	48.1	0.6	946	12.1
Central governments and central banks							
30.6.17							
0.00 to <0.15	5,038	0.0	0.1	52.3	0.7	642	12.7
0.15 to <0.25	127	0.2	<0.1	71.0	0.9	56	43.9
0.25 to <0.50	573	0.3	<0.1	98.1	1.0	555	96.8
0.50 to <0.75							
0.75 to <2.50	44	0.8	<0.1	86.5	0.0	62	141.7
2.50 to <10.00	7	4.3	<0.1	86.8	1.0	22	303.6
10.00 to <100.00							
100.00 (default)							
Subtotal	5,789	0.1	0.2	57.5	0.7	1,336	23.1
Central governments and central banks							
31.12.16							
0.00 to <0.15	5,346	0.0	0.1	42.4	0.7	418	7.8
0.15 to <0.25	249	0.2	<0.1	61.7	1.0	99	39.8
0.25 to <0.50	107	0.3	<0.1	42.0	1.0	45	41.8
0.50 to <0.75	0	0.7	<0.1	42.0	1.0	0	61.4
0.75 to <2.50	38	0.8	<0.1	42.0	0.1	27	69.1
2.50 to <10.00	8	4.6	<0.1	42.0	1.0	12	142.6
10.00 to <100.00							
100.00 (default)							
Subtotal	5,750	0.1	0.2	43.2	0.7	601	10.4

CCR4: IRB – CCR exposures by portfolio and PD scale (continued)

<i>CHF million, except where indicated</i>	EAD post CRM	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %
Banks and securities dealers							
				31.12.17			
0.00 to <0.15	17,970	0.1	0.4	50.0	0.7	3,076	17.1
0.15 to <0.25	3,121	0.2	0.3	49.2	0.9	1,177	37.7
0.25 to <0.50	1,364	0.4	0.2	47.6	1.0	716	52.5
0.50 to <0.75	418	0.6	0.1	63.6	1.0	421	100.7
0.75 to <2.50	588	1.1	0.2	61.6	0.7	603	102.6
2.50 to <10.00	84	4.7	0.1	42.7	0.4	117	139.5
10.00 to <100.00	0	13.0	<0.1	66.0	1.0	1	350.0
100.00 (default)	32		<0.1			34	106.0
Subtotal	23,577	0.3	1.2	50.3	0.7	6,145	26.1
Banks and securities dealers							
				30.6.17			
0.00 to <0.15	17,933	0.1	0.4	50.0	0.7	3,171	17.7
0.15 to <0.25	4,204	0.2	0.3	50.0	0.7	1,552	36.9
0.25 to <0.50	1,265	0.4	0.2	50.9	0.9	702	55.5
0.50 to <0.75	290	0.6	0.1	65.8	0.7	267	92.0
0.75 to <2.50	359	1.1	0.2	65.1	0.6	268	74.6
2.50 to <10.00	70	5.0	0.1	43.1	0.7	106	151.2
10.00 to <100.00	0	13.0	<0.1	66.0	1.0	1	350.5
100.00 (default)	31		<0.1			33	106.0
Subtotal	24,153	0.3	1.3	50.5	0.7	6,099	25.3
Banks and securities dealers							
				31.12.16			
0.00 to <0.15	16,912	0.1	0.4	37.9	0.7	2,161	12.8
0.15 to <0.25	4,051	0.2	0.3	39.7	0.9	1,251	30.9
0.25 to <0.50	1,185	0.4	0.2	44.5	1.0	572	48.3
0.50 to <0.75	510	0.7	0.1	52.0	0.5	182	35.6
0.75 to <2.50	524	1.1	0.2	46.2	0.7	320	61.0
2.50 to <10.00	165	5.1	0.1	34.9	1.0	207	125.1
10.00 to <100.00	1	10.2	<0.1	42.0	1.0	1	175.6
100.00 (default)							
Subtotal	23,348	0.2	1.2	39.0	0.7	4,694	20.1

CCR4: IRB – CCR exposures by portfolio and PD scale (continued)

<i>CHF million, except where indicated</i>	EAD post CRM	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %
Public sector entities, multilateral development banks			31.12.17				
0.00 to <0.15	3,505	0.0	0.1	43.5	1.5	325	9.3
0.15 to <0.25	116	0.2	<0.1	49.3	1.2	35	30.6
0.25 to <0.50	41	0.3	<0.1	58.7	1.0	24	59.2
0.50 to <0.75							
0.75 to <2.50	22	1.0	<0.1	35.0	0.0	11	50.0
2.50 to <10.00	0	2.7	<0.1	35.0	1.0	0	87.4
10.00 to <100.00							
100.00 (default)	23		<0.1			24	106.0
Subtotal	3,706	0.6	0.1	43.6	1.5	420	11.3
Public sector entities, multilateral development banks			30.6.17				
0.00 to <0.15	4,846	0.0	0.1	41.6	1.9	356	7.3
0.15 to <0.25	100	0.2	<0.1	43.3	1.0	27	26.9
0.25 to <0.50	34	0.4	<0.1	58.7	1.0	20	59.0
0.50 to <0.75							
0.75 to <2.50	0	1.6	<0.1	35.2	1.0	0	74.2
2.50 to <10.00	0	2.7	<0.1	35.0	0.6	0	83.4
10.00 to <100.00	23	28.0	<0.1	10.0	1.0	13	55.4
100.00 (default)							
Subtotal	5,004	0.2	0.2	41.6	1.9	416	8.3
Public sector entities, multilateral development banks			31.12.16				
0.00 to <0.15	6,438	0.0	0.1	32.2	1.4	308	4.8
0.15 to <0.25	125	0.2	<0.1	38.7	1.0	31	24.5
0.25 to <0.50	35	0.4	<0.1	41.2	1.0	14	41.3
0.50 to <0.75	0	0.6	<0.1	32.0	1.0	0	35.4
0.75 to <2.50	1	1.4	<0.1	44.3	1.0	1	107.6
2.50 to <10.00	0	2.7	<0.1	31.0	0.3	0	71.4
10.00 to <100.00	24	28.0	<0.1	10.0	1.0	13	55.4
100.00 (default)							
Subtotal	6,623	0.1	0.2	32.3	1.4	367	5.5

CCR4: IRB – CCR exposures by portfolio and PD scale (continued)

<i>CHF million, except where indicated</i>	EAD post CRM	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %
Corporates: including specialized lending¹				31.12.17			
0.00 to <0.15	37,903	0.0	12.0	37.7	0.6	4,862	12.8
0.15 to <0.25	7,472	0.2	1.5	46.9	0.5	3,403	45.5
0.25 to <0.50	2,592	0.4	1.0	68.8	1.0	3,061	118.1
0.50 to <0.75	1,921	0.6	0.9	64.7	0.7	2,828	147.2
0.75 to <2.50	6,084	1.2	1.9	22.3	0.8	3,807	62.6
2.50 to <10.00	1,781	3.2	0.3	12.8	0.4	928	52.1
10.00 to <100.00	2	13.5	<0.1	48.6	1.0	5	307.1
100.00 (default)	14		<0.1			15	106.0
Subtotal	57,768	0.3	17.6	38.8	0.6	18,908	32.7
Corporates: including specialized lending¹				30.6.17			
0.00 to <0.15	36,489	0.0	11.3	36.1	0.6	4,548	12.5
0.15 to <0.25	10,726	0.2	1.5	43.8	0.5	4,300	40.1
0.25 to <0.50	2,753	0.3	0.9	61.9	1.1	2,774	100.8
0.50 to <0.75	2,226	0.6	0.9	54.0	0.8	2,569	115.4
0.75 to <2.50	6,540	1.1	1.8	20.1	0.8	3,567	54.5
2.50 to <10.00	1,843	3.2	0.3	13.4	0.4	961	52.2
10.00 to <100.00	4	13.0	<0.1	28.6	1.0	7	183.5
100.00 (default)	1		<0.1			1	106.0
Subtotal	60,582	0.3	16.7	36.9	0.6	18,727	30.9
Corporates: including specialized lending¹				31.12.16			
0.00 to <0.15	37,120	0.0	11.0	23.4	0.6	3,237	8.7
0.15 to <0.25	9,294	0.2	1.5	33.9	0.5	3,317	35.7
0.25 to <0.50	2,913	0.4	1.0	58.3	1.1	2,548	87.5
0.50 to <0.75	1,819	0.6	0.8	46.0	0.9	1,616	88.9
0.75 to <2.50	5,039	1.2	1.7	18.8	0.9	2,494	49.5
2.50 to <10.00	1,225	3.1	0.2	15.1	0.6	672	54.8
10.00 to <100.00	2	13.5	<0.1	35.3	1.0	4	208.9
100.00 (default)	1		<0.1			2	106.0
Subtotal	57,413	0.3	16.1	27.0	0.6	13,889	24.2

CCR4: IRB – CCR exposures by portfolio and PD scale (continued)

<i>CHF million, except where indicated</i>	EAD post CRM	Average PD in %	Number of obligors (in thousands)	Average LGD in %	Average maturity in years	RWA	RWA density in %
Retail: other retail							
							31.12.17
0.00 to <0.15	6,931	0.0	13.9	27.2		250	3.6
0.15 to <0.25	193	0.2	0.1	28.9		21	11.1
0.25 to <0.50	43	0.4	0.1	29.3		8	18.1
0.50 to <0.75	13	0.6	0.1	28.8		3	24.9
0.75 to <2.50	316	1.0	10.4	29.7		111	35.3
2.50 to <10.00	42	3.9	0.2	29.4		19	45.2
10.00 to <100.00	4	20.2	0.1	32.1		3	74.5
100.00 (default)							
Subtotal	7,542	0.1	24.8	27.4		415	5.5
Retail: other retail²							
							30.6.17
0.00 to <0.15	5,344	0.0	17.8	26.9		196	3.7
0.15 to <0.25	35	0.2	0.2	25.6		3	9.8
0.25 to <0.50	125	0.4	0.2	21.2		16	13.1
0.50 to <0.75	155	0.6	0.1	29.5		40	25.6
0.75 to <2.50	439	1.0	11.6	30.9		152	34.6
2.50 to <10.00	33	3.5	5.0	33.5		17	50.0
10.00 to <100.00	4	20.9	<0.1	30.5		3	73.2
100.00 (default)							
Subtotal	6,136	0.2	35.0	27.2		427	7.0
Retail: other retail							
							31.12.16
0.00 to <0.15	4,619	0.1	10.1	20.2		152	3.3
0.15 to <0.25	87	0.2	0.1	20.0		7	7.7
0.25 to <0.50	129	0.3	0.1	20.0		16	12.4
0.50 to <0.75	9	0.6	0.0	20.0		1	17.3
0.75 to <2.50	52	1.2	0.4	20.1		19	36.7
2.50 to <10.00	166	5.7	0.6	21.0		55	33.3
10.00 to <100.00							
100.00 (default)							
Subtotal	5,061	0.3	11.4	20.2		251	5.0
Total 31.12.17	100,439	0.3	43.9	41.6	0.8	26,834	26.7
Total 30.6.17	101,665	0.3	53.3	40.9	0.9	27,005	26.6
Total 31.12.16	98,194	0.2	29.1	30.8	0.9	19,802	20.2

1 Includes exposures to managed funds. 2 Reporting has been enhanced to include debit balances outside approved Lombard lending facilities, which resulted in an increase for Number of obligors.



Semiannual I

The increase in collateral received and posted from securities financing transactions primarily reflected client-driven increases in our Investment Bank's Equities business due to positive market conditions. ▲

Semiannual I**CCR5: Composition of collateral for CCR exposure¹**

CHF million	Collateral used in derivative transactions						Collateral used in SFTs	
	Fair value of collateral received			Fair value of posted collateral			Fair value of collateral received	Fair value of posted collateral
	Segregated ²	Unsegregated	Total	Segregated ³	Unsegregated	Total		
31.12.17								
Cash – domestic currency		1,340	1,340	22	912	934	284	2,400
Cash – other currencies	2,397	34,554	36,951	2,847	19,819	22,667	40,759	111,745
Sovereign debt	1,679	10,129	11,809	3,465	7,556	11,021	214,003	149,897
Other debt securities		1,181	1,181	5	1,334	1,338	71,659	30,043
Equity securities	2,825	44	2,869	1,782	1,119	2,900	298,179	158,348
Total	6,902	47,247	54,149	8,121	30,739	38,860	624,885	452,433
30.6.17								
Cash – domestic currency		1,140	1,140	24	966	989	296	3,605
Cash – other currencies	2,243	36,028	38,271	2,625	19,318	21,943	37,949	98,942
Sovereign debt	1,381	11,674	13,055	5,640	7,849	13,490	197,339	134,796
Other debt securities		1,135	1,135	348	660	1,008	68,835	27,525
Equity securities	2,715	279	2,994	706	1,350	2,056	246,743	146,167
Total	6,339	50,255	56,595	9,343	30,144	39,487	551,162	411,035
31.12.16								
Cash – domestic currency		1,643	1,643	19	1,258	1,277	384	3,088
Cash – other currencies	1,636	39,633	41,269	2,048	23,301	25,350	35,160	88,136
Sovereign debt	1,209	16,302	17,511	6,761	9,363	16,123	214,573	129,668
Other debt securities		1,530	1,530	31	667	698	70,723	31,409
Equity securities	2,613	40	2,653	547	1,731	2,277	208,426	149,493
Total	5,458	59,148	64,606	9,406	36,319	45,725	529,266	401,794

¹ This table includes collateral received and posted with and without the right of rehypothecation, but excludes securities placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there were no associated liabilities or contingent liabilities. ² Includes collateral received in derivative transactions, primarily initial margins, that is placed with a third-party custodian and to which UBS has only access in the case of counterparty default. ³ Includes collateral posted to central counterparties, where we apply a 0% risk weight for trades that we have entered into on behalf of a client and where the client has signed a legally enforceable agreement stipulating that the default risk of that central counterparty is carried by the client. ▲

Semiannual I Notionals for credit derivatives decreased by CHF 16.9 billion for protection bought and by CHF 13.9 billion for protection sold, primarily driven by continuous reductions in Corporate Center – Non-core and Legacy Portfolio, as well as by

a decrease in Corporate Center – Group ALM following trade compression with central counterparties. An additional reduction was due to lower trading volumes in the Investment Bank. ▲

Semiannual I

CCR6: Credit derivatives exposures

<i>CHF million</i>	31.12.17		30.6.17		31.12.16	
	Protection bought	Protection sold	Protection bought	Protection sold	Protection bought	Protection sold
Notionals¹						
Single-name credit default swaps	61,299	55,677	75,638	64,614	91,418	81,326
Index credit default swaps	38,268	38,372	40,603	42,905	45,034	44,611
Total return swaps	4,436	1,660	4,540	2,088	5,478	2,088
Credit options	4,289	58	4,431	55	2,946	54
Total notionals	108,292	95,767	125,212	109,662	144,875	128,079
Fair values						
<i>Positive fair value (asset)</i>	793	2,035	1,087	1,947	1,969	1,917
<i>Negative fair value (liability)</i>	2,921	887	2,699	1,270	2,780	2,036

¹ Includes notional amounts for client-cleared transactions.



Section 5 Comparison of A-IRB approach and standardized approach for credit risk

Background

Annual I In accordance with current prudential regulations, FINMA has approved our use of the advanced internal ratings-based (A-IRB) approach for calculating the required capital for a majority of our credit risk exposures.

The principal differences between the standardized approach and the A-IRB approach identified below are based on the current SA rules without consideration of the material revisions announced by the Basel Committee on Banking Supervision (BCBS) in December 2017. We currently expect that the introduction of the revised Basel III framework on 1 January 2022 will likely lead to a CHF 35 billion increase in risk-weighted assets (RWA), before taking into account mitigation actions. This is based on our current understanding of the relevant standards and may change as a result of new or changed regulatory interpretations, implementations of the Basel III standards into national law, changes in business growth, market conditions or other factors.

We believe that advanced approaches that adequately capture economic risks are paramount for the appropriate representation of the capital requirements related to risk-taking activities. Within a strong risk control framework and in combination with robust stress testing practices, strict risk limits, as well as leverage and liquidity requirements, advanced approaches promote a proactive risk culture, putting the right incentives in place to prudently manage risks.

As of 31 December 2017, we refer to the FINMA-defined asset classes in this section, which resulted in the following changes compared with 31 December 2016:

- “Central governments and central banks” was previously referred to as “Sovereigns.” This segment is now disclosed together with the asset class “Public sector entities” and “Multilateral development banks,” as we apply the same methodology for these asset classes.
- “Banks and securities dealers” was previously referred to as “Banks.”
- “Corporates” includes the FINMA asset classes “Corporates: specialized lending” and “Corporates: other lending.”
- “Retail” includes the FINMA asset classes “Retail: residential mortgages,” “Retail: qualifying revolving retail exposures” and “Retail: other.”

Refer to the “Introduction and basis for preparation” section of this report for more information on FINMA-defined asset classes. ▲

Key methodological differences between A-IRB and current SA approaches

Annual I In line with the BCBS objective, the A-IRB approach seeks to balance the maintenance of prudent levels of capital while encouraging, where appropriate, the use of advanced risk

management techniques. By design, the calibration of the current SA rules and the A-IRB approaches is such that low-risk, short-maturity, well-collateralized portfolios across the various asset classes (with the exception of Central governments and central banks) receive lower risk weights under the A-IRB than under the current SA rules. Accordingly, RWA and capital requirements under the current SA rules would be substantially higher than under the A-IRB approach for lower-risk portfolios. Conversely, RWA for higher-risk portfolios are higher under the A-IRB than under the current SA approach.

Differences primarily arise due to the measurement of exposure at default (EAD) and to the risk weights applied. In both cases, the treatment of risk mitigation such as collateral can have a significant impact.

EAD measurement

For the measurement of EAD, the main differences relate to derivatives, driven by the differences between the internal model method (IMM) and the regulatory prescribed current exposure method (CEM).

The model-based approaches to derive estimates of EAD for derivatives and securities financing transactions reflect the detailed characteristics of individual transactions. They model the range of possible exposure outcomes across all transactions within the same legally enforceable netting set at various future time points. This assesses the net amount that may be owed to us or that we may owe to others, taking into account the impact of correlated market moves over the potential time it could take to close out a position. The calculation considers current market conditions and is therefore sensitive to deteriorations in the market environment.

In contrast, EAD under the regulatory prescribed rules are calculated as replacement costs at the balance sheet date plus regulatory add-ons, which take into account potential future market movements but at predetermined fixed rates, which are not sensitive to changes in market conditions. These add-ons are crudely differentiated by reference to only five product types and three maturity buckets. Moreover, the current regulatory prescribed rules calculation gives very limited recognition to the benefits of diversification across transactions within the same legally enforceable netting set. As a result, large diversified portfolios, such as those arising from our activities with other market-making banks, will generate much higher EAD under the current regulatory prescribed rules than under the model-based approach.

