

**somewhat
different**



The relevance of cash flow in P&C reinsurance

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Cash flow affects the reinsurance price calculation

	NPE	+	Economic revaluation	-	Capital margin	=	MtCR
	Net premium earned	+	Discount effect on P&C net loss reserves (% of NPE)	-	Capital margin above risk free (pre-tax)	=	Maximum tolerable Combined Ratio
2018:	100%	+	3.6%	-	7.4%	=	96.2%
2017:	100%	+	3.8%	-	7.7%	=	96.1%
2016:	100%	+	3.4%	-	7.4%	=	96.0%
2015:	100%	+	3.8%	-	7.6%	=	96.3%

As at March 2018

MtCR varies substantially by line of business

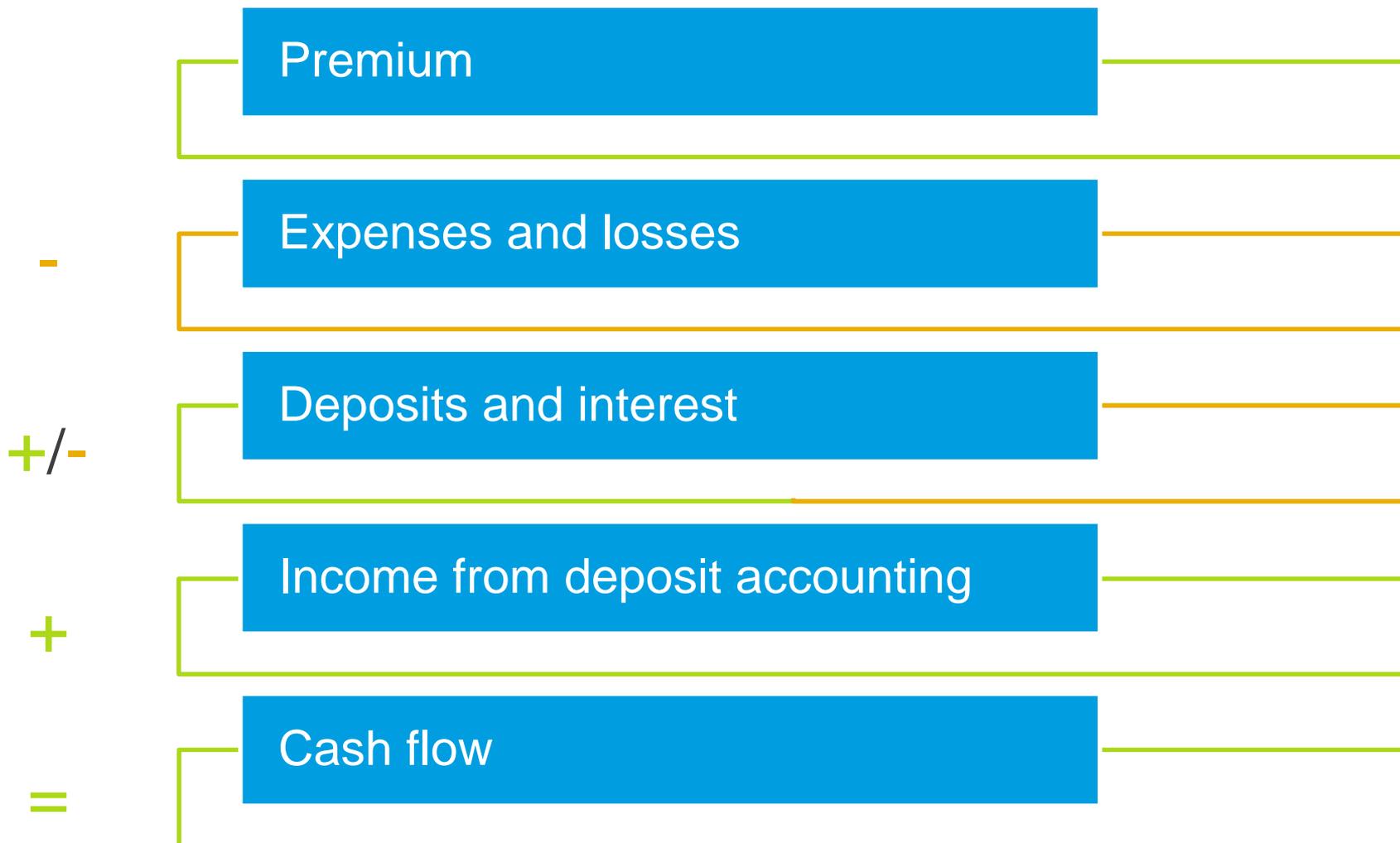
2018

Net premium earned (100%)	+	Economic revaluation	-	Capital margin	=	MtCR
North America*		7.1%		12.0%		95.1%
Continental Europe*		3.4%		7.5%		95.9%
Marine		3.2%		13.6%		89.6%
Aviation		5.5%		8.4%		97.0%
Credit, surety and political risks		3.1%		9.0%		94.1%
UK, Ireland, London market and direct		4.9%		6.8%		98.1%
Facultative R/I		5.0%		9.2%		95.8%
Worldwide Treaty R/I*		3.3%		7.5%		95.8%
Cat XL		4.0%		15.5%		88.6%
Structured R/I and ILS		0.7%		2.2%		98.5%
Total Property & Casualty R/I		3.6%		7.4%		96.2%

