UBS

Basel III Pillar 3

UBS Group AG 2016 report

Table of contents

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Section 1 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 for our significant regulated subsidiaries and subgroups. Information provided in our Annual Report 2016 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 discretionary 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 information as of 31 December 2016 for UBS Group AG (consolidated) is provided in the "Capital management" section of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*. UBS AG (consolidated) capital and leverage ratio information is provided in the UBS Group AG and UBS AG Annual Report 2016 under "Annual Reporting" at *www.ubs.com/investors*.

We are also required to disclose total and tier 1 capital, leverage and liquidity coverage ratios for the significant banking subsidiaries UBS AG, UBS Switzerland AG and UBS Limited, as well as the significant subgroup under our US intermediate holding company UBS Americas Holding LLC. Prudential key figures are provided in section 16 of this report. Additional capital and other regulatory information for UBS AG (standalone), UBS Switzerland AG (standalone), UBS Limited (standalone) and UBS Americas Holding LLC (consolidated) is available under "Disclosure for legal entities" at *www.ubs.com/investors*.

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

Revised Pillar 3 disclosure requirements, effective 31 December 2016

In January 2015, the Basel Committee on Banking Supervision (BCBS) issued revised Pillar 3 disclosure requirements that aim to improve comparability and consistency of disclosures through the introduction of harmonized templates. In October 2015, FINMA published its associated Pillar 3 disclosure requirements for Swiss banking institutions in Circular 2016/01 *Disclosures - banks*. In addition, in August 2016, BCBS issued further guidance in its *Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)*. Finally, in December 2016, FINMA issued additional disclosure requirements relating to the Swiss too big to fail (TBTF) provisions within its Circular 2016/01, *Disclosures - banks*. The Pillar 3 disclosures in this report or in other publications as referenced within this report are based on these revised requirements.

The revised Pillar 3 disclosure requirements include information on risk management, the linkage between our financial statements and our regulatory exposures, credit risk, securitization and market risk. The main changes in comparison with the former Pillar 3 disclosure requirements are as follows:

- The revised Pillar 3 disclosure templates provide a stronger link between regulatory exposures and the Financial Statements prepared under International Financial Reporting Standards (IFRS) by introducing new tables as provided in Section 3 of this report.
- Counterparty credit risk (CCR) is now separately disclosed from credit risk. CCR includes over-the-counter (OTC) and exchanged-traded derivatives (ETD), securities financing transactions (SFTs) and long settlement transactions.
- Asset classes are now reported in accordance with FINMA disclosure requirements, whereas previously the BIS-defined exposure segments were used. Refer to "FINMA-defined asset classes" further in this section for more information.
- Revised Pillar 3 disclosure requirements include narrative commentary on significant changes over the reporting period and the key driver of such changes for many of the required templates. As noted below under "Frequency and comparability of Pillar 3 disclosures," comparative figures and movement commentary will be provided at the end of the first relevant reporting period in 2017.
- Additional disclosures under the Swiss SRB framework are provided, including detailed disclosure of the Swiss SRB going and gone concern capital information.

Pillar 3 disclosure requirements for operational risk, interest rate risk in the banking book, eligible capital, leverage ratio, liquidity coverage ratio and remuneration are unchanged as of 31 December 2016 compared with 31 December 2015.

Regulatory developments

Further information on regulatory developments from BCBS and FINMA is provided on pages 23–26 in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Frequency and comparability of Pillar 3 disclosures

FINMA has specified the reporting frequency for each disclosure as either annual, semi-annual or quarterly. Comparative period information and commentary provided on movements in the period must be provided in line with this FINMA-specified frequency, as outlined in the table below. As a result, movement commentary for tables in this report is provided either for the quarter, semi-annual or annual period as prescribed by FINMA.

For the first-time publication of new disclosure requirements at 31 December 2016, comparative period information and related commentary on movements in the period are not required and have been provided only in a few instances where the disclosure is substantially unchanged from prior-period reporting. Accordingly, full comparative figures and movement commentary will be provided at the end of the first relevant reporting period in 2017.

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[1]
LI1	Differences between accounting and regulatory scopes of consolidation and mapping of financial statements with regulatory risk categories	CCRA	Qualitative disclosure related to counterparty credit risk
LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements	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 disclosure 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 techniques	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 IRB models		
Semi-annual 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[1]	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 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 (specialized lending and equities under the simple risk weight method)	SEC4	Securitization exposures in the banking book and associated 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 of CCR exposures by regulatory portfolio and risk weights	MR4	Comparison of 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[1]	N/A	Leverage ratio
CCR7	RWA flow statements of CCR exposures under the internal model method (IMM) [1]	N/A	Liquidity coverage ratio
MR2	RWA flow statements of market risk exposures under an IMA[1]	N/A	Prudential key figures for our significant regulated subsidiaries and subgroups

[1] Disclosure is not required as of 31 December 2016.

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. Revised Pillar 3 requirements are presented under the relevant FINMA table / template reference (e.g., OVA, OV1, LI1, etc.). Pillar 3 disclosures may also include column or row labelling (a, b, c, 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. The securities firms included carry a broker / dealer license issued in the European Union, a G-10 country or Australia.
- 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 BIS, 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 that do not fit into any of the other asset classes. This segment 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.

Governance over Pillar 3 disclosures

The Board of Directors 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 established a board-approved Basel III Pillar 3 disclosure governance policy 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 separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

OVA – Bank risk management approach

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 page number
Business model and risk profile	Operating environment and strategy	– Current market climate and industry trends	18–20
		– Risk factors	44–55
	Risk, treasury and capital management	– Overview of risks arising from our business activities	117–118
		– Risk categories	119
		– Top and emerging risks	120
		– Risk appetite framework	122–125
		– Risk management and control principles	123
		– Risk measurement	125–128
		– Credit risk – Key developments, Main sources of credit risk, Overview of measurement, monitoring and management techniques	129
		– 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 governance	Risk, treasury and capital management	– Risk categories	119
		– Risk governance	121–122
		– Treasury management – Strategy, objectives and governance	168
		– Capital management – Capital planning and Capital management activities	184
Communication and enforcement of risk culture within the bank.	Risk, treasury and capital management	– Risk governance	121–122
		– Risk appetite framework	122–125
		– Internal risk reporting	125
		– Operational risk framework	165
Scope and main features of risk measurement systems	Risk, treasury and capital management	– Risk measurement	125–128
		– Credit risk – Overview of measurement, monitoring and management techniques	129
		– Market risk – Overview of measurement, monitoring and management techniques	148
		– Country risk exposure measure	159–163
		– Advanced measurement approach model	166–167
Risk information reporting	Risk, treasury and capital management	– Risk governance	121–122
		– Risk management and control principles	123
		– Internal risk reporting	125
Stress testing	Risk, treasury and capital management	– Risk appetite framework	122–125
		– Stress testing	125–127
		– Credit risk models: Stress loss	142
		– Market risk stress loss	149
		– Interest rate risk in the banking book	153–157
		– Other market risk exposures	157–158
		– Treasury risk: Stress testing	173
Strategies and processes applied to manage, hedge and mitigate risks	Risk, treasury and capital management	– Risk management and control principles	123
		– Credit risk – Overview of measurement, monitoring and management techniques	129
		– Credit risk mitigation	137–139
		– 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	159–163
		– Operational risk framework	165
		– Liabilities and funding management	174–177
		– Currency management	182
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	359–365

Our approach to measuring risk exposure and risk-weighted assets

Measures of risk exposure may differ, depending on whether the exposures are calculated 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 used to derive the regulatory capital required to underpin those risks.

The table below provides a summary of the approaches we use for the main risk categories to derive the regulatory risk exposure and risk-weighted assets (RWA). Our RWA are calculated according to the BIS 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 4 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: – *Advanced internal ratings-based (A-IRB) approach*, applied for the majority of our businesses. Counterparty risk weights are determined by reference to internal probability of default and loss given default estimates. – *Standardized approach (SA)*, 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 2 Regulatory exposures and risk-weighted assets.	The IFRS carrying value is the basis for measuring non-counterparty-related risk 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 4 Credit risk.	The IFRS carrying value is the basis for measuring risk exposure for equity securities held in our banking book.	We measure the RWA from equity positions in the banking book by applying prescribed regulatory risk weights to our listed and unlisted equity exposures.
II. Counterparty credit risk			
Counterparty credit risk	Counterparty credit risk is the risk that a counterparty for OTC derivatives, ETDs or securities financing transactions 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. Refer to Section 5 Counterparty credit risk.	We primarily use internal models to measure counterparty credit risk exposures to third parties. All internal models are approved by FINMA. – *For OTC derivatives and ETDs* we apply the effective expected positive exposure (EEPE) and stressed expected positive exposure (stressed EPE) as defined in the Basel III framework. – *For SFTs* we apply the close-out period approach. In certain instances where risk models are not available: – *Exposure on OTC derivatives and ETDs* is calculated considering the net positive replacement values and potential future exposure. – *Exposure for SFTs* is based on the IFRS carrying value, net of collateral mitigation.	We apply two approaches to measure counterparty credit risk RWA: – *Advanced internal ratings-based (A-IRB)* approach, applied for the majority of our businesses. Counterparty risk weights are determined by reference to internal counterparty ratings and loss given default estimates. – *Standardized approach (SA)*, 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.

Category	Definition of risk	Regulatory risk exposure	Risk-weighted assets (RWA)
Settlement risk	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. Refer to Section 2 Regulatory exposures and risk-weighted assets.	The IFRS carrying value is the basis for measuring settlement risk exposure.	We measure settlement risk RWA through the application of prescribed regulatory risk weights to the settlement risk exposure.
III. Securitization exposures in the banking book			
Securitization exposures in the banking book	Exposures arising from traditional and synthetic securitizations held in our banking book. Refer to Section 7 Securitizations.	The IFRS carrying value is the basis for measuring securitization exposure.	We apply two approaches to measure securitization / resecuritization exposure RWA: *– Ratings-based approach*, applying risk weights based on external ratings. *– Supervisory formula-based approach,* considering the A-IRB risk weights for certain exposures where external ratings are not available.
IV. Market risk			
Value-at-risk (VaR)	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. A five-year data set is used. Refer to Section 8 Market risk.		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 set by FINMA. The VaR multiplier is dependent on the number of VaR backtesting exceptions within a 250 business day window. This is then multiplied by a risk weight factor of 1,250% to determine RWA.
Stressed VaR (SVaR)	SVaR adopts the same methodology as VaR but uses a longer historical data set. This approach is intended to reduce the procyclicality of the capital requirements for market risks. Refer to Section 8 Market risk.		The derivation of SVaR is similar to that explained above for VaR, but using the maximum of the period-end SVaR and the average SVaR for the 60 trading days immediately preceding the period end.
Add-on for risks-not-in-VaR (RniV)	Potential risk factors that are not fully captured by our VaR model are referred to as RniV. We have an established framework to quantify and identify these potential risk factors and underpin them with capital, calculated as a multiple of VaR and SVaR. Refer to Section 8 Market risk.		Our RniV framework is used to derive the RniV-based component of the market risk RWA, which is approved by FINMA and subject to an annual recalibration. 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 8 Market risk.		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 8 Market risk.		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.

Category	Definition of risk	Regulatory risk exposure	Risk-weighted assets (RWA)
Securitization / resecuritization in the trading book	Risk arising from traditional and synthetic securitizations held in our trading book. Refer to Section 7 Securitizations and Section 8 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: – *Ratings-based approach*, applying risk weights based on external ratings. – *Supervisory formula approach*, 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 9 Operational risk.		We use the advanced measurement approach to measure operational risk RWA in accordance with FINMA requirements.

Section 2 Regulatory exposures and risk-weighted assets

The table below provides an overview of RWA and the related minimum capital requirement by risk type. Capital requirements presented in the tables in this report are calculated based on 8% of RWA as of 31 December 2016. Further information on capital management and RWA, including detail on movements in RWA over 2016 is provided on pages 184–197 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*. Further information on movements in RWA over the fourth quarter of 2016 is provided on pages 50–51 of our fourth quarter 2016 report, available under "Quarterly reporting" at www.*ubs.com/investors*. As permitted by FINMA, RWA flow statements for credit risk, CCR and market risk exposures under the revised Pillar 3 disclosure requirements will be provided for the first time as of 31 March 2017.

OV1: Overview of RWA[1]

31.12.16		a	c
CHF million		RWA[2]	Minimum capital requirements
1	Credit risk (excluding counterparty credit risk)	84,899	6,792
2	*of which: standardized approach (SA)[3]*	*22,095*	*1,768*
3	*of which: internal ratings-based (IRB) approach*	*62,804*	*5,024*
4	Counterparty credit risk[4]	29,362	2,349
5	*of which: SA for counterparty credit risk (SA-CCR)[5]*	*9,971*	*798*
6	*of which: internal model method (IMM)[5]*	*19,391*	*1,551*
7	Equity positions in banking book under market-based approach[6]	2,375	190
8	Equity investments in funds – look-through approach[7]		
9	Equity investments in funds – mandated-based approach[7]		
10	Equity investments in funds – fall-back approach[7]		
11	Settlement risk	528	42
12	Securitization exposure in banking book	2,068	165
13	*of which: IRB ratings-based approach (RBA)*	*1,456*	*116*
14	*of which: IRB supervisory formula approach (SFA)*	*613*	*49*
15	*of which: SA / simplified supervisory formula approach (SSFA)*		
16	Market Risk	15,490	1,239
17	*of which: standardized approach (SA)*	*428*	*34*
18	*of which: internal model approaches (IMM)*	*15,062*	*1,205*
19	Operational risk	77,827	6,226
20	*of which: basic indicator approach*		
21	*of which: standardized approach*		
22	*of which: advanced measurement approach*	*77,827*	*6,226*
23	Amounts below thresholds for deduction (250% risk weight)[8]	12,864	1,029
24	Floor adjustment	0	0
25	Total	**225,412**	**18,033**

1 Column b will be inserted to include prior-period information in our Pillar 3 report as of 31 March 2017. 2 Based on phase-in rules. 3 Includes non-counterparty-related risk not subject to the threshold deduction treatment (RWA CHF 8,426 million), which is included in tables CR4 and CR5 in section 4 of this report. Non-counterparty-related risk of CHF 10,864 million, which is subject to the threshold treatment, is reported in row 23 "Amounts below thresholds for deduction (250% risk weight)" and excluded from tables in section 4. 4 Excludes settlement risk, which is separately reported in row 11 "Settlement risk." Includes credit valuation adjustments and RWA with central counterparties, which are separately reported under counterparty credit risk in the table "Detailed segmentation of exposures and risk-weighted assets." 5 Calculated in accordance with the current exposure method (CEM), until SA-CCR is implemented at the latest by 1.1.2018. The split between row 5 and 6 refers to the calculation of the exposure measure. 6 Includes investments in funds. Items subject to threshold deduction treatments not exceeding their threshold are risk weighted at 250% (RWA of CHF 2,000 million) and are separately included in row 23 "Amounts below thresholds for deduction (250% risk weight)." 7 New regulation for the calculation of RWA for investments in funds is implemented at the latest by 1.1.2018. 8 Includes items subject to threshold deduction treatments not exceeding their respective threshold and 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, which are both measured against their respective threshold.

