



50
years

somewhat
different

From the CFO's desk

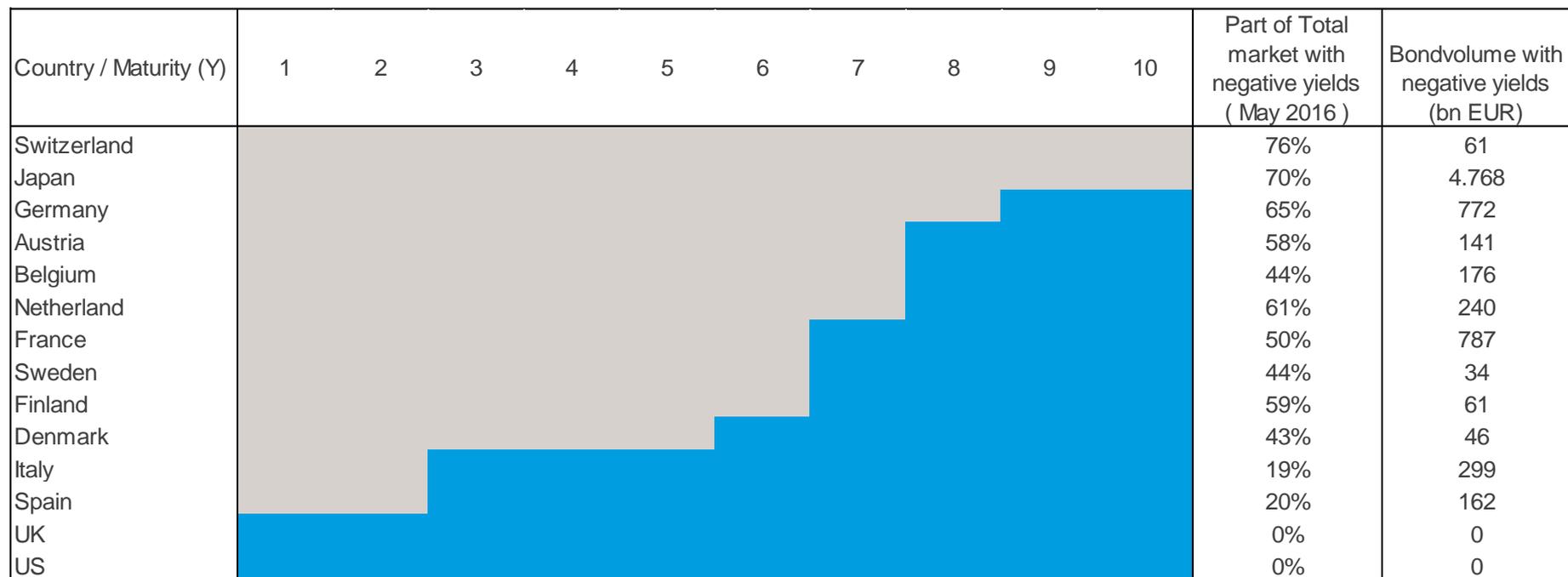
Asset management in times of negative interest rates / Solvency II vs IFRS accounts

Roland Vogel, Chief Financial Officer

Investment update

Negative interest rates dominate markets for government bonds

Cash costs even more ...



negative Yield
 positive Yield

Source: Bloomberg, Deutsche Bank as of June 2016

As of 30 Sep 2016 ~EUR 400 m. (~1%) of our assets earn negative book yields

Yield development Euro

Brexit effects become obvious

Asset group/ Asset class	12/2015	08/2016	Key ratios as per 29.08.2016				Key ratios as per 29.12.2015			
	Clean value in m. EUR		Rating	Modified duration next call	Yield*	Book yield*	Rating	Modified duration next call	Yield*	Book yield*
Governments	3,788.6	4,328.8	AA	6.25	-0.14	1.80	AA	6.20	0.39	2.16
Semi-governments	387.6	409.0	AA-	5.71	0.01	1.75	A+	5.60	0.54	1.97
Covered Bonds	2,098.8	2,014.6	AA+	5.68	0.10	2.64	AA+	5.44	0.63	2.83
ABS/MBS	414.1	387.2	BBB+	0.44	2.39	2.47	BBB	0.19	2.17	2.37
Corporates	3,571.4	3,389.7	BBB	4.84	1.09	3.06	BBB	4.77	1.75	3.24
Fixed-income derivatives		-2.4								
Fixed income	10,260.5	10,526.9	A	5.45	0.39	2.39	A	5.28	0.97	2.68
Time deposits	76.6	114.5	A-	0.09	0.07	-0.27	BBB	0.28	1.05	1.04
Cash	227.6	134.0	BBB+	0.00	0.00	0.00	A-	0.00	0.00	0.00
Short-term investments	304.2	248.5	BBB+	0.04	0.03	0.12	BBB+	0.10	0.36	0.36
Total EUR	10,564.7	10,775.4	A	5.33	0.38	2.33	A	5.17	0.96	2.63

* In %

-58 bps

Consequences of the current EUR-yield environment

- ▶ Reinvestment yield down to 38 bps theoretically
- ▶ Unrealised gains up by EUR 350 m. since the beginning of 2016
 - Existing business is not affected as we are duration-matched
- ▶ Impact from positive cash flow on pricing becomes marginal
 - In some cases even negative
- ▶ Overall EUR MtCR – for EUR business currently written: >95%