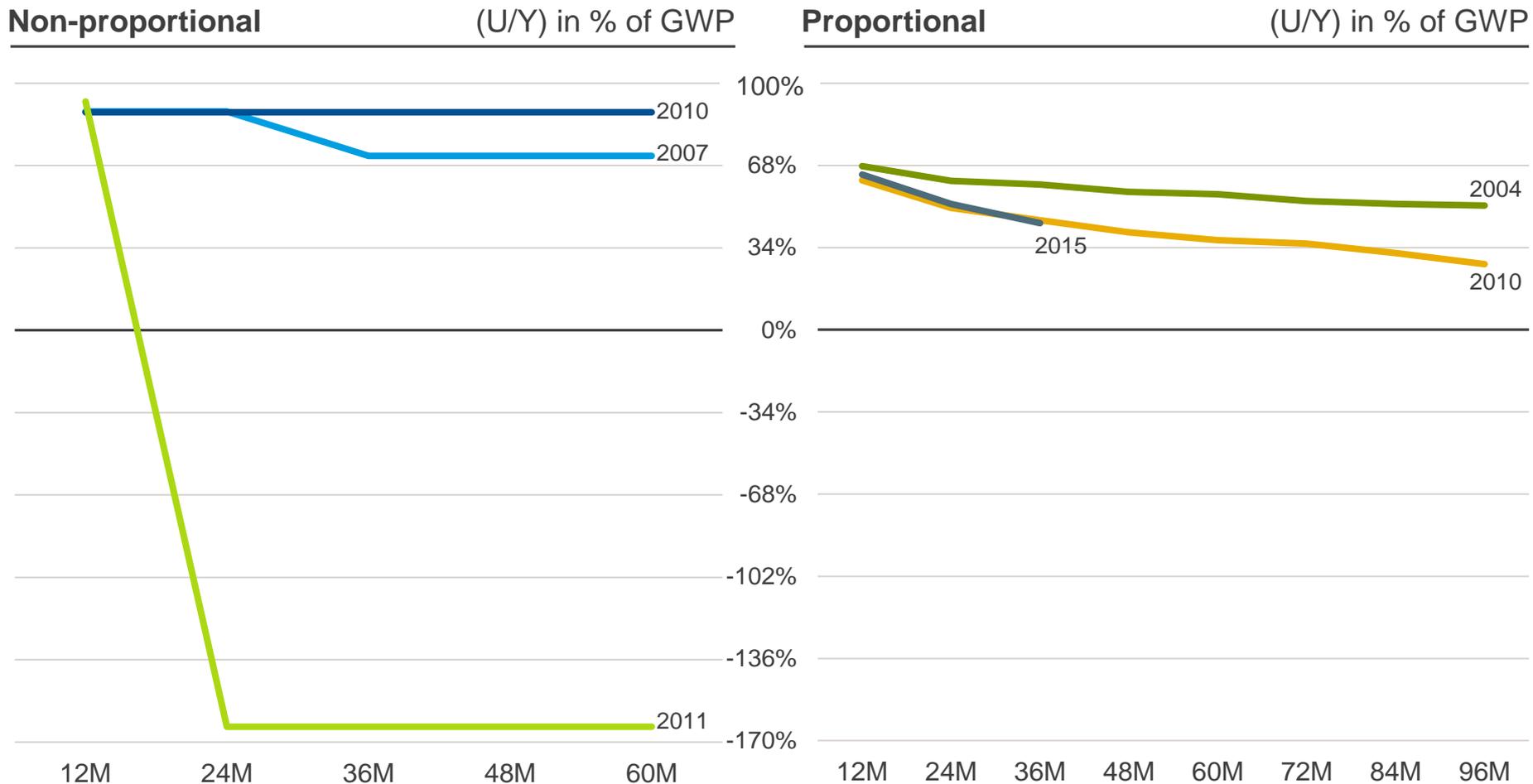
As at March 2018

* All lines of Property & Casualty reinsurance except those stated separately

How we calculate the technical P&C reinsurance cash flow



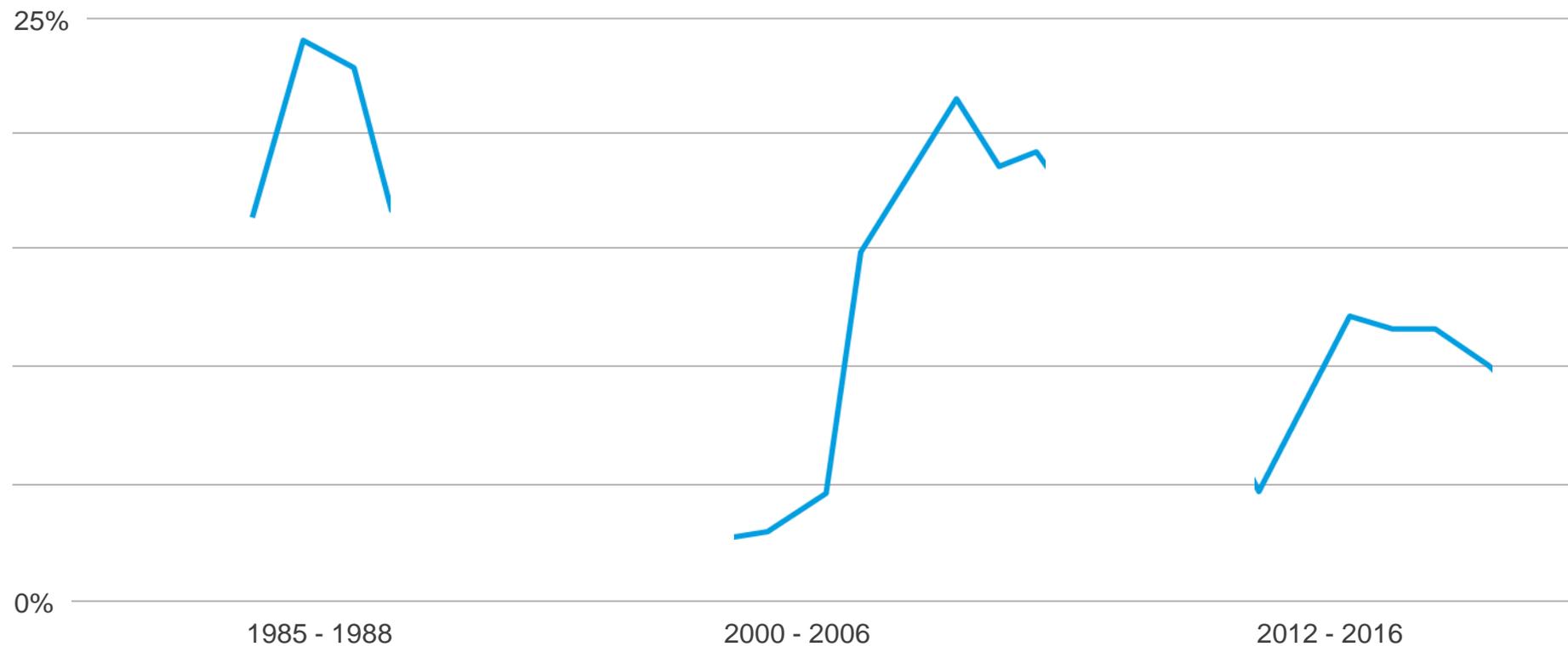
A typical single contract cash flow development



Development of cash flow in the reinsurance market

Reinsurance market cash flow from premium income

in % of net premium written

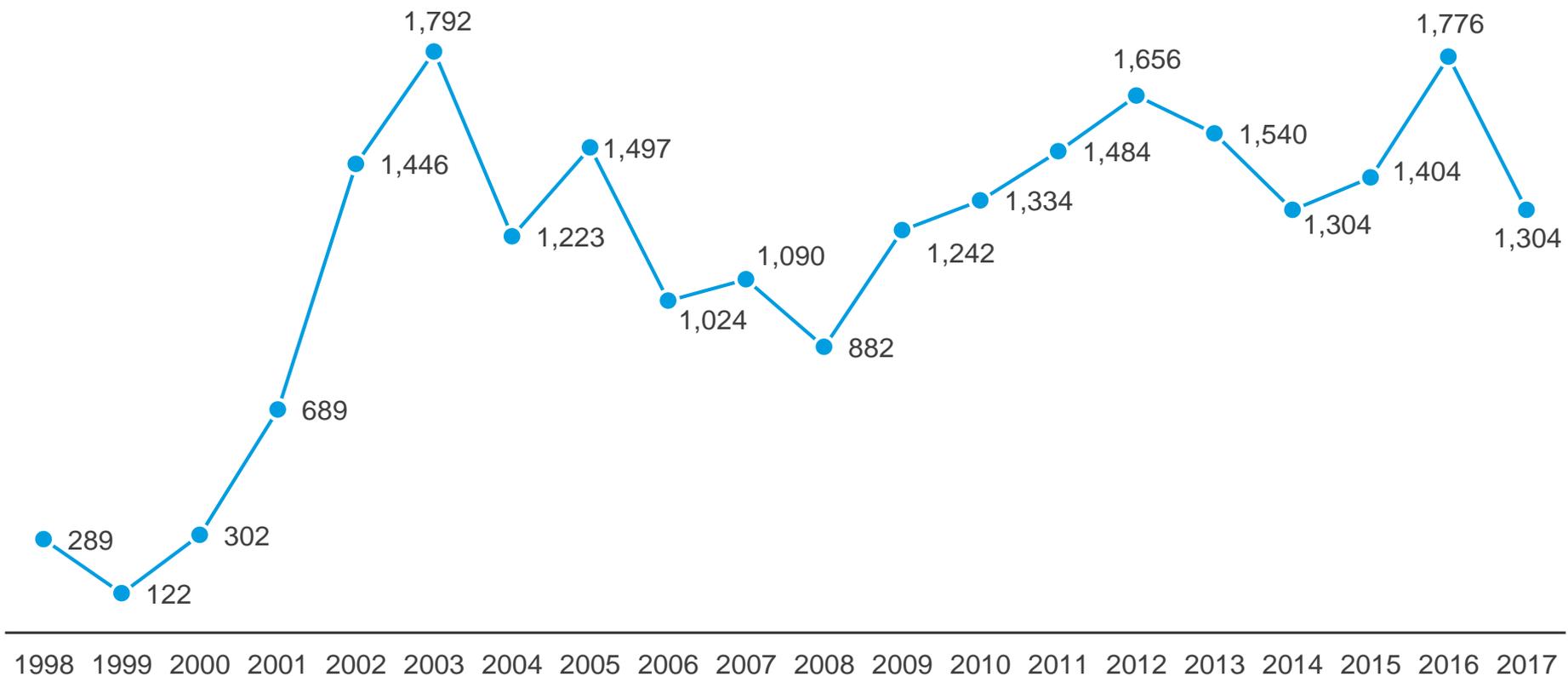


Source: based on A.M. Best

Development of Hannover Re's P&C reinsurance cash flow

P&C cash flow (FY)

