



WELKOM!

OP HET TRIPLE A – RISK FINANCE SEMINAR VOOR DE VERZEKERINGSMARKT

PROGRAMMA

14:00	Aperghis & Co	Consolidatie in de Nederlandse verzekeringsmarkt
	Swiss Re	Herverzekeringsoplossing levensverzekeraars
15:20	Pauze	
15:45	Triple A – Risk Finance	Analyse resultaten verzekeraars: capital generation en IFRS17
	Regscape	Regulatory reporting
17:15	Borrel	



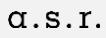
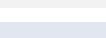
APERGHIS & Co

Consolidation in Dutch insurance

Triple A seminar

7 December 2023

Aperghis & Co has an unrivalled track record in Dutch insurance M&A with 19/24 engagements since 2017

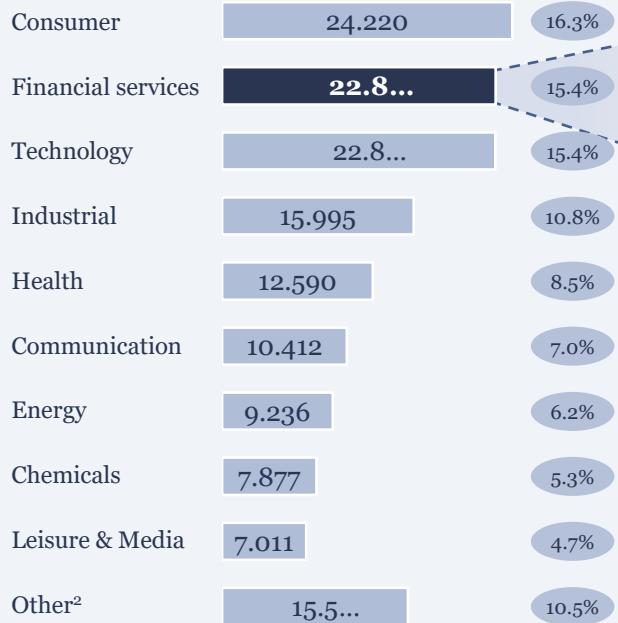
2023	2023	2023	2023	2023	2022
 GROUPE SMABT P	 WONINGBORG	 de Goudse verzekeringen	 midglas* De Glaslijn	 Legal & General	 life tri
 NN	 ABN-AMRO Verzekeringen	 Chesnara	 + ROBEIN	 DELA	 YARDEN
 Chesnara	 ARGENTA Life	 A.S.R.	 VEHEREX	 A.S.R.	 Vivat Life
 NN	 VIVAT P&C	 ATHORA	 VIVAT	 ATHORA	 Klaverblad Verzekeringen
 A.S.R.	 Loyalis	 life tri	 NUVEMA	 MONUMENT*	 - ROBEIN
 ELI GLOBAL	 Conservatrix Verzekeringen	 Chesnara	 Legal & General		

Involvement of Aperghis & Co

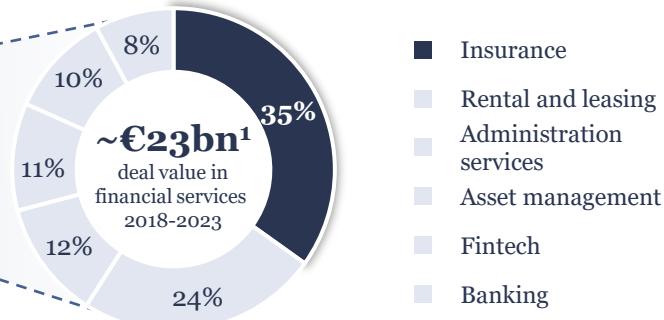
The Dutch insurance market in a broader Dutch M&A perspective

Aggregate deal value per sector 2018 - 2023 in NL

Total deal value of ~€149bn¹



Breakdown aggregate deal value financial services deals



Large Dutch insurance deals 2016 - 2023

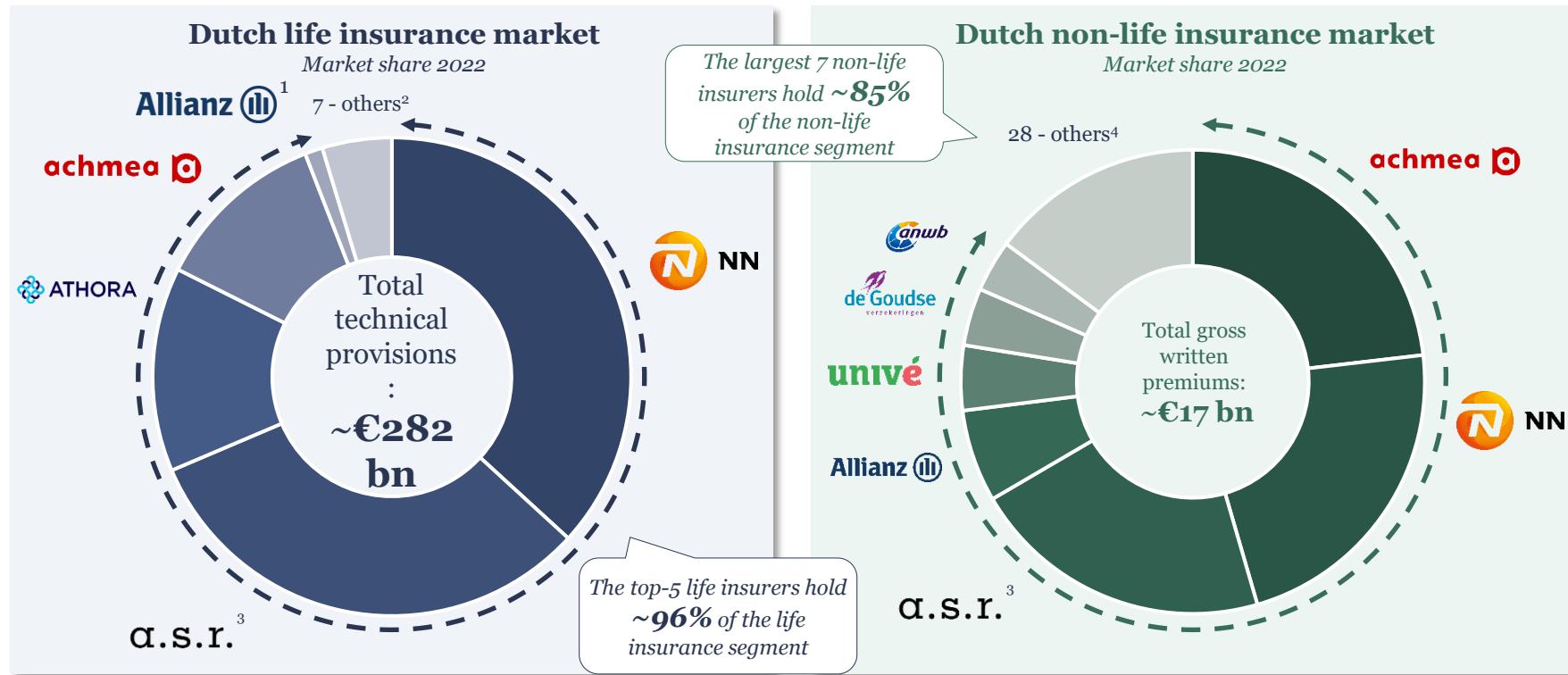
NN Acquires 100% of delta lloyd 2016 €2.5bn	A.S.R. Acquires 100% of Loyalis 2018 €450m	ATHORA Acquires 100% of VIVAT 2019 ~€2.5bn	NN Acquires 100% of Conservatrix 2019 €416bn	Chesnara Acquires 100% of Legon NL 2022 n.a.	A.S.R. Acquires 100% of Legon NL 2023 €4.9bn
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% Percentage of total deal value

Notes 1. Based on disclosed deal values; 2. Includes automotive, manufacturing, transportation, utilities, agriculture, mining, and defence.

Sources: Mergermarket

Current market shares of the life and non-life insurance markets



Notes: 1. Allianz Netherlands' life technical provisions for 2022 are estimated at €3,500m; 2. Other insurers with > 1% market share in the Dutch life market; 3. a.s.r.'s pro-forma market share includes Aegon Nederland; 4. Other insurers with > 3% market share in the Dutch non-life market.