Largely stable asset allocation throughout first half 2016

Moderate increase in diversified listed equities

Asset allocation¹⁾

Investment category	2012	2013	2014	2015	30 Jun 2016
Fixed-income securities	92%	90%	90%	87%	87%
- Governments	19%	19%	21%	26%	27%
- Semi-governments	23%	20%	19%	17%	18%
- Corporates	33%	36%	36%	34%	32%
Investment grade	30%	33%	33%	30%	29%
Non-investment grade ³⁾	3%	3%	3%	4%	4%
- Pfandbriefe, Covered Bonds, ABS	17%	15%	14%	10%	10% ²⁾
Equities	2%	2%	2%	3%	4%
- Listed Equity	<1%	<1%	<1 %	1%	2%
- Private Equity	2%	2%	2%	2%	2%
Real estate/real estate funds	2%	4%	4%	4%	4%
Others³⁾	1%	1%	1%	1%	1%
Short-term investments & cash	3%	4%	4%	5%	5%
Total market values in bn. EUR	32.5	32.2	36.8	39.8	40.3

1) Economic view based on market values without outstanding commitments for Private Equity and Alternative Real Estate as well as fixed-income investments of EUR 885.6 m. (EUR 837.1 m.) as at 30 June 2016

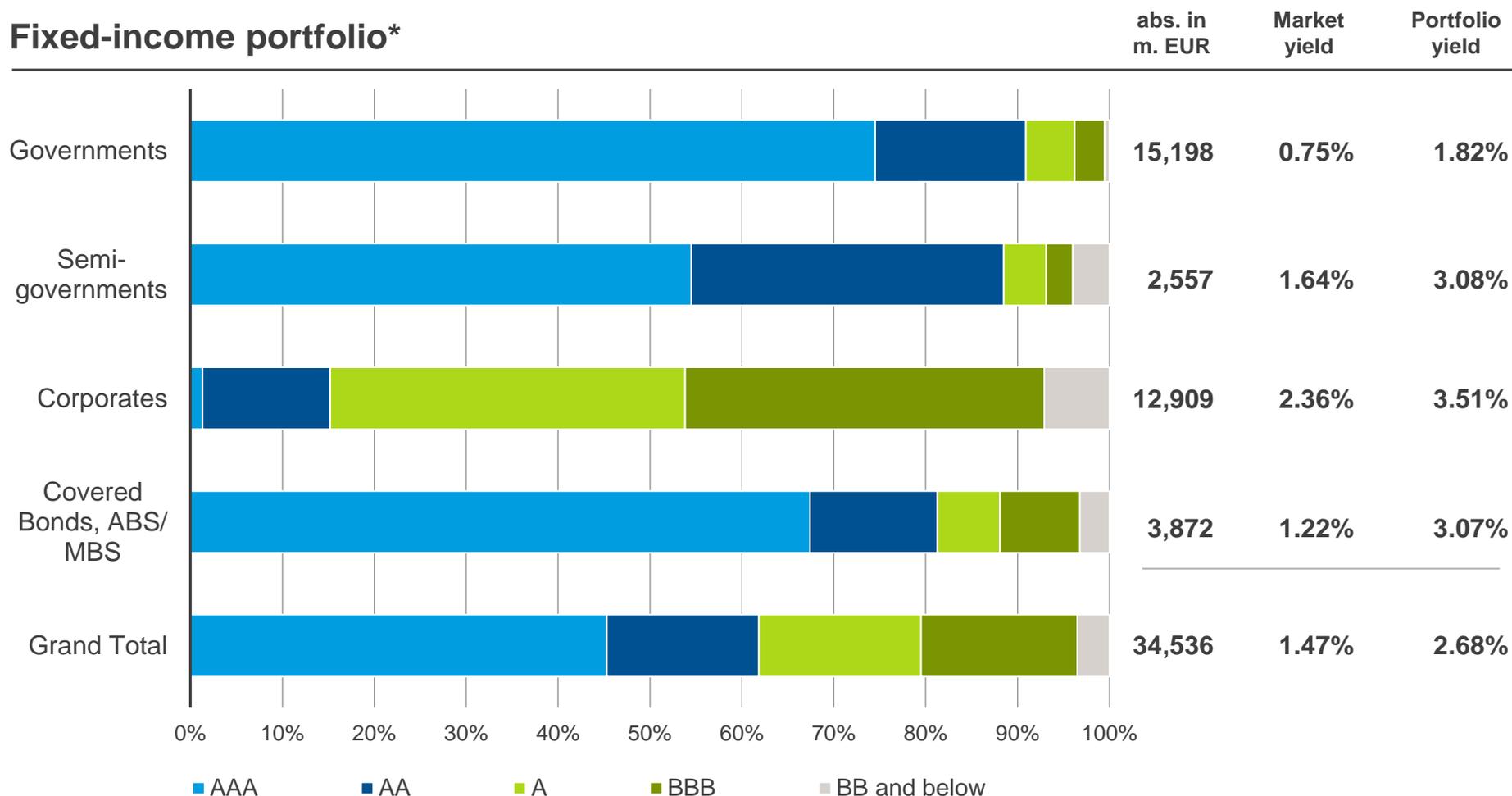
2) Of which Pfandbriefe and Covered Bonds = 78.1%

3) Reallocation of High Yield Funds from "Others" to "Corporates – Non-investment grade"

Portfolio yield supports ordinary income target ...