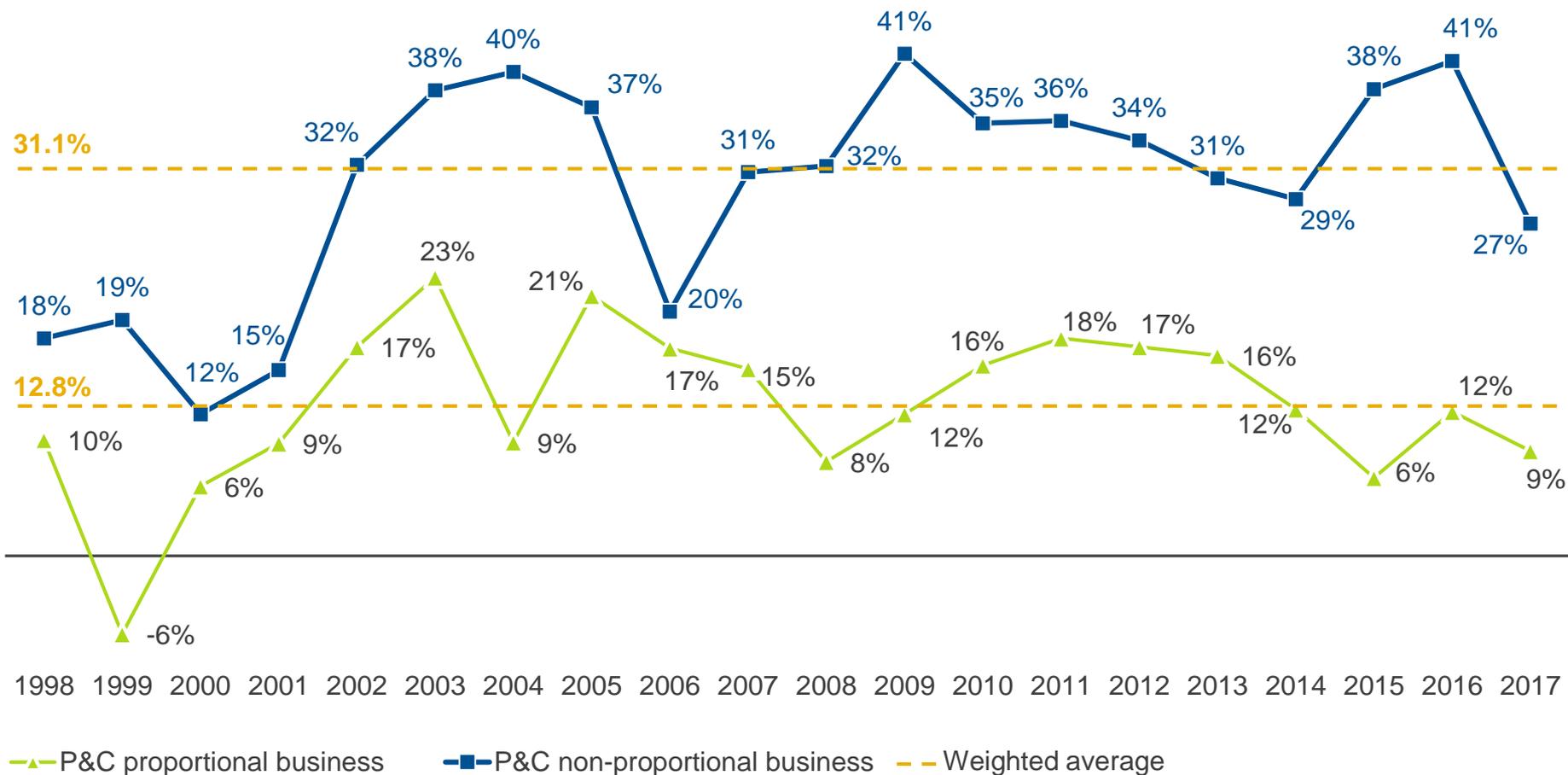
in m. EUR



Hannover Re's P&C reinsurance cash flow by type of contract

P&C proportional and non-proportional cash flow (FY)

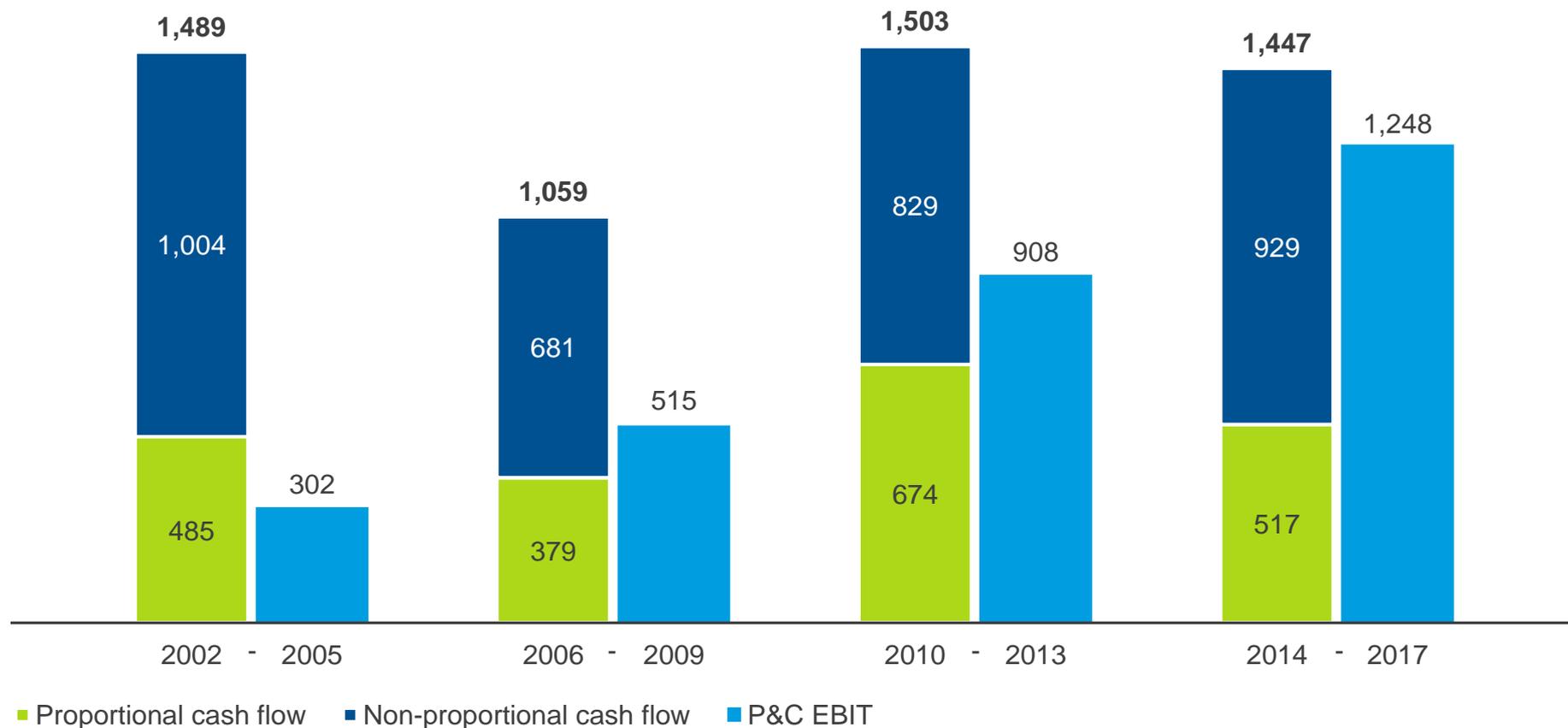
in % of GWP



Average P&C cash flow over the cycles

P&C cash flow vs. EBIT (FY)