Risk weights

Under the A-IRB approach, risk weights are assigned according to the bank’s internal credit assessment of the counterparty to determine the probability of default (PD) and loss given default (LGD).

The PD is an estimate of the likelihood of a counterparty defaulting on its contractual obligations. It is assessed using rating tools tailored to the various categories of counterparties. Statistically developed scorecards, based on key attributes of the obligor, are used to determine PD for many of our corporate clients and for loans secured by real estate. Where available, market data may also be used to derive the PD for large corporate counterparties. For Lombard loans, Merton-type model simulations are used that take into account potential changes in the value of securities collateral. PD is not only an integral part of the credit risk measurement, but also an important input for determining the level of credit approval required for any given transaction. Moreover, for the purpose of capital underpinning, the majority of counterparty PDs are subject to a floor.

The LGD is an estimate of the magnitude of the likely loss if there is a default. The calculation takes into account the loss of principal, interest and other amounts such as workout costs, including the cost of carrying an impaired position during the workout process less recovered amounts. Importantly, LGD considers credit mitigation by way of collateral or guarantees, with the estimates being supported by our internal historical loss data and external information where available.

The combination of PD and LGD determined at the counterparty level results in a highly granular level of differentiation of the economic risk from different borrowers and transactions.

In contrast, the SA risk weights are largely reliant on external rating agencies' assessments of the credit quality of the counterparty, with a 100% risk weight typically being applied where no external rating is available. Even where external ratings are available, there is only a coarse granularity of risk weights, with only four primary risk weights used for differentiating counterparties, with the addition of a 0% risk weight for AA- or better rated Central governments and central banks. Risk weights of 35% and 75% are used for mortgages and retail exposures, respectively.

The SA does not differentiate across transaction maturities except for interbank lending, albeit in a very simplistic manner considering only shorter or longer than three months. This has clear limitations. For example, the economic risk of a six-month

loan to, say, a BB-rated US corporate is significantly different to that of a 10-year loan to the same borrower. This difference is evident from the distinction of PD levels based on ratings assigned by external rating agencies through their separate ratings for short-term and long-term debt for a given issuer.

The SA typically assigns lower risk weights to sub-investment grade counterparties than the A-IRB approach, thereby potentially understating the economic risk. Conversely, investment grade counterparties typically receive higher risk weights under the SA than under the A-IRB approach.

Maturity is also an important factor, with the A-IRB approach producing a higher capital requirement for longer maturity exposures than for shorter maturity exposures. Since the accelerated implementation of our strategy in 2012, the maturity effect has become particularly important as we had a notable shift from longer-term to shorter-term transactions in our credit portfolio.

Additionally, under the A-IRB approach we calculate expected loss measures that are deducted from common equity tier 1 (CET1) capital to the extent that they exceed general provisions, which is not the case under the SA.

Given the divergence between the SA and the economic risk, which is better represented under the A-IRB approach, particularly for lower-grade counterparties, there is a risk that applying the SA could incentivize higher risk-taking without a commensurate increase in required capital. ▲

Comparison of the A-IRB approach EAD and leverage ratio denominator by asset class

Annual I The following table shows EAD, average risk weight (RW), RWA and leverage ratio denominator (LRD) per asset class for Central governments and central banks, Banks and securities dealers, Corporates and Retail credit risk and counterparty credit risk exposures subject to the A-IRB approach. LRD is the exposure measure used for the leverage ratio.

LRD estimates presented in the table reflect the credit risk and counterparty credit risk components of exposures only and are therefore not representative of the LRD requirement at bank level overall. The LRD estimates exclude exposures subject to market risk, non-counterparty-related risk and SA credit risk to provide a like-for-like comparison with the A-IRB credit risk EAD shown. ▲

Annual I

Breakdown by asset classes

in CHF billion	A-IRB			LRD
	EAD	RW	RWA	
Central governments and central banks, Multilateral development banks and Public sector entities	152	3%	5	147
Banks and securities dealers	36	25%	9	51
Corporates	136	40%	54	198
Retail	284	11%	32	259
of which: residential mortgages	135	17%	23	135
of which: Lombard lending	147	6%	9	123

▲

Comparison of the A-IRB approach, the SA and LRD by asset class

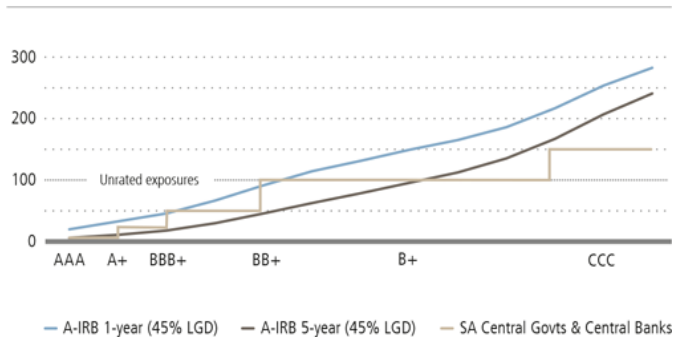
Annual | The differences between the A-IRB approach, the SA and LRD per asset class are discussed below and on the following pages.

Asset classes Central governments and central banks, Multilateral development banks and Public sector entities

The regulatory net EAD for Central governments and central banks, Multilateral development banks (MDBs) and Public sector entities (PSEs) is CHF 152 billion under the A-IRB approach. Since the vast majority of our exposure is driven by banking products exposures, the LRD is broadly in line with the A-IRB net EAD and we would expect a similar amount under the SA.

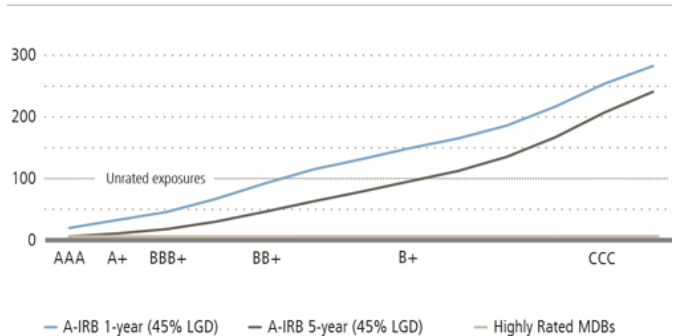
The charts below provide comparisons of risk weights for exposures to the asset classes Central governments and central banks, highly rated MDBs and other MDBs and PSEs calculated under the A-IRB approach and the SA. Risk weights under the A-IRB approach are shown for one-year and five-year maturities, both assuming an LGD of 45%. Our internal A-IRB ratings have been mapped to external ratings based on the long-term average of one-year default rates available from the major credit rating agencies, as described on page 139 of our Annual Report 2017.

Comparison of risk weights – Central governments and central banks



The SA assigns a zero risk weight to central governments and central banks rated AA– and better and to highly rated MDB counterparties, while the A-IRB approach generally assigns risk weights higher than zero even for the highest-quality sovereign counterparties.

Comparison of risk weights – Highly rated MDBs

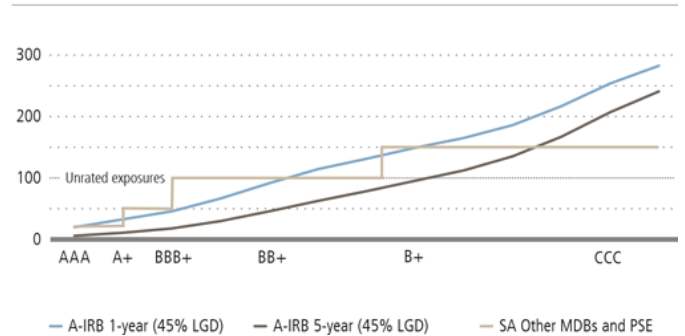


For other MDB and PSE counterparties rated AA– and better, the risk weight applied is 20%.

Despite this, we would expect an increase in average risk weight under the SA due to exposures to unrated counterparties such as sovereign wealth funds, which attract a 100% risk weight under the SA despite being generally considered very low risk, and short-term repo transactions with central banks rated below AA–, such as the Bank of Japan.

However, as the asset class is not a significant driver of RWA, we would expect any resulting increase in RWA to be relatively small.

Comparison of risk weights – Other MDBs and PSEs

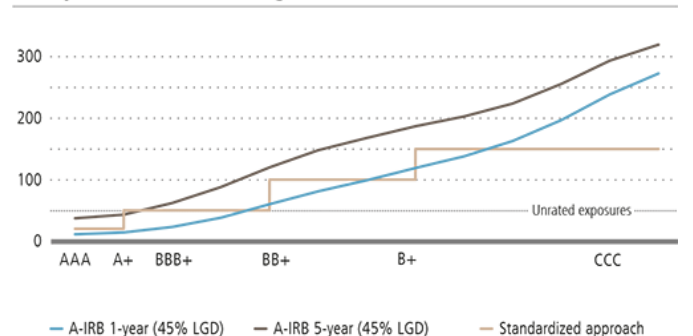


Asset class Banks and securities dealers

The regulatory net EAD for exposures to the asset class Banks and securities dealers is CHF 36 billion under the A-IRB approach. The A-IRB net EAD is lower compared to the LRD as a result of collateral mitigation on derivatives and securities financing transactions. We would expect the net EAD to increase significantly under the regulatory prescribed rules related to derivatives and securities financing transactions within the Investment Bank, due to the aforementioned methodological differences between the calculation of EAD under the two approaches.

The chart below provides a comparison of risk weights for SA.

Comparison of risk weights – Banks and securities dealers



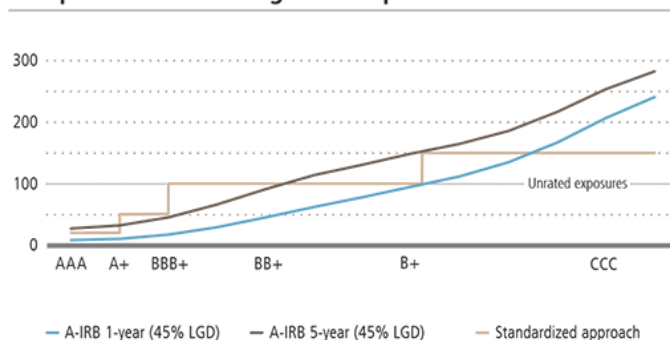
The vast majority of our exposure towards Banks and securities dealers is of investment grade quality. The average contractual maturity of this exposure is closer to the one-year example provided in the chart above. Therefore, we would expect a higher average risk weight under the SA than the 25% average risk weight under the A-IRB approach. In combination with higher EAD, we would expect this to lead to significantly higher RWA for Banks and securities dealers under the SA.

Asset class Corporates

The regulatory net EAD for the asset class Corporates is CHF 136 billion under the A-IRB approach. The A-IRB net EAD is lower compared to the LRD as a result of collateral mitigation on derivatives and securities financing transactions. We would expect the EAD figure to be higher under the regulatory prescribed rules related to derivatives, which typically account for one-third of the EAD for this asset class, due to the aforementioned methodological differences between the calculation of EAD under the two approaches.

The following chart provides a comparison of risk weights for Corporates exposures calculated under the A-IRB approach and the SA. These exposures primarily arise from corporate lending and derivatives trading within the Investment Bank, and lending to large corporates and small and medium-sized enterprises within Switzerland. The comparison does not include the FINMA-required multiplier applied to IB Corporate exposures under A-IRB.

Comparison of risk weights – Corporates



Investment grade counterparties typically receive higher risk weights under the SA than under the A-IRB approach. The majority of our Corporates exposures fall into this category. We would therefore expect risk weights for Corporates to be generally higher under the SA.

In addition, SA risk weights are reliant on external ratings, with a default weighting of 100% being applied where no external rating is available. Typically, counterparties with no external rating are riskier and thus have higher risk weights under the A-IRB approach. However, managed funds, which comprise nearly one-third of our Corporates EAD, typically have no debt and are therefore unrated. The SA applies a 100% risk weight to exposures to these funds. Under A-IRB, these funds are considered very low risk and have an average risk weight of 18%. We believe the SA significantly overstates the associated risk.

Conversely, for certain exposures, we consider the risk weight of 100% under the SA resulting from the absence of an external rating as insufficient, as evident from the hypothetical leveraged finance counterparty example in the table below. ▲

Annual I Comparison of risk weights as a function of internal rating assessment

The table assumes two counterparties without external rating assignment.

	Interest payment coverage (EBITDA / total interest payments)	Total debt / EBITDA	Debt / assets	Liquidity (fraction of assets that are liquid)	Internal rating assessment	Exposure maturity	A-IRB risk weight range	SA risk weight
Managed funds	> 1,000	0	0	100%	AAA–A	< 1Y	10–20%	100%
Leverage finance counterparty	< 2	> 2.5	> 50%	0%	BB–C	> 5Y	100–250%	100%



Asset class Retail

Sub-asset class Residential mortgages

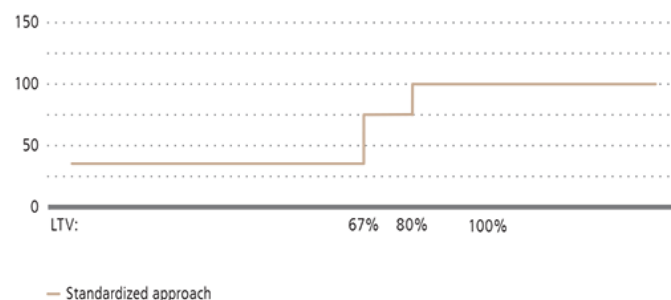
The regulatory net EAD for the sub-asset class Residential mortgages is CHF 135 billion under the A-IRB approach. Since the vast majority is driven by banking products exposures, the LRD is broadly in line with the A-IRB net EAD and we would expect a similar amount under the SA.

Due to the size of our personal and corporate banking business in Switzerland, our domestic portfolios represent a significant portion of our overall lending exposures, with the largest being loans secured by residential properties.

Our internal models assign risk weights to such loans by considering the debt service capacity of borrowers as well as the availability of other collateral, amongst other factors. These are important considerations for the Swiss market, where there is legal recourse to the borrower.

In contrast, and different to the assignment of risk weights for asset classes above, the SA only crudely differentiates the risk weights based on loan-to-value (LTV) ranges as shown in the table below.

SA risk weights – Residential mortgages



The vast majority of our exposures would attract the minimum 35% risk weight under the SA, compared to the average of 15% observed under the A-IRB approach.

The difference is largely due to the current SA rules not giving benefit to the portion of exposures with LTV lower than 67%. The vast majority of exposures fall within this category, as shown in the “Swiss mortgages: distribution of net exposure at default (EAD) across exposure segments and loan-to-value (LTV) buckets” table on page 130 of our Annual Report 2017.

Sub-asset class Lombard lending

Annual | The regulatory net EAD for the sub-asset class Lombard loans is CHF 147 billion under the A-IRB approach as of 31 December 2017 and mainly arises in our wealth management businesses.

Eligible collateral is more limited under the SA than under A-IRB. However, the haircuts applied to collateral under the A-IRB approach are generally greater than those prescribed under the SA. Given this, we would expect the overall effect of applying current SA rules to be limited for this portfolio. ▲

Section 6 Securitizations

Introduction

Annual I This section provides details of traditional and synthetic securitization exposures in the banking and trading book based on the Basel III framework. Securitized exposures are generally risk weighted, based on their external ratings. This section also provides details of the regulatory capital requirement associated with the securitization exposures in the banking book.

In a traditional securitization, a pool of loans (or other debt obligations) is typically transferred to structured entities that have been established to own the loan pool and to issue tranches of securities to third-party investors referencing this pool of loans. In a synthetic securitization, legal ownership of securitized pools of assets is typically retained, but associated credit risk is transferred to structured entities typically through guarantees, credit derivatives or credit-linked notes. Hybrid structures with a mix of traditional and synthetic features are disclosed as synthetic securitizations.

We act in different roles in securitization transactions. As originator, we create or purchase financial assets, which are then securitized in traditional or synthetic securitization transactions, enabling us to transfer significant risk to third-party investors. As sponsor, we manage, provide financing for or advise securitization programs. In line with the Basel framework, sponsoring includes underwriting activities. In all other cases, we act in the role of investor by taking securitization positions. ▲

Objectives, roles and involvement

Securitization in the banking book

Annual I Securitization positions held in the banking book include tranches of synthetic securitization of loan exposures. These are primarily hedging transactions executed by synthetically transferring credit risk on loans to corporates. In addition, securitization in the banking book includes legacy risk positions in Corporate Center – Non-core and Legacy Portfolio.

In 2017, for the majority of securitization carrying values on the balance sheet we acted in the roles of originator or sponsor and only for a minority as investor.

Securitization and resecuritization positions in the banking book are measured at fair value, reflecting market prices where available or based on our internal pricing models. ▲

Securitization in the trading book

Annual I Securitizations held in the trading book are part of trading activities, including market-making and client facilitation, that could result in retention of certain securitization positions as an investor, including those that we may have originated or sponsored. In the trading book, securitization and resecuritization positions are measured at fair value, reflecting market prices where available, or based on our internal pricing models. ▲

Type of structured entities and affiliated entities involved in securitization transactions

Annual I For the securitization of third-party exposures, the type of structured entities or special purpose vehicles employed is selected as appropriate based on the type of transaction undertaken. Examples include limited liability companies, common law trusts and depositor entities.

We also manage or advise groups of affiliated entities that invest in exposures we have securitized or in structured entities that we sponsor.

Refer to Note 28 “Interests in subsidiaries and other entities” on pages 436–444 of our Annual Report 2017 for further information on interests in structured entities. ▲

Managing and monitoring of the credit and market risk of securitization positions

Annual I The banking book securitization and resecuritization portfolio is subject to specific risk monitoring, which may include interest rate and credit spread sensitivity analysis, as well as inclusion in firm-wide earnings-at-risk, capital-at-risk and combined stress test metrics.