... but market yields lead to RoI dilution in line with expectation

Fixed-income portfolio*

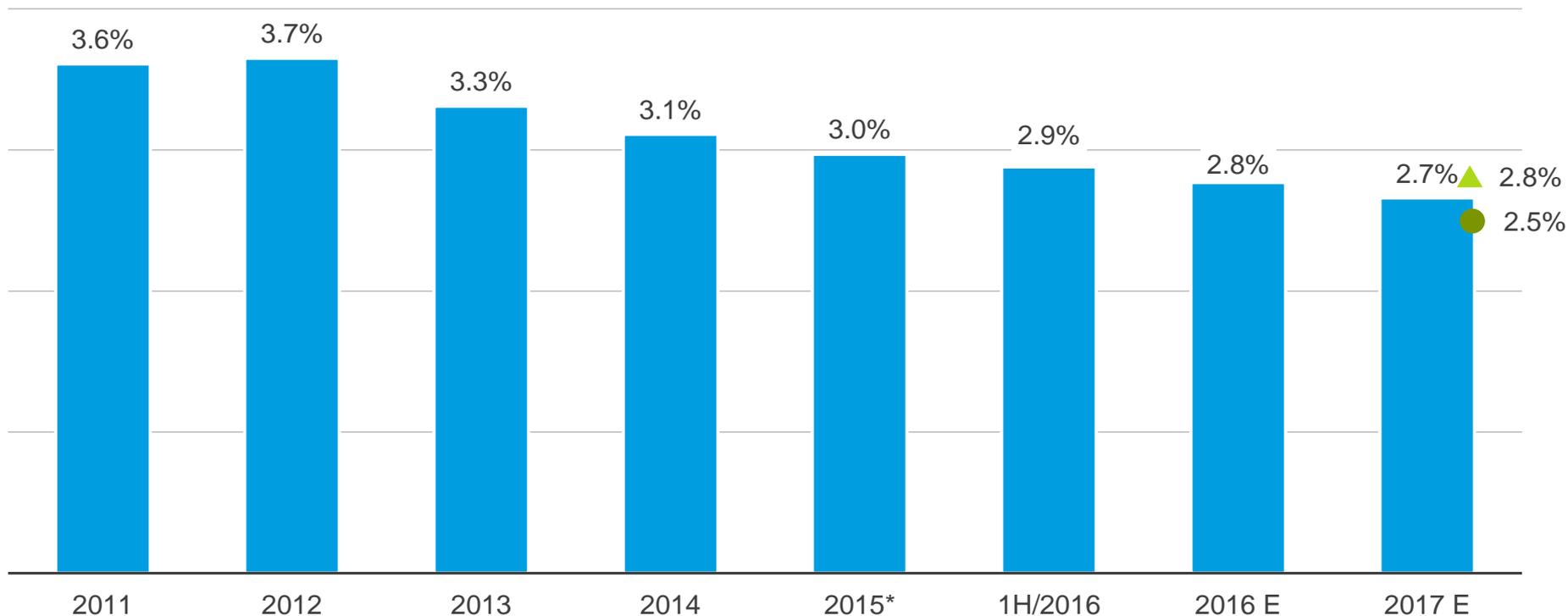


* Preliminary analysis as at 12 Aug 2016, excluding short-term investments and cash, governments according to economic view

Ordinary return on investments declines at >15 bps p.a.

Return sensitivity at 15 bps per 100 bps yield movements

Expected ordinary yield in 2016/2017 from assets under own management in %



■ Expected ordinary investment yield ▲ Current yield +100bps ● Current yield -100bps

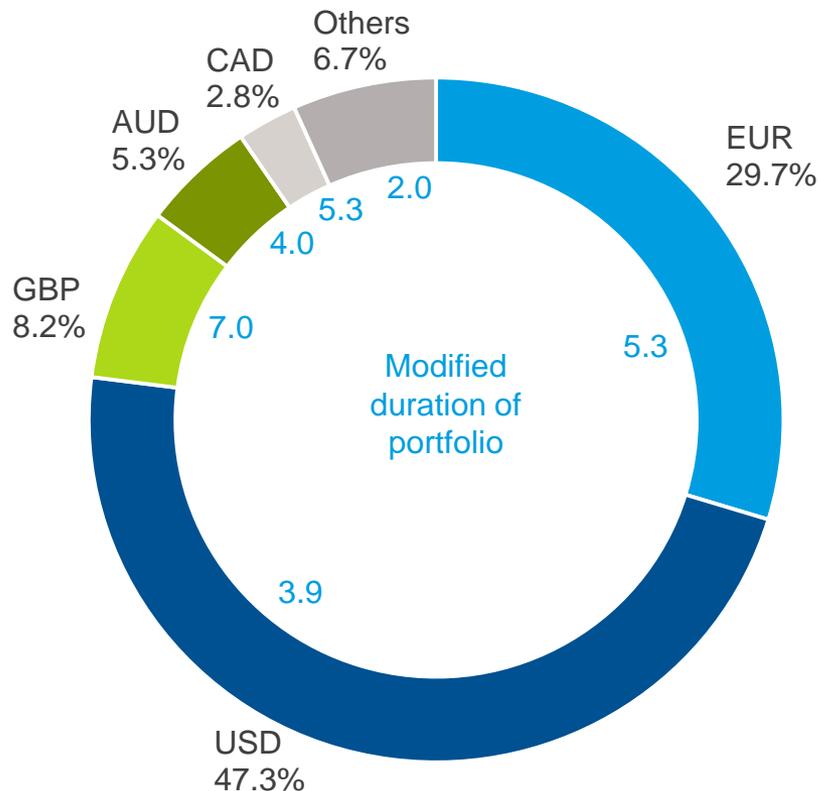
Analysis as at 30 June 2016

* Excluding one-off effects in 2015

Currency allocation matches liability profile of balance sheet

Active asset liability management ensures durational match

Currency split of investments



- ▶ Modified duration of fixed-income mainly congruent with liabilities
- ▶ GBP's higher modified duration predominantly due to life business