Sources: Company reports, DNB database

Consolidation in the Dutch life insurance market

Acquisitions made in the Dutch life insurance market

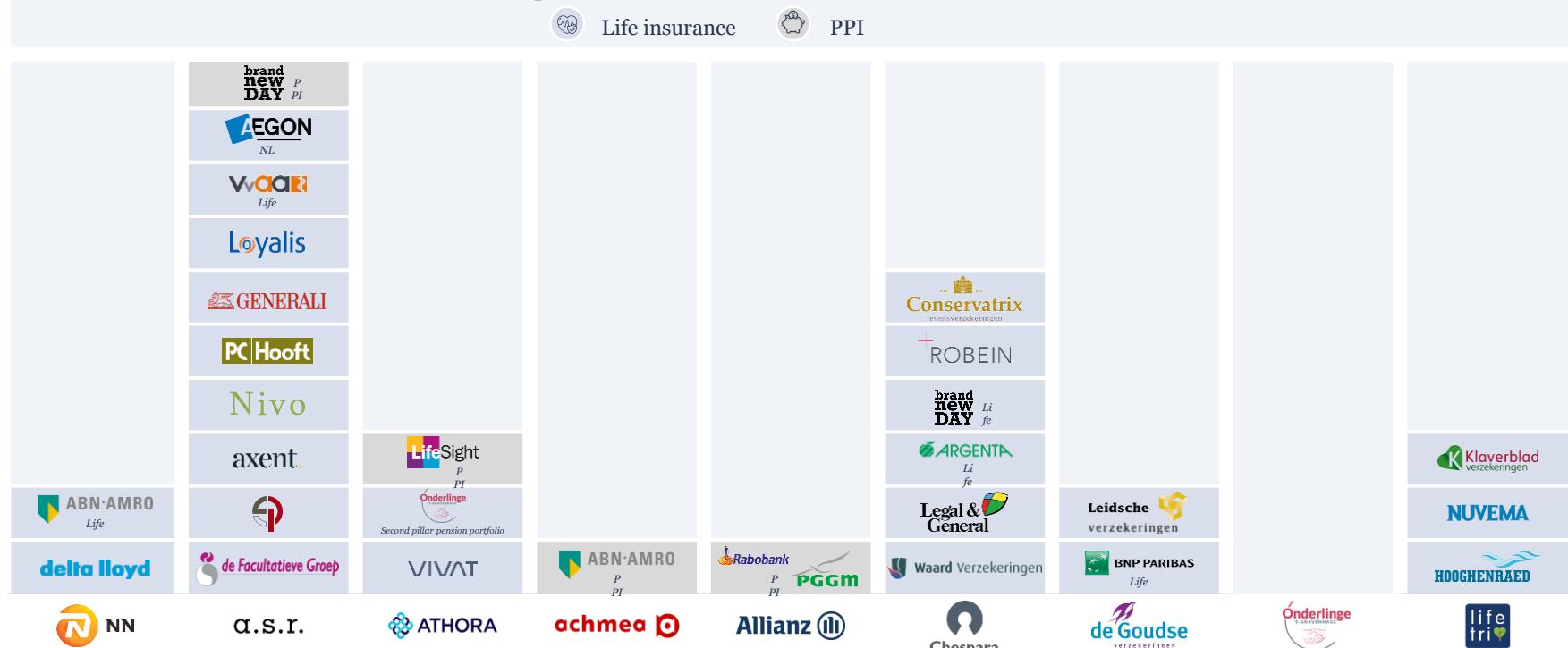


Life insurance



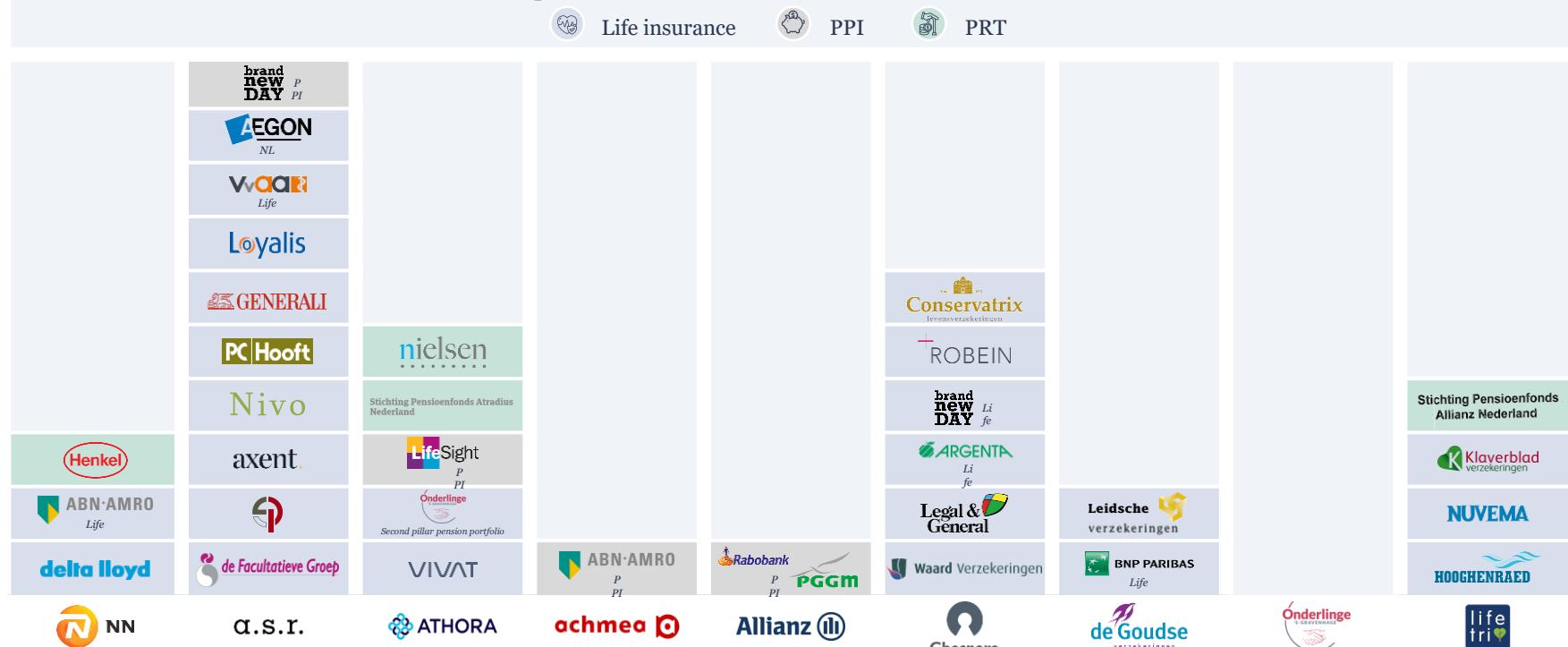
Consolidation in the Dutch life insurance market

Acquisitions made in the Dutch life insurance market



Consolidation in the Dutch life insurance market

Acquisitions made in the Dutch life insurance market



Sources: Aperghis & Co database

Attractiveness of insurance M&A for buyers



**Strategic fit /
Market share**



**“Standalone”
Capital
Generation**



Cost savings



Capital synergies



Re-risking

Standalone rationale

Value levers for potential buyers

Recent transaction highlights 2023

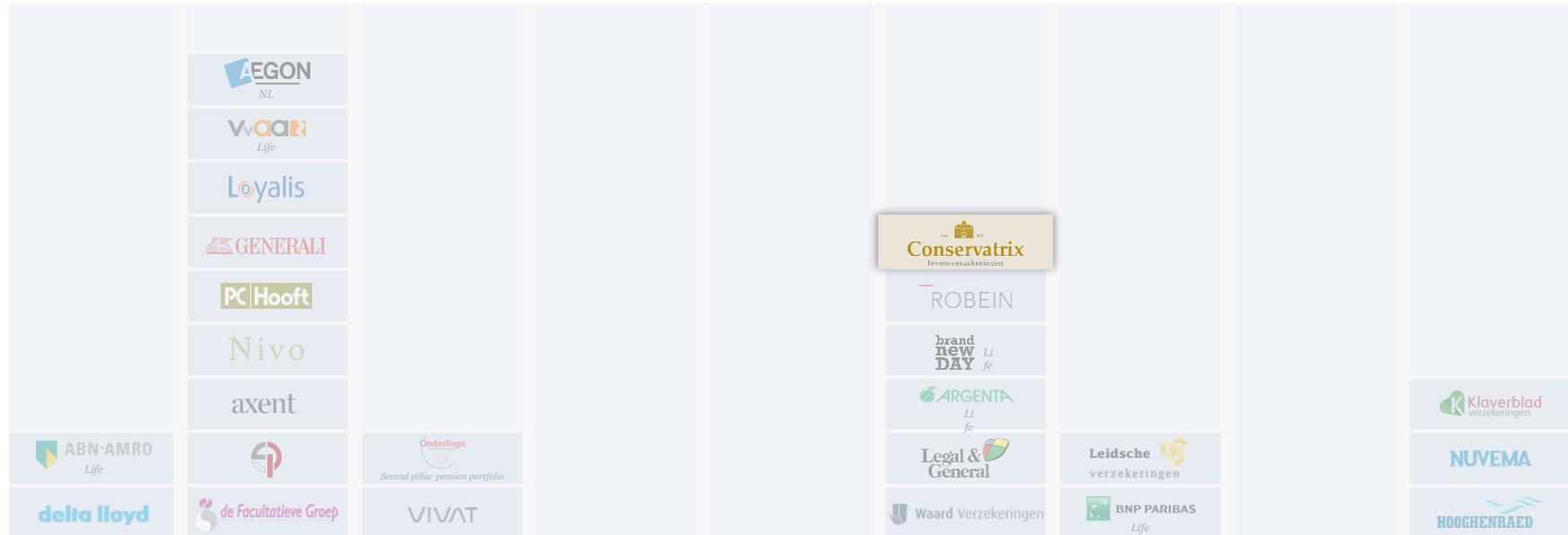
 	  	 	 
<i>Life insurance</i>	<i>Pension insurance</i>	<i>P&C insurance</i>	<i>Surety insurance</i>
Portfolio transfer	Minority sale and reinsurance	Minority acquisition	50/50 Joint Venture
Life insurance consolidation	Market shifts reacting to WTP (Pension Buy Outs)	P&C insurance consolidation	P&C insurance consolidation

Special topic: Conservatrix

Acquisitions made in the Dutch life insurance market



Life insurance



Lessons learned

“Een goede voorbereiding is meer dan het halve werk”

<i>Transaction</i>	<i>Special topics</i>
	Project Lead
	Timing
	Product portfolio
	Complexity and size
	Value optimisation
	Woekerpolis file
	Profit-sharing and guarantees
	Market risk