(average) in m. EUR

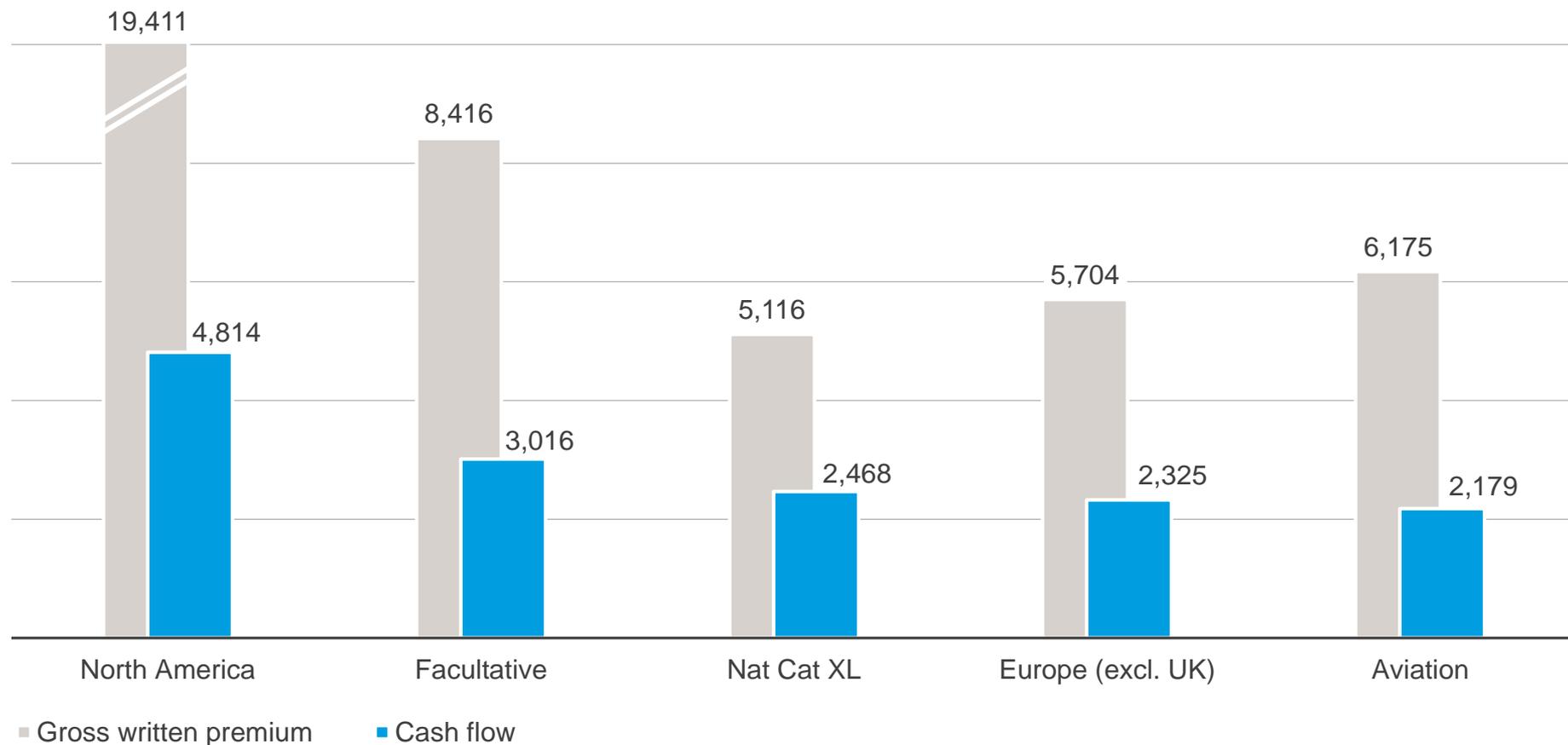


The largest contributors to the P&C cash flow

2002 - 1H/2018 by treaty divisions

P&C cash flow vs. GWP (FY)

in m. EUR

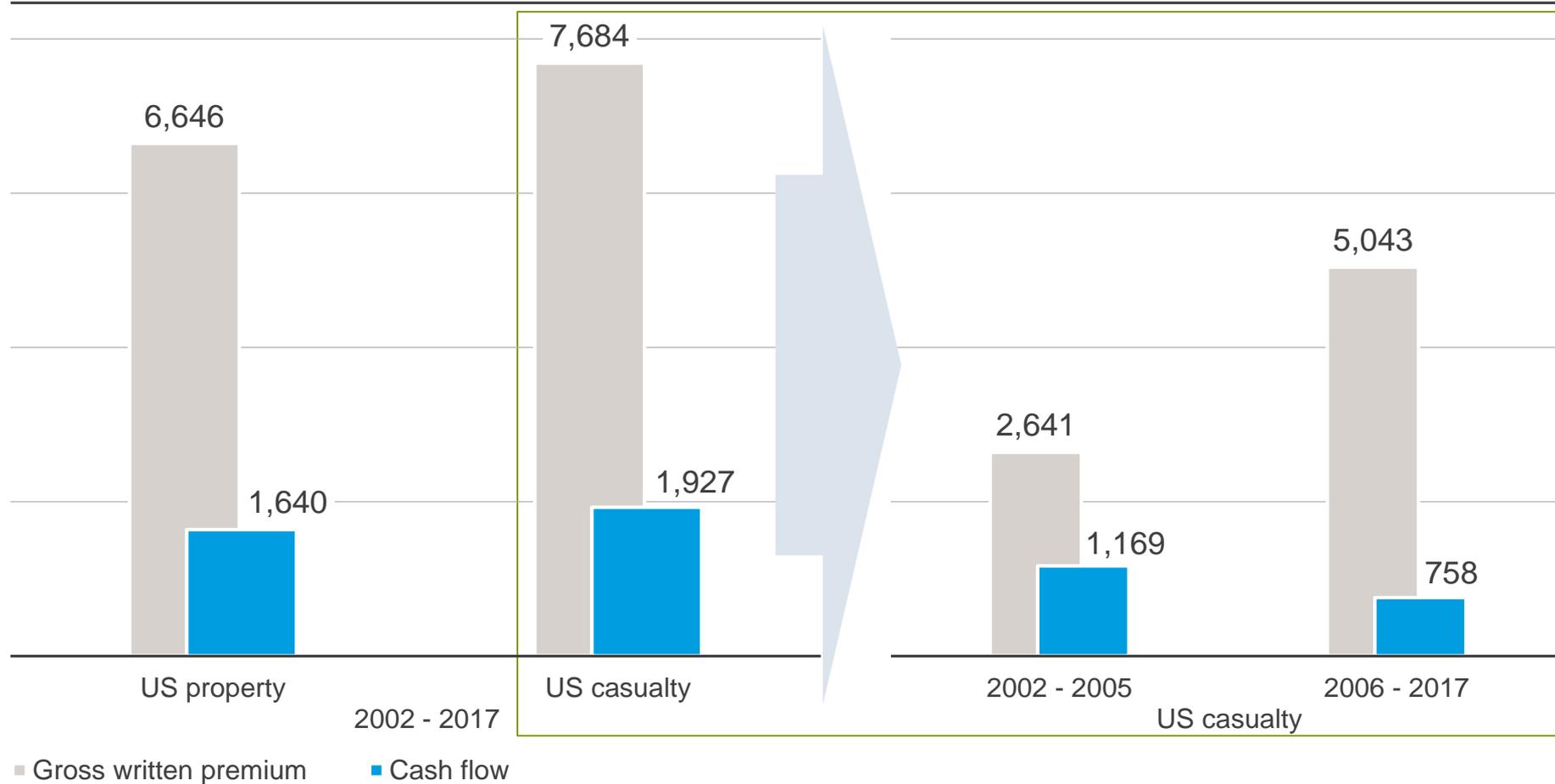


Taking a deeper look at the US

US treaty division

US property and casualty cash flow vs. GWP (FY)