Modified duration

2015	4.4
2014	4.6
2013	4.4
2012	4.5
2011	4.2

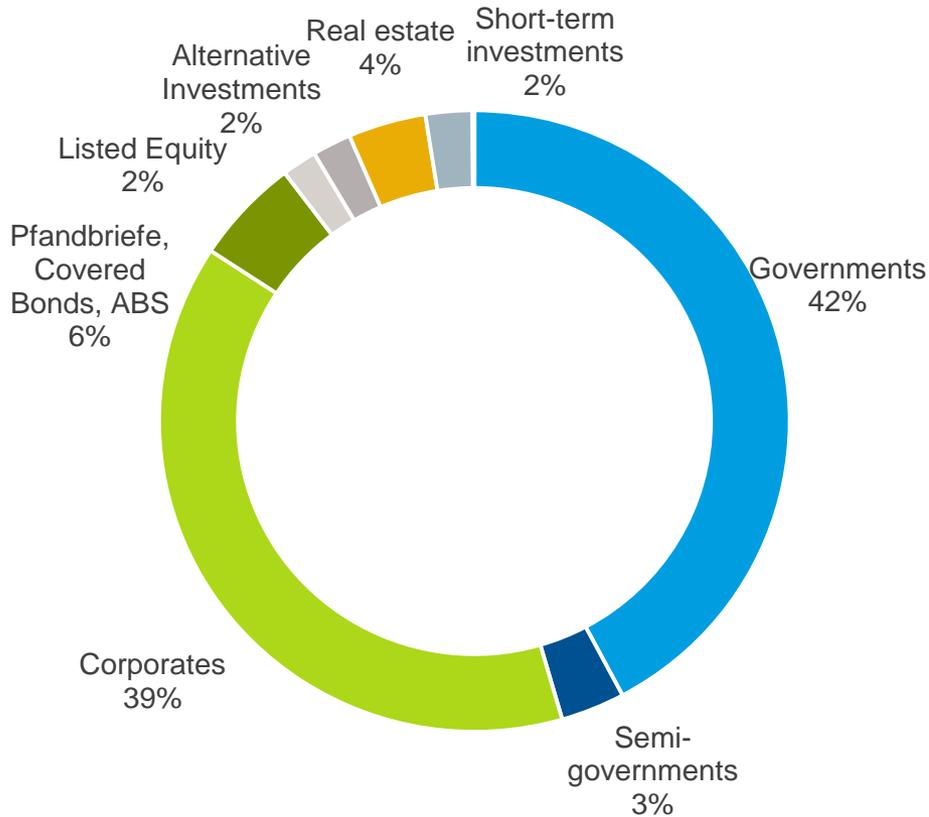
Modified duration as at 30 June 2016: 4.5

Asset allocation of USD and EUR portfolios

Reflection of different business requirements in terms of liquidity

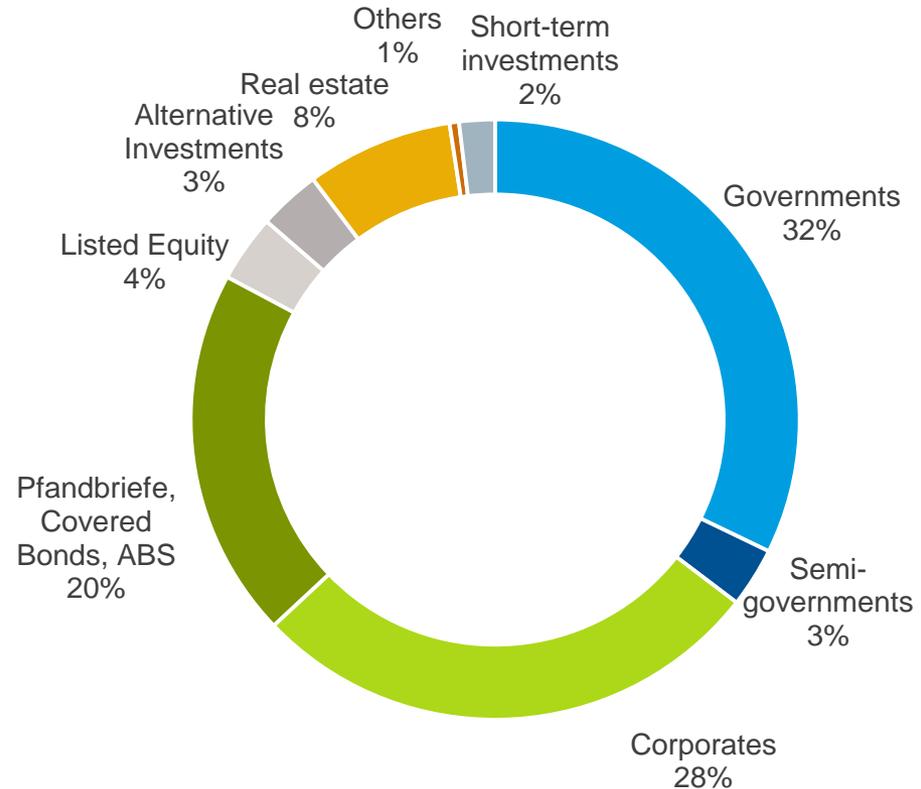
USD portfolio

EUR 19 bn. (47% of AuM)



EUR portfolio

EUR 12 bn. (30% of AuM)



Economic view based on market values as at 30 June 2016

How can we optimise the portfolio...