Insurance market outlook



Life insurance



Pensions



P&C insurance



Health insurance

Herverzekeringsoplossingen voor Nederlandse verzekeraars passend bij de uitdagingen anno. 2023

Triple A Risk Finance Seminar
7th December 2023

Considerations for long term mortality trends

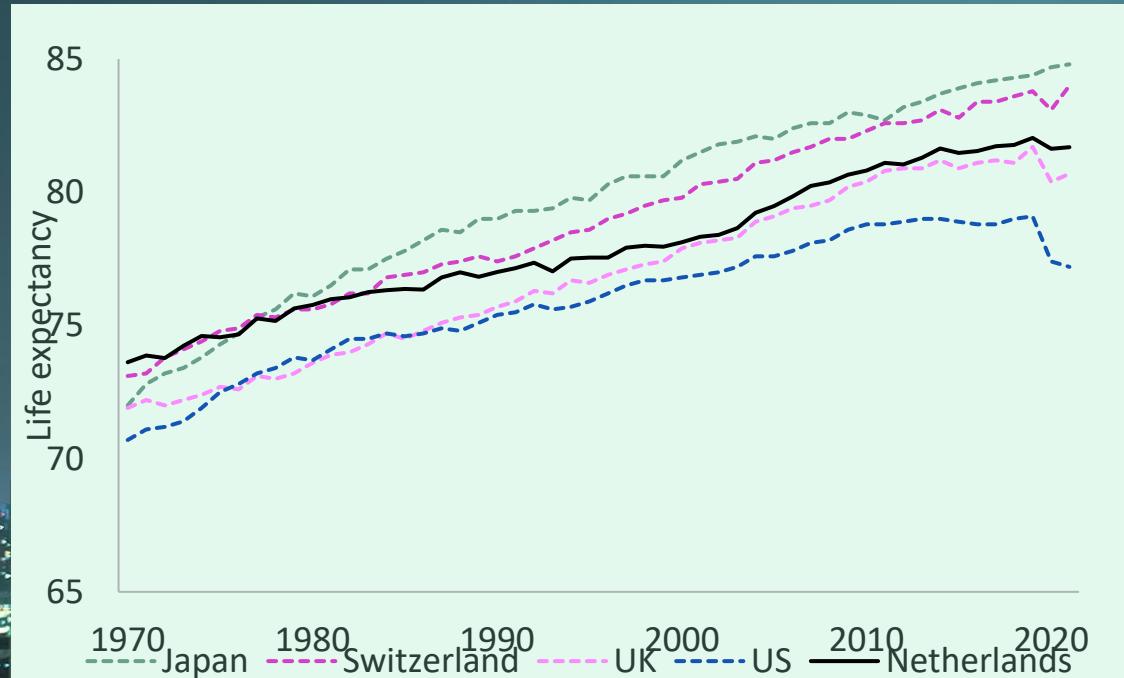


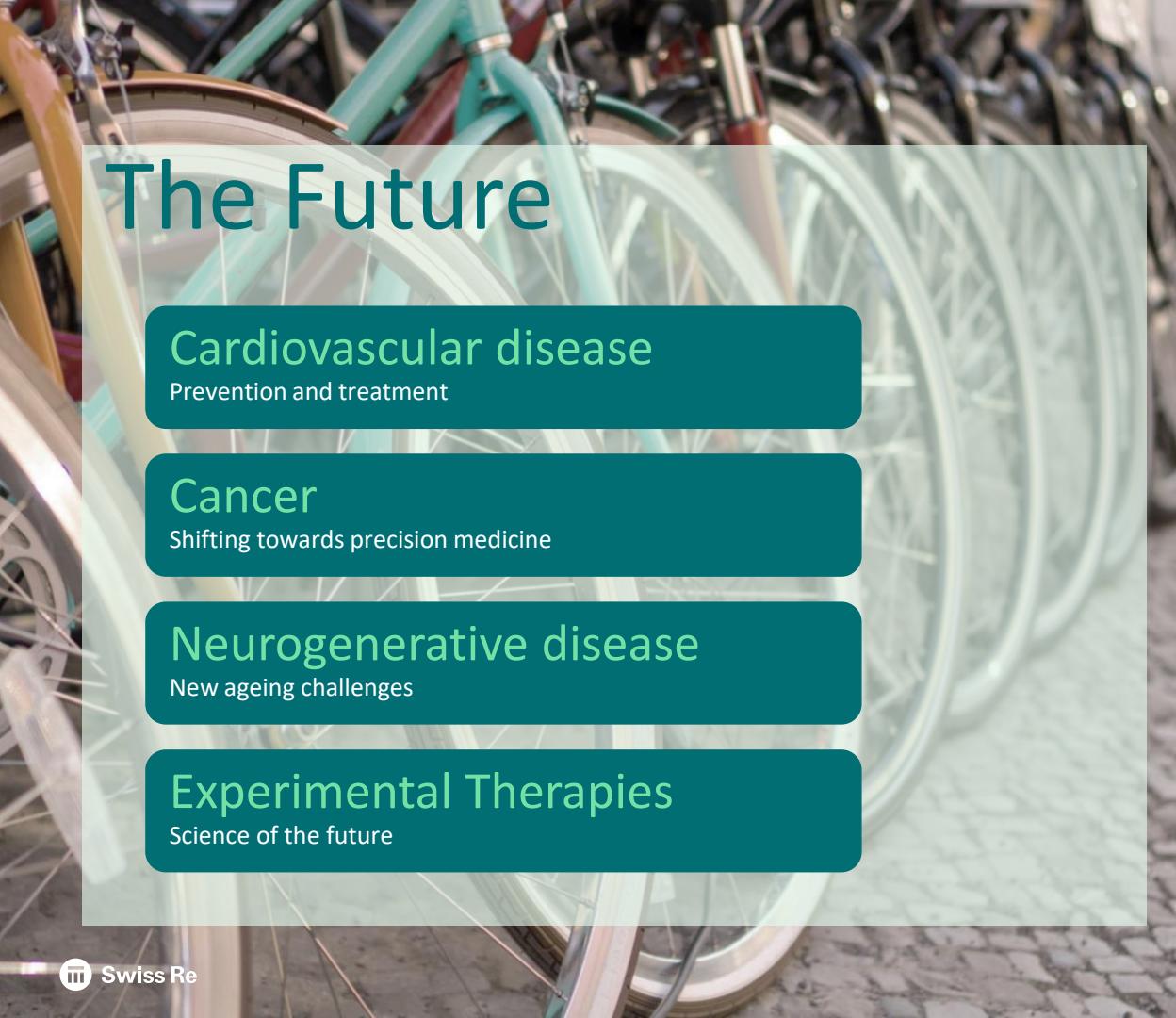
Cyclical

Socio-economic divergence

Medical & lifestyle factors

Pandemic exacerbated global life expectancy differences





The Future

Cardiovascular disease

Prevention and treatment

Cancer

Shifting towards precision medicine

Neurogenerative disease

New ageing challenges

Experimental Therapies

Science of the future

Metabolic Health



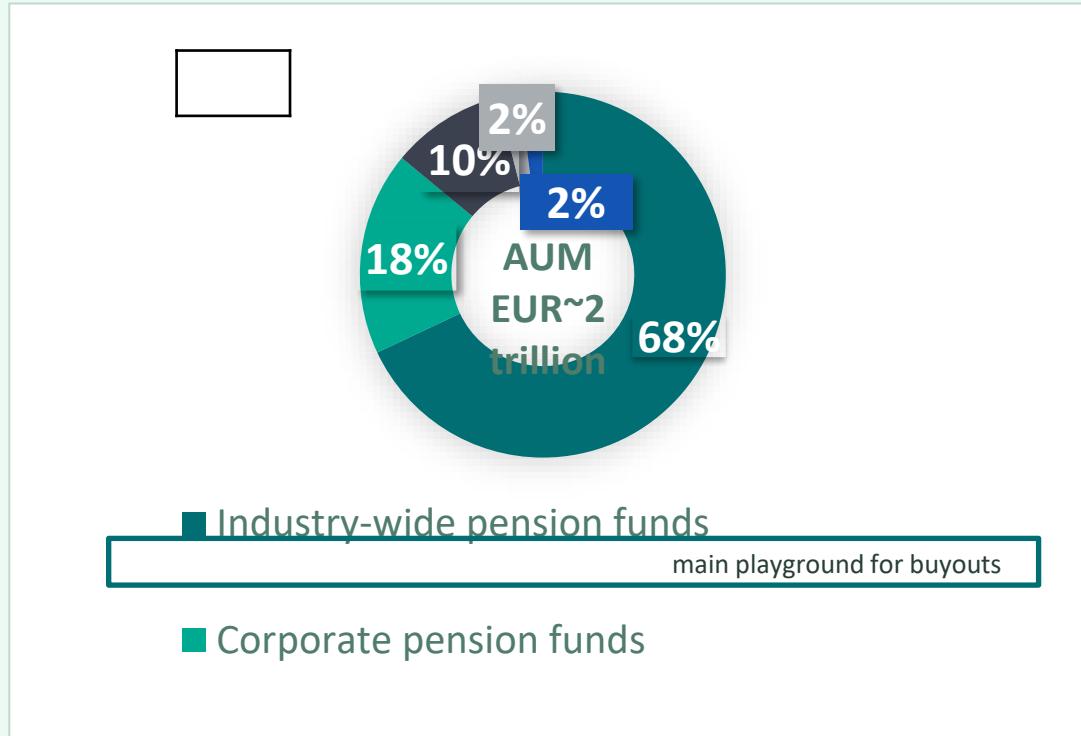
Personal Health Monitoring



Detractors of Health



Pension reform increases addressable market for (re)insurers



Source: DNB (4Q 2022)

- Very large pension market with AUM EUR ~ 2tn
- Pension funds consider **strategic options**
 - Transition from DB to DC
 - Merger
 - Transferring to General Pension Fund (APF)
 - Buyout
- **Reinsurance can support in**
 - “**Transition**” situations (stabilization of PF coverage ratio)
 - “**Buyout**” situations (longevity risk protection)

Longevity swaps are an effective tool to transfer mortality trend risk



Transfer risks and reduce required capital

Manage volatility and optimise asset portfolio.
No asset transfer

Flexible long-term solution

Reinsurance goes beyond
biometric risk transfer. It
offers solutions to master
the challenges of 2023+.