The table below 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, as well as the capital requirement per exposure category. These exposures are further broken down into the A-IRB / model-based approaches and standardized approach. For credit and counterparty credit risk, this defines the method used to derive the risk weight factors, through either internal ratings (A-IRB) or external ratings (standardized 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 further information on the specific topics.

Detailed segmentation of exposures and risk-weighted assets

		31.12.16										
		A-IRB / model-based approaches				Standardized approaches				Total		
Category	*CHF million*	Net EAD	RWA	Minimum capital requirements	Section and table reference	Net EAD	RWA	Minimum capital requirements	Section and table reference	Net EAD	RWA	Minimum capital requirements
I	**Credit risk (excluding counterparty credit risk)**	**471,290**	**67,178**	**5,374**	**4**	**98,328**	**32,960**	**2,637**	**4**	**569,618**	**100,137**	**8,011**
	Central governments and central banks	129,371	2,074	166	CR6, CR7	52,930	349	28	CR4, CR5	182,300	2,423	194
	Banks and securities dealers	13,937	2,753	220	CR6, CR7	5,334	1,290	103	CR4, CR5	19,272	4,043	323
	Public sector entities, multilateral development banks	10,998	712	57	CR6, CR7	4,084	888	71	CR4, CR5	15,082	1,600	128
	Corporates: specialized lending	23,331	8,252	660	CR6, CR7				CR4, CR5	23,331	8,252	660
	Corporates: other lending	49,225	22,892	1,831	CR6, CR7	6,694	4,173	334	CR4, CR5	55,919	27,066	2,165
	Central Counterparties					971	59	5		971	59	5
	Retail	243,070	26,120	2,090	CR6, CR7	10,995	6,910	553	CR4, CR5	254,065	33,030	2,642
	Residential mortgages	*133,470*	*19,985*	*1,599*	*CR6, CR7*	*5,790*	*2,182*	*175*		*139,260*	*22,167*	*1,773*
	Qualifying revolving retail exposures (QRRE)	*1,552*	*541*	*43*	*CR6, CR7*					*1,552*	*541*	*43*
	Other retail[1]	*108,048*	*5,594*	*448*	*CR6, CR7*	*5,205*	*4,728*	*378*		*113,253*	*10,322*	*826*
	Non-counterparty-related risk					17,320	19,291	1,543		17,320	19,291	1,543
	Deferred tax assets					*7,700*	*10,864*	*869*		*7,700*	*10,864*	*869*
	Property, equipment and software					*8,259*	*8,259*	*661*	*CR4, CR5*	*8,259*	*8,259*	*661*
	Other					*1,361*	*168*	*13*	*CR4, CR5*	*1,361*	*168*	*13*
	Equity positions in the banking book	1,358	4,374	350	CR10[2]					1,358	4,374	350
II	**Counterparty credit risk**	**98,270**	**24,092**	**1,927**	**5**	**72,079**	**5,798**	**464**	**5**	**170,349**	**29,890**	**2,391**
	Central governments and central banks	5,750	601	48	CCR4	206	1	0	CCR3	5,955	601	48
	Banks and securities dealers	23,348	4,694	376	CCR4	376	89	7	CCR3	23,724	4,782	383
	Public sector entities, multilateral development banks	6,623	367	29	CCR4	4	4	0	CCR3	6,627	371	30
	Corporates incl. specialized lending	57,413	13,889	1,111	CCR4	984	984	79	CCR3	58,396	14,873	1,190
	Central Counterparties					69,713	2,392	191		69,713	2,392	191
	Retail	5,061	251	20	CCR4	365	365	29	CCR3	5,426	616	49
	Settlement risk	76	87	7		432	440	35		508	528	42
	Credit valuation adjustment (CVA)		4,202	336	CCR 2		1,524	122	CCR 2		5,726	458
III	**Securitization exposure in banking book**	**3,350**	**2,068**	**165**	**7**					**3,350**	**2,068**	**165**
IV	**Market Risk**	**345**	**15,490**	**1,239**	**7, 8**					**345**	**15,490**	**1,239**
	Value-at-risk (VaR)		2,158	173	MR3						2,158	173
	Stressed value-at risk (SVaR)		6,128	490	MR3						6,128	490
	Add-on for risks-not-in-VaR (Rniv)		3,709	297	MR4						3,709	297
	Incremental risk charge (IRC)		2,963	237	MR4						2,963	237
	Comprehensive risk measure (CRM)		104	8	MR4						104	8
	Securitization / re-securitization in the trading book	345	428	34	SEC2, MR1					345	428	34
V	**Operational risk**		**77,827**	**6,226**	**9**						**77,827**	**6,226**
	Total	**573,256**	**186,655**	**14,932**		**170,407**	**38,757**	**3,101**		**743,663**	**225,412**	**18,033**

1 Consisting 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. 2 Items subject to threshold deduction treatments not exceeding their respective threshold are risk weighted at 250% (31 December 2016: CHF 2,000 million RWA) and not included in CR10 "IRB (equities under the simple risk-weight method)." Significant investments in common shares of non-consolidated financial institutions (banks, insurance and other financial entities) and deferred tax assets arising from temporary differences are both measured against their respective threshold.

Section 3 Linkage between financial statements and regulatory exposures

This section provides information about the differences between our regulatory exposures and carrying values presented in our IFRS financial statements. 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.

LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

31.12.16	a	b	c	d	e	f	g
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items:				
CHF million			Subject to credit risk framework[1]	Subject to counterparty credit risk framework[2]	Subject to securitization framework[3]	Subject to market risk framework	Not subject to capital requirements or subject to deduction from capital
Assets							
Cash and balances with central banks	107,767	107,767	107,767				
Due from banks	13,156	12,931	12,296	636[4]			
Cash collateral on securities borrowed	15,111	15,111		15,111		5	
Reverse repurchase agreements	66,246	66,246		66,246		5,691	
Trading portfolio assets	96,575	86,601	7,579[5]	30,260[6]	621	78,401	
Positive replacement values	158,411	158,421		158,421		149,878	
Cash collateral receivables on derivative instruments	26,664	26,664		26,664		8,338	
Loans	306,325	306,417	300,634	5,121[4]	662		
Financial assets designated at fair value	65,353	65,353	63,918	2,071[6,7]			
Financial assets available for sale	15,676	15,644	15,644	237[6]			
Financial assets held to maturity	9,289	9,289	9,289				
Consolidated participations	0	109	109				
Investments in associates	963	963	676				287[8]
Property, equipment and software	8,331	8,259	8,259				
Goodwill and intangible assets	6,556	6,557	245				6,311
Deferred tax assets	13,155	13,155	7,372				5,783[9]
Other assets	25,436	20,039	10,099	9,940[10]			
Total assets	**935,016**	**919,528**	**543,889**	**314,708**	**1,283**	**242,314**	**12,382**
Liabilities							
Due to banks	10,645	10,581					10,581
Cash collateral on securities lent	2,818	2,818		2,818		0	
Repurchase agreements	6,612	6,612		6,612		1,122	
Trading portfolio liabilities	22,824	22,824				22,824	
Negative replacement values	153,810	153,811		153,811		147,811	
Cash collateral payable on derivative instruments	35,472	35,472		35,472		8,054	
Due to customers	423,672	423,622					423,622
Financial liabilities designated at fair value	55,017	55,017					55,017
Debt issued	103,649	103,636					103,636
Provisions	4,174	4,174					4,174
Other liabilities	62,020	46,789					46,789
Total liabilities	**880,714**	**865,355**	**0**	**198,714**	**0**	**179,811**	**643,818**

1 Includes non-counterparty-related risk and equity positions in the banking book subject to the simple risk weight method of CHF 19,365 million, which are generally excluded from the credit risk tables in section 4 of this report, resulting in IFRS carrying values reflected in the credit risk section of CHF 524,524 million. However, tables CR4 and CR5 include non-counterparty-related risk 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 342 million net of a deferred tax liability (DTL) on goodwill of CHF 55 million. 9 Consists of phase-in deduction for deferred tax assets recognized for tax loss carry-forwards (CHF 5,042 million) and for deferred tax assets related to temporary differences (CHF 741 million). 10 Primarily includes prime brokerage receivables and accrued income related to exposures subject to counterparty credit risk.

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 which are also considered in the counterparty credit risk framework, as collateral posted is subject to counterparty credit risk.

Explanation of differences between the IFRS and regulatory scope of consolidation

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 directly or indirectly controlled by UBS Group AG that are active in the banking and finance sector. However, subsidiaries consolidated under IFRS that are active in sectors other than banking and finance are excluded from the regulatory scope of consolidation.

The main differences between the IFRS and regulatory capital scope of consolidation relate to the following entities as of 31 December 2016:

– investments in insurance, real estate and commercial companies as well as investment vehicles that were consolidated under IFRS, but not for regulatory capital purposes, and were subject to risk-weighting
– joint ventures that were fully consolidated for regulatory capital purposes, but which were accounted for under the equity method under IFRS
– UBS Capital Securities (Jersey) Ltd. has issued preferred securities and is consolidated for regulatory capital purposes but not for IFRS purposes. This entity holds bonds issued by UBS AG, which are eliminated in the consolidated regulatory capital accounts. This entity does not have material third-party asset balances and its equity is attributable to non-controlling interests

The table below provides a list of the most significant entities that were included in the IFRS scope of consolidation, but not in the regulatory capital scope of consolidation. These entities make up most of the difference between columns a) and b) in the table "LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories" on the previous page. As of 31 December 2016, entities consolidated under either the IFRS or the regulatory scope of consolidation did not report any significant capital deficiencies.

In the banking book, certain equity investments are not consolidated under IFRS or under the regulatory scope. These investments mainly consisted of infrastructure holdings and joint operations (for example, settlement and clearing institutions, stock and financial futures exchanges) and included our participation in the SIX Group. These investments were risk-weighted based on applicable threshold rules.

Further information on the legal structure of the UBS Group and on the IFRS scope of consolidation is provided on pages 13–14 and 325–326, respectively, of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

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

	31.12.16		
CHF million	Total assets[1]	Total equity[1]	Purpose
UBS Asset Management Life Ltd - Long Term Fund	9,300	12	Life insurance
UBS International Life Designated Activity Company	5,292	78	Life Insurance
A&Q Alternative Solution Master Limited	483	477[2]	Investment vehicle for feeder funds
A&Q Alternative Solution Limited	481	462[2]	Investment vehicle for multiple investors
Nineteen 77 Global Multi-Strategy Alpha (Levered) Limited	431	419[2]	Investment vehicle for multiple investors
A&Q Alpha Select Hedge Fund Limited	233	203[2]	Investment vehicle for multiple investors
A&Q Alpha Select Hedge Fund XL	202	100[2]	Investment vehicle for multiple investors
UBS Life Insurance Company USA	175	44	Life Insurance
A&Q Global Alpha Strategies XL Limited	100	49[2]	Investment vehicle for multiple investors

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

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

31.12.16		a	b	c	d	e
		Total	Items subject to:			
CHF million			Credit risk framework	Counterparty credit risk framework	Securitization framework	Market risk framework
1	Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	919,528	543,889[1]	314,708	1,283	242,314
2	Liabilities carrying value amount under scope of regulatory consolidation (as per template LI1)[2]	(151,840)	0	(151,840)	0	
3	**Total net amount under regulatory scope of consolidation**	**767,688**	**543,889**	**162,868**	**1,283**	**242,314**
4	Off-balance sheet amounts (post CCF; e.g., guarantees, commitments)	53,309	36,657	14,584[3]	2,067	
5	Differences due to prudential filters	(12,382)				
6	PFE, differences in netting and collateral mitigation on derivatives	74,739		74,739		
7	SFTs including collateral mitigation	(81,842)		(81,842)		
8	Other differences including collateral mitigation in the banking book	(57,848)[4]	(10,928)			(241,969)[4]
9	**Exposure amounts considered for regulatory purposes**	**743,663**	**569,618**	**170,349**	**3,350**	**345**

1 Includes non-counterparty-related risk and equity positions in the banking book subject to the simple risk weight method of CHF 19,365 million, which are generally excluded from the credit risk tables in section 4 of this report, resulting in IFRS carrying values reflected in the credit risk section of CHF 524,524 million. However, tables CR4 and CR5 include non-counterparty-related risk 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

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 1)
- 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 SFTs through the application of the close-out period approach or the comprehensive measurement approach (row 8)
- effect of collateral mitigation in the banking book (row 9)

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 further information on fair value measurement that can be found in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 page number
Valuation methodologies applied, including mark–to–market and mark–to–model methodologies in use	Consolidated financial statements	– Note 22 a) Valuation principles – Note 22 c) Fair value hierarchy – Note 22 f) Level 3 instruments: valuation techniques and inputs	386 388–394 397–401
Description of the independent price verification process	Consolidated financial statements	– Note 22 b) Valuation governance	387
Procedures for valuation adjustments or reserves for valuing trading positions by type of instrument	Consolidated financial statements	– Note 22 d) Valuation adjustments	394–396

Prudent valuation

To ensure compliance with the prudent valuation guidance contained within the BCBS framework, UBS has established systems, controls and governance around the valuation of positions measured on the balance sheet at fair value. Further information on this framework is provided in our Annual Report 2016 as shown 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 shown on page 189 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Section 4 Credit risk

Introduction

This section includes items subject to the Basel credit risk framework, as illustrated in the table "Detailed segmentation of exposures and risk weighted assets" in section 2 of this report. Information on counterparty credit risk arising from OTC derivatives, exchange-traded derivatives, securities financing transactions and long settlement transactions are reflected in section 5 of this document. Securitization positions subject to the securitization regulatory framework are reported in section 7 of this document.