... within our strategic risk appetite

	Beginning of 2015	2017 – 2019
Barbell strategy (\leq BBB)	<15%	>20%
Real Estate	~4%	~6 – 7 %
Private Equity	~2%	~3 – 4 %
CLO/Leveraged Loans	~2.5%	~4 – 5 %

- ▶ Effects approx. 10%-points of the overall portfolio
- ▶ Increase in return expectations has a 10% leverage in the overall reinvestment RoI

How to calculate the RoI?

Transparency for clear messages 1/2

Transparent calculation based on IFRS accounts

Consolidated balance sheet as at 30 June 2016

Assets		
in EUR thousand	30.6.2016	31.12.2015
Fixed-income securities – held to maturity	652,150	1,007,665
Fixed-income securities – loans and receivables	2,819,395	2,869,865
Fixed-income securities – available for sale	30,195,423	29,616,448
Fixed-income securities – at fair value through profit or loss	101,229	108,982
Equity securities – available for sale	829,202	452,108
Other financial assets – at fair value through profit or loss	41,435	39,602
Real estate and real estate funds	1,668,774	1,673,958
Investments in associated companies	115,781	128,008
Other invested assets	1,512,515	1,544,533
Short-term investments	813,178	1,113,130
Cash and cash equivalents	1,004,942	792,604
Total investments and cash under own management	39,754,024	39,346,903
Funds withheld	12,710,089	13,801,845
Contract deposits	209,666	188,604
Total investments	52,673,779	53,337,352

- ▶ Average balance of total investments and cash under own management (before Funds withheld and contract deposits)

Consolidated statement of income as at 30 June 2016

in EUR thousand	1.4. – 30.06.2016	1.1. – 30.06.2016	1.4. – 30.6.2015	1.1. – 30.6.2015
Gross written premium	4,020,205	8,283,791	4,186,311	8,586,536
Ceded written premium	377,774	848,580	501,398	1,004,296
Change in gross unearned premium	(13,282)	(316,951)	(105,622)	(618,181)
Change in ceded unearned premium	(4,505)	48,402	8,215	55,297
Net premium earned	3,624,644	7,166,662	3,587,506	7,019,356
Ordinary investment income	299,563	568,026	286,453	598,678
Profit/loss from investments in associated companies	987	1,652	2,118	4,619
Realised gains and losses on investments	35,950	79,528	21,646	66,644
Change in fair value of financial instruments	10,072	20,539	9,013	(1,625)
Total depreciation, impairments and appreciation of investments	34,317	48,080	6,526	14,712
Other investment expenses	25,765	52,480	28,010	52,265
Net income from investments under own management	286,490	569,185	284,694	601,339
Income/expense on funds withheld and contract deposits	92,057	175,607	98,418	197,427
Net investment income	378,547	744,792	383,112	798,766

- ▶ Investment P&L result, excluding income on funds withheld and contract deposits

How to calculate the RoI?

Transparency for clear messages 2/2

in m. EUR	Q2/2015	Q2/2016	1H/2015	1H/2016	RoI
Ordinary investment income*	289	301	603	570	2.9%
Realised gains/losses	22	36	67	80	0.4%
Impairments/appreciations & depreciations	(7)	(34)	(15)	(48)	-0.2%
Change in fair value of financial instruments (through P&L)	9	10	(2)	21	0.1%
Investment expenses	(28)	(26)	(52)	(52)	-0.3%
NII from assets under own mgmt.	285	286	601	569	2.9%
NII from funds withheld	98	92	197	176	
Total net investment income	383	379	799	745	