The trading book securitization and resecuritization positions are also subject to multiple risk limits, such as management value-at-risk (VaR) and stress limits as well as market value limits. As part of managing risks within predefined risk limits, traders may utilize hedging and risk mitigation strategies. Hedging may, however, expose the firm to basis risks as the hedging instrument and the position being hedged may not always move in parallel. Such basis risks are managed within the overall limits. Any retained securitization from origination activities and any purchased securitization positions are governed by risk limits together with any other trading positions. Legacy trading book securitization exposure is subject to the same management VaR limit framework. Additionally, risk limits are used to control the unwinding, novation and asset sales process on an ongoing basis. ▲

Accounting policies

Annual I Refer to “Consolidation” on pages 325–326 in “Note 1 Summary of significant accounting policies” in the “Consolidated financial statements” section of our Annual Report 2017 for information on accounting policies that relate to securitization activities. ▲

Regulatory capital treatment of securitization structures

Annual | Generally, in both the banking and the trading book we apply the ratings-based approach (RBA) to traditional securitization positions using ratings, if available, from Standard & Poor's, Moody's Investors Service and Fitch Ratings for all securitization and resecuritization exposures. The selection of the external credit assessment institutions (ECAI) is based on the primary rating agency concept. This concept is applied, in principle, to avoid having the credit assessment by one ECAI applied to one or more tranches and by another ECAI to the other tranches, unless this is the result of the application of the specific rules for multiple assessments. If any two of the aforementioned rating agencies have issued a rating for a particular position, we would apply the lower of the two credit ratings. If all three rating agencies have issued a rating for a particular position, we would apply the middle of the three credit ratings. Under the ratings-based approach, the amount of capital required for securitization and resecuritization exposures in the banking book is capped at the level of the capital requirement that would have been assessed against the underlying assets had they not been securitized. This treatment has been applied in particular to the US and European reference-linked note programs. For the purposes of determining regulatory capital and the Pillar 3 disclosure for these positions, the underlying exposures are reported under the standardized approach, the advanced internal ratings-based approach or the securitization approach, depending on the category of the

underlying security. If the underlying security is reported under the standardized approach or the advanced internal ratings-based approach, the related positions are excluded from the tables on the following pages.

The supervisory formula approach (SFA) is applied to synthetic securitizations of portfolios of credit risk inherent in loan exposures for which an external rating was not sought. The SFA is also applied to leveraged super senior tranches.

We do not apply the concentration ratio approach or the internal assessment approach to securitization positions.

The counterparty risk of interest rate or foreign currency derivatives with securitization vehicles is treated under the advanced internal ratings-based approach and is therefore not part of this disclosure. ▲

Securitization exposures in the banking and trading book

Semiannual | Tables "SEC1: Securitization exposures in the banking book" and "SEC2: Securitization exposures in the trading book" outline the carrying values on the balance sheet in the banking and trading book as of 31 December 2017. The activity is further broken down by our role (originator, sponsor or investor) and by type (traditional or synthetic).

Amounts disclosed under the *Traditional* column of these tables reflect the total outstanding notes at par value issued by the securitization vehicle at issuance. For synthetic securitization transactions, the amounts disclosed generally reflect the balance sheet carrying values of the securitized exposures at issuance. ▲

Semiannual I

SEC1: Securitization exposures in the banking book

CHF million	Bank acts as originator			Bank acts as sponsor			Bank acts as originator & sponsor			Bank acts as investor			Total
	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	
31.12.17													
Asset classes													
1	Retail (total)	95	95	134	134					0	0	229	
	<i>of which:</i>												
2	Residential mortgage	95	95							0	0	95	
3	Credit card receivables												
4	Student loans			134	134							134	
5	Consumer loans												
6	Other retail exposures												
7	Wholesale (total)		1,926	1,926						138	138	2,065	
	<i>of which:</i>												
8	Loans to corporates or SME		1,926	1,926								1,926	
9	Commercial mortgage									0	0	0	
10	Lease and receivables												
11	Trade receivables												
12	Other wholesale									138	138	138	
13	Re-securitization	0	0	0	0					0	0	0	
14	Total securitization / re-securitization (including retail and wholesale)	95	1,926	2,021	134	134				138	138	2,293	
30.6.17													
Asset classes													
1	Retail (total)	86	86	142	142					75	75	303	
	<i>of which:</i>												
2	Residential mortgage	86	86							75	75	161	
3	Credit card receivables												
4	Student loans			142	142							142	
5	Consumer loans												
6	Other retail exposures												
7	Wholesale (total)	15	2,540	2,555	30	30				130	130	2,715	
	<i>of which:</i>												
8	Loans to corporates or SME		2,465	2,465								2,465	
9	Commercial mortgage				0	0				0	0	0	
10	Lease and receivables												
11	Trade receivables												
12	Other wholesale	15	75	90	30	30				130	130	250	
13	Re-securitization	0	0	0	0	0				0	0	0	
14	Total securitization / re-securitization (including retail and wholesale)	101	2,540	2,641	172	172				204	204	3,018	
31.12.16													
Asset classes													
1	Retail (total)	103	103	162	162					210	210	475	
	<i>of which:</i>												
2	Residential mortgage	103	103							210	210	313	
3	Credit card receivables												
4	Student loans			162	162							162	
5	Consumer loans												
6	Other retail exposures												
7	Wholesale (total)		2,712	2,712	31	31				175	175	2,918	
	<i>of which:</i>												
8	Loans to corporates or SME		2,670	2,670								2,670	
9	Commercial mortgage				0	0				0	0	0	
10	Lease and receivables				0	0						0	
11	Trade receivables												
12	Other wholesale		43	43	31	31				175	175	249	
13	Re-securitization	0	0	0	0	0				0	0	0	
14	Total securitization / re-securitization (including retail and wholesale)	103	2,712	2,815	193	193				385	385	3,393	

Semiannual I

SEC2: Securitization exposures in the trading book

CHF million	Bank acts as originator			Bank acts as sponsor			Bank acts as originator & sponsor			Bank acts as investor			Total
	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	
31.12.17													
Asset classes													
1	Retail (total)	3	3	10	10					26	26	39	
	<i>of which:</i>												
2	Residential mortgage	3	3	10	10					26	26	39	
3	Credit card receivables												
4	Student loans												
5	Consumer loans												
6	Other retail exposures												
7	Wholesale (total)			2	2	18	18	7	7	26	26	26	
	<i>of which:</i>												
8	Loans to corporates or SME												
9	Commercial mortgage					18	18	7	7	25	25	25	
10	Lease and receivables												
11	Trade receivables												
12	Other wholesale			2	2								
13	Re-securitization		6	6	2	2		9	9	17	17	17	
14	Total securitization / re-securitization (including retail and wholesale)	3	6	9	13	13	18	18	43	43	83	83	
30.6.17													
Asset classes													
1	Retail (total)	1	1	5	5					31	31	38	
	<i>of which:</i>												
2	Residential mortgage	1	1	5	5					31	31	38	
3	Credit card receivables												
4	Student loans												
5	Consumer loans												
6	Other retail exposures												
7	Wholesale (total)			1	1	5	5	8	8	14	14	14	
	<i>of which:</i>												
8	Loans to corporates or SME												
9	Commercial mortgage					5	5	8	8	14	14	14	
10	Lease and receivables												
11	Trade receivables												
12	Other wholesale			1	1								
13	Re-securitization		5	5				9	9	14	14	14	
14	Total securitization / re-securitization (including retail and wholesale)	1	5	7	6	6	5	5	48	48	66	66	

SEC2: Securitization exposures in the trading book (continued)

CHF million	Bank acts as originator			Bank acts as sponsor			Bank acts as originator & sponsor			Bank acts as investor			Total		
	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal	Traditional	Synthetic	Subtotal			
31.12.16															
Asset classes															
1	Retail (total)			5		5	6		6			31		31	42
	<i>of which:</i>														
2	Residential mortgage			5		5	6		6			31		31	42
3	Credit card receivables														
4	Student loans											0		0	0
5	Consumer loans														
6	Other retail exposures														
7	Wholesale (total)					0			0	36		36		3	39
	<i>of which:</i>														
8	Loans to corporates or SME														
9	Commercial mortgage									36		36		3	39
10	Lease and receivables														
11	Trade receivables														
12	Other wholesale					0			0			0		0	0
13	Re-securitization					5			5			9		9	14
14	Total securitization / re-securitization (including retail and wholesale)			5	5	10	6	6	6	36	36	43	43	43	95



Semiannual I

SEC3: Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor

CHF million	Total exposure values	Exposure values (by RW bands)					Exposure values (by regulatory approach)			Total RWA	RWA (by regulatory approach)			Total capital charge after cap	Capital charge after cap		
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%

31.12.17

Asset classes

1	Total exposures	2,154	134	1,926	0	94	134	1,926	94	1,634	17	441	1,176	131	1	35	94
2	Traditional securitization	228	134		0	94	134		94	1,193	17		1,176	95	1		94
3	of which: securitization	228	134			94	134		94	1,193	17		1,176	95	1		94
4	of which: retail underlying	228	134			94	134		94	1,193	17		1,176	95	1		94
5	of which: wholesale																
6	of which: re-securitization	0			0	0		0	0	0	0		0	0	0		0
7	of which: senior																
8	of which: non-senior	0			0	0		0	0	0	0		0	0	0		0
9	Synthetic securitization	1,926		1,926				1,926		441		441		35		35	
10	of which: securitization	1,926		1,926				1,926		441		441		35		35	
11	of which: retail underlying																
12	of which: wholesale	1,926		1,926				1,926		441		441		35		35	
13	of which: re-securitization																
14	of which: senior																
15	of which: non-senior																

30.6.17

Asset classes

1	Total exposures	2,739	162	2,465	11	0	102	172	2,465	102	1,823	31	523	1,269	146	2	42	102
2	Traditional securitization	274	162		11	0	102	172		102	1,300	31		1,269	104	2		102
3	of which: securitization	274	162		11		102	172		102	1,300	31		1,269	104	2		102
4	of which: retail underlying	229	142				87	142		87	1,101	18		1,083	88	1		87
5	of which: wholesale	45	19		11		15	30		15	199	13		186	16	1		15
6	of which: re-securitization	0		0		0	0		0	0	0	0		0	0	0		0
7	of which: senior																	
8	of which: non-senior	0		0		0	0		0	0	0	0		0	0	0		0
9	Synthetic securitization	2,465		2,465					2,465		523		523		42		42	
10	of which: securitization	2,465		2,465					2,465		523		523		42		42	
11	of which: retail underlying																	
12	of which: wholesale	2,465		2,465					2,465		523		523		42		42	
13	of which: re-securitization																	
14	of which: senior																	
15	of which: non-senior																	

SEC3: Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor (continued)

	Total exposure values	Exposure values (by RW bands)					Exposure values (by regulatory approach)			Total RWA	RWA (by regulatory approach)			Total capital charge after cap	Capital charge after cap			
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%	
<i>CHF million</i>																		
31.12.16																		
Asset classes																		
1	Total exposures	2,966	182	2,670	11	0	103	193	2,670	103	1,940	41	613	1,286	155	3	49	103
2	Traditional securitization	296	182		11	0	103	193		103	1,327	41		1,286	106	3		103
3	of which: securitization	296	182		11		103	193		103	1,327	41		1,286	106	3		103
4	of which: retail underlying	265	162				103	162		103	1,312	26		1,286	105	2		103
5	of which: wholesale	31	20		11		0	31		0	17	16		1	1	1		0
6	of which: re-securitization	0		0		0	0	0		0	0	0		0	0	0		0
7	of which: senior																	
8	of which: non-senior	0		0		0	0	0		0	0	0		0	0	0		0
9	Synthetic securitization	2,670		2,670					2,670		613		613		49		49	
10	of which: securitization	2,670		2,670					2,670		613		613		49		49	
11	of which: retail underlying																	
12	of which: wholesale	2,670		2,670					2,670		613		613		49		49	
13	of which: re-securitization																	
14	of which: senior																	
15	of which: non-senior																	

Semiannual I

SEC4: Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as investor

CHF million	Total exposure values	Exposure values (by RW bands)					Exposure values (by regulatory approach)			Total RWA	RWA (by regulatory approach)			Total capital charge after cap	Capital charge after cap		
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%

31.12.17

Asset classes															
1	Total exposures	138	64	0	74	0	0	138	0	62	61	1	5	5	0
2	Traditional securitization	138	64	0	74	0	0	138	0	62	61	1	5	5	0
3	of which: securitization	138	64	0	74	0	0	138	0	62	61	1	5	5	0
4	of which: retail underlying	0					0	0	1			1	0		0
5	of which: wholesale	138	64	0	74	0	0	138	0	61	61	0	5	5	0
6	of which: re-securitization	0		0		0	0	0	0	0	0	0	0	0	0
7	of which: senior														
8	of which: non-senior	0		0		0	0	0	0	0	0	0	0	0	0
9	Synthetic securitization														
10	of which: securitization														
11	of which: retail underlying														
12	of which: wholesale														
13	of which: re-securitization														
14	of which: senior														
15	of which: non-senior														

30.6.17

Asset classes															
1	Total exposures	204	124	9	71	0	0	204	0	74	72	2	6	6	0
2	Traditional securitization	204	124	9	71	0	0	204	0	74	72	2	6	6	0
3	of which: securitization	204	124	9	71	0	0	204	0	74	72	2	6	6	0
4	of which: retail underlying	75	62	9	3	0	0	74	0	18	16	2	1	1	0
5	of which: wholesale	130	62		68	0		130		56	56		4	4	
6	of which: re-securitization	0				0		0		0	0	0	0	0	0
7	of which: senior														
8	of which: non-senior	0				0		0		0	0	0	0	0	0
9	Synthetic securitization														
10	of which: securitization														
11	of which: retail underlying														
12	of which: wholesale														
13	of which: re-securitization														
14	of which: senior														
15	of which: non-senior														

SEC4: Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as investor (continued)

	Total exposure values	Exposure values (by RW bands)					Exposure values (by regulatory approach)			Total RWA	RWA (by regulatory approach)			Total capital charge after cap	Capital charge after cap		
		≤20% RW	>20% to 50% RW	>50% to 100% RW	>100% to <1250% RW	1250% RW	IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%		IRB RBA	IRB SFA	1250%
31.12.16																	
Asset classes																	
1	Total exposures	385	255	48	81	0	1	383	1	128	111	17	10	9	1		
2	Traditional securitization	385	255	48	81	0	1	383	1	128	111	17	10	9	1		
3	of which: securitization	385	255	48	81	0	1	383	1	128	111	17	10	9	1		
4	of which: retail underlying	210	147	48	15	0	0	210	0	55	53	2	4	4	0		
5	of which: wholesale	175	108	0	66	0	1	173	1	73	58	15	6	5	1		
6	of which: re-securitization	0					0		0	0		0	0		0		
7	of which: senior																
8	of which: non-senior	0					0		0	0		0	0		0		
9	Synthetic securitization																
10	of which: securitization																
11	of which: retail underlying																
12	of which: wholesale																
13	of which: re-securitization																
14	of which: senior																
15	of which: non-senior																



Section 7 Market risk

Overview

The amount of capital required to underpin market risk in the regulatory trading book is calculated using a variety of methods approved by FINMA. The components of market risk risk-weighted assets (RWA) are value-at-risk (VaR), stressed VaR

(SVaR), an add-on for risks that are potentially not fully modeled in VaR, the incremental risk charge (IRC), the comprehensive risk measure (CRM) for the correlation portfolio and the securitization framework for securitization positions in the trading book. More information on each of these components is detailed in the following pages.

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2017.

Annual I

MRA – Market risk

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Strategies and processes of the bank for market risk	Risk, treasury and capital management	– Risk appetite framework	119–121
		– Market risk – Overview of measurement, monitoring and management techniques	148
		– Market risk stress loss, Value-at-risk	149–152
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	362–368
Structure and organization of the market risk management function	Risk, treasury and capital management	– Key risks, risk measures and performance by business division and Corporate Center unit	114
		– Risk governance	117–118
Scope and nature of risk reporting and measurement systems	Risk, treasury and capital management	– Internal risk reporting	122
		– Main sources of market risk, Overview of measurement, monitoring and management techniques	148



Market risk risk-weighted assets

Market risk RWA development in the quarter

Quarterly | This section provides disclosures on the quarterly market risk RWA developments for market risk measured under the internal models method. The four main components that contribute to market risk RWA are VaR, SVaR, IRC and the CRM.

VaR and SVaR components include the RWA charge for risks-not-in-VaR (RniV). The “MR2: RWA flow statements of market risk exposures under an internal models approach” table on the following page provides a breakdown of the market risk RWA movement in the fourth quarter of 2017 across these components, according to BCBS-defined movement categories. These categories are described below. ▲

Definitions of market risk RWA movement table components for MR2

References in the table below link to the line numbers provided in the movement table on the next page.

Reference	Description	Definition
1 / 8c	RWA as of previous and current reporting period end (end of period)	Quarter-end RWA.
1a / 8b	Regulatory adjustment	Indicates the difference between rows 1 and 1b, and 8c and 8a, respectively.
1b / 8a	RWA at previous and current quarter end (end of day)	For a given component (e.g., VaR), this refers to the RWA computed whenever that component’s snapshot quarter-end figure is higher than the 60-day average for regulatory VaR, and the 12-week average for SVaR and IRC, thus determining the quarter-end RWA. The regulatory adjustment would be zero if the quarter-end RWA were triggered by the snapshot quarter-end figure.
Movement of end-of-day RWA		
2	Movement in risk levels	Movements due to changes in positions and risk levels.
3	Model updates / changes	Movements due to routine updates to model parameters and model changes.
4	Methodology and policy	Movements due to methodological changes in calculations driven by regulatory policy changes, including revisions of existing regulations, new regulations and add-ons mandated by the regulator.
5	Acquisitions and disposals	Movements due to the disposal or acquisition of business operations, quantified based on the market risk exposures at the end of the quarter preceding a disposal or following an acquisition. Purchases and sales of exposures in the ordinary course of business are reflected in “Movements in risk levels.”
6	Foreign exchange movements	Movements due to changes in exchange rates. Note that the effect of movements in exchange rates is captured in “Movement in risk levels,” since exchange rate movements are part of the effects of market movements on risk levels.
7	Other	Movements due to changes that cannot be attributed to any other category.