in m. EUR

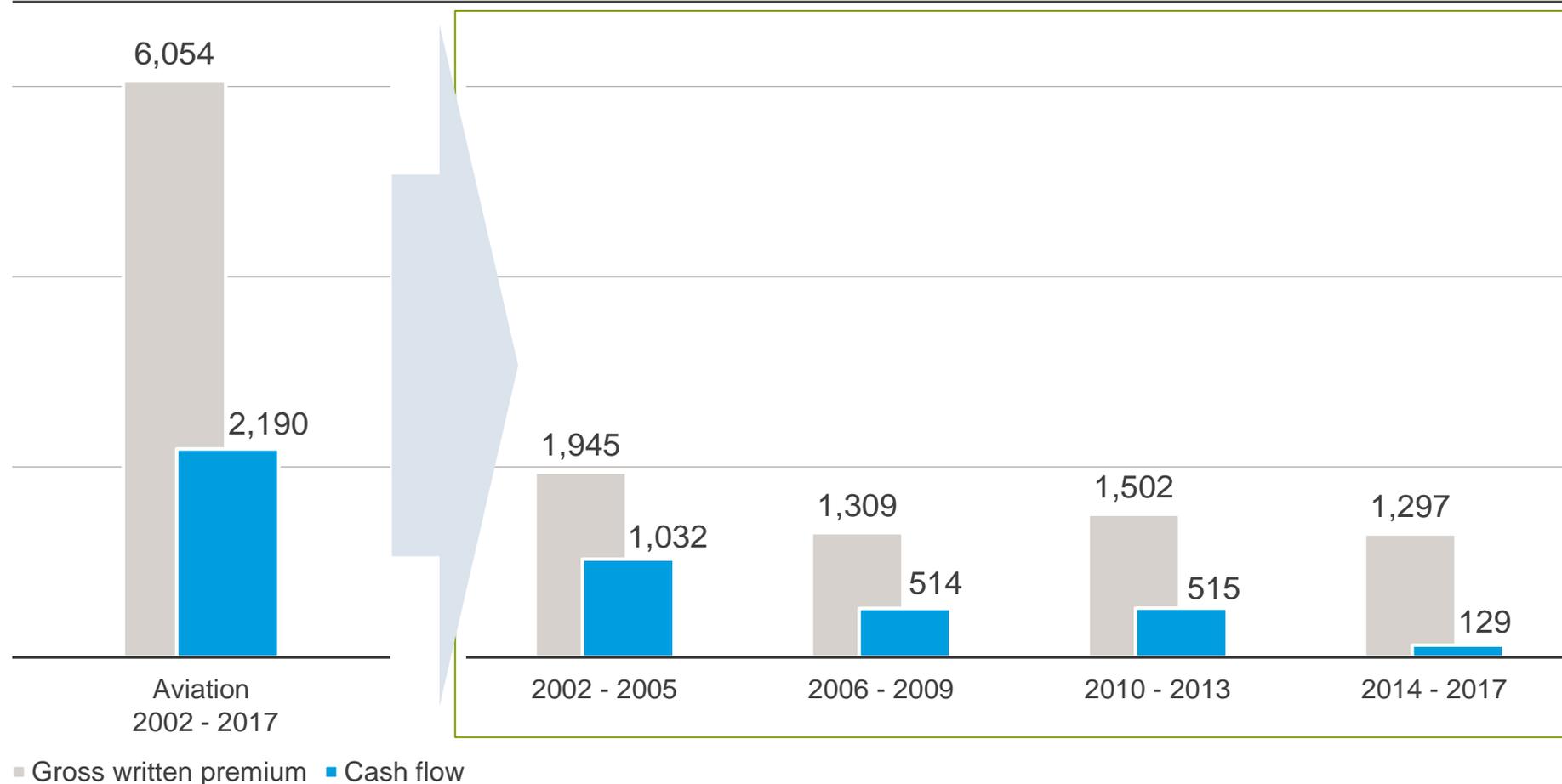


Extreme hard market in aviation after WTC

Aviation treaty division

Aviation cash flow vs. GWP (FY)

in m. EUR

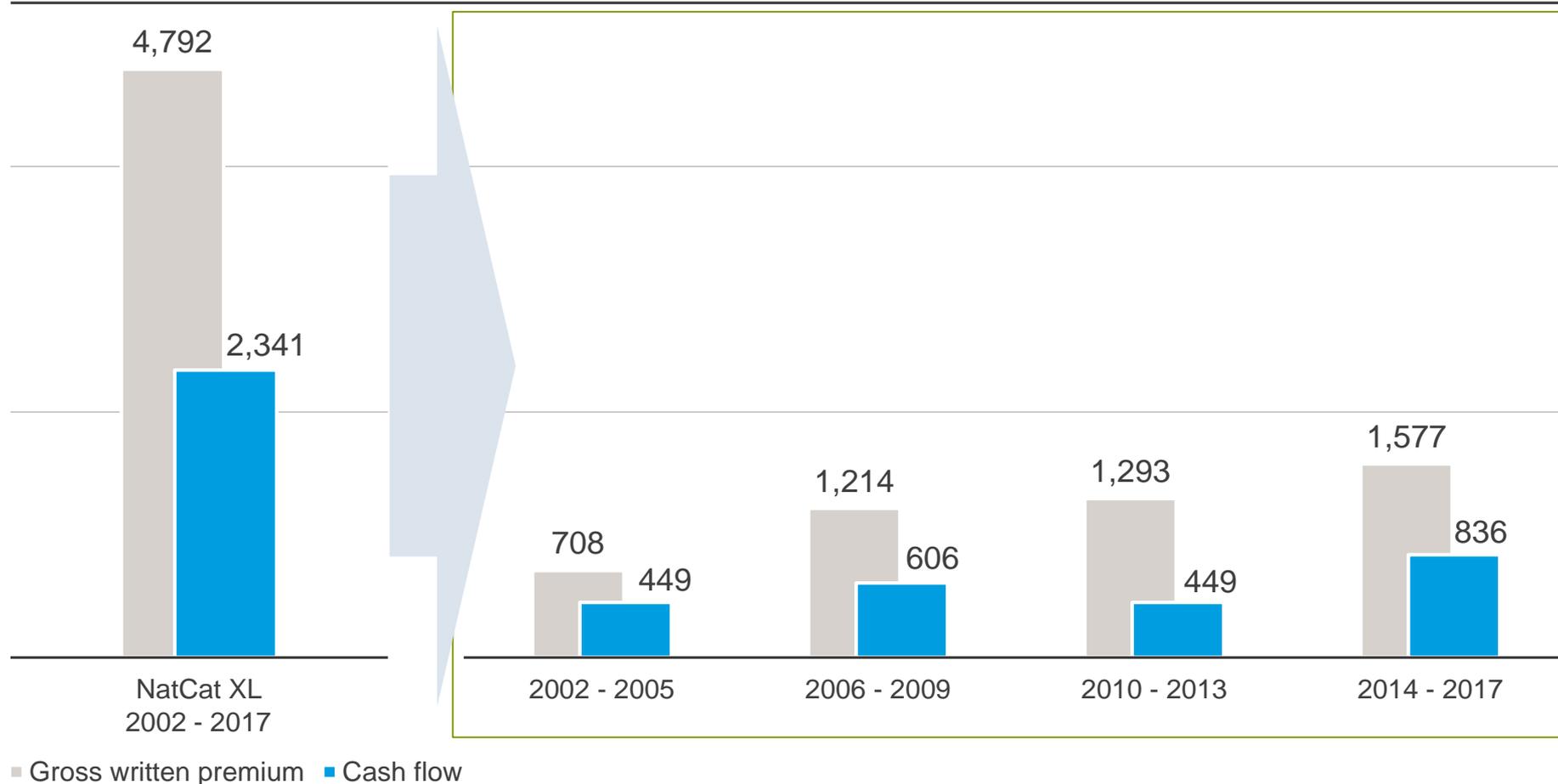


NatCat XL, an above-average cash flow contributor

NatCat XL treaty division

NatCat XL cash flow vs. GWP (FY)