Structured reinsurance can help manage capital and liquidity



The background features a large, semi-transparent white circle on the left and a smaller, solid teal circle on the right, both set against a teal gradient background.

Any
questions?

Thank you!

Follow us





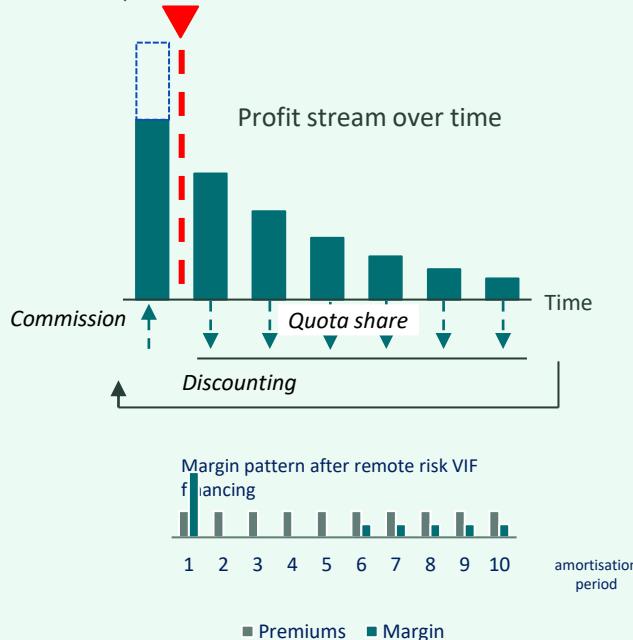
Appendix

Value inforce (VIF) monetisation

Monetising future profits to provide local GAAP benefits and liquidity

Structure illustration

The reinsurer provides an upfront commission advancing future profits (biometric margins on protection business or asset management charges for Unit-linked).



Structural features

- The reinsurer advances a portion of future profits by providing an upfront commission as % of available VIF
- The financing amount is amortised every year by the profits emerging on the underlying business through a quota share on risk premium basis
- The reinsurance quota share can be adjusted to target different amortisation duration
- Once the outstanding balance reaches zero, the treaty ends and the reinsurer has no further share of emerging future surplus
- A fall in profits (e.g., higher lapses and/or weak market performance) will delay repayment. Any outstanding balance after the sunset date is written off

Impact of the cover

- Local GAAP: reinsurance commission constitutes a profit which can be used to offset any strain under local GAAP (acquisition costs, asset write-offs, etc).
- No increase to debt leverage as repayment is contingent on surplus emerging
- Provides protection against the most remote risk scenarios (both asset and lapse risk)
- Flexibility to tailor amortisation start and duration to dovetail with term structure of existing debt financing
- No major impact on solvency (apart from RI premium), potentially positive if profits outside contract boundaries are monetised.

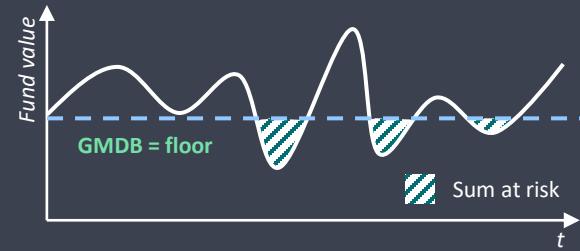
Guaranteed Minimum Death Benefit (“GMDB”)

Definition

GMDB – quick read

- GMDB-riders are common features of many Unit-Linked savings policies. They offer the policyholder a guaranteed pay-out while maintaining full participation in the upside potential of the underlying funds
- Importantly, the GMDB rider only pays out in case of death or disability of the insured
- If the fund value is lower than the GMDB the cover is in the money. This delta, the sum at risk, equals the lump sum payment

GMDB - Visual



Reinsurance to de-risk GMDB riders

Effective alternative to derivatives which has the difficulty to decouple financial from mortality risk

Reinsurance is a full and holistic solution

- New GMDB rider or existing portfolio
- Quota Share structure on a per policy basis
- Reinsurance term is usually 5 – 10yrs, but can for certain cases be on a run-off basis
- Reinsurance Fee (% of reinsured funds) is fixed at inception

	Financial Market Risks	Biometric Risks	Behavioural Risks
	Unfavourable moves in capital markets and interest rates driving sum at risk up	Unfavourable technical portfolio development such as higher mortality rates	Lower lapse than expected and switching between fund choices
Reinsurance	Yes	Yes	Yes
Derivatives	Yes <small>Roll risk whereas reinsurance is usually multi-year</small>	No <small>Does not take into account portfolio parameters, such as age, gender, smoker status, etc.</small>	No <small>In fact behavioural risks can decrease the hedge effectiveness</small>

Benefits of Reinsurance



Lower earnings (P&L) volatility

De-risking the GMDB rider to immunize the P&L from associated market risks

Note: Option to incl. downward protection of fee income



Reserve releases

The insurer gets a Reinsurance Asset that mirrors the GMDB reserve under both SII and most local GAAPs



Lower SCR

The reinsurance allows to optimize capital requirements for different building blocks incl. Market, Mortality and Lapse risk



Faster time to market

Development (design and pricing) of a new GMDB rider incl. fund / Index selection together with Swiss Re



Lower operational complexity

Externalise hedging and / or fund choice to Swiss Re. No longer need to execute hedging strategy incl. liquidity management, rolling etc.



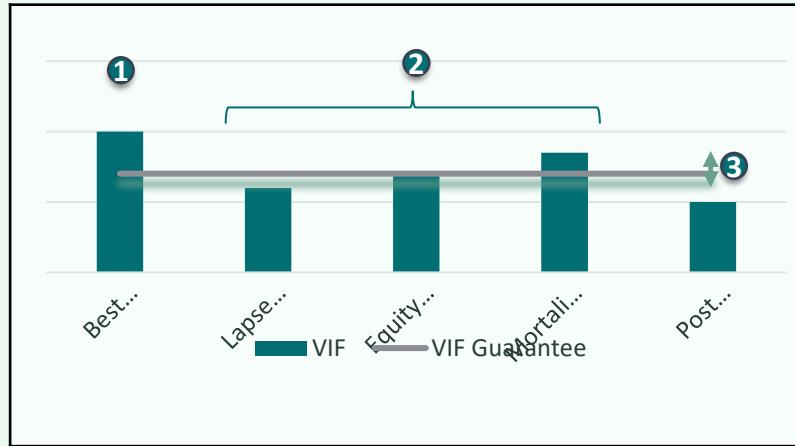
Regulation

Increased regulatory scrutiny of insurers' asset exposure in unit linked portfolios. And in case of GMDB product development: enrichment of investment product with insurance value proposition

How VIF Guarantee reinsurance works

VIF guarantee reinsurance

Illustrative



Key benefits

- Reduction of SCR: the post-diversified SCR in respect of the reinsured business should be capped by the loss of VIF up to the guaranteed amount
- Reduction in Risk Margin: corresponding to the SCR reductions
- Protects earnings against various loss events
- Alternative to separate lapse and asset hedging, with additional risk coverage for simultaneous stresses

Structure details

- 1 The value in force (VIF) of a unit linked portfolio is an asset on the SII balance sheet
- 2 The reinsurer can guarantee e.g. 70% of the VIF via reinsurance. This may reduce a number of the individual standard formulae stresses
- 3 As the guarantee caps the total loss across several risks, the SCR capital relief should be calculated post diversification (segmenting the unit linked contribution to SCR)

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Analyse van recente resultaten van Nederlandse en Europese verzekeraars

Tom Veerman
Loïs Stijsiger





Ontwikkelingen Capital Generation

Nederlandse schadeverzekerders



Agenda

Ontwikkelingen Capital Generation schadeverzekeraars

- 1** **Introductie**
Wat is Capital Generation?
- 2** **Capital Generation bij Nederlandse schadeverzekeraars**
Analyse van recente ontwikkelingen
- 3** **Sturing Capital Generation**
Welke middelen kan je gebruiken?
- 4** **Conclusie**

1. Introductie

Wat is Capital Generation?

Waarom kapitaalgeneratie?

Een stap terug: doelstellingen van Solvency II



always focused on the main objectives of Solvency II, namely the protection of policyholders and beneficiaries and the stability of the market.