RWA flow

Quarterly | Market risk-based RWA decreased by CHF 1.6 billion, mainly as lower average SVaR levels were observed during the fourth quarter of 2017 in the Investment Bank’s Equities business due to increased protection of our deep downside risk and in the Foreign Exchange business, driven by client flow. The VaR multiplier remained unchanged at 3.0. ▲

Quarterly I

MR2: RWA flow statements of market risk exposures under an internal models approach¹

CHF million		VaR	Stressed VaR	IRC	CRM	Other	Total RWA
1	RWA as of 31.12.16	4,013	7,982	2,963	104		15,062
1a	<i>Regulatory adjustment</i>	<i>(3,517)</i>	<i>(7,320)</i>	<i>(567)</i>			<i>(11,404)</i>
1b	RWA at previous quarter end (end of day)	496	662	2,396	104		3,658
2	<i>Movement in risk levels</i>	<i>81</i>	<i>(53)</i>	<i>322</i>			<i>350</i>
3	<i>Model updates / changes</i>	<i>16</i>	<i>26</i>	<i>619</i>			<i>661</i>
4	<i>Methodology and policy</i>						
5	<i>Acquisitions and disposals</i>						
6	<i>Foreign exchange movements</i>						
7	<i>Other</i>				<i>(5)</i>		<i>(5)</i>
8a	RWA at the end of reporting period (end of day)	593	635	3,336	98		4,663
8b	<i>Regulatory adjustment</i>	<i>1,693</i>	<i>2,590</i>				<i>4,283</i>
8c	RWA as of 31.3.17	2,286	3,225	3,336	98		8,946
1	RWA as of 31.3.17	2,286	3,225	3,336	98		8,946
1a	<i>Regulatory adjustment</i>	<i>(1,693)</i>	<i>(2,590)</i>				<i>(4,283)</i>
1b	RWA at previous quarter-end (end of day)	593	635	3,336	98		4,663
2	<i>Movement in risk levels</i>	<i>230</i>	<i>237</i>	<i>47</i>			<i>514</i>
3	<i>Model updates / changes</i>	<i>104</i>	<i>18</i>				<i>122</i>
4	<i>Methodology and policy</i>						
5	<i>Acquisitions and disposals</i>						
6	<i>Foreign exchange movements</i>						
7	<i>Other</i>				<i>(42)</i>		<i>(42)</i>
8a	RWA at the end of the reporting period (end of day)	927	891	3,383	56		5,258
8b	<i>Regulatory adjustment</i>	<i>1,531</i>	<i>6,460</i>		<i>41</i>		<i>8,032</i>
8c	RWA as of 30.6.17	2,458	7,350	3,383	97		13,289
1	RWA as of 30.6.17	2,458	7,350	3,383	97		13,289
1a	<i>Regulatory adjustment</i>	<i>(1,531)</i>	<i>(6,460)</i>	<i>0</i>	<i>(41)</i>		<i>(8,032)</i>
1b	RWA at previous quarter-end (end of day)	927	891	3,383	56		5,258
2	<i>Movement in risk levels</i>	<i>307</i>	<i>896</i>	<i>117</i>	<i>0</i>		<i>1,320</i>
3	<i>Model updates / changes</i>	<i>(487)</i>	<i>(183)</i>	<i>0</i>	<i>0</i>		<i>(670)</i>
4	<i>Methodology and policy</i>						
5	<i>Acquisitions and disposals</i>						
6	<i>Foreign exchange movements</i>						
7	<i>Other</i>				<i>11</i>		<i>11</i>
8a	RWA at the end of the reporting period (end of day)	747	1,604	3,500	68		5,919
8b	<i>Regulatory adjustment</i>	<i>2,727</i>	<i>4,813</i>	<i>0</i>	<i>10</i>		<i>7,550</i>
8c	RWA as of 30.9.17	3,474	6,417	3,500	78		13,469
1	RWA as of 30.9.17	3,474	6,417	3,500	78		13,469
1a	<i>Regulatory adjustment</i>	<i>(2,727)</i>	<i>(4,813)</i>	<i>0</i>	<i>(10)</i>		<i>(7,550)</i>
1b	RWA at previous quarter-end (end of day)	747	1,604	3,500	68		5,919
2	<i>Movement in risk levels</i>	<i>(102)</i>	<i>(964)</i>	<i>(43)</i>			<i>(1,108)</i>
3	<i>Model updates / changes</i>	<i>8</i>	<i>(9)</i>				<i>(1)</i>
4	<i>Methodology and policy</i>						
5	<i>Acquisitions and disposals</i>						
6	<i>Foreign exchange movements</i>						
7	<i>Other</i>	<i>33</i>	<i>117</i>		<i>(15)</i>		<i>135</i>
8a	RWA at the end of the reporting period (end of day)	685	749	3,457	53		4,944
8b	<i>Regulatory adjustment</i>	<i>2,392</i>	<i>4,518</i>	<i>0</i>	<i>26</i>		<i>6,936</i>
8c	RWA as of 31.12.17	3,077	5,267	3,457	79		11,881

¹ Components that describe movements in RWA are presented in italic.

Securitization positions in the trading book

Semiannual I Our exposure to securitization positions in the trading book is limited and relates primarily to positions in Corporate Center – Non-core and Legacy Portfolio that we continue to wind down. A small amount of exposure also arises from secondary trading in commercial mortgage-backed securities in

the Investment Bank. Refer to the “Regulatory exposures and risk-weighted assets” table on page 13 of this report and to the “Securitizations” section of this report for more information. The table below provides information on market risk RWA from securitization exposures in the trading book. ▲

Semiannual I

MR1: Market risk under standardized approach

CHF million	31.12.17	30.6.17	31.12.16
Outright products			
1 Interest rate risk (general and specific)			
2 Equity risk (general and specific)			
3 Foreign exchange risk			
4 Commodity risk			
Options			
5 Simplified approach			
6 Delta-plus method			
7 Scenario approach			
8 Securitization	400	378	428
9 Total	400	378	428

Annual I The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2017. ▲

Annual I

MRB – Internal models approach

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Description of activities and risks covered by the VaR models and stressed VaR models	Risk, treasury and capital management	– Value-at-risk	149–152
		– Main sources of market risk	148
VaR models applied by different entities within the group	Risk, treasury and capital management	– Main sources of market risk	148
		– Value-at-risk	149–152
General description of VaR and stressed VaR models	Risk, treasury and capital management	– Value-at-risk	149–152
Main differences between the VaR and stressed VaR models used for management purposes and for regulatory purposes	Risk, treasury and capital management	– Value-at-risk	149–152
Further information on VaR models	Risk, treasury and capital management	– Value-at-risk	149–152
		– Market risk stress loss	149
		– Market risk – Overview of measurement, monitoring and management techniques	148
	Consolidated financial statements	– Note 22 Fair value measurement	362–368
Description of stress testing applied to modeling parameters	Consolidated financial statements	– Note 22 Fair value measurement	362–368
Description of backtesting approach	Risk, treasury and capital management	– Backtesting of VaR	151–152
		– VaR model confirmation	152

Regulatory calculation of market risk

Semiannual I The table below shows minimum, maximum, average and period-end regulatory VaR, stressed VaR, the IRC and the comprehensive risk capital charge.

During the second half of 2017, average 10-day 99% regulatory VaR increased, driven by higher VaR levels as a result of a reduction in deep downside protection within the Equities business in the Investment Bank. ▲

Semiannual I**MR3: IMA values for trading portfolios**

	For the six-month period ended 31.12.17	For the six-month period ended 30.6.17	For the six-month period ended 31.12.16
<i>CHF million</i>			
VaR (10-day 99%)			
1	89	69	84
2	35	25	27
3	12	2	5
4	21	31	16
Stressed VaR (10-day 99%)			
5	315	364	179
6	84	76	67
7	26	9	20
8	30	42	31
Incremental risk charge (99.9%)			
9	303	325	280
10	265	244	225
11	208	174	144
12	277	271	192
Comprehensive risk capital charge (99.9%)			
13	9	9	12
14	6	8	8
15	4	4	7
16	4	5	8
17	1	1	1



Value-at-risk

VaR definition

Annual | VaR is a statistical measure of market risk, representing the market risk losses that could potentially be realized over a set time horizon (holding period) at an established level of confidence. The measure assumes no change in the Group's trading positions over the set time horizon.

We calculate VaR on a daily basis. The profit and loss (P&L) distribution from which VaR is derived is constructed by our internally developed VaR model. The VaR model simulates returns over the holding period of those risk factors to which our trading positions are sensitive, and subsequently quantifies the P&L impact of these risk factor returns on the trading positions. Risk factor returns associated with the risk factor classes of general interest rates, foreign exchange and commodities are based on a pure historical simulation approach, taking into account a five-year look-back window. Risk factor returns for selected issuer based risk factors, such as equity price and credit spreads, are decomposed into systematic and residual, issuer-specific components using a factor model approach. Systematic returns are based on historical simulation, and residual returns are based on a Monte Carlo simulation. The VaR model profit and loss distribution is derived from the sum of the systematic and the residual returns in such a way that we consistently capture systematic and residual risk. Correlations among risk factors are implicitly captured via the historical simulation approach. In modeling the risk factor returns, we consider the stationarity properties of the historical time series of risk factor changes. Depending on the stationarity properties of the risk factors within a given risk factor class, we choose to model the risk factor returns using absolute returns or logarithmic returns. The risk factor return distributions are updated on a fortnightly basis.

Although our VaR model does not have full revaluation capability, we source full revaluation grids and sensitivities from our front-office systems, enabling us to capture material non-linear P&L effects.

We use a single VaR model for both internal management purposes and determining market risk regulatory capital requirements, although we consider different confidence levels and time horizons. For internal management purposes, we establish risk limits and measure exposures using VaR at the 95% confidence level with a one-day holding period, aligned to the way we consider the risks associated with our trading activities. The regulatory measure of market risk used to underpin the market risk capital requirement under Basel III

requires a measure equivalent to a 99% confidence level using a 10-day holding period. In the calculation of a 10-day holding period VaR, we employ 10-day risk factor returns, whereby all observations are equally weighted.

Additionally, the population of the portfolio within management and regulatory VaR is slightly different. The population within regulatory VaR meets minimum regulatory requirements for inclusion in regulatory VaR. Management VaR includes a broader population of positions. For example, regulatory VaR excludes the credit spread risks from the securitization portfolio, which are treated instead under the securitization approach for regulatory purposes.

We also use SVaR for the calculation of regulatory capital. SVaR adopts broadly the same methodology as regulatory VaR and is calculated using the same population, holding period (10-day) and confidence level (99%). However, unlike regulatory VaR, the historical data set for SVaR is not limited to five years, but spans the time period from 1 January 2007 to present. In deriving SVaR, we search for the largest 10-day holding period VaR for the current portfolio of the Group across all one-year look-back windows that fall into the interval from 1 January 2007 to present. SVaR is computed weekly. ▲

Derivation of VaR and SVaR based RWA

Annual | VaR and SVaR are used to derive the VaR and SVaR components of the market risk Basel III RWA, as shown in the "Regulatory exposures and risk-weighted assets" table on page 13 of this report. This calculation takes the maximum of the respective period-end VaR measure and the average VaR measure for the 60 trading days immediately preceding the period end, multiplied by a VaR multiplier set by FINMA. The VaR multiplier, which was 3.0 as of 31 December 2017, is dependent upon the number of VaR backtesting exceptions within a 250 business day window. When the number of exceptions is greater than four, the multiplier increases gradually from three to a maximum of four if 10 or more backtesting exceptions occur. This is then multiplied by a risk weight factor of 1,250% to determine RWA.

In addition to the VaR multiplier, at the time of the structural change to our VaR model in the first quarter of 2016, FINMA introduced a model multiplier of 1.3 to be applied in the calculation of VaR and SVaR RWA. This model multiplier was temporarily introduced to offset a reduction in VaR at the time, pending other improvements to the VaR model which are expected to increase VaR. This temporary multiplier has not yet been removed.

This calculation is set out in the table below. ▲

Annual |

Calculation of VaR and SVaR-based RWA as of 31 December 2017

<i>CHF million</i>	Period-end VaR (A)	60-day average VaR (B)	VaR multiplier (C)	Model multiplier (D)	Max. (A, B x C) x D (E)	Risk weight factor (F)	Basel III RWA (E x F)
VaR (10-day 99%)	21	33	3.00	1.3	129	1,250%	1,614
Stressed VaR (10-day 99%)	30	72	3.00	1.3	282	1,250%	3,529

▲

MR4: Comparison of VaR estimates with gains/losses

Semiannual I For backtesting purposes, we compute backtesting VaR using a 99% confidence level and one-day holding period for the population included within regulatory VaR. The backtesting process compares backtesting VaR calculated on positions at the close of each business day with the revenues generated by those positions on the following business day. Backtesting revenues exclude non-trading revenues, such as fees and commissions and revenues from intraday trading, to provide for a like-for-like comparison. A backtesting exception occurs when backtesting revenues are negative and the absolute value of those revenues is greater than the previous day's backtesting VaR.

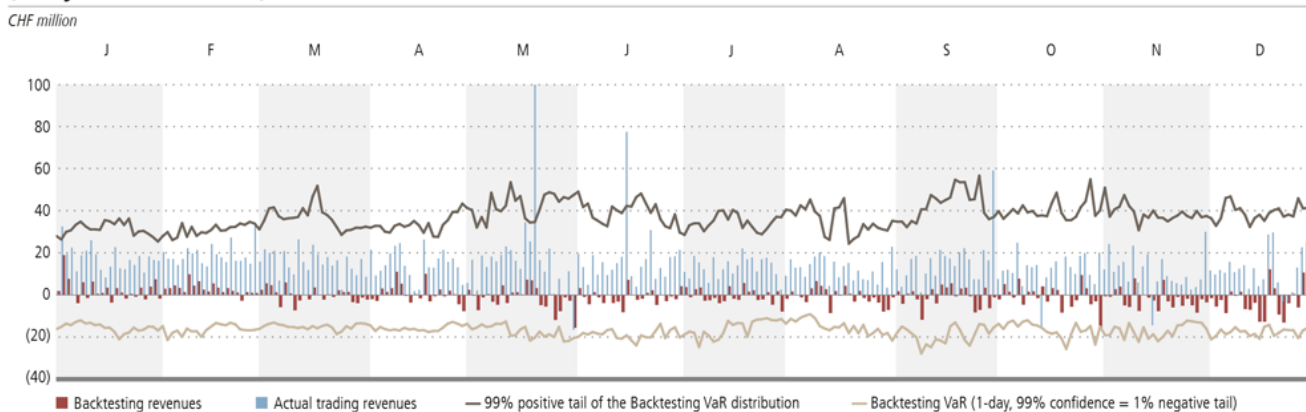
Statistically, given the confidence level of 99%, two or three backtesting exceptions per year can be expected. More exceptions than this could indicate that the VaR model is not performing appropriately, as could too few exceptions over a prolonged period of time. However, as noted in the "VaR limitations" in the "Risk management and control" section of our Annual Report 2017, a sudden increase or decrease in market volatility relative to the five-year window could lead to a higher or lower number of exceptions, respectively. Accordingly, Group-level backtesting exceptions are investigated, as are exceptional positive backtesting revenues, with results being reported to senior business management, the Group Chief Risk Officer and the divisional Chief Risk Officers. Backtesting exceptions are also reported to internal and external auditors and to the relevant regulators.

The "Group: development of backtesting revenues and actual trading revenues against backtesting VaR" chart below shows the 12-month development of backtesting VaR against the Group's backtesting revenues and actual trading revenues for 2017. The chart shows both the negative and positive tails of the backtesting VaR distribution at 99% confidence intervals representing, respectively, the losses and gains that could potentially be realized over a one-day period at that level of confidence. The asymmetry between the negative and positive tails is due to the long gamma risk profile that has been run historically in the Investment Bank. This long gamma position profits from increases in volatility, which therefore benefits the positive tail of the VaR simulated profit or loss distribution.

The actual trading revenues include, in addition to backtesting revenues, intraday revenues. There was one new Group VaR negative backtesting exception in the second half of 2017. The total number of negative backtesting exceptions within a 250-business-day window decreased from two to one as the oldest exceptions had fallen out of the time window. Correspondingly, the FINMA VaR multiplier used to compute regulatory and stressed VaR RWA remained unchanged at 3.00 throughout the second half of 2017. ▲

Semiannual I

Group: development of backtesting revenues¹ and actual trading revenues² against backtesting VaR³ (1-day, 99% confidence)



¹ Excludes non-trading revenues, such as commissions and fees, and revenues from intraday trading. ² Includes backtesting revenues and revenues from intraday trading. ³ Based on Basel III regulatory VaR, excludes CVA positions and their eligible hedges which are subject to the new standalone CVA charge.



Risks-not-in-VaR

Risks-not-in-VaR definition

Annual I We have a framework to identify and quantify potential risks that are not fully captured by our VaR model. We refer to these as risks-not-in-VaR (RniV). This framework is used to underpin these potential risks with regulatory capital, calculated as a multiple of VaR and SVaR.

Our VaR model can be split into two components: the P&L representation and the risk factor model. This gives rise to two RniV categories: P&L representation RniV and risk factor RniV. P&L representation RniV arises from approximations made by the VaR model to quantify the effect of risk factor changes on the profit and loss of positions and portfolios. Risk factor RniV originate from an inadequate modeling of the stochastic behavior of the risk factors. ▲

Risks-not-in-VaR quantification

Annual I In the fourth quarter of 2017, we made changes to the existing RniV framework. Prior to this change, risk officers performed a quantitative assessment on an annual basis. Under the revised framework, the quantification is no longer carried out by the risk officers, but conducted on the basis of a quantitative approach that was developed within the Risk Methodology department, and that has been approved by FINMA. Since the go-live of the revised framework, we quantify RniV at least on a quarterly basis. The revised framework quantifies both categories of RniV: P&L representation RniV as well as risk factor RniV. ▲

Annual I

Calculation of RniV-based RWA as of 31 December 2017

<i>CHF million</i>	Period-end RWA (A)	RniV add-on (B)	RniV RWA (A x B)
Regulatory VaR	1,614	91%	1,463
Stressed VaR	3,529	49%	1,738
Total RniV RWA			3,201



Risks-not-in-VaR mitigation

Annual I Material RniV items are monitored and controlled by means and measures other than VaR, such as position limits and stress limits. Additionally, there are ongoing initiatives to extend the VaR model to better capture these risks. ▲

Derivation of RWA add-on for risks-not-in-VaR

Annual I

The RniV framework is used to derive the RniV-based component of the market risk Basel III RWA, using the aforementioned approach, which is approved by FINMA and, going forward, subject to a recalibration at least with a quarterly frequency. As the RWA from RniV are add-ons, they do not reflect any diversification benefits across risks capitalized through VaR and SVaR.

Following the go-live of the revised RniV framework in the fourth quarter and in consideration of minor VaR model adaptations made during 2017, the RniV VaR and SVaR capital ratios applicable during the fourth quarter are 91% and 49%, respectively.

FINMA continues to require that RniV stressed VaR capital is floored at RniV VaR capital. ▲

Incremental risk charge

Annual I The IRC represents an estimate of the default and rating migration risk of all trading book positions with issuer risk, except for equity products and securitization exposures, measured over a one-year time horizon at a 99.9% confidence level. The calculation of the measure assumes all positions in the IRC portfolio have a one-year liquidity horizon and are kept unchanged over this period.

The portfolio default and rating migration loss distribution is estimated using a Monte Carlo simulation approach. The simulation is performed in two steps: first, the distribution of credit ratings (including the defaulted state) at the one-year time horizon is estimated by a portfolio rating migration model, and second, default and migration losses conditional on credit events generated by the portfolio rating migration model are modeled employing the random recovery concept.

The portfolio rating migration model is of the Merton type: migrations of credit ratings are considered to be functions of the underlying asset value of a firm. The correlation structure of asset values is based on the SunGard APT factor model with factor loadings and volatilities homogenized within region-industry-size buckets. For the government bucket, a conservative expert-based correlation value is used. The transition matrix approach is utilized to set migration and default thresholds. The transition matrix for sovereign obligors is calibrated to the history of S&P sovereign ratings. The transition matrix for non-sovereigns is calibrated to the history of UBS internal ratings.