in m. EUR

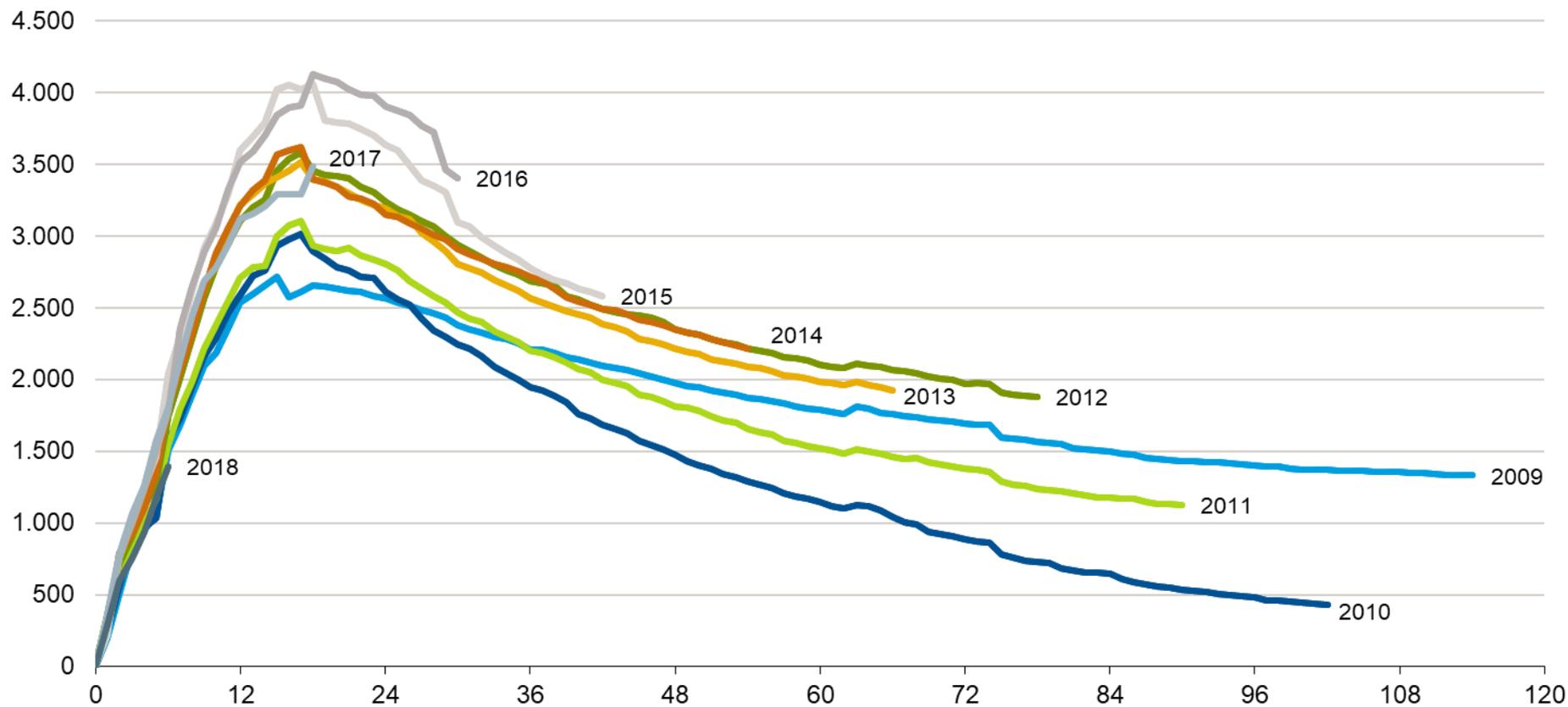


P&C reinsurance cash flow from an underwriting-year angle

In absolute terms

Total P&C reinsurance cash flow build-up (UY)

in m. EUR

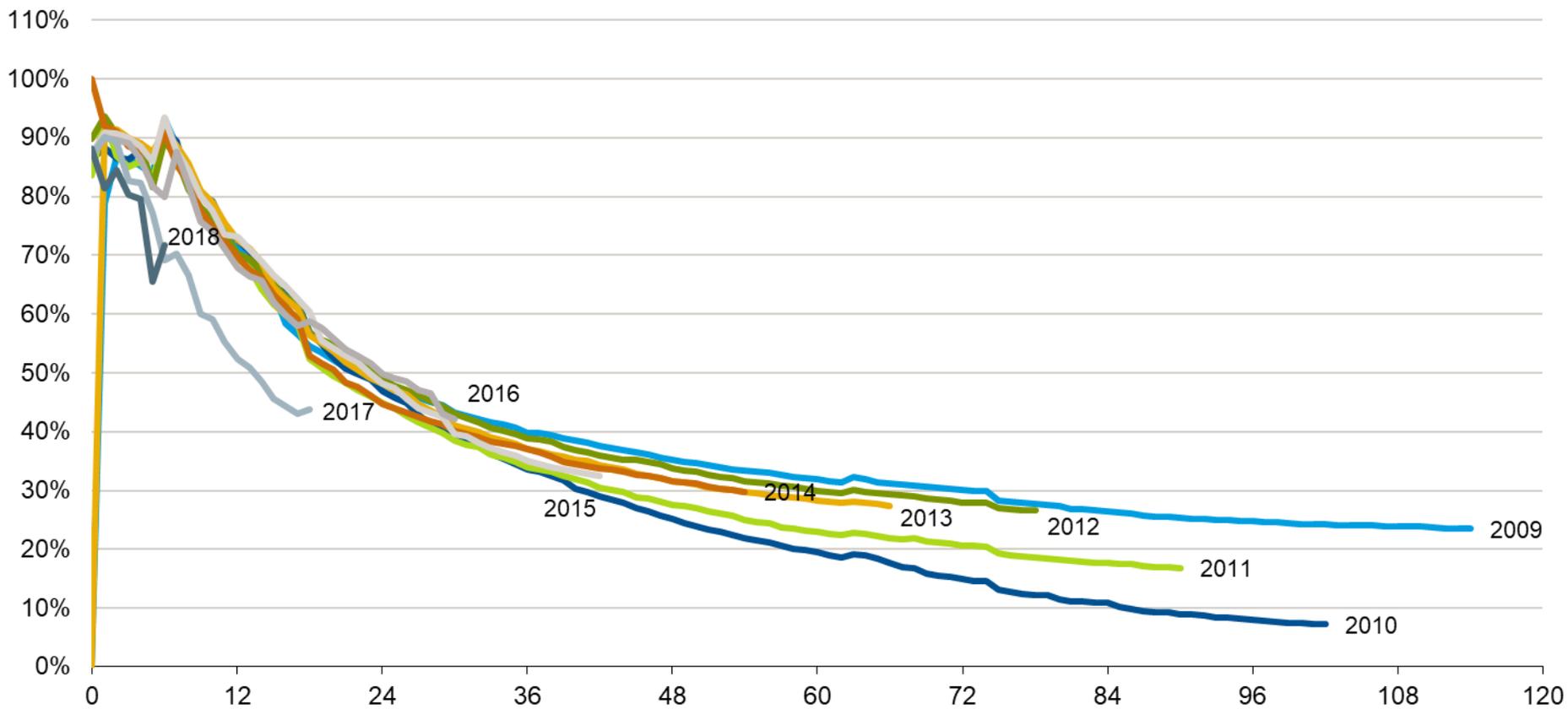


P&C reinsurance cash flow from an underwriting-year angle

In relative terms

Total P&C reinsurance cash flow build-up (UY)