Introductory Speech Gabriel Bernardino for Solvency II Review, 1-2-2018
Bron: EIOPA

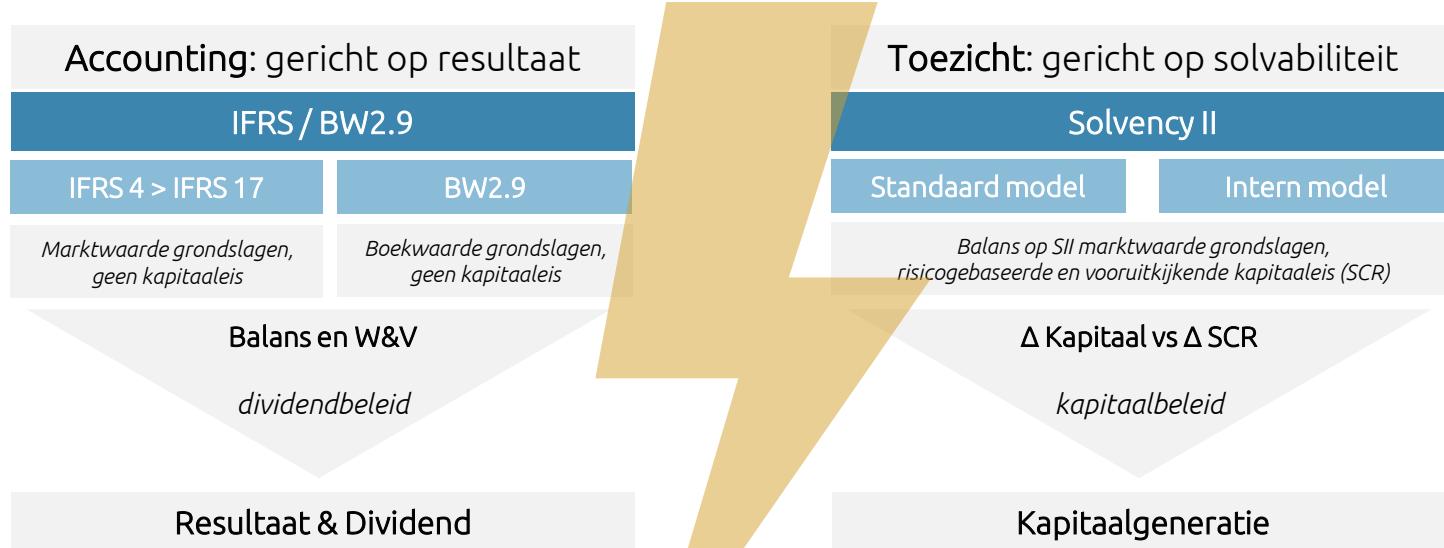
Niet gericht op rendement

Maar bevat wel inzicht in (markt)waarde!

Focus op kapitaal

En bepaalt hiermee ruimte voor ondernemerschap en dividend!

Twee werelden: resultaat en kapitaal



Definitie kapitaalgeneratie?

Verschillende definities in de markt

Er is (nog) geen eenduidige definitie in de markt

- Operationeel / Organisch / Genormaliseerd / Net / Free, etc.
- Gebaseerd op vereist kapitaal (=100% SCR) of interne norm (> 100% SCR)?
- Lopende discussies over de uniformiteit van 'kapitaalgeneratie' door brancheverenigingen zoals het Verbond van Verzekeraars en het CFO Forum.

Basis uitgangspunt:

- **Vrij kapitaal = Beschikbare Eigen Middelen -/- SCR**
- Kapitaalgeneratie is de ontwikkeling van vrij kapitaal gedurende een periode.

Definitie kapitaalgeneratie?

Voorbeeld

	Begin van de periode	Einde van de periode
OF (aanwezig vermogen)	1.500	1.800
SCR (vereist vermogen)	1.000	1.200
Vrij kapitaal	500	600
<i>SCR-ratio</i>	150%	150%

Kapitaalgeneratie: van 500 naar 600 vrij kapitaal = 100

Rendement op SCR: $100 / 1.000 = 10\%$

Voordelen capital generation

In control Solvency II

Door capital generation in de gaten te houden beperk je verrassingen op je Solvency ratio.

Waarde creatie aandeelhouder

Capital generation biedt waarde creatie en grip op mogelijk dividend

Voorkom negatieve waarde creatie

Door middel van het sturen op capital generation kunnen besluiten met negatieve waarde creatie als gevolg voorkomen worden.

2. Capital Generation in de Nederlandse markt

Analyse van 2022 cijfers



15 Grootste NL Schadeverzekeraars (2022)

Bruto premievolume

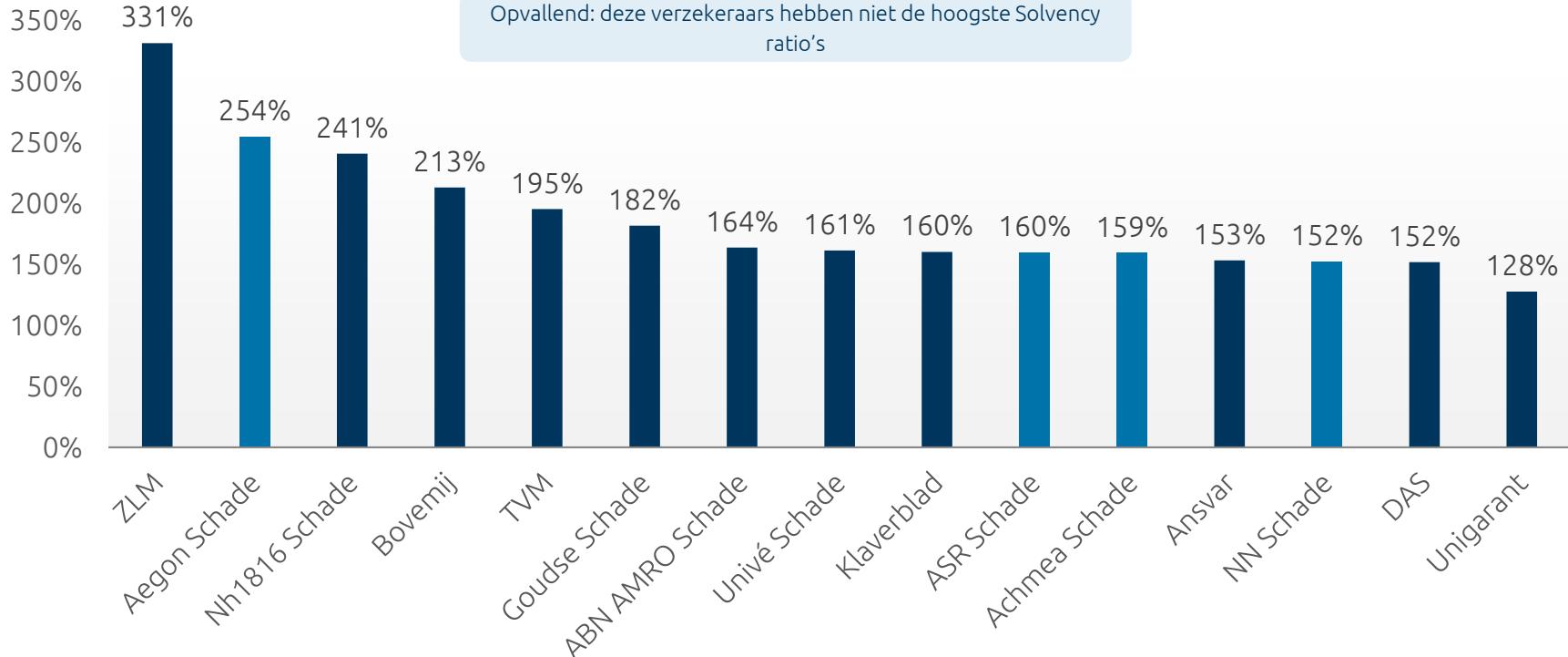
Lichtblauwe verzekeraars passen capital generation toe
(voor zover zichtbaar in het jaarverslag)