For each position related to a defaulted obligor, default losses are calculated based on the maximum default exposure measure (the loss in the case of a default event assuming zero recovery) and a random recovery concept. To account for potential basis risk between instruments, different recovery values may be generated for different instruments even if they belong to the same issuer. To calculate rating migration losses, a linear (delta) approximation is used. A loss due to a rating migration event is calculated as the estimated change in credit spread due to the change in rating migration, multiplied by the corresponding sensitivity of a position to changes in credit spreads.

The validation of the IRC model relies heavily on sensitivity analyses embedded into the annual model reconfirmation. ▲

Derivation of IRC-based RWA

Annual I IRC is calculated weekly and the results are used to derive the IRC-based component of the market risk Basel III RWA, as shown in the "Regulatory exposures and risk-weighted assets" table on page 13 of this report. The derivation is similar to that for VaR- and SVaR-based RWA, but without a VaR multiplier, and is shown below. ▲

Annual I

Calculation of IRC-based RWA as of 31 December 2017

<i>CHF million</i>	Period-end IRC (A)	Average of last 12 weeks IRC (B)	Max (A, B) (C)	Risk weight factor (D)	Basel III RWA (C x D)
	277	264	277	1,250%	3,457



Comprehensive risk measure

Annual I The CRM is an estimate of the default and complex price risk, including the convexity and cross-convexity of the CRM portfolio across credit spread, correlation and recovery, measured over a one-year time horizon at a 99.9% confidence level. The calculation assumes a static portfolio with trade aging, a modeling choice consistent with the portfolio being hedged in a back-to-back manner. The model scope covers collateralized debt obligation (CDO) swaps, credit-linked notes (CLNs), 1st- and nth-to-default swaps and CLNs and hedges for these positions, including credit default swaps (CDSs), CLNs and index CDSs.

The CRM profit and loss distribution is estimated using a Monte Carlo simulation of defaults, loss given defaults (LGDs) and market data changes over the next 12 months where spreads follow their own stochastic processes and are correlated to defaults. The risk engine loads the definition of all trades and,

for each Monte Carlo scenario, generates the trade cash flows over the next 12 months and revalues the trades on the horizon date. The revaluation relies on sampled FX rates, credit spreads and index bases and introduces a correlation skew by using stochastic correlations and stochastic LGDs. The correlation skew is calibrated at irregular intervals. The 99.9% negative quantile of the resulting profit and loss distribution is then taken to be the CRM result. Our CRM methodology is subject to minimum qualitative standards. ▲

Derivation of CRM-based RWA

Annual I CRM is calculated weekly, and the results are used to derive the CRM-based component of the market risk Basel III RWA, as shown in the "Regulatory exposures and risk-weighted assets" table on page 13 of this report. The calculation is subject to a floor equal to 8% of the equivalent capital charge under the specific risk measure (SRM) for the correlation trading portfolio. The calculation is shown below. ▲

Annual I

Calculation of CRM-based RWA as of 31 December 2017

<i>CHF million</i>	Period-end CRM (A)	Average of last 12 weeks CRM (B) ¹	Max (A, B) (C)	Risk weight factor (D)	Basel III RWA (C x D)
	4	6	6	1,250%	79

¹ CRM = Max (CRM model result, 8% of equivalent charge under the SRM).



Section 8 Operational risk

Annual I The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2017. ▲

Annual I

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
Details of the approach for operational risk capital assessment for which the bank qualifies	Risk, treasury and capital management	– Operational risk framework	165
Description of the advanced measurement approaches (AMA) for operational risk	Risk, treasury and capital management	– Advanced measurement approach model	166



Section 9 Interest rate risk in the banking book

Annual I Interest rate risk in the banking book arises from balance sheet positions such as *Loans, Due to customers, Debt issued, Financial assets available for sale, Financial assets held to maturity, certain Financial assets and liabilities designated at fair value*, derivatives measured at fair value, including derivatives

used for cash flow hedge accounting purposes, as well as related funding transactions.

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2017. ▲

Annual I

Interest rate risk in the banking book

Pillar 3 disclosure requirement	Annual Report 2017 section	Disclosure	Annual Report 2017 page number
The nature of interest rate risk in the banking book and key assumptions applied	Risk, treasury and capital management	– Interest rate risk in the banking book	153–157

Interest rate risk sensitivity to parallel shifts in yield curves

Annual I Interest rate risk in the banking book is not underpinned for capital purposes, but is subject to a regulatory threshold. As of 31 December 2017, the economic-value effect of an adverse parallel shift in interest rates of ± 200 basis points on our banking book interest rate risk exposures was significantly below the threshold of 20% of eligible capital recommended by regulators.

The interest rate risk sensitivity figures presented in the “Interest rate sensitivity – banking book” table on the next page represent the effect of +1, ± 100 and ± 200 -basis-point parallel moves in yield curves on present values of future cash flows, irrespective of accounting treatment. For some portfolios, the +1-basis-point sensitivity has been estimated by dividing the +100-basis-point sensitivity by 100. In the prevailing negative interest rate environment for the Swiss franc in particular, and to a lesser extent for the euro and the Japanese yen, interest rates for Wealth Management and Personal & Corporate Banking client transactions are generally being floored at non-negative levels. Accordingly, for the purposes of this disclosure table, downward moves of 100 / 200 basis points are floored to ensure

that the resulting shocked interest rates do not turn negative. The flooring results in non-linear sensitivity behavior.

The sensitivity of the banking book to rising rates was approximately nil compared with negative CHF 3.1 million per basis point at prior year-end. This was mainly due to increased sensitivity in Corporate Center – Group Asset and Liability Management (Group ALM), decreased negative sensitivity in Wealth Management Americas and, to a lesser extent, higher sensitivity in Corporate Center – Non-core and Legacy Portfolio. The increased sensitivity in Corporate Center – Group ALM was mainly due to adjustments leading to more-positive sensitivity to Swiss franc interest rates and a reduction of negative sensitivity in USD dollar interest rates. The reduction in negative interest rate sensitivity within Wealth Management Americas was primarily due to the introduction of a new deposit pricing approach, which resulted in higher deposit interest rate sensitivity, thus providing a larger offset to asset sensitivity. The change in Corporate Center – Non-core and Legacy Portfolio was due to improved capture of risk sensitivities of auction rate securities and auction preferred securities. ▲

Annual I

Interest rate sensitivity – banking book^{1,2}

31.12.17

<i>CHF million</i>	-200 bps	-100 bps	+1 bp	+100 bps	+200 bps
CHF	(31.8)	(31.8)	1.0	97.7	191.2
EUR	(142.0)	(90.5)	0.2	15.2	31.1
GBP	(57.6)	(55.4)	0.1	11.2	21.3
USD	26.6	14.4	(1.3)	(135.1)	(280.6)
Other	4.4	0.8	0.0	5.0	10.3
Total effect on fair value of interest rate-sensitive banking book positions	200.4	(162.5)	0.0	(6.0)	(26.7)

31.12.16

<i>CHF million</i>	-200 bps	-100 bps	+1 bp	+100 bps	+200 bps
CHF	(13.0)	(13.0)	0.5	44.8	89.3
EUR	(109.0)	(91.9)	0.0	(2.5)	(2.6)
GBP	(184.5)	(103.0)	(0.1)	(9.9)	(27.7)
USD	823.2	358.9	(3.4)	(347.2)	(704.3)
Other	0.5	(1.7)	0.0	(3.3)	(6.3)
Total effect on fair value of interest rate-sensitive banking book positions	517.1	149.4	(3.1)	(318.1)	(651.6)

¹ The interest rate risk sensitivity figures presented in the table above represent the effect of +1, ±100 and ±200-basis-point parallel moves in yield curves on present values of future cash flows, irrespective of accounting treatment. ² Does not include interest rate sensitivities for credit valuation adjustments on monoline credit protection, US and non-US reference-linked notes.



Section 10 Going and gone concern requirements and eligible capital

The table below provides detail on the Swiss SRB going and gone concern requirements as required by FINMA. Further information on capital management is provided on pages 183–198 of our Annual Report 2017.

Quarterly I

Swiss SRB going and gone concern requirements and information¹

As of 31.12.17 <i>CHF million, except where indicated</i>	Swiss SRB, including transitional arrangements (phase-in)				Swiss SRB as of 1.1.20 (fully applied)			
	RWA		LRD		RWA		LRD	
Required loss-absorbing capacity	in %		in %		in %		in %	
Common equity tier 1 capital	9.22	21,974	2.60	23,079	10.22	24,266	3.50	31,014
of which: minimum capital	5.80	13,827	2.10	18,640	4.50	10,687	1.50	13,292
of which: buffer capital	3.20	7,629	0.50	4,438	5.50	13,062	2.00	17,722
of which: countercyclical buffer ²	0.22	519			0.22	517		
Maximum additional tier 1 capital	3.00	7,152	0.90	7,989	4.30	10,212	1.50	13,292
of which: high-trigger loss-absorbing additional tier 1 minimum capital	2.20	5,245	0.90	7,989	3.50	8,312	1.50	13,292
of which: high-trigger loss-absorbing additional tier 1 buffer capital	0.80	1,907			0.80	1,900		
Total going concern capital	12.22	29,126	3.50	31,067	14.52 ³	34,478	5.00 ³	44,306
Base gone concern loss-absorbing capacity, including applicable add-ons and rebate	5.33 ⁴	12,711	1.72 ⁴	15,267	12.30 ⁵	29,207	4.30 ⁵	38,103
Total gone concern loss-absorbing capacity	5.33	12,711	1.72	15,267	12.30	29,207	4.30	38,103
Total loss-absorbing capacity	17.55	41,837	5.22	46,335	26.82	63,685	9.30	82,409
Eligible loss-absorbing capacity								
Common equity tier 1 capital	14.89	35,494	4.00	35,494	13.76	32,671	3.69	32,671
High-trigger loss-absorbing additional tier 1 capital^{6,7}	6.82	16,254	1.83	16,254	3.89	9,240	1.04	9,240
of which: high-trigger loss-absorbing additional tier 1 capital	2.88	6,857	0.77	6,857	2.89	6,857	0.77	6,857
of which: low-trigger loss-absorbing additional tier 1 capital	0.46	1,087	0.12	1,087	1.00	2,383	0.27	2,383
of which: high-trigger loss-absorbing tier 2 capital	0.18	435	0.05	435				
of which: low-trigger loss-absorbing tier 2 capital	3.30	7,874	0.89	7,874				
Total going concern capital	21.71	51,748	5.83	51,748	17.65	41,911	4.73	41,911
Gone concern loss-absorbing capacity	11.87	28,300	3.19	28,300	15.32	36,392	4.11	36,392
of which: TLAC-eligible senior unsecured debt	11.42	27,233	3.07	27,233	11.47	27,233	3.07	27,233
Total gone concern loss-absorbing capacity	11.87	28,300	3.19	28,300	15.32	36,392	4.11	36,392
Total loss-absorbing capacity	33.58	80,048	9.02	80,048	32.97	78,303	8.84	78,303

Risk-weighted assets / leverage ratio denominator

Risk-weighted assets	238,394	237,494
Leverage ratio denominator	887,635	886,116

¹ This table includes a rebate equal to 35% of the maximum rebate on the gone concern requirements, which was granted by FINMA. This resulted in a reduction of 2.0 percentage points for the RWA-based requirement and 0.7 percentage points for the LRD-based requirement and will be phased in until 1 January 2020. This table does not include a rebate for the usage of low-trigger loss-absorbing additional tier 1 or tier 2 capital instruments to meet the gone concern requirements. ² Going concern capital ratio requirements include countercyclical buffer requirements of 0.22% for the phase-in and fully applied requirement. ³ Includes applicable add-ons of 1.44% for RWA and 0.5% for leverage ratio denominator (LRD). ⁴ Includes applicable add-ons of 0.36% for RWA and 0.13% for LRD and a rebate of 0.87% for RWA and 0.28% for LRD. ⁵ Includes applicable add-ons of 1.44% for RWA and 0.5% for LRD and a rebate of 2% for RWA and 0.7% for LRD. ⁶ Includes outstanding low-trigger loss-absorbing additional tier 1 (AT1) capital instruments, which are available under the transitional rules of the Swiss SRB framework to meet the going concern requirements until their first call date, even if the first call date is after 31 December 2019. As of their first call date, these instruments are eligible to meet the gone concern requirements. Low-trigger loss-absorbing AT1 capital was partly offset by required deductions for goodwill on a phase-in basis. ⁷ Includes outstanding high- and low-trigger loss-absorbing tier 2 capital instruments, which are available under the transitional rules of the Swiss SRB framework to meet the going concern requirements until the earlier of (i) their maturity or first call date or (ii) 31 December 2019, and to meet gone concern requirements thereafter. Outstanding low-trigger loss-absorbing tier 2 capital instruments are subject to amortization starting five years prior to their maturity, with the amortized portion qualifying as gone concern loss-absorbing capacity. Instruments available to meet gone concern requirements are eligible until one year before maturity, with a haircut of 50% applied in the last year of eligibility.

Quarterly I The table below provides a reconciliation of the IFRS balance sheet to the balance sheet according to the regulatory scope of consolidation as defined by BCBS and FINMA. Lines in the balance sheet under the regulatory scope of consolidation are expanded and referenced where relevant to display all components that are used in the table "Composition of capital."

Refer to the "Linkage between financial statements and regulatory exposures" section of this report for more information on the most significant entities consolidated under IFRS, but not included in the regulatory scope of consolidation.



Quarterly I

Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation

As of 31.12.17	Balance sheet in accordance with IFRS scope of consolidation	Effect of deconsolidated entities for regulatory consolidation	Effect of additional consolidated entities for regulatory consolidation	Balance sheet in accordance with regulatory scope of consolidation	References ¹
<i>CHF million</i>					
Assets					
Cash and balances with central banks	87,775			87,775	
Due from banks	13,739	(216)		13,523	
Cash collateral on securities borrowed	12,393			12,393	
Reverse repurchase agreements	77,240			77,240	
Trading portfolio assets	130,707	(11,674)		119,034	
Positive replacement values	118,227	11		118,239	
Cash collateral receivables on derivative instruments	23,434			23,434	
Loans	319,568	65		319,632	
Financial assets designated at fair value	58,933	(88)		58,844	
Financial assets available for sale	8,665	(31)		8,634	
Financial assets held to maturity	9,166			9,166	
Consolidated participations	0	102		102	
Investments in associates	1,018			1,018	
<i>of which: goodwill</i>	350			350	4
Property, equipment and software	8,829	(57)		8,772	
Goodwill and intangible assets	6,398			6,398	
<i>of which: goodwill</i>	6,182			6,182	4
<i>of which: intangible assets</i>	215			215	5
Deferred tax assets	9,844	0		9,844	
<i>of which: deferred tax assets recognized for tax loss carry-forwards</i>	5,743	0		5,742	8
<i>of which: deferred tax assets on temporary differences</i>	4,102	0		4,102	11
Other assets	29,706	(254)		29,453	
<i>of which: net defined benefit pension and other post-employment assets</i>	0			0	9
Total assets	915,642	(12,142)	0	903,500	

Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation (continued)

As of 31.12.17 CHF million	Balance sheet in accordance with IFRS scope of consolidation	Effect of deconsolidated entities for regulatory consolidation	Effect of additional consolidated entities for regulatory consolidation	Balance sheet in accordance with regulatory scope of consolidation	References ¹
Liabilities					
Due to banks	7,533	(34)		7,499	
Cash collateral on securities lent	1,789			1,789	
Repurchase agreements	15,255			15,255	
Trading portfolio liabilities	30,463			30,463	
Negative replacement values	116,133	9		116,143	
Cash collateral payables on derivative instruments	30,247			30,247	
Due to customers	408,999	(44)		408,955	
Financial liabilities designated at fair value	54,202	(103)		54,099	
Debt issued	139,551	(10)		139,541	
<i>of which: amount eligible for high-trigger loss-absorbing additional tier 1 capital²</i>	5,187			5,187	12
<i>of which: amount eligible for low-trigger loss-absorbing additional tier 1 capital²</i>	2,383			2,383	12
<i>of which: amount eligible for low-trigger loss-absorbing tier 2 capital³</i>	7,874			7,874	6
<i>of which: amount eligible for capital instruments subject to phase-out from tier 2 capital⁴</i>	689			689	7
Provisions	3,133			3,133	
Other liabilities	57,064	(11,915)		45,149	
<i>of which: amount eligible for high-trigger loss-absorbing capital (Deferred Contingent Capital Plan (DCCP))⁵</i>	1,152			1,152	12
<i>of which: deferred tax liabilities related to goodwill</i>	54			54	4
<i>of which: deferred tax liabilities related to other intangible assets</i>	1			1	5
Total liabilities	864,371	(12,097)	0	852,273	
Equity					
Share capital	385			385	1
Share premium	25,942			25,942	1
Treasury shares	(2,133)			(2,133)	3
Retained earnings	32,752	(154)		32,598	2
Other comprehensive income recognized directly in equity, net of tax	(5,732)	109		(5,622)	3
<i>of which: unrealized gains / (losses) from cash flow hedges</i>	351			351	10
Equity attributable to UBS Group AG shareholders	51,214	(45)	0	51,169	
Equity attributable to non-controlling interests	57			57	
Total equity	51,271	(45)	0	51,227	
Total liabilities and equity	915,642	(12,142)	0	903,500	

¹ References link the lines of this table to the respective reference numbers provided in the "References" column in the "Composition of capital" table. ² Represents IFRS carrying value. ³ IFRS carrying value is CHF 8,286 million. ⁴ IFRS carrying value is CHF 700 million. ⁵ IFRS carrying value is CHF 1,993 million. Refer to the "Compensation" section of our Annual Report 2017 for more information on the DCCP.

Quarterly | The table below and on the following pages provides the “Composition of capital” as defined by BCBS and FINMA. Reference is made to items reconciling to the balance sheet under the regulatory scope of consolidation as disclosed in the table “Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation.” Where relevant, the effect of phase-in arrangements is disclosed as well.