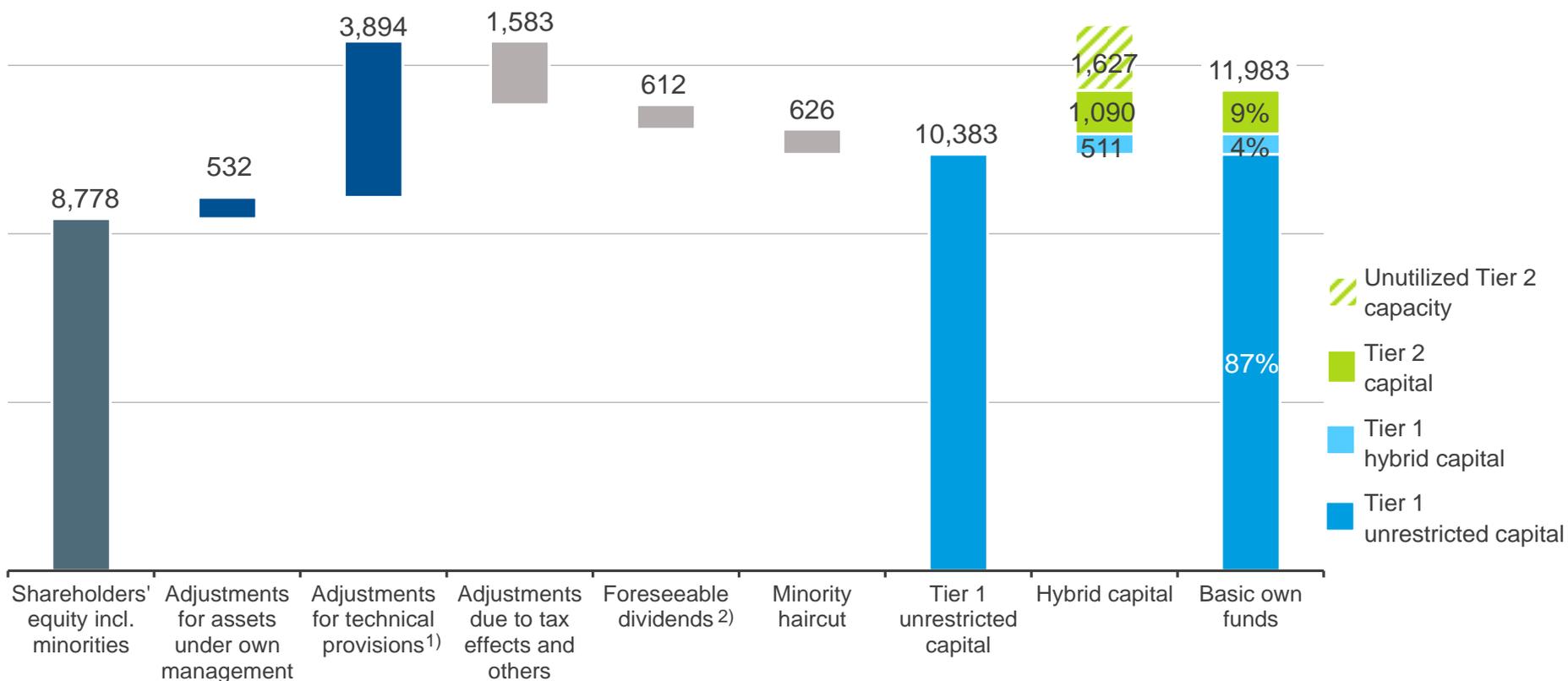
Solvency II vs IFRS accounts

Looking back: figures as at 31 December 2015

High quality capital base: own funds are Tier 1 supplemented with hybrid capital

Reconciliation (IFRS shareholders' equity/Solvency II own funds)

in m. EUR



As at 31 December 2015

1) Adjustments for technical provisions incl. risk margin

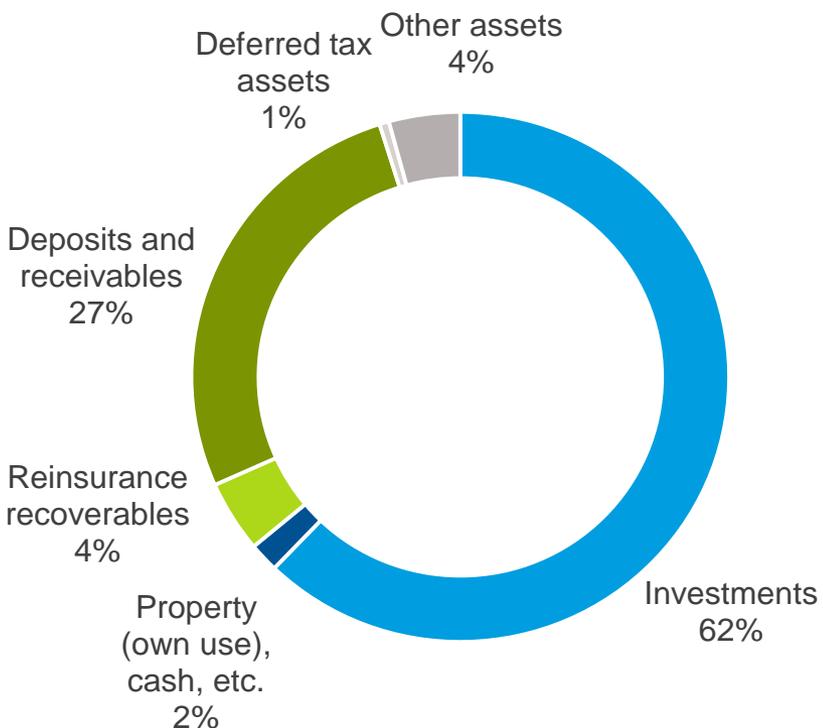
2) Foreseeable dividends and distributions refer to Hannover Rück SE dividend as well as dividends to minorities within Hannover Re Group