15 Grootste NL Schadeverzekeraars (2022)

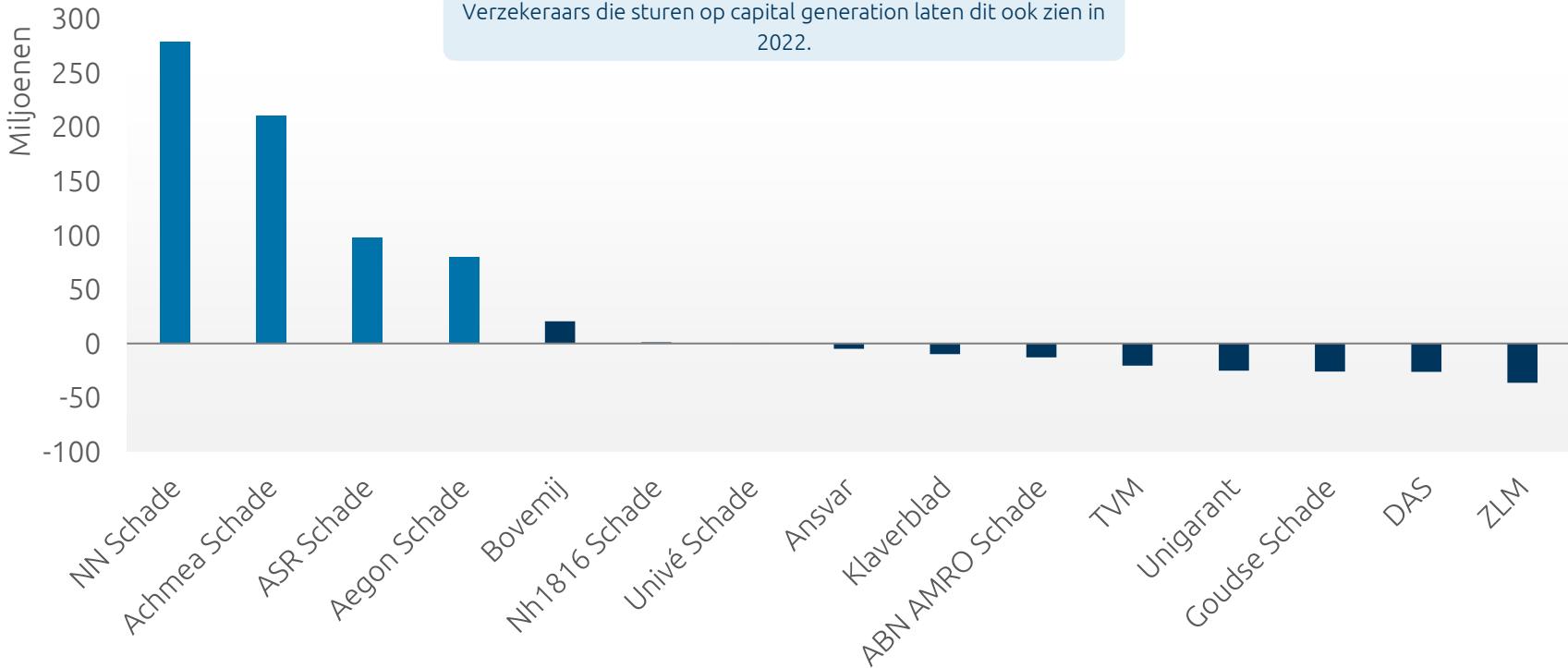
SCR-ratio





15 Grootste NL Schadeverzekeraars (2022)

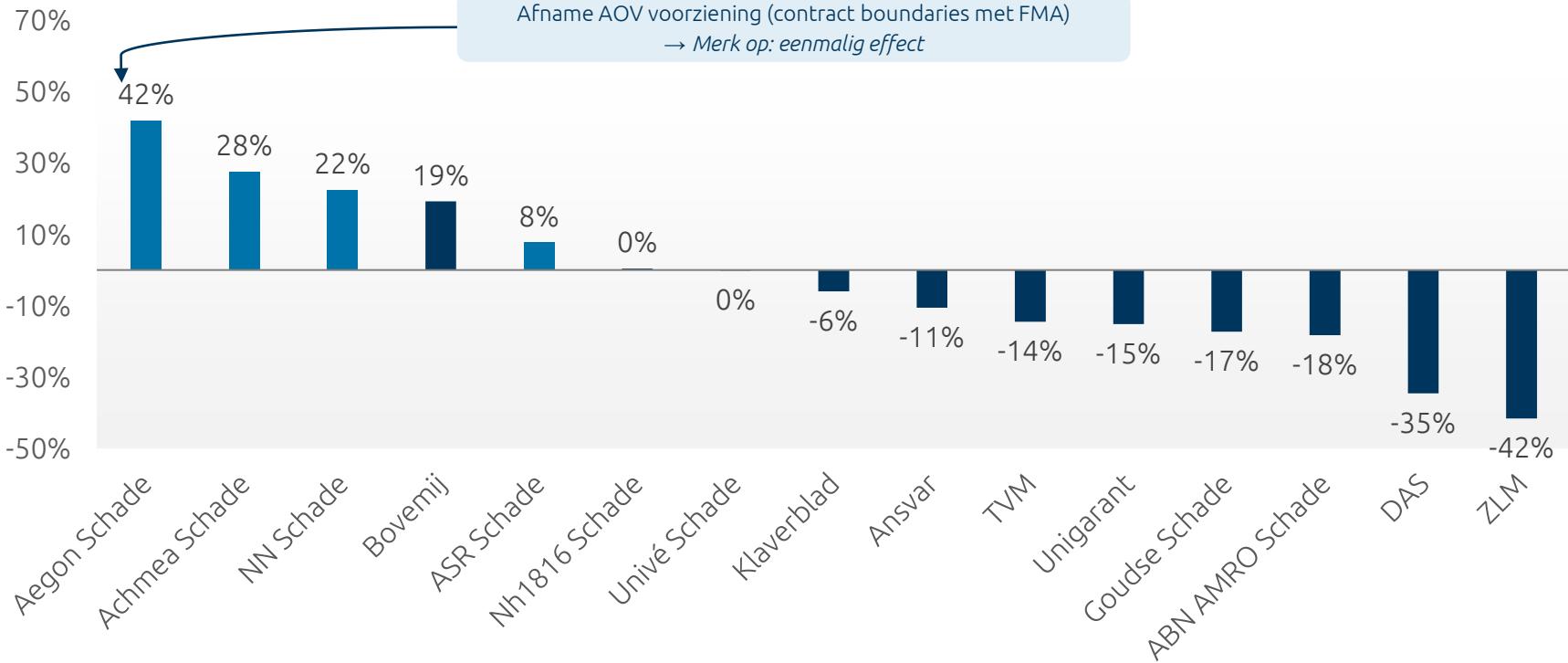
Kapitaalgeneratie





15 Grootste NL Schadeverzekeraars (2022)

Rendement op SCR





15 Grootste NL Schadeverzekeraars (2021)

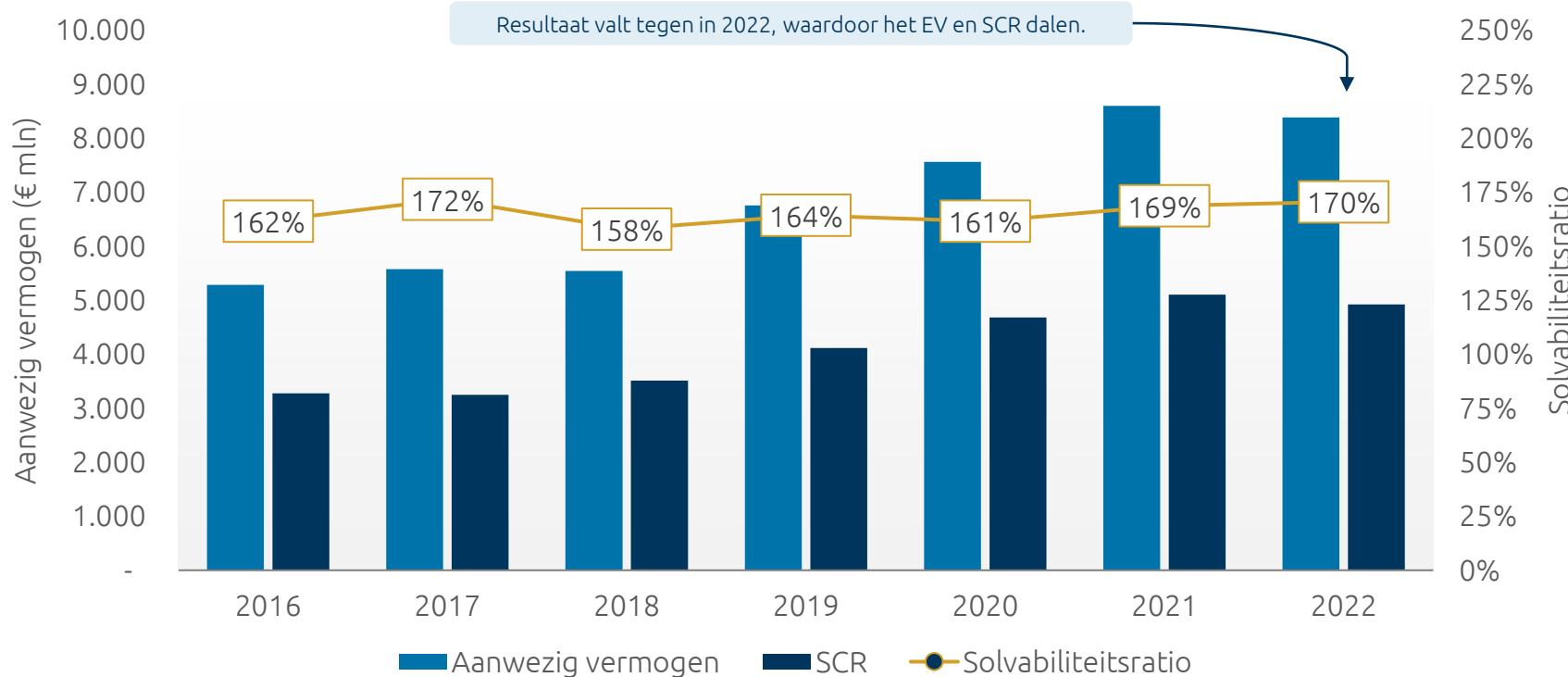
Rendement op SCR





Ontwikkeling kapitaalpositie schadeverzekeraars over tijd