Refer to the documents “Capital instruments of UBS Group AG consolidated and UBS AG consolidated and standalone – Key features” and “UBS Group AG consolidated capital instruments and TLAC-eligible senior unsecured debt” under “Bondholder information” at www.ubs.com/investors for an overview of the main features of our regulatory capital instruments, as well as the full terms and conditions. ▲

Quarterly**Composition of capital**

As of 31.12.17	Numbers phase-in	Effect of the transition phase	References ¹
<i>CHF million, except where indicated</i>			
1	26,327		1
2	32,598		2
3	(7,756)		3
4			
5			
6	51,169		
7	(59)		
8	(5,183)	(1,296)	4
9	(214)		5
10	(4,637)	(1,159)	8
11	(351)		10
12	(634)		
13			
14	133		
15	0		9
16	(1,620)		12
17			
17a			
17b			
18			
19			
20			
21	(489)	(368)	11
22	0	0	
23			
24			
25			
26			
26a	(193)		
26b	(2,427)		
27	0		
28	(15,675)	(2,823)	

Composition of capital (continued)

As of 31.12.17		Numbers phase-in	Effect of the transition phase	References ¹
<i>CHF million, except where indicated</i>				
29	Common equity tier 1 capital (CET1)	35,494	(2,823)	
30	Directly issued qualifying additional tier 1 instruments plus related stock surplus	9,240	0	
31	<i>of which: classified as equity under applicable accounting standards</i>			
32	<i>of which: classified as liabilities under applicable accounting standards</i>	9,240		12
33	Directly issued capital instruments subject to phase-out from additional tier 1			
34	Additional tier 1 instruments (and CET1 instruments not included in line 5) issued by subsidiaries and held by third parties (amount allowed in Group AT1)			
35	<i>of which: instruments issued by subsidiaries subject to phase-out</i>			
36	Additional tier 1 capital before regulatory adjustments	9,240	0	
37	Investments in own additional tier 1 instruments			
38	Reciprocal crossholdings in additional tier 1 instruments			
38a	Qualifying interest where a controlling influence is exercised together with other owner (AT1 instruments)			
38b	Holdings in companies which are to be consolidated (AT1 instruments)			
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)			
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)			
41	National specific regulatory adjustments	(1,296)	1,296	
42	Regulatory adjustments applied to additional tier 1 due to insufficient tier 2 to cover deductions			
	Tier 1 adjustments on impact of transitional arrangements	(1,296)	1,296	
	<i>of which: goodwill net of tax, offset against additional loss-absorbing tier 1 capital</i>	<i>(1,296)</i>	<i>1,296</i>	
42a	Excess of the adjustments which are allocated to the common equity tier 1 capital			
43	Total regulatory adjustments to additional tier 1 capital	(1,296)	1,296	
44	Additional tier 1 capital (AT1)	7,944	1,296	
45	Tier 1 capital (T1 = CET1 + AT1)	43,438	(1,527)	
46	Directly issued qualifying tier 2 instruments plus related stock surplus ⁴	8,060	0	6, 12
47	Directly issued capital instruments subject to phase-out from tier 2	706	(706)	7
48	Tier 2 instruments (and CET1 and AT1 instruments not included in lines 5 or 34) issued by subsidiaries and held by third parties (amount allowed in Group tier 2)			
49	<i>of which: instruments issued by subsidiaries subject to phase-out</i>			
50	Provisions			
51	Tier 2 capital before regulatory adjustments	8,765	(706)	
52	Investments in own tier 2 instruments ⁵	(19)	17	6, 7
53	Reciprocal crossholdings in tier 2 instruments			
53a	Qualifying interest where a controlling influence is exercised together with other owner (tier 2 instruments)			
53b	Investments to be consolidated (tier 2 instruments)			
54	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above the 10% threshold)			
55	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)			
56	National specific regulatory adjustments			
56a	Excess of the adjustments which are allocated to the AT1 capital			
57	Total regulatory adjustments to tier 2 capital	(19)	17	
58	Tier 2 capital (T2)	8,747	(689)	
	<i>of which: high-trigger loss-absorbing capital</i>	<i>87</i>		<i>12</i>
	<i>of which: low-trigger loss-absorbing capital</i>	<i>7,874</i>		<i>6</i>
59	Total capital (TC = T1 + T2)	52,185	(2,216)	
	Amount with risk weight pursuant to the transitional arrangement (phase-in)		(900)	
	<i>of which: net defined benefit pension assets</i>			
	<i>of which: deferred tax assets on temporary differences</i>		900	

Composition of capital (continued)

As of 31.12.17	Numbers phase-in	Effect of the transition phase	References ¹
<i>CHF million, except where indicated</i>			
60	238,394	(900)	
Total risk-weighted assets			
Capital ratios and buffers			
61	14.9		
Common equity tier 1 (as a percentage of risk-weighted assets)			
62	18.2		
Tier 1 (pos 45 as a percentage of risk-weighted assets)			
63	21.9		
Total capital (pos 59 as a percentage of risk-weighted assets)			
64	6.5		
CET1 requirement (base capital, buffer capital and countercyclical buffer requirements) plus G-SIB buffer requirement, expressed as a percentage of risk-weighted assets ⁶			
65	1.3		
<i>of which: capital buffer requirement</i>			
66	0.2		
<i>of which: bank-specific countercyclical buffer requirement</i>			
67	0.5		
<i>of which: G-SIB buffer requirement</i>			
68	14.9		
Common equity tier 1 available to meet buffers (as a percentage of risk-weighted assets)			
68a–f			
Not applicable for systemically relevant banks according to FINMA Circular 11/2			
72	1,497		
Non-significant investments in the capital of other financials			
73	717		
Significant investments in the common stock of financials			
74	0		
Mortgage servicing rights, net of tax			
75	4,210		
Deferred tax assets arising from temporary differences, net of tax			
Applicable caps on the inclusion of provisions in tier 2			
76			
Provisions eligible for inclusion in tier 2 in respect of exposures subject to standardized approach (prior to application of cap)			
77			
Cap on inclusion of provisions in tier 2 under standardized approach			
78			
Provisions eligible for inclusion in tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)			
79			
Cap for inclusion of provisions in tier 2 under internal ratings-based approach			

¹ References link the lines of this table to the respective reference numbers provided in the "References" column in the "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation" table. ² IFRS netting for deferred tax assets and liabilities is reversed for items deducted from CET1 capital. ³ Includes CHF 606 million in DCCP-related charge for regulatory capital purposes. ⁴ Consists of loss-absorbing tier 2 capital of CHF 7,876 million, 45% of the gross unrealized gains on available-for-sale equity and debt instruments of CHF 97 million in line with BIS rules and Deferred Contingent Capital Plan instruments of CHF 87 million. ⁵ Consists of own instruments for loss-absorbing tier 2 capital of CHF 2 million and for phase-out tier 2 capital of CHF 17 million. ⁶ BCBS requirements are exceeded by our Swiss SRB requirements. Refer to the "Capital management" section of our Annual Report 2017 for more information on the Swiss SRB requirements.



Section 11 Leverage ratio

Basel III leverage ratio

Quarterly | The Basel Committee on Banking Supervision (BCBS) leverage ratio is calculated by dividing the period-end tier 1 capital by the period-end leverage ratio denominator (LRD). The LRD consists of IFRS on-balance sheet assets and off-balance sheet items. Derivative exposures are adjusted for a number of items, including replacement value and eligible cash variation margin netting, the current exposure method add-on and net notional amounts for written credit derivatives. The LRD also includes an additional charge for counterparty credit risk related to securities financing transactions. In addition, balance sheet assets deducted from our tier 1 capital are excluded from LRD, which leads to a difference between phase-in and fully applied LRD for deferred tax assets and net defined benefit pension plan assets.

The "Reconciliation of IFRS total assets to BCBS Basel III total on-balance sheet exposures excluding derivatives and securities financing transactions" table below shows the difference between total IFRS assets per IFRS consolidation scope and the BCBS total on-balance sheet exposures, which are the starting point for calculating the BCBS LRD as shown in the "BCBS Basel III leverage ratio common disclosure" table on the next page. The difference is due to the application of the regulatory scope of consolidation for the purpose of the BCBS calculation. In addition, carrying values for derivative financial instruments and securities financing transactions

are deducted from IFRS total assets. They are measured differently under BCBS leverage ratio rules and are therefore added back in separate exposure line items in the "BCBS Basel III leverage ratio common disclosure" table on the next page.

As of 31 December 2017, our BCBS Basel III leverage ratio was 4.7% on a fully applied basis and 4.9% on a phase-in basis. The BCBS Basel III LRD was CHF 886 billion on a fully applied basis and CHF 888 billion on a phase-in basis. Information on our Swiss SRB leverage ratio and the movement in our LRD on a fully applied basis compared with the prior quarter is provided on pages 57–58 of our fourth quarter 2017 report. ▲

Difference between the Swiss SRB and BCBS leverage ratio

Quarterly | The LRD is the same under Swiss SRB and BCBS rules. However, there is a difference in the capital numerator between the two frameworks. Under BCBS rules, only common equity tier 1 and additional tier 1 capital are included in the numerator. Under Swiss SRB we are required to meet going as well as gone concern leverage ratio requirements. Therefore, depending on the requirement, the numerator includes tier 1 capital instruments, tier 2 capital instruments and / or TLAC-eligible senior unsecured debt. ▲

Quarterly

Reconciliation of IFRS total assets to BCBS Basel III total on-balance sheet exposures excluding derivatives and securities financing transactions

CHF million	31.12.17	30.9.17	31.12.16
On-balance sheet exposures			
IFRS total assets	915,642	913,599	935,016
Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(12,142)	(10,505)	(15,488)
Adjustment for investments in banking, financial, insurance or commercial entities that are outside the scope of consolidation for accounting purposes but consolidated for regulatory purposes	0	0	0
Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	0	0	0
Less carrying value of derivative financial instruments in IFRS total assets ¹	(141,673)	(144,400)	(185,086)
Less carrying value of securities financing transactions in IFRS total assets ²	(114,895)	(123,932)	(96,352)
Adjustments to accounting values	0	0	0
On-balance sheet items excluding derivatives and securities financing transactions, but including collateral	646,933	634,762	638,091
Asset amounts deducted in determining BCBS Basel III tier 1 capital	(12,624)	(14,744)	(13,240)
Total on-balance sheet exposures (excluding derivatives and securities financing transactions)	634,309	620,018	624,850

¹ Consists of positive replacement values and cash collateral receivables on derivative instruments in accordance with the regulatory scope of consolidation. ² Consists of cash collateral on securities borrowed, reverse repurchase agreements, margin loans and prime brokerage receivables related to securities financing transactions in accordance with the regulatory scope of consolidation.

Quarterly I

BCBS Basel III leverage ratio common disclosure

<i>CHF million, except where indicated</i>		31.12.17	30.9.17	31.12.16
On-balance sheet exposures				
1	On-balance sheet items excluding derivatives and SFTs, but including collateral	646,933	634,762	638,091
2	(Asset amounts deducted in determining Basel III tier 1 capital)	(12,624)	(14,744)	(13,240)
3	Total on-balance sheet exposures (excluding derivatives and SFTs)	634,309	620,018	624,850
Derivative exposures				
4	Replacement cost associated with all derivatives transactions (i.e., net of eligible cash variation margin)	42,135	44,622	51,919
5	Add-on amounts for PFE associated with all derivatives transactions	89,205	87,122	84,156
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	0	0	0
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(12,481)	(13,090)	(14,667)
8	(Exempted CCP leg of client-cleared trade exposures)	(22,836)	(19,091)	(17,314)
9	Adjusted effective notional amount of all written credit derivatives ¹	94,031	108,523	128,079
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives) ²	(91,951)	(106,178)	(124,533)
11	Total derivative exposures	98,103	101,908	107,640
Securities financing transaction exposures				
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	191,696	194,383	167,822
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(76,802)	(70,451)	(71,470)
14	CCR exposure for SFT assets	9,269	8,716	8,366
15	Agent transaction exposures	0	0	0
16	Total securities financing transaction exposures	124,164	132,648	104,718
Other off-balance sheet exposures				
17	Off-balance sheet exposure at gross notional amount	93,090	94,760	112,024
18	(Adjustments for conversion to credit equivalent amounts)	(62,031)	(62,365)	(74,306)
19	Total off-balance sheet items	31,059	32,395	37,718
Total exposures (leverage ratio denominator), phase-in		887,635	886,969	874,925
(Additional asset amounts deducted in determining Basel III tier 1 capital fully applied)		(1,519)	(2,135)	(4,456)
Total exposures (leverage ratio denominator), fully applied		886,116	884,834	870,470
Capital and total exposures (leverage ratio denominator), phase-in				
20	Tier 1 capital	43,438	44,315	44,941
21	Total exposures (leverage ratio denominator)	887,635	886,969	874,925
Leverage ratio				
22	Basel III leverage ratio phase-in (%)	4.9	5.0	5.1
Capital and total exposures (leverage ratio denominator), fully applied				
20	Tier 1 capital	41,911	41,493	39,844
21	Total exposures (leverage ratio denominator)	886,116	884,834	870,470
Leverage ratio				
22	Basel III leverage ratio fully applied (%)	4.7	4.7	4.6

¹ Includes protection sold, including agency transactions. ² Protection sold can be offset with protection bought on the same underlying reference entity, provided that the conditions according to the Basel III leverage ratio framework and disclosure requirements are met.



Quarterly I

BCBS Basel III leverage ratio summary comparison

<i>CHF million</i>		31.12.17	30.9.17	31.12.16
1	Total consolidated assets as per published financial statements	915,642	913,599	935,016
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation ¹	(24,765)	(25,249)	(28,728)
3	Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	0	0	0
4	Adjustments for derivative financial instruments	(43,570)	(42,492)	(77,446)
5	Adjustment for securities financing transactions (i.e., repos and similar secured lending)	9,269	8,716	8,366
6	Adjustment for off-balance sheet items (i.e., conversion to credit equivalent amounts of off-balance sheet exposures)	31,059	32,395	37,718
7	Other adjustments	0	0	0
8	Leverage ratio exposure (leverage ratio denominator), phase-in	887,635	886,969	874,925

¹ This item includes assets that are deducted from tier 1 capital.

Quarterly I

BCBS Basel III leverage ratio

CHF million, except where indicated

	31.12.17	30.9.17	30.6.17	31.3.17	31.12.16
Phase-in					
Total tier 1 capital	43,438	44,315	43,421	43,182	44,941
BCBS total exposures (leverage ratio denominator)	887,635	886,969	862,975	883,408	874,925
BCBS Basel III leverage ratio (%)	4.9	5.0	5.0	4.9	5.1
Fully applied					
Total tier 1 capital	41,911	41,493	40,668	40,317	39,844
BCBS total exposures (leverage ratio denominator)	886,116	884,834	860,879	881,183	870,470
BCBS Basel III leverage ratio (%)	4.7	4.7	4.7	4.6	4.6

Section 12 Liquidity coverage ratio

High-quality liquid assets

Quarterly I High-quality liquid assets (HQLA) must be easily and immediately convertible into cash at little or no loss of value, especially during a period of stress. HQLA are assets that are of low risk and are unencumbered. Other characteristics of HQLA are ease and certainty of valuation, low correlation with risky assets, listing on a developed and recognized exchange, an

active and sizable market and low volatility. Based on these characteristics, HQLA are categorized as Level 1 (primarily central bank reserves and government bonds) or Level 2 (primarily US and European agency bonds as well as non-financial corporate covered bonds). Level 2 assets are subject to regulatory haircuts and caps. ▲

Quarterly I

High-quality liquid assets

	Average 4Q17 ¹			Average 3Q17 ¹			Average 4Q16 ¹		
	Level 1 weighted liquidity value ²	Level 2 weighted liquidity value ²	Total weighted liquidity value ²	Level 1 weighted liquidity value ²	Level 2 weighted liquidity value ²	Total weighted liquidity value ²	Level 1 weighted liquidity value ²	Level 2 weighted liquidity value ²	Total weighted liquidity value ²
<i>CHF billion</i>									
Cash balances ³	103	0	103	110	0	110	102	0	102
Securities	63	17	80	60	16	76	81	13	94
Total high-quality liquid assets⁴	166	17	183	170	16	186	184	13	196

¹ Calculated based on an average of 63 data points in the fourth quarter of 2017 and 64 data points in the third quarter of 2017. The fourth quarter of 2016 is based on a three-month average. ² Calculated after the application of haircuts. ³ Includes cash and balances with central banks and other eligible balances as prescribed by FINMA. ⁴ Calculated in accordance with FINMA requirements.



Liquidity coverage ratio

Quarterly | In the fourth quarter of 2017, our liquidity coverage ratio (LCR) increased by 1 percentage point to 143%, remaining above the 110% Group LCR minimum communicated by FINMA. The increase in LCR was mainly driven by lower average

net cash outflows related to secured financing transactions and unsecured loan inflows, partly offset by additional outflows resulting from higher deposit balances. These effects were mostly offset by a reduction in HQLA due to funding consumption by the business divisions. ▲

Quarterly |

Liquidity coverage ratio

		Average 4Q17 ¹		Average 3Q17 ¹		Average 4Q16 ¹	
		Unweighted value	Weighted value ²	Unweighted value	Weighted value ²	Unweighted value	Weighted value ²
<i>CHF billion, except where indicated</i>							
High-quality liquid assets							
1	High-quality liquid assets	186	183	188	186	198	196
Cash outflows							
2	Retail deposits and deposits from small business customers	237	26	231	25	235	26
3	<i>of which: stable deposits</i>	35	1	36	1	38	1
4	<i>of which: less stable deposits</i>	201	25	195	24	197	25
5	Unsecured wholesale funding	184	104	180	102	193	109
6	<i>of which: operational deposits (all counterparties)</i>	36	9	35	9	36	9
7	<i>of which: non-operational deposits (all counterparties)</i>	137	84	133	82	142	85
8	<i>of which: unsecured debt</i>	11	11	11	11	15	15
9	Secured wholesale funding		79		75		73
10	Additional requirements:	84	26	83	25	99	39
11	<i>of which: outflows related to derivatives and other transactions</i>	42	17	42	17	52	25
12	<i>of which: outflows related to loss of funding on debt products³</i>	0	0	0	0	1	1
13	<i>of which: committed credit and liquidity facilities</i>	42	9	41	8	47	14
14	Other contractual funding obligations	14	13	15	14	13	12
15	Other contingent funding obligations	248	6	222	5	207	7
16	Total cash outflows		254		247		266
Cash inflows							
17	Secured lending	293	83	271	76	266	71
18	Inflows from fully performing exposures	64	33	59	31	60	32
19	Other cash inflows	10	10	10	10	15	15
20	Total cash inflows	367	126	340	117	340	117

		Average 4Q17 ¹	Average 3Q17 ¹	Average 4Q16 ¹
		Total adjusted value ⁴	Total adjusted value ⁴	Total adjusted value ⁴
<i>CHF billion, except where indicated</i>				
Liquidity coverage ratio				
21	High-quality liquid assets	183	186	196
22	Net cash outflows	128	131	148
23	Liquidity coverage ratio (%)	143	142	132

¹ Calculated based on an average of 63 data points in the fourth quarter of 2017 and 64 data points in the third quarter of 2017. The fourth quarter of 2016 is based on a three-month average. ² Calculated after the application of inflow and outflow rates. ³ Includes outflows related to loss of funding on asset-backed securities, covered bonds, other structured financing instruments, asset-backed commercial papers, structured entities (conduits), securities investment vehicles and other such financing facilities. ⁴ Calculated after the application of haircuts and inflow and outflow rates as well as, where applicable, caps on Level 2 assets and cash inflows.