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 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 IFRS.

Credit risk exposure categories

In this section, we use the term "loans" in three different contexts:

1) Balances subject to credit risk in the IFRS balance sheet line *Loans* as used in the tables "CRB – Breakdown of exposures by industry," "CRB – Breakdown of exposures by geographical area," and "CRB – Breakdown of exposures by residual maturity."
2) Balances that are by nature loans (including the IFRS balance sheet lines *Loans* and *Due from banks*) as used in the table "Past due loans."
3) The FINMA-defined Pillar 3 exposure category "Loans" as used in tables "CR1: Credit quality of assets" and "CR3: Credit risk mitigation techniques – overview."

The Pillar 3 category "Loans" 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 that are included within *Trading portfolio assets*
- financial assets designated at fair value, excluding money market instruments, checks and bills and other debt instruments
- other assets subject to the credit risk framework

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 five sub-sections:

Credit risk management

This sub-section 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

This sub-section includes information on our credit risk exposures and credit quality of assets.

Credit risk mitigation

We provide a reference 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. The table in this sub-section depicts all secured exposures, irrespective of whether the standardized approach or the A-IRB approach is used for the RWA calculation.

Credit risk under the standardized approach

We include information on the use of external credit assessment institutions (ECAI) to determine risk weightings applied to rated counterparties. In addition, we provide quantitative information on credit risk exposures and the effect of CRM under the standardized approach.

Credit risk under internal risk-based approaches

We provide a reference to disclosures on our internal risk-based models used to calculate risk-weighted assets, including information on internal model development and control, as well as characteristics of our models. The tables in this sub-section 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, depicted by portfolio and probability of default (PD) range.

Credit risk management

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

CRA – Credit risk management

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 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	118
		– Risk category and risk definitions	119
		– Main sources of credit risk	129
		– Credit risk profile of the Group	130–137
	Consolidated financial statements	– Note 25 b) Maximum exposure to credit risk	413–414
Criteria and approach used for defining credit risk management policy and for setting credit risk limits	Risk, treasury and capital management	– Risk governance	121–122
		– Risk appetite framework	122–125
		– Risk measurement	125–128
		– Credit risk – Overview of measurement, monitoring and management techniques	129
Structure and organization of the credit risk management and control function	Risk, treasury and capital management	– Risk governance	121–122
Interaction between the credit risk management, risk control, compliance and internal audit functions	Risk, treasury and capital management	– Risk governance	121–122
		– Risk appetite framework	122–125
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	121–122
		– Risk appetite framework	122–125
		– Internal risk reporting	125
		– Credit risk profile of the Group	130–137

Backtesting

Table "CR9: IRB – Backtesting of probability of default (PD) per portfolio" is not required by FINMA for first-time disclosure as of 31 December 2016 and will be provided in full for the first time as of 31 December 2017. Further information on backtesting of credit models is provided on pages 142–143 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

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.

CRB: Breakdown of exposures by industry

	31.12.16													
CHF million	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 others.

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.

CRB: Breakdown of exposures by geographical area

	31.12.16						
CHF million	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	0	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.

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.

CRB: Breakdown of exposures by residual maturity

	31.12.16			
CHF million	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

A past due claim is considered non-performing when the payment of interest, principal or fees is overdue by more than 90 days, or 180 days for certain specified retail portfolios. Claims are also classified as non-performing when bankruptcy or insolvency proceedings or enforced liquidation have commenced, or obligations have been restructured on preferential terms, such as preferential interest rates, extension of maturity or subordination.

Individual 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. Refer to pages 143–147 in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*, for further information on our policies for past due, non-performing and impaired claims.

A counterparty is deemed to be in default if any of the following events have taken place: (i) any financial asset against the counterparty has become individually impaired; (ii) the payment of interest, principal or fees is past due by more than 90 days, or 180 days for certain specified retail portfolios; (iii) the counterparty is subject to bankruptcy or insolvency proceedings have commenced; or (iv) obligations of the counterparty have been restructured on preferential terms. Defaulted exposures are generally rated as in default (CDF), according to our internal UBS rating scale.

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.

CRB: Breakdown of impaired exposures by industry

	31.12.16				
CHF million	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)**
Total 31.12.15	1,518	(721)	(6)	(727)	(164)

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.

CRB: Impaired financial instruments by geographical region

CHF million	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	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)**
Total 31.12.15	1,518	(721)	797	(6)	(727)	(164)

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

CR1 – Credit quality of assets

31.12.16		a	b	c	d
		Gross carrying values of:		Allowances / impairments	Net values (a + b + c)
CHF million		Defaulted exposures	Non-defaulted exposures		
1	Loans[1]	2,190	428,758	(599)	430,348
2	Debt securities	0	94,175	0	94,175
3	Off-balance sheet exposures	267	178,637	(54)	178,849
4	**Total**	**2,456**	**701,569**	**(653)**	**703,372**

1 Loan exposure is reported in line with the Pillar 3 definition.

The table below shows a breakdown of total loan balances where payments have been missed. The loan balances in the table are predominantly within Personal & Corporate Banking, where delayed payments are routinely observed, and, to a lesser extent, Wealth Management. 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 2016, available under "Annual reporting" at *www.ubs.com/investors*.

CRB: Past due loans

CHF million	31.12.16
1–10 days	57
11–30 days	115
31–60 days	75
61–90 days	12
>90 days	1,060
of which: mortgage loans	*619*[1]
Total	1,320

1 Total mortgage loans: CHF 153,006 million.

Restructured exposures

We do not operate a general policy for restructuring claims in order to avoid counterparty default. Where restructuring does take place, we assess each case individually. Typical features of terms and conditions granted through restructuring to avoid default may include concessions of special interest rates, postponement of interest or principal payments, debt / equity swaps, modification of the schedule of repayments, subordination or amendment of loan maturity.

If a loan is restructured with preferential conditions (i.e., new terms and conditions are agreed that do not meet the normal current market criteria for the quality of the obligor and the type of loan), the claim is still classified as non-performing. It will remain so until the loan is collected, written off or non-preferential conditions are granted that supersede the preferential conditions, and will be assessed for impairment on an individual basis. Concessions granted where there is no evidence of financial difficulty, or where any changes to terms and conditions are within usual risk appetite, are not considered restructured. Refer to pages 143–144 in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*, for further information on our policies for restructured exposures.

The table below provides further information on restructured exposures as of 31 December 2016.

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

	31.12.16		
CHF million	Impaired	Non-impaired	Total
Restructured exposures	289	756	1,045

Credit risk mitigation

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

CRC – Credit risk mitigation

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 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	136–137
		– Counterparty credit risk	139
	Consolidated financial statements	– Note 1 a) item 3 j. Netting	333
		– Note 12 Derivative instruments and hedge accounting	359–365
		– Note 24 Offsetting financial assets and financial liabilities	410–411
Core features of policies and processes for collateral evaluation and management.	Risk, treasury and capital management	– Credit risk mitigation	137–139
Information about market or credit risk concentrations under the credit risk mitigation instruments used	Risk, treasury and capital management	– Risk concentrations	128
		– Credit risk mitigation	137–139
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	359–365

Additional information on counterparty credit risk mitigation is provided on pages 29–32 of this report.

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

CR3: Credit risk mitigation techniques – overview[1]

31.12.16		a	b1	b	d	f
CHF million		Exposures unsecured: carrying amount	Exposures partially or fully secured: carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans[2]	137,267	293,081	288,314	1,930	751
2	Debt securities	94,175	0	0	0	0
3	**Total**	**231,442**	**293,082**	**288,314**	**1,930**	**751**
4	*of which: defaulted*	*130*	*1,461*	*665*	*318*	*0*

1 Exposures in this table represent carrying values in accordance with the regulatory scope of consolidation. This table was prepared on the basis of the disclosure requirements published by FINMA in October 2015. We will adopt the interpretation included into "Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)" issued by BCBS in August 2016 from 31 December 2017 onwards. As a result, disclosures to be provided in columns b and f will include the effects of haircuts from 31 December 2017. 2 Loan exposure is reported in line with the Pillar 3 definition.

Standardized approach – credit risk mitigation

The table below illustrates the effect of credit risk mitigation on the calculation of capital requirements under the standardized approach. The exposure balance in the FINMA asset class "Central governments and central banks" has increased in comparison with 30 June 2016, mainly reflecting liquidity requirements applicable to UBS Europe SE in the second half of 2016. Certain local liquidity portfolios that have been established more recently are measured under the standardized approach. However we intend to migrate these portfolios to the A-IRB approach during the first half of 2017.

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

31.12.16		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
CHF million, except where indicated		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density in %
Asset classes[1]							
1	Central governments and central banks	52,921	0	52,921	0	354	0.7
2	Banks and securities dealers	4,919	877	4,898	437	1,290	24.2
3	Public sector entities and multilateral development banks	4,093	2	4,093	0	892	21.8
4	Corporates	7,364	5,027	6,605	168	4,200	62.0
5	Retail	11,520	3,212	10,679	236	6,873	63.0
6	Equity						
7	Other assets	9,620		9,620		8,426	87.6
8	**Total**	**90,437**	**9,117**	**88,816**	**841**	**22,036**	**24.6**

1 The effect of credit risk mitigation (CRM) is reflected on the original asset class.

IRB approach – credit derivatives used as credit risk mitigation

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 tranched cover or first-loss protection are recognized through the securitization framework. Refer to table "CCR6: Credit derivatives exposures" for notional and fair value information on credit derivatives used as credit risk mitigation.

CR7: IRB – effect on RWA of credit derivatives used as CRM techniques[1]

31.12.16		a	b
CHF million		Pre-credit derivatives RWA	Actual RWA
1	Central governments and central banks – FIRB		
2	Central governments and central banks – AIRB	2,085	2,061
3	Banks and securities dealers – FIRB		
4	Banks and securities dealers – AIRB	2,437	2,437
5	Public sector entities, multilateral development banks – FIRB		
6	Public sector entities, multilateral development banks – AIRB	748	748
7	Corporates: Specialized lending – FIRB		
8	Corporates: Specialized lending – AIRB	8,326	8,326
9	Corporates: Other lending – FIRB		
10	Corporates: Other lending – AIRB	24,855	23,110
11	Retail: mortgage loans	19,985	19,985
12	Retail exposures: qualifying revolving retail (QRRE)	541	541
13	Retail: other	5,594	5,594
14	Equity positions (PD/LGD - approach)		
15	**Total**	**64,572**	**62,804**

1 The effect of credit risk mitigation (CRM) is reflected on the original asset class.

Credit risk under the standardized approach

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 to use, where possible, risk assessments prepared by external credit assessment institutions (ECAI) or export credit agencies to determine the risk weightings applied to rated counterparties. We use FINMA-recognized ECAI risk assessments to determine the risk weight for certain counterparties according to the BIS-defined exposure segments.

We use three FINMA-recognized ECAI for this purpose: 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 2015.

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.

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

		31.12.16		
		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	●	●	●
5	Retail			
6	Equity			
7	Other assets			

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

		31.12.16									
CHF million		a	b	c	d	e	f	g	h	i	j
Risk weight		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount (post CCF and CRM)
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**[1]
9	*of which: mortgage loans*				*5,518*		*87*	*257*			*5,861*
10	*of which: past due*							*0*	*0*		*0*

1 Includes on-balance sheet exposures post CRM of CHF 88,816 million and off-balance amounts post CCF and CRM of CHF 841 million, resulting in CHF 89,657 million total exposures as reported in table CR4.

Credit risk under internal risk-based approaches

We use the A-IRB approach for calculating certain credit risk exposures. The tables in this sub-section 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, depicted by portfolio and probability of default (PD) range.

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 separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

CRE – Internal ratings-based models

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 page number
Internal model development, controls and changes	Risk, treasury and capital management	– Risk governance – Risk measurement – Key features of our main credit risk models – Credit risk models	121–122 125–128 140 140–143
Relationships between risk management and internal audit and independent review of IRB models.	Risk, treasury and capital management	– Risk governance – Risk measurement	121–122 125–128
Scope and content of the reporting related to credit risk models.	Risk, treasury and capital management	– Risk measurement – Credit risk – Overview of measurement, monitoring and management techniques – Credit risk models	125–128 129 140–143
Supervisor approval of applied approaches	Risk, treasury and capital management	– Stress testing – Risk measurement – Key features of our main credit risk models – Changes to models and model parameters during the period	125–127 125–128 140 143
Number of key models used by portfolio and the main differences between models	Risk, treasury and capital management	– Credit risk models	140–143
Description of the main characteristics of approved models	Risk, treasury and capital management	– Credit risk models	140–143

The proportion of EAD covered by either the standardized or A-IRB approach is provided in the table "Detailed segmentation of exposures and risk-weighted assets" in 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 already measured under the A-IRB approach. As previously noted, certain local liquidity portfolios that have been established more recently are measured under the standardized approach. However we intend to migrate these portfolios to the A-IRB approach during the first half of 2017.

The table on the following pages provides a breakdown of the main parameters used for calculation of capital requirements under the A-IRB approach, shown by PD range across FINMA-defined asset classes.