in %

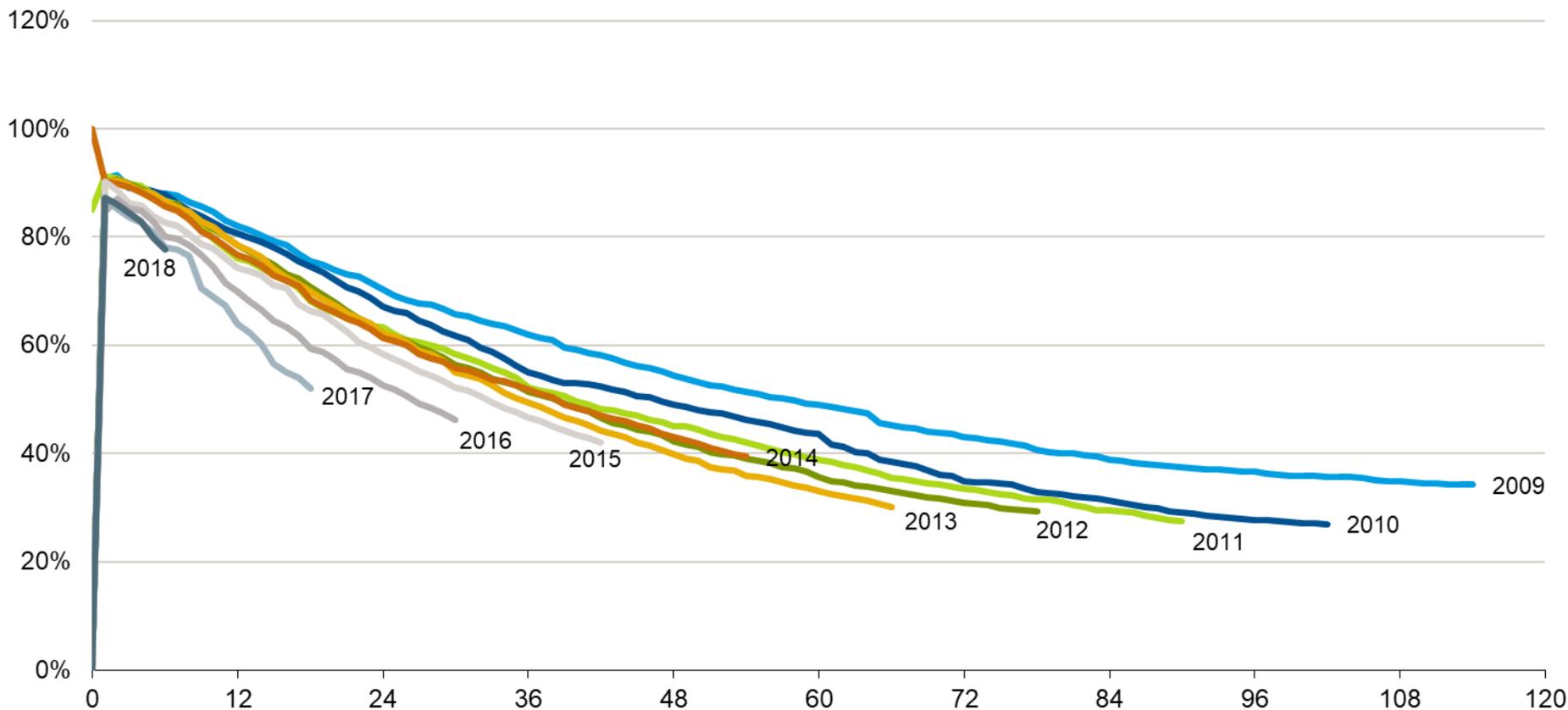


Sample: treaty North America

In relative terms

North America cash flow build-up (UY)

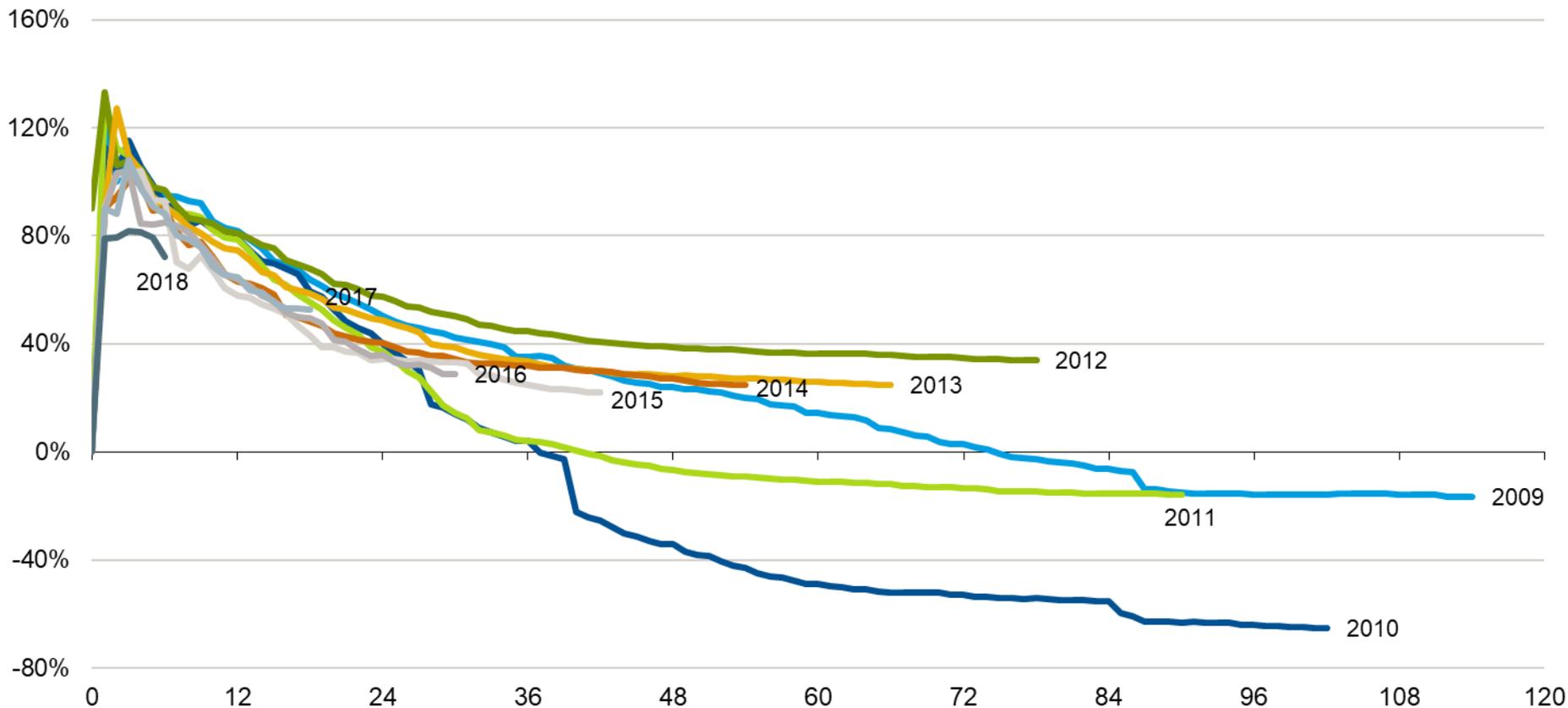
in %



Sample: treaty Asia

In relative terms

Asia cash flow build-up (UY)