Decrease in total assets under Solvency II

Solvency II vs. IFRS: assets as at 30 June 2016

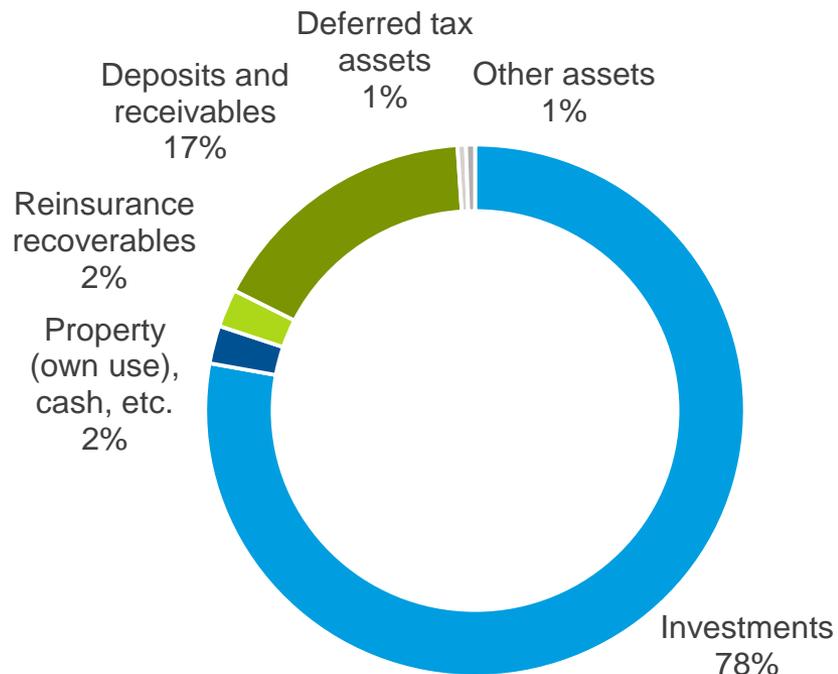
IFRS

Total assets: EUR 62.3 bn.



Solvency II

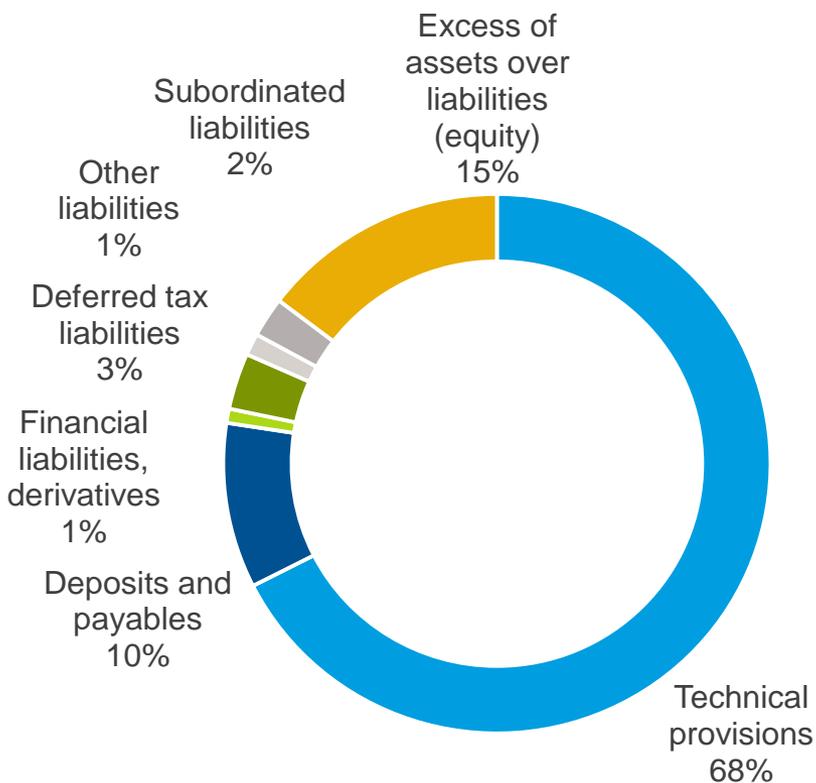
Total assets: EUR 50.4 bn.



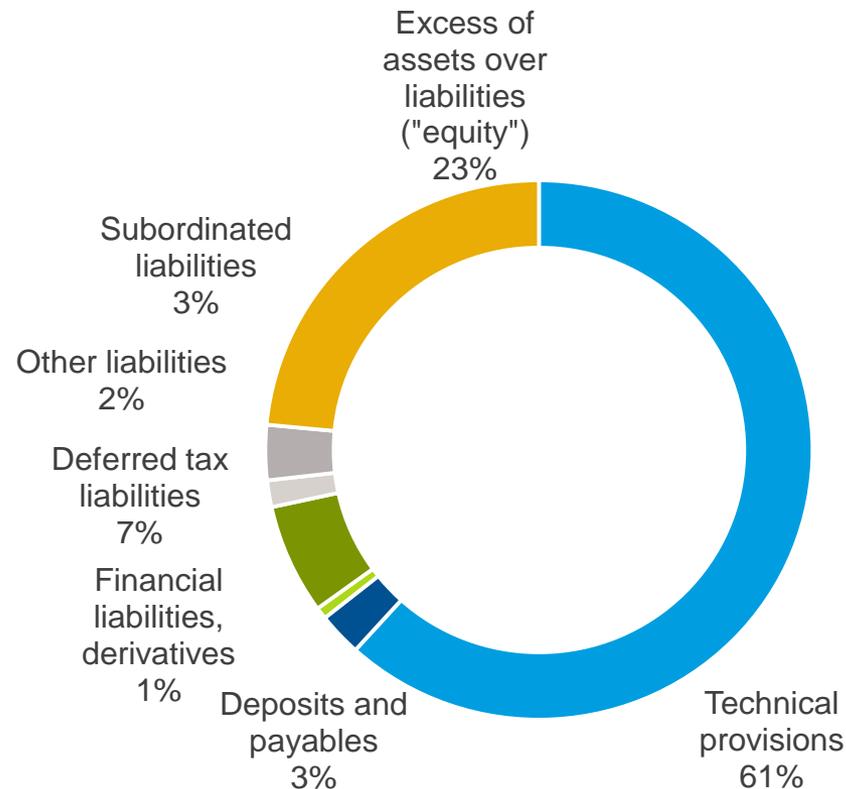
Increasing share of "equity" under Solvency II

Solvency II vs. IFRS: liabilities as at 30 June 2016

IFRS Liabilities: 53.2 bn., Equity 9.1 bn.