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

	31.12.16											
	a	b	c	d	e	f	g	h	i	j	k	l
CHF million, except where indicated	Original on-balance sheet gross exposure	Off-balance sheet 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												
0.00 to <0.15	129,277	227	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	14	8	0.3	<0.1	72.9	2.8	8	105.2	0	
0.50 to <0.75	7	0	13	7	0.6	<0.1	23.8	3.0	3	39.2	0	
0.75 to <2.50	0	0	55	0	1.4	<0.1	19.7	3.6	0	44.2	0	
2.50 to <10.00	4	18	29	9	3.9	<0.1	19.2	3.3	6	67.8	0	
10.00 to <100.00	27	0	48	27	10.2	<0.1	10.0	5.0	14	52.7	0	
100.00 (default)	18	1	55	8		<0.1			8	106.0	11	
Subtotal	129,341	245	17	129,371	0.0	0.2	33.7	1.0	2,074	1.6	16	9
Banks and securities dealers												
0.00 to <0.15	8,245	8,638	45	11,446	0.0	0.5	35.7	1.4	1,407	12.3	2	
0.15 to <0.25	1,299	907	44	1,356	0.2	0.4	39.2	1.3	490	36.2	4	
0.25 to <0.50	565	388	31	541	0.4	0.2	43.1	1.2	288	53.2	1	
0.50 to <0.75	339	267	43	227	0.6	0.1	44.3	1.1	175	77.4	1	
0.75 to <2.50	319	217	42	156	1.3	0.2	43.2	1.0	149	95.3	1	
2.50 to <10.00	295	191	21	196	3.7	0.2	37.5	1.3	228	116.2	3	
10.00 to <100.00	13	28	41	15	12.4	<0.1	20.8	3.4	15	101.5	0	
100.00 (default)	3					<0.1			0	106.0	3	
Subtotal	11,078	10,636	42	13,937	0.2	1.5	36.6	1.4	2,753	19.8	15	5
Public sector entities, multilateral development banks												
0.00 to <0.15	9,452	1,812	15	9,722	0.0	0.4	29.6	1.2	457	4.7	0	
0.15 to <0.25	464	376	11	507	0.2	0.2	21.8	3.0	102	20.1	0	
0.25 to <0.50	646	318	22	716	0.3	0.2	17.3	2.5	140	19.6	0	
0.50 to <0.75	44	4	10	44	0.6	<0.1	15.6	2.6	11	24.5	0	
0.75 to <2.50	3	1	20	3	1.2	<0.1	14.0	2.1	1	37.5	0	
2.50 to <10.00	4	0	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	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)

	31.12.16											
	a	b	c	d	e	f	g	h	i	j	k	l
CHF million, except where indicated	Original on-balance sheet gross exposure	Off-balance sheet 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												
0.00 to <0.15	2,162	711	65	2,635	0.1	0.7	15.1	2.0	286	10.8	0	
0.15 to <0.25	1,372	740	38	1,651	0.2	0.3	18.2	1.8	307	18.6	1	
0.25 to <0.50	2,874	2,256	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	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	37	8,818	1.3	1.7	18.2	1.6	3,841	43.6	19	
2.50 to <10.00	975	103	36	1,010	3.5	0.2	17.6	1.8	608	60.2	6	
10.00 to <100.00	52	16	29	56	14.2	<0.1	28.9	1.6	84	148.5	2	
100.00 (default)	127	20	50	44		<0.1			57	106.0	83	
Subtotal	20,575	8,401	35	23,331	1.1	4.2	19.7	1.7	8,252	35.4	121	54
Corporates: other lending												
0.00 to <0.15	10,023	17,209	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	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	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	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	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	41	6,880	4.1	4.3	21.0	1.9	5,308	77.1	58	
10.00 to <100.00	473	471	52	708	16.9	0.1	16.7	2.3	753	106.4	19	
100.00 (default)	1,612	398	55	1,423		0.5			1,508	106.0	348	
Subtotal	33,417	58,412	36	49,225	4.3	18.7	29.2	1.8	22,892	46.5	479	468
Retail: residential mortgages												
0.00 to <0.15	60,210	1,209	64	60,987	0.1	124.7	10.7		1,841	3.0	3	
0.15 to <0.25	12,473	167	68	12,586	0.2	21.2	11.1		1,017	8.1	2	
0.25 to <0.50	15,405	214	66	15,546	0.3	25.6	11.3		1,847	11.9	6	
0.50 to <0.75	11,294	1,011	15	11,449	0.6	14.5	12.3		1,978	17.3	8	
0.75 to <2.50	21,820	2,189	39	22,679	1.4	29.7	12.1		6,818	30.1	35	
2.50 to <10.00	8,743	197	68	8,877	4.3	11.1	10.8		5,105	57.5	39	
10.00 to <100.00	849	27	70	868	15.4	1.0	10.7		873	100.6	13	
100.00 (default)	510	1	36	478		0.7			507	106.0	33	
Subtotal	131,305	5,013	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)

	31.12.16											
	a	b	c	d	e	f	g	h	i	j	k	l
CHF million, except where indicated	Original on-balance sheet gross exposure	Off-balance sheet 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]												
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		126	1.7	32.7	47.0		35	28.0	1	
2.50 to <10.00	1,015	4,789		1,420	2.7	764.4	42.0		500	35.2	16	
10.00 to <100.00												
100.00 (default)	24	0		6		19.8			7	106.0	0	
Subtotal	1,128	5,119		1,552	2.6	816.9	42.4		541	34.9	17	16
Retail: other retail												
0.00 to <0.15	90,111	7,191	26	91,943	0.1	167.3	20.0		3,052	3.3	10	
0.15 to <0.25	2,513	99	32	2,546	0.2	0.9	20.0		196	7.7	1	
0.25 to <0.50	8,342	522	8	8,384	0.4	4.4	20.0		1,035	12.3	6	
0.50 to <0.75	1,932	300	11	1,965	0.6	1.0	20.0		340	17.3	2	
0.75 to <2.50	1,734	1,054	63	2,396	1.1	12.9	23.1		632	26.4	6	
2.50 to <10.00	769	320	11	803	5.4	1.0	26.3		329	41.0	10	
10.00 to <100.00												
100.00 (default)	38	0	0	11		<0.1			11	106.0	27	
Subtotal	105,439	9,485	28	108,048	0.2	187.5	20.1		5,594	5.2	63	70
Total	**442,898**	**99,821**	**33**	**469,932**	**0.9**	**1258.5**	**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 d) "EAD post CCF and post CRM" a balance factor approach instead of a CCF approach is used. The EAD is calculated by multiplying the on-balance sheet exposure with a fixed factor of 1.4.

Equity exposures

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

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

			31.12.16		
CHF million, except where indicated	On-balance sheet amount	Off-balance sheet amount	Risk weight in %	Exposure amount	RWA[2]
Exchange traded equity exposures	586		300	168	535
Other equity exposures	791		400	434	1,840
Total	**1,377**	**0**		**602**	**2,375**

1 Significant investments in the common shares of non-consolidated financial institutions (banks, insurance and other financial entities), which are subject to the threshold treatment and risk weighted at 250%, are not included in this table. 2 RWA is calculated post application of the A-IRB multiplier of 6%, therefore the average risk weight is higher than 300% and 400%.

Section 5 Counterparty credit risk

Counterparty credit risk (CCR) includes 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 EPE and sEPE as defined in the Basel III framework. However, 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 SRB phase-in requirements and correspond to the counterparty credit risk by asset class that is shown in the table "Detailed segmentation of exposures and risk-weighted assets" in section 2 of this document.

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

CCRA – Counterparty credit risk management

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 page number
Risk management objectives and policies related to counterparty credit risk	Risk, treasury and capital management	– Traded products	136–137
		– Counterparty credit risk	139
		– Credit hedging	139
		– Mitigation of settlement risk	139
	Consolidated financial statements	– Note 1 a) item 3 e. Securities borrowing / lending and repurchase / reverse repurchase transactions	331
		– Note 1 a) item 3 k. Hedge accounting	334
		– Note 12 Derivative instruments and hedge accounting	359–365
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	121–122
		– Portfolio and position limits	128
		– Credit risk – Overview of measurement, monitoring and management techniques	129
		– Counterparty credit risk	139
		– Credit hedging	139
		– Credit risk models	140–143
Policies relating to guarantees and other risk mitigants and counterparty risk assessment	Risk, treasury and capital management	– Credit risk mitigation	137–139
		– Offsetting financial assets and financial liabilities	410–411
	Consolidated financial statements	– Note 12 Derivative instruments and hedge accounting	359–365
Policies with respect to wrong–way risk exposures	Risk, treasury and capital management	– Exposure at default	141
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	177

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

31.12.16		a	b	c	d	e	f
CHF million, except where indicated		Replacement cost	Potential future exposure	EEPE	Alpha used for computing regulatory EAD	EAD post- CRM	RWA
1	SA-CCR (for derivatives)[1]	13,642[2]	4,092		1.4	17,734	3,744
2	Internal model method (for derivatives and SFTs)[3]			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 counterparty credit risk. Calculated in accordance with the current exposure method (CEM), until SA-CCR is implemented at the latest by 1.1.2018. Alpha used for computing regulatory EAD will become applicable with the implementation of SA-CCR. 2 Replacement costs include collateral mitigation for on- and off-balance sheet exposures related to counterparty credit risk for derivative transactions. 3 IMM is not applicable for SFTs.

In addition to the default risk capital requirements for counterparty credit risk determined 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 credit value adjustment (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. Further detail on our portfolios subject to the CVA capital charge as of 31 December 2016 is provided in the table below.

CCR2: Credit valuation adjustment (CVA) capital charge

31.12.16		a	b
CHF million		EAD post CRM[1]	RWA
	Total portfolios subject to the advanced CVA capital charge	37,663	4,202
1	(i) VaR component (including the 3× multiplier)		1,326
2	(ii) Stressed VaR component (including the 3× multiplier)		2,876
3	All portfolios subject to the standardized CVA capital charge	8,034	1,524
4	Total subject to the CVA capital charge	**45,698**	**5,726**

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

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

						31.12.16				
CHF million		a	b	c	d	e	f	g	h	i
Risk weight		0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
	Regulatory portfolio									
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**

CCR4: IRB – CCR exposures by portfolio and PD scale

31.12.16	a	b	c	d	e	f	g
CHF million, except where indicated	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							
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
Banks and securities dealers							
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
Public sector entities, multilateral development banks							
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
Corporates: including specialized lending[1]							
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)

31.12.16	a	b	c	d	e	f	g
CHF million, except where indicated	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							
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	**98,194**	**0.2**	**29.1**	**30.8**	**0.9**	**19,802**	**20.2**

1 Includes exposures with managed funds. Typically these funds have virtually no debt, are very low risk and therefore have a very low A-IRB risk weight.

CCR5: Composition of collateral for CCR exposure[1]

31.12.16	a	b	c	d	e	f
	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
CHF million	Segregated	Unsegregated	Segregated[2]	Unsegregated		
Cash – domestic currency		1,643	19	1,258	384	3,088
Cash – other currencies		39,633	2,048	23,301	35,160	88,136
Sovereign debt		16,302	6,761	9,363	214,573	129,668
Other debt securities		1,530	31	667	70,723	31,409
Equity securities		40	547	1,731	208,426	149,493
Total		**59,148**	**9,406**	**36,319**	**529,266**	**401,794**

1 This table was prepared on the basis of the disclosure requirements published by FINMA in October 2015. We will adopt the interpretation included into "Frequently asked questions on the revised Pillar 3 disclosure requirements (BCBS 376)" issued by BCBS in August 2016 from 31 December 2017 onwards. As a result, disclosures to be provided will include the effects of haircuts from 31 December 2017. Furthermore, this table includes collateral received and posted with and without the right of re-hypothecation, but excludes securities placed with central banks related to undrawn credit lines and for payment, clearing and settlement purposes for which there are no associated liabilities or contingent liabilities. 2 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 reflecting that the default risk of that central counterparty is carried by the client.

CCR6: Credit derivatives exposures

31.12.16	a	b
CHF million	Protection bought	Protection sold
Notionals[1]		
Single-name credit default swaps	*91,418*	*81,326*
Index credit default swaps	*45,034*	*44,611*
Total return swaps	*5,478*	*2,088*
Credit options	*2,946*	*54*
Other credit derivatives		
Total notionals	**144,875**	**128,079**
Fair values		
Positive fair value (asset)	*1,969*	*1,917*
Negative fair value (liability)	*2,780*	*2,036*

1 Includes notional amounts for client-cleared transactions.

Section 6 Comparison of A-IRB approach and standardized approach

Background

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

The principal differences between the standardized approach (SA) and the A-IRB approach identified below are based on the current SA rules without consideration of the material revisions proposed by the Basel Committee on Banking Supervision (BCBS) in its consultative documents. Given the uncertainty regarding the revised rules and the calibration of any capital floors, the differences described are not indicative of differences which may arise under the revised rules.

We continue to 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, ensuring the right incentives are in place to prudently manage risks.

For comparability with our prior-year disclosure, we refer to the BIS exposure segments "Sovereigns," "Banks" and "Corporates" within this section. These reconcile to the FINMA-defined asset classes disclosed elsewhere in this report as follows:

- "Sovereigns" includes the FINMA asset class "Central governments and central banks," as well as highly rated multilateral development banks, which are now reported in the FINMA asset class "Public sector entities, multilateral development banks."
- "Banks" includes the FINMA asset class "Banks and securities dealers," as well as public sector entities with revenue-raising power, which are now reported in the FINMA asset class "Public sector entities, multilateral development banks."
- "Corporates" includes the FINMA asset classes "Corporates: specialized lending" and "Corporates: other lending," as well as public sector entities without revenue-raising power, which are now reported under the FINMA asset class "Public sector entities, multilateral development banks."

Key methodological differences between A-IRB and current SA approaches

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 Sovereigns) receive lower risk weights under the A-IRB than under the current SA rules. Accordingly, risk-weighted assets (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 sovereigns. 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 probability of default 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 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 exposure segment

The following table shows EAD, average risk weight (RW), risk-weighted assets (RWA) and leverage ratio denominator (LRD) per exposure segment for Sovereigns, Banks, 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.