Section 13 Remuneration

Annual I Pillar 3 disclosures on remuneration are separately provided on pages 223 and 258–302 in our Annual Report 2017. ▲

Section 14 Requirements for global systemically important banks and related indicators

Annual 1 The Financial Stability Board (FSB) determined that UBS is a global systemically important bank (G-SIB), using an indicator-based methodology adopted by the BCBS. Banks that qualify as G-SIBs are required to disclose the 12 indicators for assessing the systemic importance of G-SIBs as defined by the BCBS. These indicators are used for the G-SIB score calculation and cover the five categories size, cross-jurisdictional activity, interconnectedness, substitutability / financial institution infrastructure and complexity.

Based on the published indicators, G-SIBs are subject to additional CET1 capital buffer requirements in the range from 1.0% to 3.5%. These requirements are phased in from

1 January 2016 to 31 December 2018 and become fully effective on 1 January 2019. In November 2017, the FSB determined that, based on the year-end 2016 indicators, the requirement for UBS is 1.0%. As our Swiss SRB Basel III capital requirements exceed the BCBS requirements including the G-SIB buffer, UBS is not affected by the above.

Our G-SIB indicators as of 31 December 2017 will be included in the UBS Group AG and significant regulated subsidiaries and sub-groups first quarter 2018 report, which will be published on 27 April 2018 under "Pillar 3 disclosures" at www.ubs.com/investors. ▲

Significant
regulated
subsidiaries and
sub-groups

Section 1 Introduction

The sections below include capital and other regulatory information as of 31 December 2017 for UBS AG standalone, UBS Switzerland AG standalone, UBS Limited standalone and UBS Americas Holding LLC consolidated. UBS AG consolidated capital and other regulatory information is provided in the UBS Group AG and UBS AG Annual Report 2017.

Capital information in this section is based on Pillar 1 capital requirements. Entities may be subject to significant additional Pillar 2 requirements, which represent additional amounts of capital considered necessary and agreed with regulators based on the risk profile of the entities.

Section 2 UBS AG standalone

Swiss SRB going concern requirements and information

Quarterly | UBS AG standalone is considered a systemically relevant bank (SRB) under Swiss banking law and is subject to capital regulations on a standalone basis. Under Swiss SRB regulations, article 125 “Reliefs for financial groups and individual institutions” of the Capital Adequacy Ordinance stipulates that the Swiss Financial Market Supervisory Authority (FINMA) may grant, under certain conditions, capital relief to individual institutions to ensure that an individual institution’s compliance with the capital requirements does not lead to a de facto overcapitalization of the group of which it is a part.

FINMA granted relief concerning the regulatory capital requirements of UBS AG on a standalone basis by means of decrees issued on 20 December 2013 and 20 October 2017, the latter effective as of 1 July 2017 and partly replacing the former.

The FINMA decree issued in 2017 newly establishes the measure of total going concern capital for UBS AG. Common equity tier 1 (CET1) and high-trigger additional tier 1 capital instruments are eligible as going concern capital, and low-trigger tier 2 capital instruments remain eligible until the earlier of (i) their maturity or the first call date or (ii) 31 December 2019.

Capital requirements based on risk-weighted assets (RWA) and leverage ratio denominator (LRD) are the same under both the phase-in and fully applied rules. The capital requirements based on RWA include a minimum CET1 capital requirement of 10% plus the effects from countercyclical buffers (CCBs), and a

total going concern capital requirement of 14.3% plus the effects from CCBs. The capital requirements based on LRD include a minimum CET1 capital requirement of 3.5% and a total going concern leverage ratio requirement of 5.0%. Compared with the requirements set by the December 2013 FINMA decree, the total capital requirement increased 0.3 percentage points and the total leverage ratio requirement increased 1.6 percentage points. Additionally, for direct and indirect investments, including holding of regulatory capital instruments of UBS AG in subsidiaries that are active in banking and finance, the new FINMA decree abolishes the threshold deduction approach by introducing a risk-weighting approach, with a phase-in period until 1 January 2028. Starting 1 July 2017, these investments have been risk-weighted at 200%. As of 1 January 2019, the risk weights will gradually be raised by 5 percentage points per year for Swiss-domiciled investments and by 20 percentage points per year for foreign-domiciled investments until the fully applied risk weights are 250% and 400%, respectively.

More information on this change is provided in “Section 2 UBS AG standalone” of the UBS Group AG and significant regulated subsidiaries and sub-groups third quarter 2017 Pillar 3 report available under “Pillar 3 disclosures” at www.ubs.com/investors. ▲

Swiss SRB going concern requirements and information

Quarterly I

Swiss SRB going concern requirements and information

As of 31.12.17 <i>CHF million, except where indicated</i>	Swiss SRB, including transitional arrangements (phase-in)				Swiss SRB after transition (fully applied)			
	RWA		LRD		RWA		LRD	
Required going concern capital	in % ¹		in % ¹		in %		in %	
Common equity tier 1 capital	10.02	27,809	3.50	20,990	10.02	36,610	3.50	20,984
<i>of which: minimum capital</i>	4.50	12,489	1.50	8,996	4.50	16,441	1.50	8,993
<i>of which: buffer capital</i>	5.50	15,264	2.00	11,995	5.50	20,095	2.00	11,991
<i>of which: countercyclical buffer²</i>	0.02	56			0.02	74		
Maximum additional tier 1 capital	4.30	11,934	1.50	8,996	4.30	15,711	1.50	8,993
<i>of which: high-trigger loss-absorbing additional tier 1 minimum capital</i>	3.50	9,714	1.50	8,996	3.50	12,788	1.50	8,993
<i>of which: high-trigger loss-absorbing additional tier 1 buffer capital</i>	0.80	2,220			0.80	2,923		
Total going concern capital	14.32 ³	39,743	5.00 ³	29,986	14.32 ³	52,320	5.00 ³	29,977
Eligible going concern capital								
Common equity tier 1 capital	17.43	48,374	8.07	48,374	13.19	48,178	8.04	48,178
High-trigger loss-absorbing additional tier 1 capital⁴	4.16	11,540	1.92	11,540	1.00	3,666	0.61	3,666
<i>of which: high-trigger loss-absorbing additional tier 1 capital</i>	1.32	3,666	0.61	3,666	1.00	3,666	0.61	3,666
<i>of which: low-trigger loss-absorbing tier 2 capital</i>	2.84	7,874	1.31	7,874				
Total going concern capital	21.59	59,914	9.99	59,914	14.19	51,845	8.65	51,845
Risk-weighted assets / leverage ratio denominator								
Risk-weighted assets	277,529				365,362			
Leverage ratio denominator			599,727				599,532	

¹ By FINMA decree, requirements on a phase-in basis exceed those based on the transitional arrangements of the Swiss Capital Adequacy Ordinance, i.e., a total going concern capital ratio requirement of 12% plus the effect of countercyclical buffer (CCB) requirements of 0.02%, of which 9% plus the effect of CCB requirements of 0.02% must be satisfied with CET1 capital, and a total going concern leverage ratio requirement of 3.5%, of which 2.6% must be satisfied with CET1 capital. ² Going concern capital ratio requirements as of 31 December 2017 include CCB requirements of 0.02% for the phase-in and fully applied requirement. ³ Includes applicable add-ons of 1.44% for RWA and 0.5% for LRD. ⁴ Includes outstanding low-trigger loss-absorbing tier 2 capital instruments, which are available under the transitional rules of the Swiss SRB framework to meet the going concern requirements until the earlier of (i) their maturity or first call date or (ii) 31 December 2019. Outstanding low-trigger loss-absorbing tier 2 capital instruments are subject to amortization starting five years prior to their maturity.

Quarterly I

Current and former Swiss SRB going concern information¹

	Swiss SRB, including transitional arrangements (phase-in)	Swiss SRB after transition (fully applied)	Former Swiss SRB (phase-in)
<i>CHF million, except where indicated</i>	31.12.17	31.12.17	31.12.16
Going concern capital			
Common equity tier 1 capital	48,374	48,178	51,331
Deductions from common equity tier 1 capital			(17,348)
Total common equity tier 1 capital	48,374	48,178	33,983
High-trigger loss-absorbing additional tier 1 capital	3,666	3,666	3,919
Low-trigger loss-absorbing additional tier 1 capital ²			1,071
Deductions from high- and low-trigger loss-absorbing additional tier 1 capital			(4,990)
Total loss-absorbing additional tier 1 capital	3,666	3,666	0
Total tier 1 capital	52,040	51,845	33,983
Low-trigger loss-absorbing tier 2 capital ³	7,874		10,402
Non-Basel III-compliant tier 2 capital ⁴			1,340
Deductions from tier 2 capital			(11,742)
Total tier 2 capital	7,874		0
Total going concern capital	59,914	51,845	
Total capital			33,983
Risk-weighted assets / leverage ratio denominator			
Risk-weighted assets	277,529	365,362	232,422
<i>of which: direct and indirect investments in Swiss-domiciled subsidiaries⁵</i>	<i>28,595</i>	<i>35,744</i>	
<i>of which: direct and indirect investments in foreign-domiciled subsidiaries⁵</i>	<i>80,684</i>	<i>161,368</i>	
Leverage ratio denominator	599,727	599,532	561,979
Capital ratios (%)			
Tier 1 capital ratio			14.6
Total capital ratio			14.6
Total going concern capital ratio	21.6	14.2	
<i>of which: CET1 capital ratio</i>	<i>17.4</i>	<i>13.2</i>	<i>14.6</i>
Leverage ratios (%)			
Tier 1 leverage ratio			6.0
Total leverage ratio			6.0
Total going concern leverage ratio	10.0	8.6	
<i>of which: CET1 leverage ratio</i>	<i>8.1</i>	<i>8.0</i>	<i>6.0</i>

1 The term "Going concern capital" is used in this table in reference to the information presented under the current Swiss SRB framework only and does not apply to the information presented under the former Swiss SRB framework. 2 The relevant capital instrument was issued after the new Swiss SRB framework had been implemented and therefore does not qualify as going concern capital. 3 Outstanding low-trigger loss-absorbing tier 2 capital instruments qualify as going concern capital until the earlier of (i) their maturity or first call date or (ii) 31 December 2019, and are subject to amortization starting five years prior to their maturity. 4 Non-Basel III-compliant tier 2 capital instruments do not qualify as going concern capital. 5 Carrying value for direct and indirect investments including holding of regulatory capital instruments in Swiss-domiciled subsidiaries is CHF 14,298 million, and for direct and indirect investments including holding of regulatory capital instruments in foreign-domiciled subsidiaries is CHF 40,342 million, currently risk weighted at 200%. Risk weights are gradually increased by 5% per year for Swiss-domiciled investments and 20% per year for foreign-domiciled investments starting 1 January 2019 until the fully applied risk weights of 250% and 400%, respectively, are applied.

Reconciliation of Swiss banking law equity to Swiss SRB common equity tier 1 capital

<i>CHF billion</i>	31.12.17	31.12.16
Equity – Swiss banking law¹	49.9	51.5
Deferred tax assets	0.5	1.2
Valuation differences for investments in subsidiaries	1.8	1.7
Deductions for investments in the finance sector		(17.3)
Goodwill and intangible assets	(0.4)	(0.4)
Accruals for proposed dividends to shareholders	(3.1)	(2.3)
Other	(0.4)	(0.5)
Common equity tier 1 capital (phase-in)	48.4	34.0

¹ Equity under Swiss banking law is adjusted to derive equity in accordance with IFRS and then further adjusted to derive common equity tier 1 (CET1) capital in accordance with Swiss SRB requirements.

Leverage ratio information

Quarterly I

Swiss SRB leverage ratio denominator

	Swiss SRB, including transitional arrangements (phase-in)	Swiss SRB after transition (fully applied)	Former Swiss SRB (phase-in)
<i>CHF billion</i>	31.12.17	31.12.17	31.12.16

Leverage ratio denominator

Swiss GAAP total assets	477.0	477.0	439.5
Difference between Swiss GAAP and IFRS total assets	112.6	112.6	151.3
Less: derivative exposures and SFTs ¹	(216.0)	(216.0)	(248.3)
On-balance sheet exposures (excluding derivative exposures and SFTs)	373.6	373.6	342.5
Derivative exposures	94.6	94.6	98.5
Securities financing transactions	101.8	101.8	93.5
Off-balance sheet items	31.6	31.6	40.7
Items deducted from Swiss SRB tier 1 capital	(1.7)	(1.9)	(13.2)
Total exposures (leverage ratio denominator)	599.7	599.5	562.0

¹ Consists of positive replacement values, cash collateral receivables on derivative instruments, cash collateral on securities borrowed, reverse repurchase agreements, margin loans and prime brokerage receivables related to securities financing transactions, which are presented separately under Derivative exposures and Securities financing transactions in this table.



Quarterly I

BCBS Basel III leverage ratio (phase-in)

<i>CHF million, except where indicated</i>	31.12.17	30.9.17	30.6.17	31.3.17	31.12.16
Total tier 1 capital	53,223	54,363	34,891	33,632	33,983
Total exposures (leverage ratio denominator)	599,727	597,002	566,091	577,990	561,979
BCBS Basel III leverage ratio (%)	8.9	9.1	6.2	5.8	6.0



Liquidity coverage ratio

Quarterly I UBS AG is required to maintain a minimum liquidity coverage ratio of 105% as communicated by FINMA. ▲

Quarterly I

Liquidity coverage ratio

<i>CHF billion, except where indicated</i>	Weighted value ¹	
	Average 4Q17 ²	Average 4Q16 ²
High-quality liquid assets	87	98
Total net cash outflows	66	76
<i>of which: cash outflows</i>	188	188
<i>of which: cash inflows</i>	123	112
Liquidity coverage ratio (%)	132	129

¹ Calculated after the application of haircuts and inflow and outflow rates. ² Calculated based on an average of 63 data points in the fourth quarter of 2017. The fourth quarter of 2016 is based on a three-month average.



Section 3 UBS Switzerland AG standalone

Swiss SRB going and gone concern requirements and information

Quarterly I UBS Switzerland AG is considered a systemically relevant bank (SRB) under Swiss banking law and is subject to capital regulations on a standalone basis. As of 31 December 2017, the phase-in going concern capital and leverage ratio requirements for UBS Switzerland AG standalone were 12.52% and 3.5%, respectively. The gone concern requirements on a phase-in basis were 5.33% for the RWA-based requirement and 1.72% for the LRD-based requirement. ▲

The Swiss SRB framework and requirements applicable to UBS Switzerland AG standalone are consistent with those applicable to UBS Group AG consolidated and are described in the “Capital management” section of the UBS Group AG Annual Report 2017.

- Refer to “Regulatory framework” in the “Capital Management” section of the UBS Group AG Annual Report 2017 for more information on loss-absorbing capacity, leverage ratio requirements and gone concern rebate
- Refer to “Additional information” in the “Capital Management” section of the UBS Group AG Annual Report 2017 for more information on the joint liability of UBS AG and UBS Switzerland AG

Quarterly I

Swiss SRB going and gone concern requirements and information¹

As of 31.12.17	Swiss SRB, including transitional arrangements (phase-in)				Swiss SRB as of 1.1.20 (fully applied)			
CHF million, except where indicated	RWA		LRD		RWA		LRD	
	in % ²		in %		in %		in %	
Required loss-absorbing capacity								
Common equity tier 1 capital	9.52	8,843	2.60	7,878	10.52	9,772	3.50	10,605
of which: minimum capital	5.80	5,388	2.10	6,363	4.50	4,180	1.50	4,545
of which: buffer capital	3.20	2,973	0.50	1,515	5.50	5,109	2.00	6,060
of which: countercyclical buffer ³	0.52	483			0.52	483		
Maximum additional tier 1 capital	3.00	2,787	0.90	2,727	4.30	3,994	1.50	4,545
of which: high-trigger loss-absorbing additional tier 1 minimum capital	2.20	2,044	0.90	2,727	3.50	3,251	1.50	4,545
of which: high-trigger loss-absorbing additional tier 1 buffer capital	0.80	743			0.80	743		
Total going concern capital	12.52	11,630	3.50	10,605	14.82 ⁴	13,767	5.00 ⁴	15,149
Base gone concern loss-absorbing capacity, including applicable add-ons and rebate	5.33 ⁵	4,953	1.72 ⁵	5,211	12.30 ⁶	11,424	4.30 ⁶	13,028
Total gone concern loss-absorbing capacity	5.33	4,953	1.72	5,211	12.30	11,424	4.30	13,028
Total loss-absorbing capacity	17.85	16,583	5.22	15,816	27.12	25,191	9.30	28,178
Eligible loss-absorbing capacity								
Common equity tier 1 capital	10.94	10,160	3.35	10,160	10.94	10,160	3.35	10,160
High-trigger loss-absorbing additional tier 1 capital	3.23	3,000	0.99	3,000	3.23	3,000	0.99	3,000
of which: high-trigger loss-absorbing additional tier 1 capital	3.23	3,000	0.99	3,000	3.23	3,000	0.99	3,000
Total going concern capital	14.17	13,160	4.34	13,160	14.17	13,160	4.34	13,160
Gone concern loss-absorbing capacity	9.04	8,400	2.77	8,400	9.04	8,400	2.77	8,400
of which: TLAC-eligible debt	9.04	8,400	2.77	8,400	9.04	8,400	2.77	8,400
Total gone concern loss-absorbing capacity	9.04	8,400	2.77	8,400	9.04	8,400	2.77	8,400
Total loss-absorbing capacity	23.21	21,560	7.12	21,560	23.21	21,560	7.12	21,560
Risk-weighted assets / leverage ratio denominator								
Risk-weighted assets		92,894				92,894		
Leverage ratio denominator				302,987				302,987

Risk-weighted assets / leverage ratio denominator

Risk-weighted assets	92,894
Leverage ratio denominator	302,987

¹ This table includes a rebate equal to 35% of the maximum rebate on the gone concern requirements, which was granted by FINMA. This resulted in a reduction of 2.0 percentage points for the RWA-based requirement and 0.7 percentage points for the LRD-based requirement and will be phased in until 1 January 2020. Refer to the “Capital management” section of the UBS Group AG Annual Report 2017 for more information. ² The total loss-absorbing capacity ratio requirement of 17.85% is the current phase-in requirement according to the Swiss Capital Adequacy Ordinance including the aforementioned rebate on the gone concern requirements. In addition, FINMA has defined a total capital ratio requirement, which is the sum of 14.4% and the effect of countercyclical buffer (CCB) requirements of 0.52%, of which 10% plus the effect of CCB requirements must be satisfied with CET1 capital. These FINMA requirements will be effective until they are exceeded by the Swiss SRB phase-in requirements. ³ Going concern capital ratio requirements include CCB requirements of 0.52% for the phase-in and fully applied requirement. ⁴ Includes applicable add-ons of 1.44% for RWA and 0.5% for LRD. ⁵ Includes applicable add-ons of 0.36% for RWA and 0.13% for LRD and a rebate of 0.87% for RWA and 0.28% for LRD. ⁶ Includes applicable add-ons of 1.44% for RWA and 0.5% for LRD and a rebate of 2% for RWA and 0.7% for LRD.