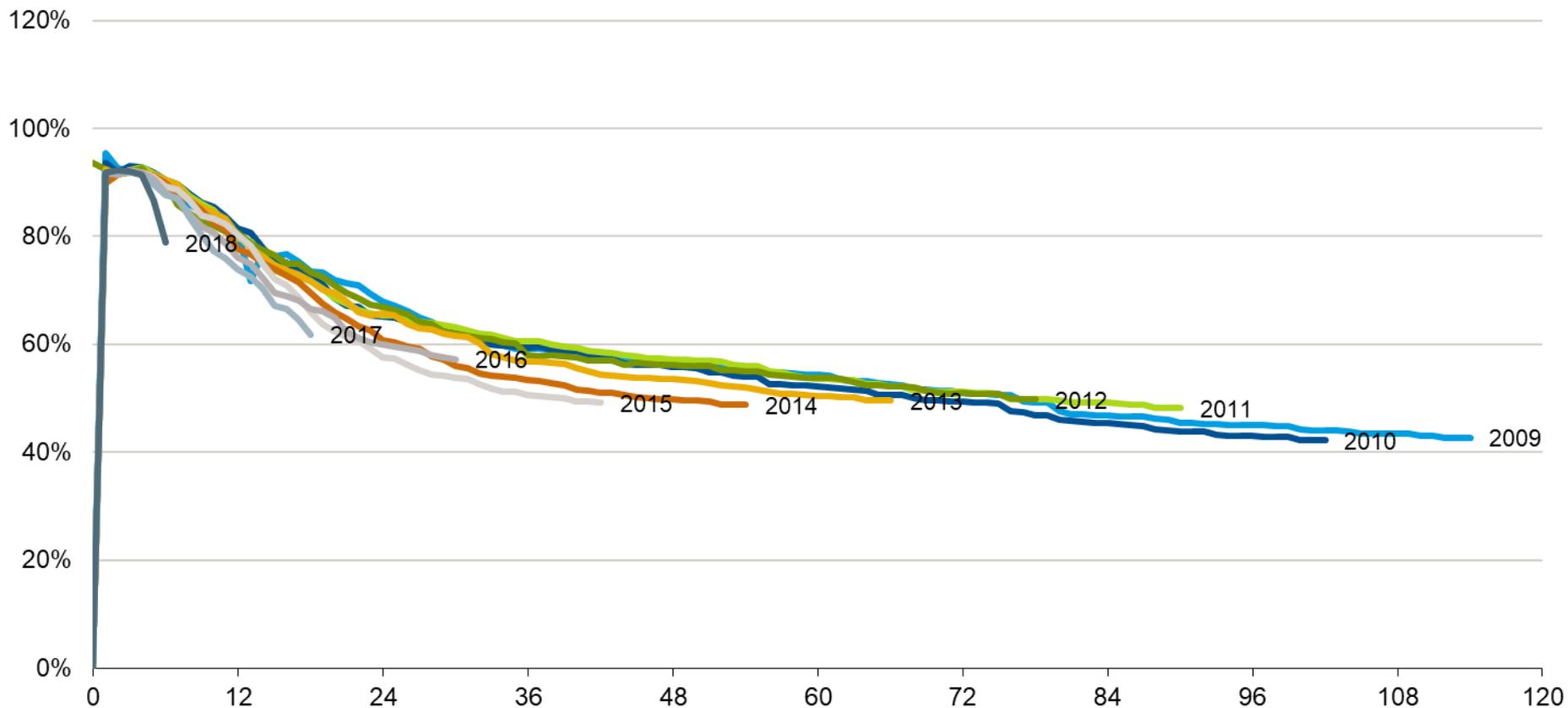


Sample: treaty Europe (excl. UK)

In relative terms

Europe (excl. UK) cash flow build-up (UY)

in %

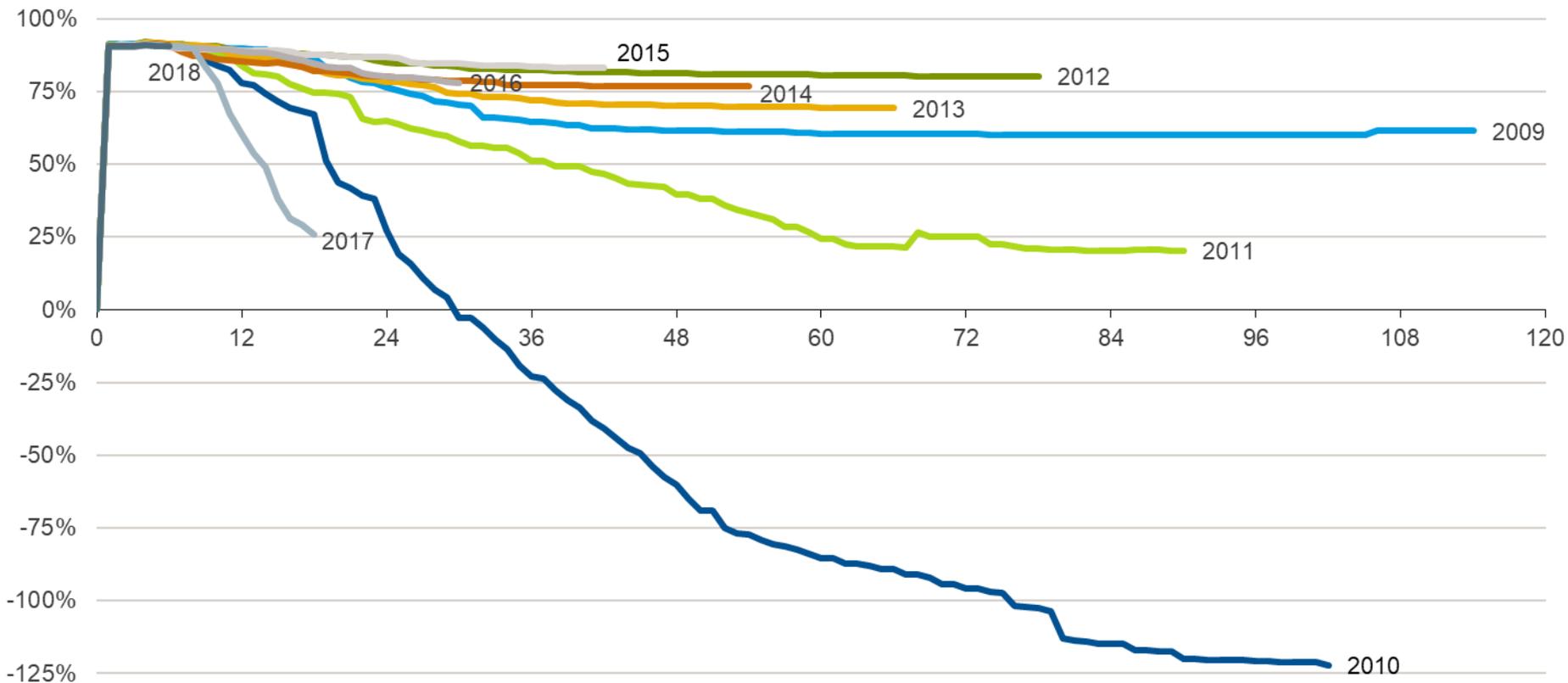


Sample: treaty NatCat XL

In relative terms

NatCat XL cash flow build-up (UY)

UY in %



A balance sheet made of concrete

P&C balance sheet structure of Hannover Rück SE

in EUR thousand	2017
Assets	
Intangible assets	69,384
Investments	34,460,839
Receivables	2,894,030
Other assets	292,824
Prepayments and accrued income	165,263
Total assets	37,882,340
Liabilities	
Subscribed capital	120,597
Capital reserve	880,608
Retained earnings	630,511
Disposable profit	1,274,000
Capital and reserves	2,905,716
Subordinated liabilities	1,500,000
Technical provisions	30,226,694
Provisions for other risks and charges	371,949
Deposits received from retrocessionaires	1,907,577
Other liabilities	970,404
Accruals and deferred income	-
Total liabilities	37,882,340

Investments:
EUR 34 bn.

Technical provisions:
EUR 30 bn.

Our liabilities are secured by sound assets

Conclusion

- ▶ Strong balance sheet
- ▶ Cash flow covers EBIT + costs (incl. increase in future claims provisions, if any)
- ▶ Non-proportional business creates desired cash flow
- ▶ Appropriate mix of proportional and non-proportional business allows the financing of increasing liabilities
- ▶ Cycle management is critical for cash flow build-up
- ▶ “Cash flow underwriting” is important and is becoming even more important in the years to come
- ▶ Translates into funds available for investment

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