Breakdown by exposure segments

	A-IRB			LRD
in CHF billion	EAD	RW	RWA	
Sovereigns	145	*2%*	3	141
Banks	39	*21%*	8	67
Corporates	135	*34%*	46	183
Retail	248	*11%*	26	248
o/w Residential mortgages	*133*	*15%*	*20*	*133*
o/w Lombard Lending	*113*	*5%*	*6*	*113*

Comparison of the A-IRB approach, the SA and LRD by exposure segment

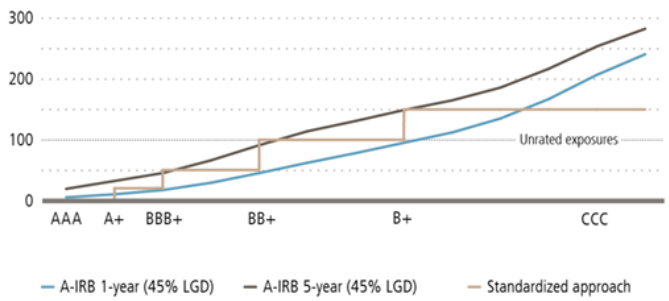
The following discusses the differences between the A-IRB approach, the SA and LRD per exposure segment.

Exposure segment Sovereigns

The regulatory net EAD for Sovereigns is CHF 145 billion under the A-IRB approach. Since the vast majority of our exposure to Sovereigns 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 chart below provides a comparison of risk weights for Sovereigns exposures 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% (the default LGD assigned for senior unsecured exposures under the Foundation IRB approach). 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 140 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Comparison of risk weights – Sovereigns



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

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.

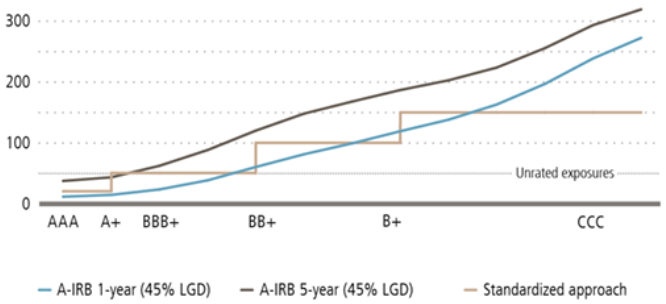
However, as the Sovereigns exposure segment is not a significant driver of RWA, we would expect any resulting increase in RWA to be relatively small.

Exposure segment Banks

The regulatory net EAD for Banks is CHF 39 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



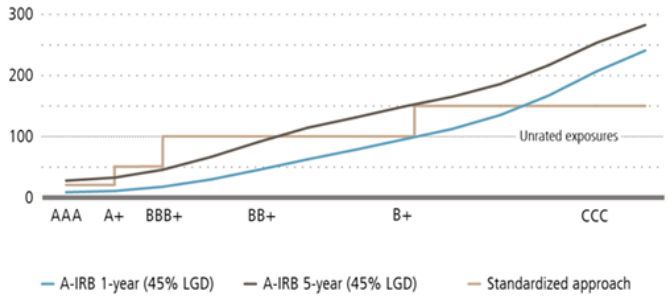
The vast majority of our Banks exposure is of investment grade quality. The average contractual maturity of this exposure is closer to the one-year example provided in the chart above. Therefore, we would expect a higher average risk weight under the SA than the 21% average risk weight under the A-IRB approach. In combination with higher EAD, we would expect this to lead to significantly higher RWA for Banks under the SA.

Exposure segment Corporates

The regulatory net EAD for Corporates is CHF 135 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 exposure segment, 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.

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% applied where no external rating is available. Typically, counterparties with no external rating are riskier and thus also 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 7%. We believe the SA significantly overstates the 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.

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 fund	> 1000	0	0	100%	AAA–A	< 1Y	10–20%	100%
Leverage finance counterparty	< 2	> 2.5	> 50%	0%	BB–C	> 5Y	100–250%	100%

Exposure segment Retail

Sub-segment residential mortgages

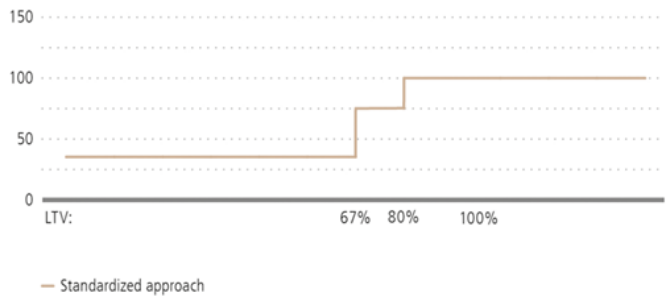
The regulatory net EAD for residential mortgages is CHF 133 billion under the A-IRB approach. Since the vast majority is driven by banking products exposures, the LRD is broadly in line with the A-IRB net EAD and we would expect a similar amount under the SA.

With our leading 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 take a sophisticated approach in assigning risk weights to such loans by considering the debt service capacity of borrowers as well as the availability of other collateral. 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 exposure segments 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 35% risk weight under the SA, compared to the 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 133 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

The following example illustrates the importance of considering the quality of the portfolio at a more granular level than the SA allows. The majority of the CHF 133 billion Residential mortgages EAD shown relates to loans secured by real estate in Switzerland. If the value assigned to the real estate collateral underlying those Swiss mortgage loans were to reduce by 30% and costs of closing out impaired loans were 20% of the current property value, we estimate that the default rates would need to be higher than 10% to lose an amount equivalent to the current capital requirement of CHF 1.6 billion related to that portfolio (calculated based on 8% of RWA). Moreover, FINMA requires banks using the A-IRB approach to apply bank-specific A-IRB multipliers when calculating RWA for Swiss mortgages. As the multiplier is phased in through 2019, the default rate required to generate a loss exceeding the capital requirement will increase substantially.

Sub-segment Lombard lending:

Lombard loans, with CHF 113 billion of regulatory net EAD under the A-IRB approach, mainly arise in our wealth management businesses, which offer comprehensive financial services to private clients with substantial financial resources.

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 7 Securitizations

Introduction

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 tranched 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

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 2016, 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

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

For the securitization of third-party exposures, the type of structured entities 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 441–449 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors* for further information on interests in structured entities.

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

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 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

Refer to Note 1 a) item 1 "Consolidation" on pages 325–326 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors* for information on accounting policies that relate to securitization activities.

Regulatory capital treatment of securitization structures

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 supervisory formula approach 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

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 2016. 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.

SEC1: Securitization exposures in the banking book

31.12.16		a	b	c	e	f	g	h1	h2	h3	i	j	k
		Bank acts as originator			Bank acts as sponsor			Bank acts as originator & sponsor			Bank acts as investor		
CHF million		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
Asset classes													
1	Retail (total)	103		103	162		162				210		210
	of which:												
2	*Residential mortgage*	*103*		*103*							*210*		*210*
3	*Credit card receivables*												
4	*Student loans*				*162*		*162*						
5	*Consumer loans*												
6	*Other retail exposures*												
7	Wholesale (total)		2,712	2,712	31		31				175		175
	of which:												
8	*Loans to corporates or SME*		*2,670*	*2,670*									
9	*Commercial mortgage*				*0*		*0*				*0*		*0*
10	*Lease and receivables*				*0*		*0*						
11	*Trade receivables*												
12	*Other wholesale*		*43*	*43*	*31*		*31*				*175*		*175*
13	Re-securitization	*0*			*0*						*0*		
14	**Total securitization / re-securitization (including retail and wholesale)**	**103**	**2,712**	**2,815**	**193**		**193**				**385**		**385**

SEC2: Securitization exposures in the trading book

31.12.16		a	b	c	e	f	g	h1	h2	h3	i	j	k
		Bank acts as originator			Bank acts as sponsor			Bank acts as originator & sponsor			Bank acts as investor		
CHF million		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
Asset classes													
1	Retail (total)	5		5	6		6				31		31
	of which:												
2	*Residential mortgage*	*5*		*5*	*6*		*6*				*31*		*31*
3	*Credit card receivables*												
4	*Student loans*										*0*		*0*
5	*Consumer loans*												
6	*Other retail exposures*												
7	Wholesale (total)				0		0	36		36	3		3
	of which:												
8	*Loans to corporates or SME*												
9	*Commercial mortgage*							*36*		*36*	*3*		*3*
10	*Lease and receivables*												
11	*Trade receivables*												
12	*Other wholesale*				*0*		*0*				*0*		*0*
13	Re-securitization		*5*	*5*							*9*		*9*
14	**Total securitization / re-securitization (including retail and wholesale)**	**5**	**5**	**10**	**6**		**6**	**36**		**36**	**43**		**43**

The following pages provide details on securitization exposures in the banking book and the associated regulatory capital requirements where the bank acts as originator, sponsor or investor.

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

		31.12.16													
		a	b	c	d	e	f	g	i	j	k	m	n	o	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)			RWA (by regulatory approach)			Capital charge after cap		
CHF million		≤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%
Asset classes															
1	Total exposures	182	2,670	11		103	193	2,670	103	41	613	1,286	3	49	103
2	Traditional securitization	182		11		103	193		103	41		1,286	3		103
3	*of which: securitization*	*182*		*11*		*103*	*193*		*103*	*41*		*1,286*	*3*		*103*
4	*of which: retail underlying*	*162*				*103*	*162*		*103*	*26*		*1,286*	*2*		*103*
5	*of which: wholesale*	*20*		*11*		*0*	*31*		*0*	*16*		*1*	*1*		*0*
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		2,670					2,670			613			49	
10	*of which: securitization*		*2,670*					*2,670*			*613*			*49*	
11	*of which: retail underlying*														
12	*of which: wholesale*		*2,670*					*2,670*			*613*			*49*	
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

		31.12.16													
		a	b	c	d	e	f	g	i	j	k	m	n	o	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)			RWA (by regulatory approach)			Capital charge after cap		
CHF million		≤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%
Asset classes															
1	Total exposures	255	48	81	0	1	383		1	111		17	9		1
2	Traditional securitization	255	48	81	0	1	383		1	111		17	9		1
3	*of which: securitization*	*255*	*48*	*81*	*0*	*1*	*383*		*1*	*111*		*17*	*9*		*1*
4	*of which: retail underlying*	*147*	*48*	*15*	*0*	*0*	*210*		*0*	*53*		*2*	*4*		*0*
5	*of which: wholesale*	*108*	*0*	*66*	*0*	*1*	*173*		*1*	*58*		*15*	*5*		*1*
6	*of which: re-securitization*					*0*			*0*			*0*			*0*
7	*of which: senior*														
8	*of which: non-senior*					*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 8 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 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 2016, available under "Annual reporting" at *www.ubs.com/investors*.

MRA – Market risk

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 page number
Strategies and processes of the bank for market risk	Risk, treasury and capital management	– Risk appetite framework	122–125
		– 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	359–365
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	118
		– Risk governance	121–122
Scope and nature of risk reporting and/or measurement systems.	Risk, treasury and capital management	– Internal risk reporting	125
		– Main sources of market risk, Overview of measurement, monitoring and management techniques	148

Securitization positions in the trading book

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 table "Detailed segmentation of Basel III exposures and risk-weighted assets" in section 2 of this report and to section 7 "Securitizations" in this report for more information.

The table below provides information on market risk RWA from securitization exposures in the trading book.

MR1: Market risk under standardized approach

31.12.16		a
CHF million		RWA
	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	428
9	**Total**	**428**

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

MRB – Internal models approach

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 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	386–406
Description of stress testing applied to modelling parameters	Consolidated financial statements	– Note 22 Fair value measurement	386–406
Description of backtesting approach	Risk, treasury and capital management	– Backtesting of VaR	151–152
		– VaR model confirmation	152

Regulatory calculation of market risk

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

Our average 10-day 99% regulatory and stressed VaR increased in the second half of the year, driven primarily by various factors across our Equities and Foreign Exchange, Rates and Credit businesses, including option expiries and strong client flows. These measures returned to lower levels by the end of the year. Period-end IRC increased in the second half of 2016 by CHF 60 million from CHF 132 million per 30 June 2016 to CHF 192 million per 31 December 2016.

The increase was driven by exposures in high-yield US corporate issuers in the Investment Bank. This semi-annual increase was only partially offset by a risk reduction from the reclassification of Corporate Center – Group Asset and Liability Management (Group ALM) high-quality liquid asset portfolio from trading book into banking book treatment.

Since the exit of the Non-core correlation trading portfolio market risk in 2014, the CRM for the Group has remained at low levels.

MR3: IMA values for trading portfolios

		For the six-month period ended 31.12.16	For the six-month period ended 30.6.16
CHF million		a	a
	VaR (10-day 99%)		
1	Maximum value	84	54
2	Average value	27	22
3	Minimum value	5	6
4	Period end	16	10
	Stressed VaR (10-day 99%)		
5	Maximum value	179	292
6	Average value	67	57
7	Minimum value	20	13
8	Period end	31	13
	Incremental risk charge (99.9%)		
9	Maximum value	280	223
10	Average value	225	180
11	Minimum value	144	132
12	Period end	192	132
	Comprehensive risk capital charge (99.9%)		
13	Maximum value	12	11
14	Average value	8	7
15	Minimum value	7	4
16	Period end	8	5
17	Floor (standardized measurement method)	1	2

Value-at-risk

VaR definition

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 P&L 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 monthly 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 stressed VaR (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

VaR and SVaR are used to derive the VaR and SVaR components of the market risk Basel III RWA, as shown in the table "Detailed segmentation of Basel III exposures and risk-weighted assets" in 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 3.65 as of 31 December 2016, 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 calculation is set out in the table below.