Swiss SRB loss-absorbing capacity

Quarterly I

Swiss SRB going and gone concern information

CHF million, except where indicated	Swiss SRB, including transitional arrangements (phase-in)		Swiss SRB as of 1.1.20 (fully applied)	
	31.12.17	31.12.16	31.12.17	31.12.16
Going concern capital				
Common equity tier 1 capital	10,160	10,416	10,160	10,416
High-trigger loss-absorbing additional tier 1 capital	3,000	1,235 ¹	3,000	2,000
Total tier 1 capital	13,160	11,651	13,160	12,416
Total going concern capital	13,160	11,651	13,160	12,416
Gone concern loss-absorbing capacity				
High-trigger loss-absorbing additional tier 1 capital		765 ¹		
Low-trigger loss-absorbing tier 2 capital		2,500 ¹		2,500
TLAC-eligible debt	8,400		8,400	
Total gone concern loss-absorbing capacity	8,400	3,265	8,400	2,500
Total loss-absorbing capacity				
Total loss-absorbing capacity	21,560	14,916	21,560	14,916
Risk-weighted assets / leverage ratio denominator				
Risk-weighted assets	92,894	93,281	92,894	93,281
Leverage ratio denominator	302,987	306,586	302,987	306,586
Capital and loss-absorbing capacity ratios (%)				
Going concern capital ratio	14.2	12.5	14.2	13.3
of which: common equity tier 1 capital ratio	10.9	11.2	10.9	11.2
Gone concern loss-absorbing capacity ratio	9.0	3.5	9.0	2.7
Total loss-absorbing capacity ratio	23.2	16.0	23.2	16.0
Leverage ratios (%)				
Going concern leverage ratio	4.3	3.8	4.3	4.0
of which: common equity tier 1 leverage ratio	3.4	3.4	3.4	3.4
Gone concern leverage ratio	2.8	1.1	2.8	0.8
Total loss-absorbing capacity leverage ratio	7.1	4.9	7.1	4.9

¹ Under the Swiss SRB rules, going concern capital includes CET1 and high-trigger loss-absorbing additional tier 1 capital. Outstanding low-trigger loss-absorbing tier 2 capital instruments would qualify as going concern capital until the earlier of (i) their maturity or first call date or (ii) 31 December 2019. However, as of 31 December 2016, CHF 765 million of high-trigger loss-absorbing additional tier 1 capital as well as the total low-trigger loss-absorbing tier 2 capital of CHF 2,500 million was used to meet the gone concern requirements.

Reconciliation of Swiss banking law equity to Swiss SRB common equity tier 1 capital

CHF billion	31.12.17	31.12.16
Equity – Swiss banking law¹	14.8	13.5
Deferred tax assets	0.5	0.7
Goodwill and intangible assets	(2.4)	(3.4)
Accruals for proposed dividends to shareholders	(2.4)	0.2 ²
Other	(0.3)	(0.1)
Common equity tier 1 capital (phase-in)	10.2	10.4

¹ Equity under Swiss banking law is adjusted to derive equity in accordance with IFRS and then further adjusted to derive common equity tier 1 (CET1) capital in accordance with Swiss SRB requirements. ² In December 2016, an extraordinary dividend of CHF 2 billion was paid.

Leverage ratio information

Quarterly I

Swiss SRB leverage ratio denominator

CHF billion	Swiss SRB, including transitional arrangements (phase-in)		Swiss SRB as of 1.1.20 (fully applied)	
	31.12.17	31.12.16	31.12.17	31.12.16
Leverage ratio denominator				
Swiss GAAP total assets	290.3	294.5	290.3	294.5
Difference between Swiss GAAP and IFRS total assets	1.3	1.5	1.3	1.5
Less: derivative exposures and SFTs ¹	(39.6)	(32.3)	(39.6)	(32.3)
On-balance sheet exposures (excluding derivative exposures and SFTs)	252.0	263.7	252.0	263.7
Derivative exposures	4.0	4.7	4.0	4.7
Securities financing transactions	35.3	26.4	35.3	26.4
Off-balance sheet items	12.2	12.0	12.2	12.0
Items deducted from Swiss SRB tier 1 capital	(0.5)	(0.3)	(0.5)	(0.3)
Total exposures (leverage ratio denominator)	303.0	306.6	303.0	306.6

¹ Consists of positive replacement values, cash collateral receivables on derivative instruments, cash collateral on securities borrowed, reverse repurchase agreements, margin loans and prime brokerage receivables related to securities financing transactions, which are presented separately under Derivative exposures and Securities financing transactions in this table.

Quarterly I

BCBS Basel III leverage ratio (phase-in)

CHF million, except where indicated	31.12.17	30.9.17	30.6.17	31.3.17	31.12.16
Total tier 1 capital	13,160	12,272	12,276	12,373	12,416
Total exposures (leverage ratio denominator)	302,987	305,229	308,917	312,371	306,586
BCBS Basel III leverage ratio (%)	4.3	4.0	4.0	4.0	4.0

Liquidity coverage ratio

Quarterly I UBS Switzerland AG, as a Swiss SRB, is required to maintain a minimum liquidity coverage ratio of 100%. ▲

Quarterly I

Liquidity coverage ratio

CHF billion, except where indicated	Weighted value ¹	
	Average 4Q17 ²	Average 4Q16 ²
High-quality liquid assets	69	75
Total net cash outflows	48	63
of which: cash outflows	89	97
of which: cash inflows	41	34
Liquidity coverage ratio (%)	144	120

¹ Calculated after the application of haircuts and inflow and outflow rates. ² Calculated based on an average of 63 data points in the fourth quarter of 2017. The fourth quarter of 2016 is based on a three-month average.

Capital instruments

Quarterly I

Capital instruments of UBS Switzerland AG – key features

Presented according to issuance date.

	Share capital	Additional tier 1 capital		
1 Issuer (country of incorporation; if applicable, branch)	UBS Switzerland AG, Switzerland	UBS Switzerland AG, Switzerland	UBS Switzerland AG, Switzerland	UBS Switzerland AG, Switzerland
1a Instrument number	1	2	3	4
2 Unique identifier (e.g., ISIN)	N/A	N/A	N/A	N/A
3 Governing law(s) of the instrument	Swiss	Swiss	Swiss	Swiss
Regulatory treatment				
4 Transitional Basel III rules ¹	CET1 – Going concern capital	Additional tier 1 – Going concern capital		
5 Post-transitional Basel III rules ²	CET1 – Going concern capital	Additional tier 1 – Going concern capital		
6 Eligible at solo / group / group and solo	UBS Switzerland AG standalone	UBS Switzerland AG standalone		
7 Instrument type	Ordinary shares	Loan ⁴		
8 Amount recognized in regulatory capital (currency in million, as of most recent reporting date) ¹	CHF 10.0	CHF 1,500	CHF 500	CHF 1,000
9 Outstanding amount (par value, million)	CHF 10.0	CHF 1,500	CHF 500	CHF 1,000
10 Accounting classification ³	Equity attributable to UBS Switzerland AG shareholders	Due to banks held at amortized cost		
11 Original date of issuance	–	1 April 2015	11 March 2016	18 December 2017
12 Perpetual or dated	–	Perpetual		
13 Original maturity date	–	–		
14 Issuer call subject to prior supervisory approval	–	Yes		
15 Optional call date, subsequent call dates, if applicable, and redemption amount	–	First optional repayment date: 1 April 2020	First optional repayment date: 11 March 2021	First optional repayment date: 18 December 2022
16 Contingent call dates and redemption amount	–	Repayable at any time after the first optional repayment date. Repayment subject to FINMA approval. Optional repayment amount: principal amount, together with any accrued and unpaid interest thereon. Early repayment possible due to a tax or regulatory event. Repayment due to tax event subject to FINMA approval. Repayment amount: principal amount, together with accrued and unpaid interest		

Quarterly I

Capital instruments of UBS Switzerland AG – key features (continued)

Coupons / dividend				
17	Fixed or floating dividend / coupon	–	Floating	
18	Coupon rate and any related index; frequency of payment	–	6-month CHF Libor + 370 bps per annum semiannually	3-month CHF Libor + 459 bps per annum quarterly
19	Existence of a dividend stopper	–	No	
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary	Fully discretionary	
21	Existence of step-up or other incentive to redeem	–	No	
22	Non-cumulative or cumulative	Non-cumulative	Non-cumulative	
23	Convertible or non-convertible	–	Non-convertible	
24	If convertible, conversion trigger(s)	–	–	
25	If convertible, fully or partially	–	–	
26	If convertible, conversion rate	–	–	
27	If convertible, mandatory or optional conversion	–	–	
28	If convertible, specify instrument type convertible into	–	–	
29	If convertible, specify issuer of instrument it converts into	–	–	
30	Write-down feature	–	Yes	
31	If write-down, write-down trigger(s)	–	Trigger: CET1 ratio is less than 7% FINMA determines a write-down necessary to ensure UBS Switzerland AG's viability; or UBS Switzerland AG receives a commitment of governmental support that FINMA determines necessary to ensure UBS Switzerland AG's viability. Subject to applicable conditions	
32	If write-down, full or partial	–	Full	
33	If write-down, permanent or temporary	–	Permanent	
34	If temporary write-down, description of write-up mechanism	–	–	
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	Unless otherwise stated in the Articles of Association, once debts are paid back, the assets of the liquidated company are divided between the shareholders pro rata based on their contributions and considering the preferences attached to certain categories of shares (article 745, Swiss Code of Obligations)	Subject to any obligations that are mandatorily preferred by law, all obligations of UBS Switzerland AG that are unsubordinated or that are subordinated and do not rank junior, such as all classes of share capital, or at par, such as tier 1 instruments	
36	Existence of features, that prevent full recognition under Basel III	–	–	
37	If yes, specify non-compliant features	–	–	

1 Based on Swiss SRB phase-in (including transitional arrangement) requirements. 2 Based on Swiss SRB requirements applicable as of 1 January 2020. 3 As applied in UBS Switzerland AG's financial statements under Swiss GAAP. 4 Loans granted by UBS AG, Switzerland.



Section 4 UBS Limited standalone

Quarterly I The table below includes required information on the regulatory capital components and capital ratios, as well as leverage ratio, of UBS Limited standalone based on the Pillar 1 capital requirements. Entities may also be subject to significant

Pillar 2 requirements, which represent additional amounts of capital considered necessary and agreed with regulators based on the risk profile of the entities. ▲

Quarterly I

Prudential key figures^{1,2}

<i>GBP million, except where indicated</i>	31.12.17	31.12.16
1 Minimum capital requirement (8% of RWA)	838	886
2 Eligible capital	3,263	3,442
3 of which: common equity tier 1 (CET1) capital	2,344	2,521
4 of which: tier 1 capital	2,579	2,756
5 Risk-weighted assets	10,473	11,081
6 CET1 capital ratio in % of RWA	22.4	22.8
7 Tier 1 capital ratio in % of RWA	24.6	24.9
8 Total capital ratio in % of RWA	31.2	31.1
9 Countercyclical buffer (CCB) in % of RWA	0.1	0.0
10 CET1 capital requirement (including CCB) (%)	5.8	5.1
11 Tier 1 capital requirement (including CCB) (%)	7.3	6.6
12 Total capital requirement (including CCB) (%)	9.3	8.6
13 Basel III leverage ratio (%) ²	7.1	7.7
14 Leverage ratio denominator	36,409	35,793
15 Liquidity coverage ratio ³	454	
16 Numerator: High-quality liquid assets	5,758	
17 Denominator: Net cash outflows	1,317	

¹ Based on Directive 2013/36/EU and Regulation 575/2013 (together known as "CRD IV") and their related technical standards, as implemented in the UK by the Prudential Regulation Authority. ² On the basis of tier 1 capital. ³ The values represent a twelve-month average of the respective month-end balances in 2017 in line with the European Banking Authority guidelines on the liquidity coverage ratio disclosure (EBA/GL/2017/01). Including PRA Pillar 2 requirements, the equivalent average ratio for 2017 was 187%. There was no local disclosure requirement for liquidity coverage ratio for UBS Limited as of 31 December 2016.

Section 5 UBS Americas Holding LLC consolidated

Quarterly I The table below includes required information on the regulatory capital components and capital ratios, as well as leverage ratio, of UBS Americas Holding LLC consolidated based on Pillar 1 capital requirements. Entities may also be subject to

significant Pillar 2 requirements, which represent additional amounts of capital considered necessary and agreed with regulators based on the risk profile of the entities. ▲

Quarterly I

Prudential key figures^{1,2}

<i>USD million, except where indicated</i>	31.12.17	31.12.16
1 Minimum capital requirement (8% of RWA)	3,965	4,119
2 Eligible capital	12,739	12,320
3 of which: common equity tier 1 (CET1) capital	10,839	11,598
4 of which: tier 1 capital	12,017	11,598
5 Risk-weighted assets	49,558	51,488
6 CET1 capital ratio in % of RWA	21.9	22.5
7 Tier 1 capital ratio in % of RWA	24.2	22.5
8 Total capital ratio in % of RWA	25.7	23.9
9 Countercyclical buffer (CCB) in % of RWA		
10 CET1 capital requirement (including CCB) (%)	5.8	5.1
11 Tier 1 capital requirement (including CCB) (%)	7.3	6.6
12 Total capital requirement (including CCB) (%)	9.3	8.6
13 Basel III leverage ratio (%) ³	8.9	8.3
14 Leverage ratio denominator	135,705	140,112

¹ For UBS Americas Holding LLC based on applicable US Basel III rules. ² There is no local disclosure requirement for liquidity coverage ratio for UBS Americas Holding LLC as of 31 December 2017. ³ On the basis of tier 1 capital.

Abbreviations frequently used in our financial reports

A					
ABS	asset-backed security	CMBS	commercial mortgage-backed security	FRA	forward rate agreement
AGM	annual general meeting of shareholders	CM	credit risk mitigation	FSA	UK Financial Services Authority
A-IRB	advanced internal ratings-based	COP	close-out period	FSB	Financial Stability Board
AIV	alternative investment vehicle	CRM	credit risk mitigation (credit risk) or comprehensive risk measure (market risk)	FTD	first to default
AMA	advanced measurement approach	CVA	credit valuation adjustment	FTP	funds transfer price
ASFA	advanced supervisory formula approach			FVA	funding valuation adjustment
AT1	additional tier 1			FX	foreign exchange
B					
BCBS	Basel Committee on Banking Supervision	DOJ	Department of Justice	GAAP	generally accepted accounting principles
BD	business division	DTA	deferred tax asset	GBP	British pound
BIS	Bank for International Settlements	DTL	deferred tax liability	GEB	Group Executive Board
BoD	Board of Directors	DVA	debit valuation adjustment	GIIPS	Greece, Italy, Ireland, Portugal and Spain
BVG	Swiss occupational pension plan			Group ALM	Group Asset and Liability Management
C					
CC	Corporate Center			G-SIB	global systemically important bank
CCAR	Comprehensive Capital Analysis and Review	E			
CCF	credit conversion factor	EAD	exposure at default		
CCP	central counterparty	EC	European Commission		
CCR	counterparty credit risk	ECAI	external credit assessment institutions	H	
CDO	collateralized debt obligation	ECB	European Central Bank	HQLA	high-quality liquid assets
CDR	constant default rate	EEPE	effective expected positive exposure		
CDS	credit default swap	EPE	expected positive exposure	I	
CEA	Commodity Exchange Act	EIR	effective interest rate	IAA	internal assessment approach
CEM	current exposure method	EL	expected loss	IAS	International Accounting Standards
CEO	Chief Executive Officer	EMEA	Europe, Middle East and Africa	IASB	International Accounting Standards Board
CET1	common equity tier 1	EOP	Equity Ownership Plan	IFRS	International Financial Reporting Standards
CFO	Chief Financial Officer	EPS	earnings per share	IMM	internal model method
CHF	Swiss franc	ETD	exchange-traded derivatives	IMA	internal models approach
CLN	credit-linked note	ETF	exchange-traded fund	IRB	internal ratings-based
CLO	collateralized loan obligation	EU	European Union	IRC	incremental risk charge
		EUR	euro	ISDA	International Swaps and Derivatives Association
		EURIBOR	Euro Interbank Offered Rate		
D					
		DBO	defined benefit obligation		
		DCCP	Deferred Contingent Capital Plan		
F					
		FCA	UK Financial Conduct Authority		
		FCT	foreign currency translation		
		FDIC	Federal Deposit Insurance Corporation		
		FINMA	Swiss Financial Market Supervisory Authority		

Abbreviations frequently used in our financial reports (continued)

K		R		T	
KPI	key performance indicator	RBA	ratings-based approach	TBTF	too big to fail
L		RLN	reference-linked note	TLAC	total loss-absorbing capacity
LAC	loss-absorbing capital	RMBS	residential mortgage-backed security	TRS	total return swap
LAS	liquidity-adjusted stress	RniV	risks-not-in-VaR	U	
LCR	liquidity coverage ratio	RoAE	return on attributed equity	USD	US dollar
LGD	loss given default	RoE	return on equity	V	
LIBOR	London Interbank Offered Rate	RoTE	return on tangible equity	VaR	value-at-risk
LRD	leverage ratio denominator	RV	replacement value		
LTV	loan-to-value	RW	risk weight		
		RWA	risk-weighted assets		
M		S			
MTN	medium-term note	SA	standardized approach		
N		SA-CCR	standardized approach for counterparty credit risk		
NAV	net asset value	SE	structured entity		
NCPA	non-counterparty-related risk	SEC	US Securities and Exchange Commission		
NPA	non-prosecution agreement	SEEOP	Senior Executive Equity Ownership Plan		
NRV	negative replacement value	SSFA	simplified supervisory formula approach		
NSFR	net stable funding ratio	SFA	supervisory formula approach		
O		SFT	securities financing transaction		
OCI	other comprehensive income	SME	small and medium enterprises		
OTC	over-the-counter	SNB	Swiss National Bank		
P		SRB	systemically relevant bank		
PD	probability of default	SRM	specific risk measure		
PFE	potential future exposure	SVaR	stressed value-at-risk		
P&L	profit and loss				
PRA	UK Prudential Regulation Authority				
PRV	positive replacement value				
Q					
QRRE	qualifying revolving retail exposures				

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Tables | Within tables, blank fields generally indicate that the field is not applicable or not meaningful, or that information is not available as of the relevant date or for the relevant period. Zero values generally indicate that the respective figure is zero on an actual or rounded basis. Percentage changes are presented as a mathematical calculation of the change between periods.

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