Solvency II Liabilities: 38.6 bn., Equity* 11.8 bn.



All figures in EUR. "Equity" refers to Excess of assets over liabilities, including minorities

Capital generation more volatile under Solvency II

Development during 1H/2016

in m. EUR	IFRS	Solvency II	Variance
Excess of assets over liabilities 2015*	8,778	11,620	2,842
Excess of assets over liabilities 1H/2016*	9,136	11,836	2,699
Movement (2015 to 1H/2016)	359	216	-143

▶ Economic difference in equity movement from 2015 to 1H/2016 of EUR 143 m.

- IFRS: EUR +359 m.
- Solvency II: EUR + 216 m.

▶ Difference of EUR 143 m. can be attributed to

- Lock-in (IFRS) vs. current (SII) assumptions for a life portfolio EUR -109 m.
- Amortized cost (IFRS) vs. market valuation (SII) of investments EUR +40 m.
- Amortized cost (IFRS) vs. market valuation (SII) of subordinated liabilities EUR -62 m.
- Other effects

* Including minorities

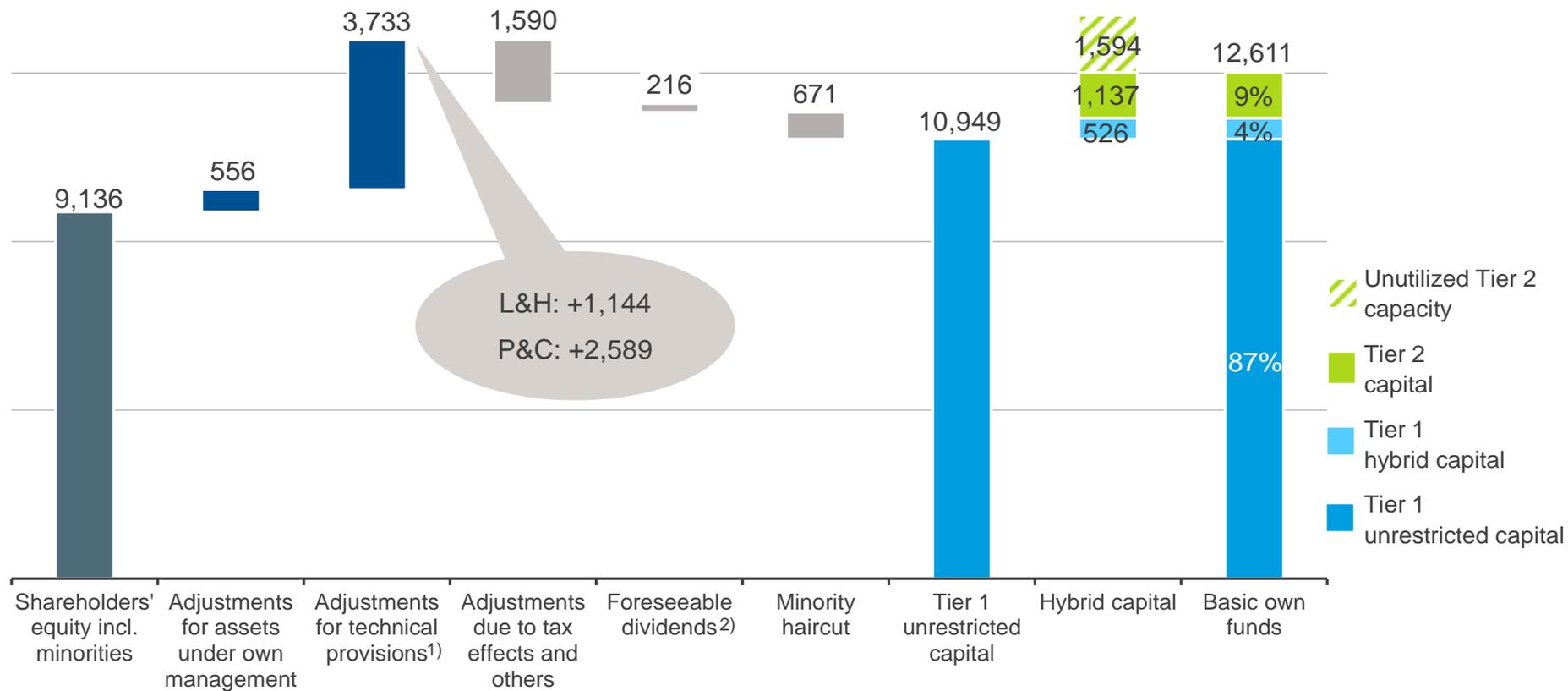
Figures subject to rounding differences

Further increased own funds reflect positive result in 1H/2016

Own funds are Tier 1 supplemented with hybrid capital

Reconciliation (IFRS shareholders' equity/Solvency II own funds)

in m. EUR



As at 30 June 2016

1) Adjustments for technical provisions incl. risk margin

2) Foreseeable dividends and distributions have been calculated on the base of 1H/2016 IFRS results and minorities within Hannover Re Group

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