Calculation of VaR- and SVaR-based RWA as of 31 December 2016

CHF million	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%)	16	36	3.65	1.3	173	1,250%	2,158
Stressed VaR (10-day 99%)	31	103	3.65	1.3	490	1,250%	6,128

MR4: Comparison of VaR estimates with gains/losses

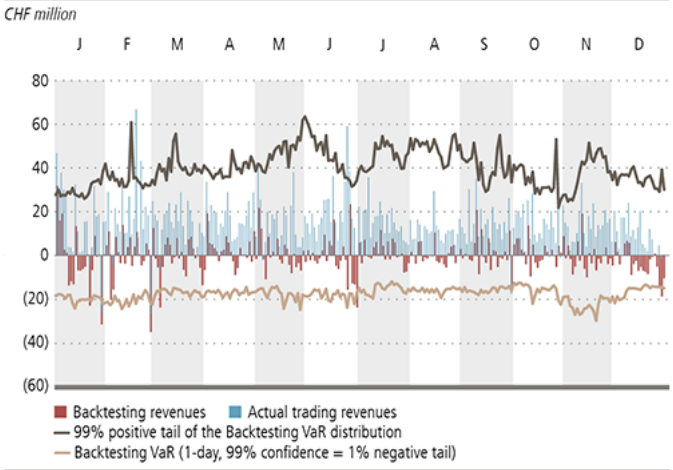
The "Group: development of backtesting revenues and actual trading revenues against backtesting VaR (1-day, 99% confidence)" chart below shows the 12-month development of backtesting VaR against the Group's backtesting revenues for 2016. The chart shows both the negative and positive tails of the backtesting 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.

There were seven regulatory Group VaR negative backtesting exceptions during 2016, primarily in the first six months of the year. This brought the total number of negative exceptions within the 250-business-day window to seven, as the four downside exceptions that occurred in the previous year moved out of this time window. Correspondingly, the FINMA VaR multiplier for the market risk RWA calculation increased from 3.0 at the end of 2015 to 3.65 as of 31 December 2016. We have investigated the cause for each of the backtesting exceptions and identified several factors that contributed to the increase. In particular, with market risk being managed at such low levels of VaR, the impact of these factors on the backtesting results became relatively more significant, contributing to the higher frequency of exceptions.

– Periods of increased market volatility relative to the volatility in the historical five-year time series led to daily profit or loss exceeding that predicted by the VaR model. Significant market volatility occurred in the first quarter of 2016 arising from uncertainties with regard to macroeconomic developments in China and emerging markets more broadly, and to weakening commodity prices, particularly oil, as well as in the second quarter of 2016 following the outcome of the UK referendum on EU membership. In addition, the markets saw large movements coming into year-end, particularly in euro and Swiss franc interest rate curves.
– Adjustments to trading revenues arising from non-daily marking or valuation processes can result in the recognition of profits and losses disconnected from the previous day's backtesting VaR. We have initiatives to reduce such adjustments.
– Profit or loss on risks accounted for in the capital underpinning of RniV is captured in the backtesting revenue, even though the risks are not covered by the VaR model. We continue to focus on extending the VaR model to better capture these risks.

Given the factors outlined above, the statistical expectation of two or three exceptions per year, and combined with a review of the VaR model to confirm that it is performing consistent with its design and expectations considering the current risk profile and the market behavior, we do not believe that the increase in the number of regulatory negative backtesting exceptions during the year indicates a deficiency in our VaR model.

Group: development of backtesting revenues[1] and actual trading revenues[2] against backtesting VaR[3] (1-day, 99% confidence)



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

Risks-not-in-VaR

Risks-not-in-VaR definition

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

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, as well as the use of proxies for certain market risk factors. We categorize RniV by means of items and keep track of which instrument classes are affected by each item.

When new types of instruments are included in the VaR population, we assess whether new items must be added to the inventory of RniV items.

Risks-not-in-VaR quantification

Risk officers perform a quantitative assessment for each position in the inventory of RniV annually. The assessment is made in terms of a 10-day 99%-VaR measure applied to the difference between the profit and loss scenarios that would have been produced based on our best estimate given available data, and the profit and loss scenarios generated by the current model used for the regulatory VaR calculation. Whenever the available market data allows, a historical simulation approach with five years of historical data is used to estimate the 10-day 99%-VaR for an item. Other eligible methods are based on analytical considerations or stress test and worst-case assessments. Statistical methods are used to aggregate the standalone risks, yielding a Group-level 10-day 99%-VaR estimate of the entire inventory of RniV items at the specific date. The ratio of this amount to regulatory VaR is used to produce estimates for arbitrary points in time by scaling the corresponding regulatory VaR figures with that fixed ratio. An analogous approach is applied for SVaR.

Risks-not-in-VaR mitigation

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

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 subject to an annual recalibration. As the RWA from RniV are add-ons, they do not reflect any diversification benefits across risks capitalized through VaR and SVaR.

Following the annual calibration of the ratios in the second quarter of 2016 and in consideration of certain VaR model improvements made during 2016, the RniV VaR and SVaR capital ratios reduced from 105% and 92%, respectively, as of 31 December 2015, to 86% and 28%, respectively, as of 31 December 2016.

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

Calculation of RniV-based RWA as of 31 December 2016

CHF million	Period-end RWA (A)	RniV add-on (B)	RniV RWA (A x B)
Regulatory VaR	2,158	86%	1,855
Stressed VaR	6,128	28%	1,855[1]
Total RniV RWA			3,709

1 RniV stressed VaR RWA is floored at RniV regulatory VaR RWA.

Incremental risk charge

The incremental risk charge (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

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

Calculation of IRC-based RWA as of 31 December 2016

CHF million	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)
	192	237	237	1,250%	2,963

Comprehensive risk measure

The comprehensive risk measure (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

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 table "Detailed segmentation of Basel III exposures and risk-weighted assets" in 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.

Calculation of CRM-based RWA as of 31 December 2016

CHF million	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)
	8	8	8	1,250%	104

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

Section 9 Operational risk

The table below presents an overview of Pillar 3 disclosures separately provided in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 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 for operational risk (AMA)	Risk, treasury and capital management	– Advanced measurement approach model	166–167

Section 10 Interest rate risk in the banking book

Interest rate risk in the banking book arises from balance sheet positions such as *Loans, Due from customers* and *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 2016, available under "Annual reporting" at *www.ubs.com/investors.*

Interest rate risk in the banking book

Pillar 3 disclosure requirement	Annual Report 2016 section	Disclosure	Annual Report 2016 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

Interest rate risk in the banking book is not underpinned for capital purposes, but is subject to a regulatory threshold. As of 31 December 2016, the economic-value effect of an adverse parallel shift in interest rates of ±200 basis points on our banking book interest rate risk exposures is 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 for 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 decreased to negative CHF 3.1 million per basis point from negative CHF 4.1 million per basis point. This was mainly due to a decreased negative sensitivity in Wealth Management Americas and was mainly driven by a revised client rate model for the non-maturity deposits in Wealth Management Americas, which was enhanced to represent more accurately the relationship between historical market rates and the client rates. The change in Swiss franc interest rate sensitivity, from negative CHF 0.2 million per basis point to positive CHF 0.5 million per basis point, is predominantly attributable to the residual adjustment of the banking book exposure by Corporate Center – Group ALM to the new target duration of our Swiss franc-denominated equity, which we had shortened during 2015, primarily in response to the prevailing negative interest-rate environment in Swiss francs.

Interest rate sensitivity – banking book[1,2]

	31.12.16				
CHF million	–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)

	31.12.15				
CHF million	–200 bps	–100 bps	+1 bp	+100 bps	+200 bps
CHF	(33.9)	(33.9)	(0.2)	(15.5)	(29.1)
EUR	27.0	26.2	(0.3)	(29.7)	(55.5)
GBP	(165.5)	(42.4)	0.1	(0.8)	(15.6)
USD	838.7	438.8	(3.8)	(380.4)	(763.4)
Other	(1.2)	(2.1)	0.1	8.2	16.5
Total effect on fair value of interest rate-sensitive banking book positions	665.0	386.5	(4.1)	(418.3)	(847.0)

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 11 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 184–197 of our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Swiss SRB going and gone concern requirements and information[1]

As of 31.12.16	Swiss SRB including transitional arrangements (phase-in)				Swiss SRB as of 1.1.20 (fully applied)			
CHF million, except where indicated	Risk-weighted assets		Leverage ratio denominator		Risk-weighted assets		Leverage ratio denominator	
Required loss-absorbing capacity	in %		in %		in %		in %	
Common equity tier 1 capital	8.31	18,732	2.30	20,123	10.19	22,680	3.50	30,466
of which: minimum capital	*6.18*	*13,919*	*2.30*	*20,123*	*4.50*	*10,020*	*1.50*	*13,057*
of which: buffer capital	*1.95*	*4,396*			*5.50*	*12,247*	*2.00*	*17,409*
of which: countercyclical buffer[2]	*0.19*	*418*			*0.19*	*412*		
Maximum additional tier 1 capital	2.63	5,917	0.70	6,124	4.30	9,575	1.50	13,057
of which: high-trigger loss-absorbing additional tier 1 minimum capital	*1.83*	*4,114*	*0.70*	*6,124*	*3.50*	*7,794*	*1.50*	*13,057*
of which: high-trigger loss-absorbing additional tier 1 buffer capital	*0.80*	*1,803*			*0.80*	*1,781*		
Total going concern capital	10.94	24,649	3.00	26,248	14.49[3]	32,255	5.00[3]	43,523
Base gone concern requirement	3.50	7,889	1.00	8,749	14.30[3]	31,843	5.00[3]	43,523
Total gone concern loss-absorbing capacity	3.50	7,889	1.00	8,749	14.30	31,843	5.00	43,523
Total loss-absorbing capacity	14.44	32,539	4.00	34,997	28.79	64,098	10.00	87,047
Eligible loss-absorbing capacity								
Common equity tier 1 capital	16.76	37,788	4.32	37,788	13.78	30,693	3.53	30,693
High-trigger loss-absorbing additional tier 1 capital[4,5]	7.90	17,805	2.04	17,805	4.11	9,151	1.05	9,151
of which: high-trigger loss-absorbing additional tier 1 capital	*2.89*	*6,512*	*0.74*	*6,512*	*3.06*	*6,809*	*0.78*	*6,809*
of which: low-trigger loss-absorbing additional tier 1 capital	*0.00*	*0*	*0.00*	*0*	*1.05*	*2,342*	*0.27*	*2,342*
of which: high-trigger loss-absorbing tier 2 capital	*0.40*	*891*	*0.10*	*891*				
of which: low-trigger loss-absorbing tier 2 capital	*4.61*	*10,402*	*1.19*	*10,402*				
Total going concern capital	24.66	55,593	6.35	55,593	17.89	39,844	4.58	39,844
Gone concern loss-absorbing capacity	8.09	18,229	2.08	18,229	13.16	29,311	3.37	29,311
of which: TLAC-eligible senior unsecured debt	*7.49*	*16,890*	*1.93*	*16,890*	*7.58*	*16,890*	*1.94*	*16,890*
Total gone concern loss-absorbing capacity	8.09	18,229	2.08	18,229	13.16	29,311	3.37	29,311
Total loss-absorbing capacity	32.75	73,822	8.44	73,822	31.06	69,154	7.94	69,154
Risk-weighted assets / leverage ratio denominator								
Risk-weighted assets		225,412				222,677		
Leverage ratio denominator				874,925				870,470

1 This table does not include the effect of any potential gone concern requirement rebate. 2 Going concern capital ratio requirements as of 31 December 2016 include countercyclical buffer requirements of 0.19% 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 additional tier 1 capital instruments, which under the transitional rules of the Swiss SRB framework will remain available to meet the going concern requirements until their first call date, even if the first call date is after 31 December 2019. From their first call date, they may be used to meet the gone concern requirements. Low-trigger loss-absorbing additional tier 1 capital was fully offset by required deductions for goodwill on a phase-in basis. 5 Includes outstanding high- and low-trigger loss-absorbing tier 2 capital instruments, which under the transitional rules of the Swiss SRB framework will remain available to meet the going concern requirements until the earlier of (i) their maturity or first call date or (ii) 31 December 2019. From 1 January 2020, these instruments may be used to meet the gone concern requirements until one year before maturity, with a haircut of 50% applied in the last year of eligibility.

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 BIS 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 section 3 of this report for more information on the most significant entities consolidated under IFRS, but not included in the regulatory scope of consolidation.

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

As of 31.12.16	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]
CHF million					
Assets					
Cash and balances with central banks	107,767			107,767	
Due from banks	13,156	(225)		12,931	
Cash collateral on securities borrowed	15,111			15,111	
Reverse repurchase agreements	66,246			66,246	
Trading portfolio assets	96,575	(9,974)		86,601	
Positive replacement values	158,411	10		158,421	
Cash collateral receivables on derivative instruments	26,664			26,664	
Loans	306,325	92		306,417	
Financial assets designated at fair value	65,353			65,353	
Financial assets available for sale	15,676	(32)		15,644	
Financial assets held to maturity	9,289			9,289	
Consolidated participations	0	109		109	
Investments in associates	963			963	
of which: goodwill	*342*			*342*	*4*
Property, equipment and software	8,331	(73)		8,259	
Goodwill and intangible assets	6,556		0	6,557	
of which: goodwill	*6,311*		*0*	*6,311*	*4*
of which: intangible assets	*245*			*245*	*5*
Deferred tax assets	13,155	(1)		13,155	
of which: deferred tax assets recognized for tax loss carry-forwards	*8,197*	*(1)*		*8,197*	*9*
of which: deferred tax assets on temporary differences	*4,958*			*4,958*	*12*
Other assets	25,436	(5,396)		20,039	
of which: net defined benefit pension and other post-employment assets	*0*			*0*	*10*
Total assets	*935,016*	**(15,488)**	**0**	*919,528*	

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

As of 31.12.16	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]
CHF million					
Liabilities					
Due to banks	10,645	(64)		10,581	
Cash collateral on securities lent	2,818			2,818	
Repurchase agreements	6,612			6,612	
Trading portfolio liabilities	22,824			22,824	
Negative replacement values	153,810	1		153,811	
Cash collateral payables on derivative instruments	35,472			35,472	
Due to customers	423,672	(51)		423,622	
Financial liabilities designated at fair value	55,017			55,017	
Debt issued	103,649	(14)		103,636	
of which: amount eligible for high-trigger loss-absorbing additional tier 1 capital[2]	*5,429*			*5,429*	*13*
of which: amount eligible for low-trigger loss-absorbing additional tier 1 capital[2]	*2,342*			*2,342*	*13*
of which: amount eligible for low-trigger loss-absorbing tier 2 capital[3]	*10,402*			*10,402*	*7*
of which: amount eligible for capital instruments subject to phase-out from tier 2 capital[4]	*698*			*698*	*8*
Provisions	4,174			4,174	
Other liabilities	62,020	(15,231)		46,789	
of which: amount eligible for high-trigger loss-absorbing capital (Deferred Contingent Capital Plan (DCCP))[5]	*919*			*919*	*13*
Total liabilities	880,714	**(15,358)**	0	865,355	
Equity					
Share capital	385			385	1
Share premium	28,254			28,254	1
Treasury shares	(2,249)			(2,249)	3
Retained earnings	31,725	(258)		31,466	2
Other comprehensive income recognized directly in equity, net of tax	(4,494)	128		(4,366)	3
of which: unrealized gains / (losses) from cash flow hedges	*972*			*972*	*11*
Equity attributable to UBS Group AG shareholders	53,621	(130)	0	53,490	
Equity attributable to non-controlling interests	682	1		683	6
Total equity	54,302	**(129)**	0	54,173	
Total liabilities and equity	935,016	**(15,488)**	0	919,528	

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 10,429 million. 4 IFRS carrying value is CHF 1,125 million. 5 IFRS carrying value is CHF 1,625 million. Refer to the "Compensation" section of our Annual Report 2016 for more information on DCCP.