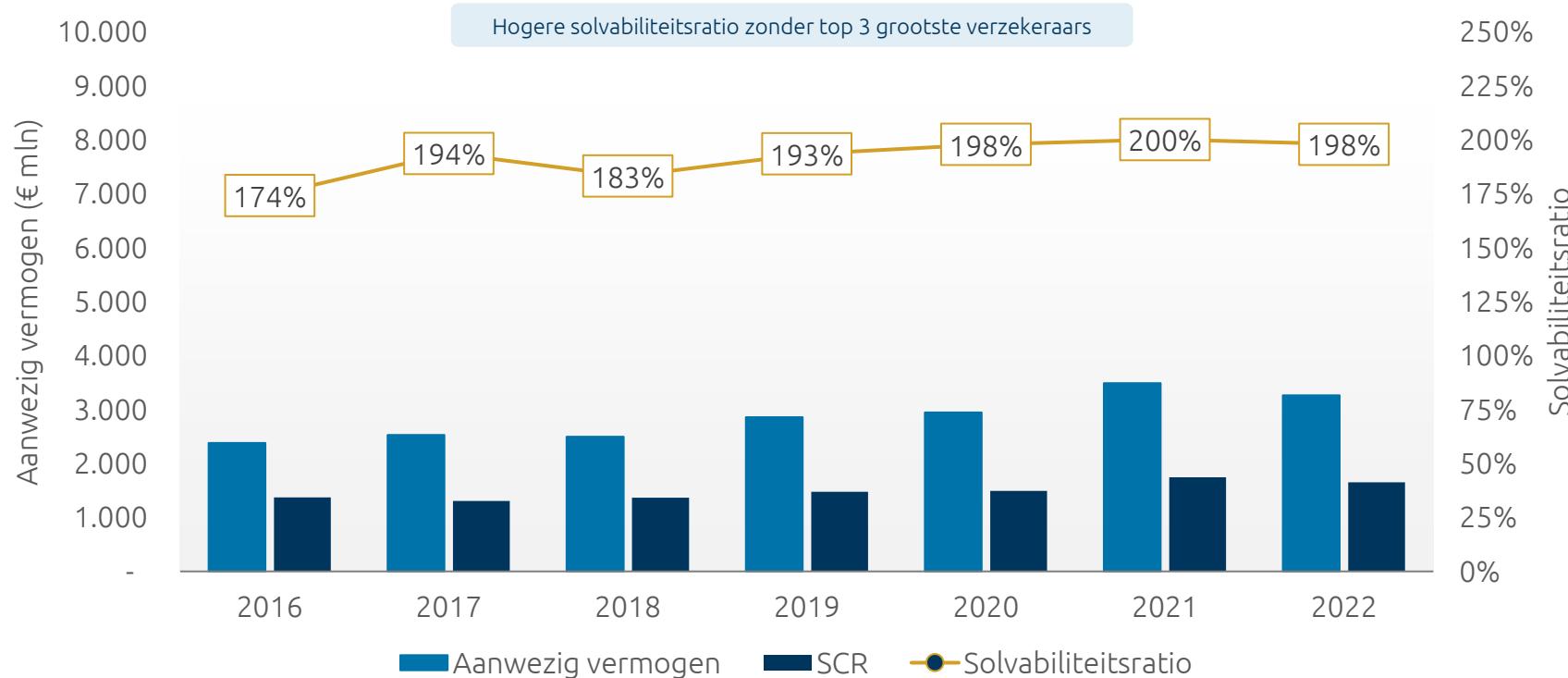
Gebaseerd op 15 grootste schadeverzekeraars





Ontwikkeling kapitaalpositie schadeverzekeraars over tijd

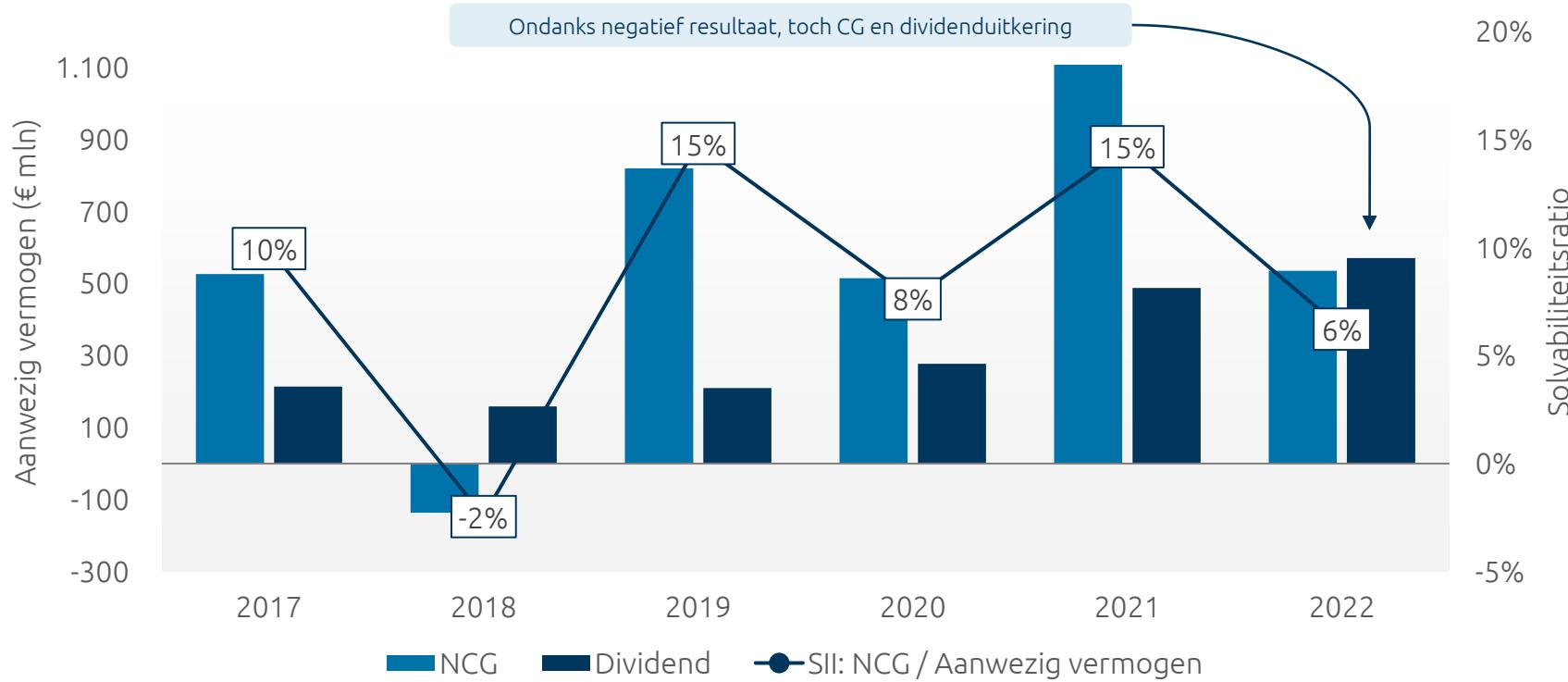
Exclusief top 3 grootste verzekeraars





Ontwikkeling kapitaalgeneratie schadeverzekeraars

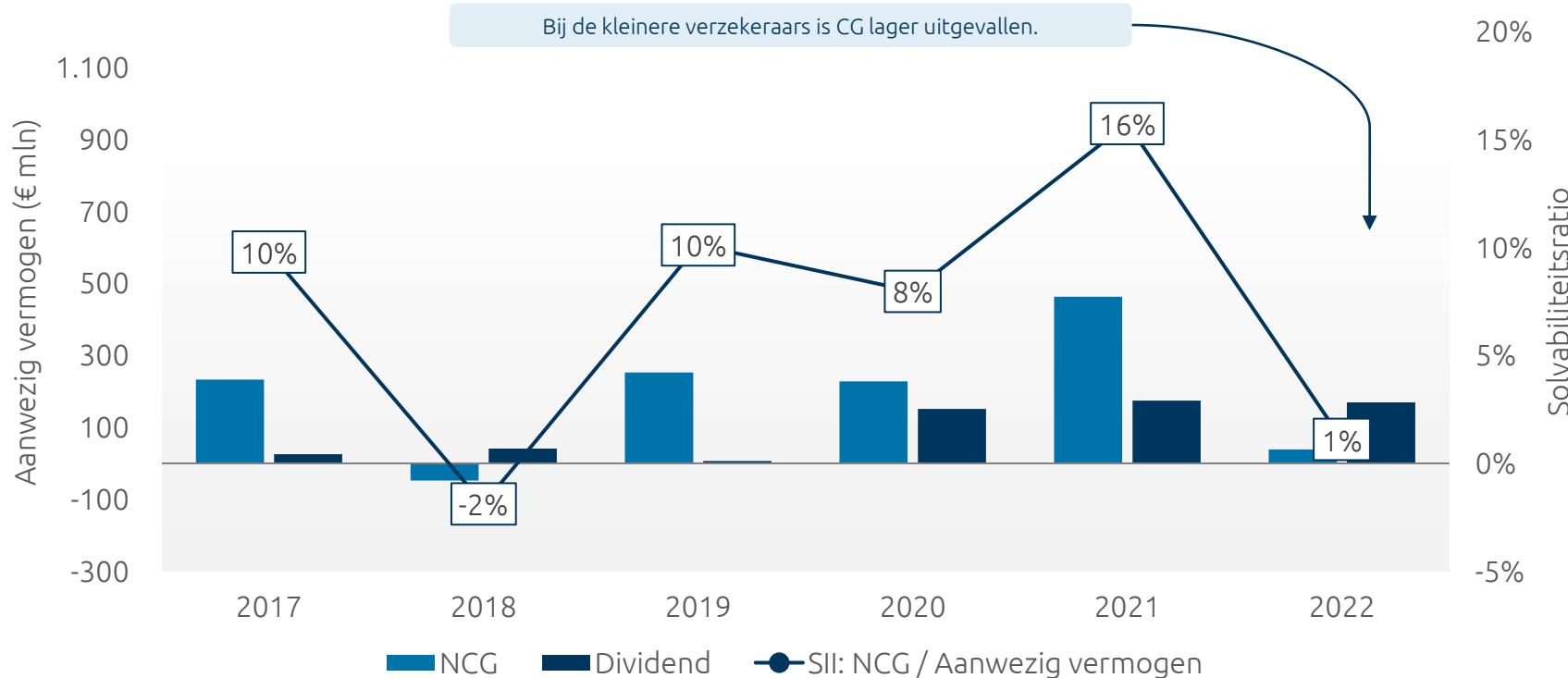
Gebaseerd op 15 grootste schadeverzekeraars