The table below and on the following pages provides the "Composition of capital" as defined by BIS 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.

Composition of capital

As of 31.12.16		Numbers phase-in	Effect of the transition phase	References[1]
CHF million, except where indicated				
1	Directly issued qualifying common share (and equivalent for non-joint stock companies) capital plus related stock surplus	28,640		1
2	Retained earnings	31,466		2
3	Accumulated other comprehensive income (and other reserves)	(6,616)		3
4	Directly issued capital subject to phase-out from common equity tier 1 capital (only applicable to non-joint stock companies)			
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in Group common equity tier 1 capital)			
6	**Common equity tier 1 capital before regulatory adjustments**	**53,490**		
7	Prudential valuation adjustments	(68)		
8	Goodwill, net of tax, less additional tier 1 capital[2]	(3,959)	(2,639)	4
9	Intangible assets, net of tax[2]	(241)		5
10	Deferred tax assets recognized for tax loss carry-forwards[3]	(5,042)	(3,361)	9
11	Unrealized (gains) / losses from cash flow hedges, net of tax	(972)		11
12	Expected losses on advanced internal ratings-based portfolio less general provisions	(356)		
13	Securitization gain on sale			
14	Own credit related to financial liabilities designated at fair value, net of tax, and replacement values	(294)		
15	Defined benefit plans			10
16	Compensation and own shares-related capital components (not recognized in net profit)	(1,589)		
17	Reciprocal crossholdings in common equity			
17a	Qualifying interest where a controlling influence is exercised together with other owners (CET instruments)			
17b	Consolidated investments (CET1 instruments)			
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued share capital (amount above 10% threshold)			
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)			
20	Mortgage servicing rights (amount above 10% threshold)			
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)[4]	(741)	(1,094)	12
22	Amount exceeding the 15% threshold			
23	*of which: significant investments in the common stock of financials*			
24	*of which: mortgage servicing rights*			
25	*of which: deferred tax assets arising from temporary differences*			
26	Expected losses on equity investments treated according to the PD/LGD approach			
26a	Other adjustments relating to the application of an internationally accepted accounting standard	(262)		
26b	Other deductions	(2,179)		13
27	Regulatory adjustments applied to common equity tier 1 due to insufficient additional tier 1 and tier 2 to cover deductions			
28	**Total regulatory adjustments to common equity tier 1**	**(15,703)**	**(7,095)**	

Composition of capital (continued)

	As of 31.12.16	Numbers phase-in	Effect of the transition phase	References[1]
	CHF million, except where indicated			
29	**Common equity tier 1 capital (CET1)**	**37,788**	**(7,095)**	
30	Directly issued qualifying additional tier 1 instruments plus related stock surplus	9,151		
31	*of which: classified as equity under applicable accounting standards*			
32	*of which: classified as liabilities under applicable accounting standards[5]*	9,151		13
33	Directly issued capital instruments subject to phase-out from additional tier 1			
34	Additional tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in Group additional tier 1)	642	(642)	6
35	*of which: instruments issued by subsidiaries subject to phase-out*	*642*	*(642)*	
36	**Additional tier 1 capital before regulatory adjustments**	**9,793**	**(642)**	
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 (additional tier 1 instruments)			
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity amount above 10% threshold)			
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)			
41	National specific regulatory adjustments	(2,639)	2,639	
42	Regulatory adjustments applied to additional tier 1 due to insufficient tier 2 to cover deductions			
	Tier 1 adjustments on impact of transitional arrangements	**(2,639)**	**2,639**	
	of which: prudential valuation adjustment			
	of which: own CET1 instruments			
	of which: goodwill net of tax, offset against additional loss-absorbing tier 1 capital	*(2,639)*	*2,639*	
	of which: intangible assets (net of related tax liabilities)			
	of which: gains from the calculation of cash flow hedges			
	of which: IRB shortfall of provisions to expected losses			
	of which: gains on sales related to securitization transactions			
	of which: gains/losses in connection with own credit risk			
	of which: investments			
	of which: expected loss amount for equity exposures under the PD/LGD approach			
	of which: mortgage servicing rights			
42a	Excess of the adjustments which are allocated to the common equity tier 1 capital			
43	**Total regulatory adjustments to additional tier 1 capital**	**(2,639)**	**2,639**	
44	**Additional tier 1 capital (AT1)**	**7,154**	**1,997**	
45	**Tier 1 capital (T1 = CET1 + AT1)**	**44,941**	**(5,098)**	
46	Directly issued qualifying tier 2 instruments plus related stock surplus[6]	10,814		7
47	Directly issued capital instruments subject to phase-out from tier 2[6]	713	(713)	8
48	Tier 2 instruments (and CET1 and additional tier 1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in Group tier 2)			
49	*of which: instruments issued by subsidiaries subject to phase-out*			
50	Provisions			
51	**Tier 2 capital before regulatory adjustments**	**11,527**	**(713)**	
52	Investments in own tier 2 instruments[6]	(17)	16	7, 8
53	Reciprocal cross holdings 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 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 additional tier 1 capital**			
57	**Total regulatory adjustments to tier 2 capital**	**(17)**	**16**	

Composition of capital (continued)

As of 31.12.16		Numbers phase-in	Effect of the transition phase	References[1]
CHF million, except where indicated				
58	**Tier 2 capital (T2)**	**11,511**	**(698)**	
	of which: high-trigger loss-absorbing capital[5]	*272*		*13*
	of which: low-trigger loss-absorbing capital[6]	*10,402*		*7*
59	**Total capital (TC = T1 + T2)**	**56,452**	**(5,795)**	
	Amount with risk weight pursuant to the transitional arrangement (phase-in)		(2,735)	
	of which: net defined benefit pension assets			
	of which: DTA on temporary differences		*2,736*	
60	**Total risk-weighted assets**	**225,412**	**(2,735)**	
	Capital ratios and buffers			
61	Common equity tier 1 (as a percentage of risk-weighted assets)	16.8		
62	Tier 1 (pos 45 as a percentage of risk-weighted assets)	19.9		
63	Total capital (pos 59 as a percentage of risk-weighted assets)	25.0		
64	CET1 requirement (base capital, buffer capital and countercyclical buffer requirements) plus G-SIB buffer requirement, expressed as a percentage of risk-weighted assets[7]	5.6		
65	*of which: capital buffer requirement*	*0.6*		
66	*of which: bank-specific countercyclical buffer requirement*	*0.2*		
67	*of which: G-SIB buffer requirement*	*0.3*		
68	Common equity tier 1 available to meet buffers (as a percentage of risk-weighted assets)	16.8		
68a–f	Not applicable for systemically relevant banks according to FINMA RS 11/2			
72	Non-significant investments in the capital of other financials	1,232		
73	Significant investments in the common stock of financials	759		
74	Mortgage servicing rights (net of related tax liability)			
75	Deferred tax assets arising from temporary differences (net of related tax liability)	5,088		
	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 column "References" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation." 2 The CHF 6,599 million (CHF 3,959 million and CHF 2,639 million) reported in line 8 includes goodwill on investments in associates of CHF 342 million and DTL on goodwill of CHF 55 million. The CHF 241 million reported in line 9 includes DTL on intangible assets of CHF 4 million. 3 The CHF 8,403 million (CHF 5,042 million and CHF 3,361 million) deferred tax assets recognized for tax loss carry-forwards reported in line 10 differ from the CHF 8,197 million deferred tax assets shown in line "Deferred tax assets" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation" because the latter figure is shown after the offset of deferred tax liabilities for cash flow hedge gains (CHF 156 million) and other temporary differences, which are adjusted out in line 11 and other lines of this table, respectively. 4 The CHF 1,835 million (CHF 741 million and CHF 1,094 million) deferred tax assets arising from temporary differences in line 21 differ from the CHF 4,958 million deferred tax assets on temporary differences shown in the line "Deferred tax assets" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation" as the former relates only to the amount above the 10% threshold. 5 CHF 9,151 million and CHF 272 million reported in line 32 and 58, respectively, of this table includes the following positions: CHF 5,429 million and CHF 2,342 million recognized in line "Debt issued" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation," CHF 919 million DCCP recognized in line "Other liabilities" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation" and CHF 732 million recognized in DCCP-related charge for regulatory capital purpose in line 16 "Compensation and own shares-related capital components (not recognized in net profit)" of this table. 6 The CHF 11,527 million in line 51 includes CHF 10,402 million low-trigger loss-absorbing tier 2 capital recognized in line "Debt issued" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation," which is shown net of CHF 1 million investments in own tier 2 instruments reported in line 52 of this table, CHF 698 million phase-out capital recognized in line "Debt issued" in the table "Reconciliation of accounting balance sheet to balance sheet under the regulatory scope of consolidation," which is shown net of CHF 16 million investments in own tier 2 reported in line 52 of this table, high-trigger loss-absorbing capital of CHF 272 million reported in line 58 and CHF 139 million of unrealized gains on financial assets available for sale, which are eligible under BIS rules. 7 BCBS requirements are exceeded by our Swiss SRB requirements. Refer to the "Capital Management" section of our Annual Report 2016 for more information on the Swiss SRB requirements.

Section 12 Leverage ratio

BIS Basel III leverage ratio

The BIS 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, resulting in a difference between phase-in and fully applied LRD for deferred tax assets (DTAs) and net defined benefit pension plan assets.

The "Reconciliation of IFRS total assets to BIS 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 BIS total on-balance sheet exposures, which are the starting point for calculating the BIS LRD as shown in the "BIS 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 BIS calculation. In addition, carrying values for derivative financial instruments and securities financing transactions are deducted from IFRS total assets. They are measured differently under BIS leverage ratio rules and are therefore added back in separate exposure line items in the "BIS Basel III leverage ratio common disclosure" table on the next page.

As of 31 December 2016, our BIS Basel III leverage ratio was 4.6% on a fully applied basis and 5.1% on a phase-in basis. The BIS Basel III LRD was CHF 870.5 billion on a fully applied basis and CHF 874.9 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 page 52 of our fourth quarter 2016 report, available under "Quarterly reporting" at *www.ubs.com/investors*.

Differences between the Swiss SRB and BIS leverage ratio

The leverage ratio denominator is the same under Swiss SRB and BIS rules. However, there are differences in the capital numerator between the two frameworks. Under BIS rules, only common equity tier 1 and additional tier 1 capital are included in the numerator, whereas under Swiss SRB rules total capital is eligible. Furthermore, the BIS capital framework does not include gone concern requirements as defined by the revised Swiss SRB framework, under which non-Basel III-compliant tier 1 capital is only eligible to meet gone concern requirements and is not included in the capital numerator for the purpose of the BIS leverage ratio calculation.

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

CHF million	31.12.16	30.9.16
On-balance sheet exposures		
IFRS total assets	935,016	935,206
Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(15,488)	(15,543)
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
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
Less carrying value of derivative financial instruments in IFRS total assets[1]	(185,086)	(179,052)
Less carrying value of securities financing transactions in IFRS total assets[2]	(96,352)	(103,459)
Adjustments to accounting values	0	0
On-balance sheet items excluding derivatives and securities financing transactions, but including collateral	638,091	637,153
Asset amounts deducted in determining BIS Basel III tier 1 capital	(13,240)	(13,070)
Total on-balance sheet exposures (excluding derivatives and securities financing transactions)	624,850	624,083

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.

BIS Basel III leverage ratio common disclosure

	CHF million, except where indicated	31.12.16	30.9.16
	On-balance sheet exposures		
1	On-balance sheet items excluding derivatives and SFTs, but including collateral	638,091	637,153
2	(Asset amounts deducted in determining Basel III tier 1 capital)	(13,240)	(13,070)
3	**Total on-balance sheet exposures (excluding derivatives and SFTs)**	**624,850**	624,083
	Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e., net of eligible cash variation margin)	51,919	48,412
5	Add-on amounts for PFE associated with all derivatives transactions	84,156	87,298
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	0	0
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(14,667)	(13,911)
8	(Exempted CCP leg of client-cleared trade exposures)	(17,314)	(16,018)
9	Adjusted effective notional amount of all written credit derivatives[1]	128,079	143,757
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)[2]	(124,533)	(140,098)
11	**Total derivative exposures**	**107,640**	109,440
	Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	167,822	176,975
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(71,470)	(73,517)
14	CCR exposure for SFT assets	8,366	8,729
15	Agent transaction exposures	0	0
16	**Total securities financing transaction exposures**	**104,718**	112,187
	Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	112,024	104,158
18	(Adjustments for conversion to credit equivalent amounts)	(74,306)	(68,152)
19	**Total off-balance sheet items**	**37,718**	36,006
	Total exposures (leverage ratio denominator), phase-in	**874,925**	881,717
	(Additional asset amounts deducted in determining Basel III tier 1 capital fully applied)	(4,456)	(4,404)
	Total exposures (leverage ratio denominator), fully applied	**870,470**	877,313
	Capital and total exposures (leverage ratio denominator), phase-in		
20	Tier 1 capital	44,941	44,061
21	Total exposures (leverage ratio denominator)	874,925	881,717
	Leverage ratio		
22	**Basel III leverage ratio phase-in (%)**	**5.1**	5.0
	Capital and total exposures (leverage ratio denominator), fully applied		
20	Tier 1 capital	39,844	39,003
21	Total exposures (leverage ratio denominator)	870,470	877,313
	Leverage ratio		
22	**Basel III leverage ratio fully applied (%)**	**4.6**	4.4

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.

BIS Basel III leverage ratio summary comparison

CHF million		31.12.16	30.9.16
1	Total consolidated assets as per published financial statements	935,016	935,206
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]	(28,728)	(28,613)
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
4	Adjustments for derivative financial instruments	(77,446)	(69,611)
5	Adjustment for securities financing transactions (i.e., repos and similar secured lending)	8,366	8,729
6	Adjustment for off-balance sheet items (i.e., conversion to credit equivalent amounts of off-balance sheet exposures)	37,718	36,006
7	Other adjustments	0	0
8	Leverage ratio exposure (leverage ratio denominator), phase-in	874,925	881,717

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

BIS Basel III leverage ratio

CHF million, except where indicated				
Phase-in	31.12.16	30.9.16	30.6.16	31.3.16
Total tier 1 capital	44,941	44,061	42,934	43,541
BIS total exposures (leverage ratio denominator)	874,925	881,717	902,431	910,000
BIS Basel III leverage ratio (%)	5.1	5.0	4.8	4.8

Fully applied	31.12.16	30.9.16	30.6.16	31.3.16
Total tier 1 capital	39,844	39,003	38,049	37,438
BIS total exposures (leverage ratio denominator)	870,470	877,313	898,195	905,801
BIS Basel III leverage ratio (%)	4.6	4.4	4.2	4.1

Section 13 Liquidity coverage ratio

In the fourth quarter of 2016, our three-month average total liquidity coverage ratio (LCR) increased 8 percentage points to 132%, remaining above the 110% Group LCR minimum communicated by FINMA. The increase was mainly due to a CHF 10 billion reduction in net cash outflows, largely driven by a decrease in outflows from securities financing transactions and an increase in inflows reflecting a higher amount of maturing performing loan positions within the relevant 30-day window during the quarter.

Liquidity coverage ratio

		Average 4Q16		Average 3Q16	
CHF billion, except where indicated		Unweighted value	Weighted value[1]	Unweighted value	Weighted value[1]
High-quality liquid assets					
1	High-quality liquid assets		196		197
Cash outflows					
2	Retail deposits and deposits from small business customers	235	26	230	25
3	*of which: stable deposits*	*38*	*1*	*37*	*1*
4	*of which: less stable deposits*	*197*	*25*	*193*	*24*
5	Unsecured wholesale funding	193	109	195	112
6	*of which: operational deposits (all counterparties)*	*36*	*9*	*35*	*9*
7	*of which: non-operational deposits (all counterparties)*	*142*	*85*	*143*	*87*
8	*of which: unsecured debt*	*15*	*15*	*17*	*17*
9	Secured wholesale funding[2]		73		62
10	Additional requirements:	99	39	106	44
11	*of which: outflows related to derivatives and other transactions*	*52*	*25*	*58*	*30*
12	*of which: outflows related to loss of funding on debt products[3]*	*1*	*1*	*0*	*0*
13	*of which: committed credit and liquidity facilities*	*47*	*14*	*48*	*14*
14	Other contractual funding obligations	13	12	23	19
15	Other contingent funding obligations	207	7	210	7
16	**Total cash outflows**		266		269
Cash inflows					
17	Secured lending[2]	266	71	254	65
18	Inflows from fully performing exposures	60	32	54	29
19	Other cash inflows	15	15	17	17
20	**Total cash inflows**	340	117	325	111

		Average 4Q16	Average 3Q16
CHF billion, except where indicated		Total adjusted value[4]	Total adjusted value[4]
Liquidity coverage ratio			
21	High-quality liquid assets	196	197
22	Net cash outflows	148	158
23	**Liquidity coverage ratio (%)**	132	124

1 Calculated after the application of inflow and outflow rates. 2 In the third quarter of 2016, the presentation of securities financing transactions across our business areas was aligned. Prior-period unweighted cash inflows from secured lending have been adjusted accordingly. These changes did not affect net cash outflows or the liquidity coverage ratio. 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 14 Remuneration

Pillar 3 disclosures on remuneration are separately provided on pages 225 and 256–298 in our Annual Report 2016, available under "Annual reporting" at *www.ubs.com/investors*.

Section 15 Requirements for global systemically important banks and related indicators

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 2016, the FSB determined that, based on the year-end 2015 indicators, the requirement for the UBS Group 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 2016 will be available online by the end of April 2017 under "Pillar 3, SEC filings & other disclosures" at *www.ubs.com/investors*.

Section 16 Prudential key figures for our significant regulated subsidiaries and subgroups

The FINMA-defined tables below include required information on the regulatory capital components and capital ratios, as well as leverage and liquidity coverage ratios where required, of UBS AG (standalone), UBS Limited (standalone) and UBS Americas Holding LLC (consolidated). Regulatory information for UBS Switzerland AG (standalone) is available under "Disclosure for legal entities" at *www.ubs.com/investors*. UBS AG (consolidated) capital and leverage ratio information is provided in the UBS Group AG and UBS AG Annual Report 2016 under "Annual Reporting" at *www.ubs.com/investors*.

In addition to the Pillar 1 capital requirements presented below, 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.

UBS AG (standalone)[1]

CHF million, except where indicated		31.12.16
1	Minimum capital requirement (8% of RWA)	18,594
2	Eligible capital	33,983
3	*of which: common equity tier 1 capital*	*33,983*
4	*of which: tier 1 capital*	*33,983*
5	Risk-weighted assets	232,422
6	Common equity tier 1 capital ratio in % of RWA	14.6
7	Tier 1 capital ratio in % of RWA	14.6
8	Total capital ratio in % of RWA	14.6
9	Countercyclical buffer (CCB) in % of RWA	0.0
10	Common equity tier 1 capital requirement (incl. CCB) (%)	10.0
11	Tier 1 capital requirement (incl. CCB) (%)	10.8
12	Total capital requirement (incl. CCB) (%)	14.0
13	Basel III leverage ratio (%)[2]	6.0
14	Leverage ratio denominator	561,979
15	Liquidity coverage ratio (fourth quarter 2016)	129
16	*Numerator: High-quality liquid assets*	*98*
17	*Denominator: Net cash outflows*	*76*

1 Based on the applicable phase-in rules for Swiss systemically relevant banks (SRBs). While UBS AG is considered a systemically relevant bank (SRB) under Swiss banking law, it is, on a standalone basis, not subject to the revised too big to fail provisions of the Swiss SRB framework. 2 On the basis of tier 1 capital.

UBS Limited (standalone)[1,2,3]

GBP million, except where indicated		31.12.16
1	Minimum capital requirement (8% of RWA)	886
2	Eligible capital	3,274
3	*of which: common equity tier 1 capital*	*2,352*
4	*of which: tier 1 capital*	*2,587*
5	Risk-weighted assets	11,081
6	Common equity tier 1 capital ratio in % of RWA	21.2
7	Tier 1 capital ratio in % of RWA	23.3
8	Total capital ratio in % of RWA	29.5
9	Countercyclical buffer (CCB) in % of RWA	0.0
10	Common equity tier 1 capital requirement (incl. CCB) (%)	5.1
11	Tier 1 capital requirement (incl. CCB) (%)	6.6
12	Total capital requirement (incl. CCB) (%)	8.6
13	Basel III leverage ratio (%)[4]	7.2
14	Leverage ratio denominator	35,794

1 Based on Directive 2013/36/EU and Regulation 575/2013 (together known as "CRD IV") and their related technical standards, as implemented within the UK by the Prudential Regulation Authority (PRA). 2 There is no local disclosure requirement for liquidity coverage ratio for UBS Limited as of 31 December 2016. 3 Capital information disclosed in this table excludes 2016 net profit carried forward, which will become eligible for inclusion only after completion of the statutory audit. 4 On the basis of tier 1 capital.

UBS Americas Holding LLC (consolidated)[1,2]

USD million, except where indicated		31.12.16
1	Minimum capital requirement (8% of RWA)	4,115
2	Eligible capital	12,370
3	*of which: common equity tier 1 capital*	11,648
4	*of which: tier 1 capital*	11,648
5	Risk-weighted assets	51,443
6	Common equity tier 1 capital ratio in % of RWA	22.6
7	Tier 1 capital ratio in % of RWA	22.6
8	Total capital ratio in % of RWA	24.0
9	Countercyclical buffer (CCB) in % of RWA	
10	Common equity tier 1 capital requirement (incl. CCB) (%)	5.1
11	Tier 1 capital requirement (incl. CCB) (%)	6.6
12	Total capital requirement (incl. CCB) (%)	8.6
13	Basel III leverage ratio (%)[3]	8.3
14	Leverage ratio denominator	140,174

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 2016. 3 On the basis of tier 1 capital.

Abbreviations frequently used in our financial reports

A

ABS	asset-backed security
AGM	annual general meeting of shareholders
A-IRB	advanced internal ratings-based
AIV	alternative investment vehicle
AMA	advanced measurement approach
ASFA	advanced supervisory formula approach
AT1	additional tier 1

B

BCBS	Basel Committee on Banking Supervision
BD	business division
BIS	Bank for International Settlements
BoD	Board of Directors
BVG	Swiss occupational pension plan

C

CC	Corporate Center
CCAR	Comprehensive Capital Analysis and Review
CCF	credit conversion factor
CCP	central counterparty
CCR	counterparty credit risk
CDO	collateralized debt obligation
CDR	constant default rate
CDS	credit default swap
CEA	Commodity Exchange Act
CEM	current exposure method
CEO	Chief Executive Officer
CET1	common equity tier 1
CFO	Chief Financial Officer
CHF	Swiss franc
CLN	credit-linked note
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed security
CM	credit risk mitigation
COP	close-out period
CRM	credit risk mitigation (credit risk) or comprehensive risk measure (market risk)
CVA	credit valuation adjustment

D

DBO	defined benefit obligation
DCCP	Deferred Contingent Capital Plan
DOJ	Department of Justice
DTA	deferred tax asset
DTL	deferred tax liability
DVA	debit valuation adjustment

E

EAD	exposure at default
EC	European Commission
ECAI	external credit assessment institutions
ECB	European Central Bank
EEPE	effective expected positive exposure
EPE	expected positive exposure
EIR	effective interest rate
EL	expected loss
EMEA	Europe, Middle East and Africa
EOP	Equity Ownership Plan
EPS	earnings per share
ETD	exchange-traded derivatives
ETF	exchange-traded fund
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate

F

FCA	UK Financial Conduct Authority
FCT	foreign currency translation
FDIC	Federal Deposit Insurance Corporation
FINMA	Swiss Financial Market Supervisory Authority
FRA	forward rate agreement
FSA	UK Financial Services Authority
FSB	Financial Stability Board
FTD	first to default
FTP	funds transfer price
FVA	funding valuation adjustment
FX	foreign exchange

G

GAAP	generally accepted accounting principles
GBP	British pound
GEB	Group Executive Board
GIIPS	Greece, Italy, Ireland, Portugal and Spain
Group ALM	Group Asset and Liability Management
G-SIB	global systemically important bank

H

HQLA	high-quality liquid assets

I

IAA	internal assessment approach
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
IMM	internal model method
IMA	internal models approach
IRB	internal ratings-based
IRC	incremental risk charge
ISDA	International Swaps and Derivatives Association

Abbreviations frequently used in our financial reports (continued)

K

KPI	key performance indicator

L

LAC	loss-absorbing capital
LAS	liquidity-adjusted stress
LCR	liquidity coverage ratio
LGD	loss given default
LIBOR	London Interbank Offered Rate
LRD	leverage ratio denominator
LTV	loan-to-value

M

MTN	medium-term note

N

NAV	net asset value
NCPA	non-counterparty-related risk
NPA	non-prosecution agreement
NRV	negative replacement value
NSFR	net stable funding ratio

O

OCI	other comprehensive income
OTC	over-the-counter

P

PD	probability of default
PFE	potential future exposure
P&L	profit and loss
PRA	UK Prudential Regulation Authority
PRV	positive replacement value

Q

QRRE	qualifying revolving retail exposures

R

RBA	ratings-based approach
RLN	reference-linked note
RMBS	residential mortgage-backed security
RniV	risks-not-in-VaR
RoAE	return on attributed equity
RoE	return on equity
RoTE	return on tangible equity
RV	replacement value
RW	risk weight
RWA	risk-weighted assets

S

SA	standardized approach
SA-CCR	standardized approach for counterparty credit risk
SE	structured entity
SEC	US Securities and Exchange Commission
SEEOP	Senior Executive Equity Ownership Plan
SSFA	simplified supervisory formula approach
SFA	supervisory formula approach
SFT	securities financing transaction
SME	small and medium enterprises
SNB	Swiss National Bank
SRB	systemically relevant bank
SRM	specific risk measure
SVaR	stressed value-at-risk

T

TBTF	too big to fail
TLAC	total loss-absorbing capacity
TRS	total return swap

U

USD	US dollar

V

VaR	value-at-risk

Cautionary Statement I This report and the information contained herein are provided solely for information purposes, and are not to be construed as solicitation of an offer to buy or sell any securities or other financial instruments in Switzerland, the United States or any other jurisdiction. No investment decision relating to securities of or relating to UBS Group AG, UBS AG or their affiliates should be made on the basis of this report. Refer to UBS's Annual Report 2016, available at *www.ubs.com/investors*, for additional information.

Rounding I Numbers presented throughout this report may not add up precisely to the totals provided in the tables and text. Percentages, percent changes and absolute variances are calculated on the basis of rounded figures displayed in the tables and text and may not precisely reflect the percentages, percent changes and absolute variances that would be calculated on the basis of figures that are not rounded.

Tables I 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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