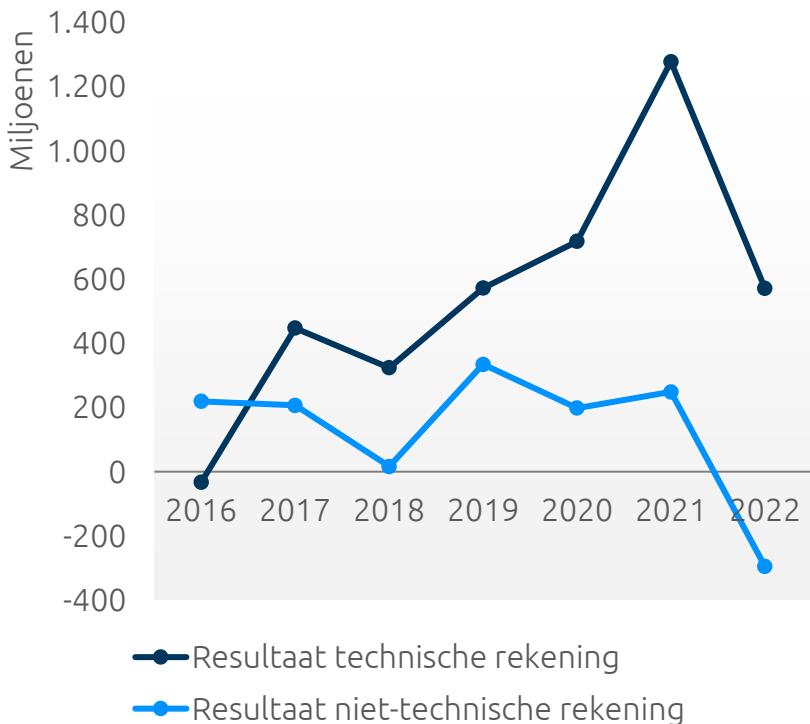
Ontwikkeling kapitaalgeneratie schadeverzekeraars

Exclusief top 3 grootste verzekeraars



Onderbouwing ontwikkeling kapitaalgeneratie

Eigen vermogen – Resultaat



Wegverkeer in 2022 boven niveau 2019

Bron: KiM

**Historische inflatie in 2022,
hoogste in bijna vijftig jaar**

Bron: Volkskrant

**Zuur jaar voor spaarders en beleggers:
tientallen miljarden euro's armer**

Bron: NOS

**DNB: economische groei stopt in
2022 door oorlog in Oekraïne**

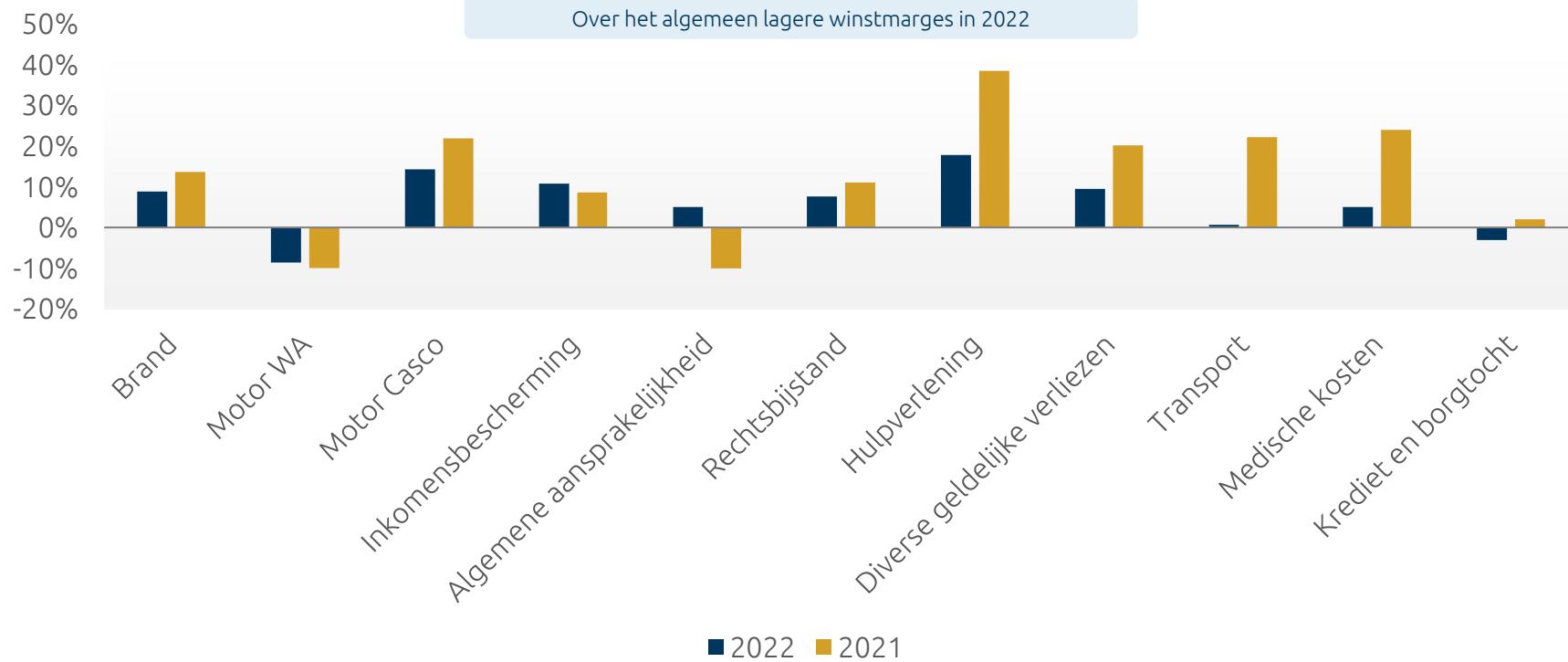
Bron: NRC

AEX verliest bijna 14% in zwak beursjaar 2022

Bron: Business Insider

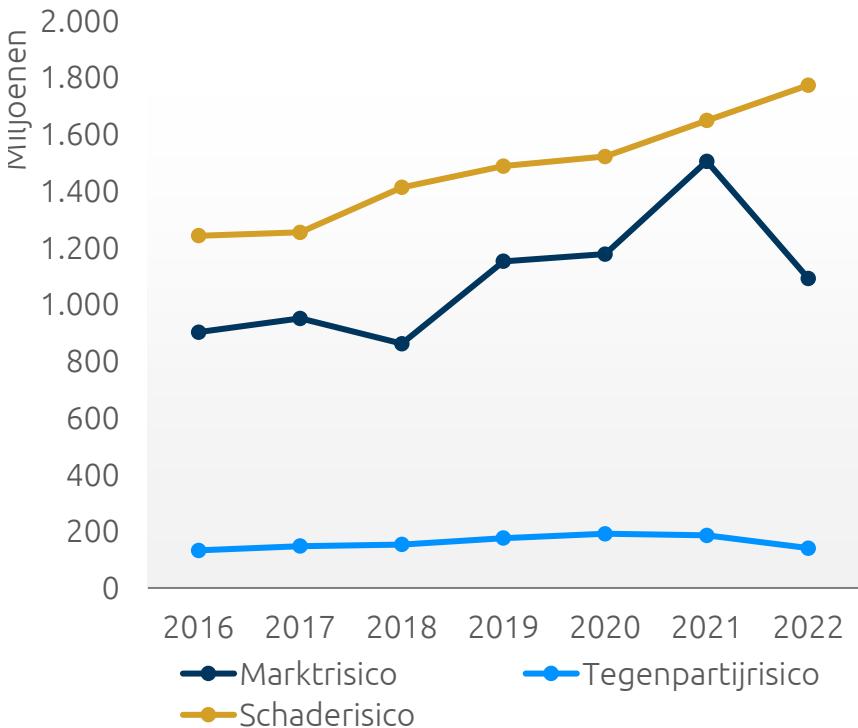
Onderbouwing ontwikkeling kapitaalgeneratie

Eigen vermogen – Resultaat 2022 per branche (hele NL schadeverzekeringsmarkt) gesorteerd van groot naar klein o.b.v. bruto premie



Onderbouwing ontwikkeling kapitaalgeneratie

SCR



Stijging schadelast als gevolg van stormen en inflatie (premie- en voorzieningenrisico ↑). Daarnaast verharding herverzekeringsmarkt (catastroferisico ↑).

Negatieve beleggingsresultaten zorgen voor waardedaling beleggingen (alle marktrisico's ↓).

Onder andere afname LGD hypotheken door tegenvallende beleggingsresultaten (type 2 risico ↓).

3. Sturing Capital Generation

Schadeverzekeraars

Manieren ter sturing van de kapitaalpositie

Schadeverzekeraars

Beleggingen

- Risicoprofiel en SCR beleggingen

Productbeleid & pricing

- Diversificatie vanuit productspreiding:
 - Lange termijn
 - Groei portefeuille leidt tot meer risico en hogere SCR

Herverzekering

- Effectief en markt breed bewezen instrument voor kapitaalsturing

Methodieken SCR berekening



Samenstelling vermogen

- Achtergestelde lening
- Kapitaalinjectie
- Afhankelijkheid van investeerder(s) / leden
- Beschikbaarheid
- Kosten

Winstgevendheid

- Premiestelling
- Kosten- en schadelast beheersing

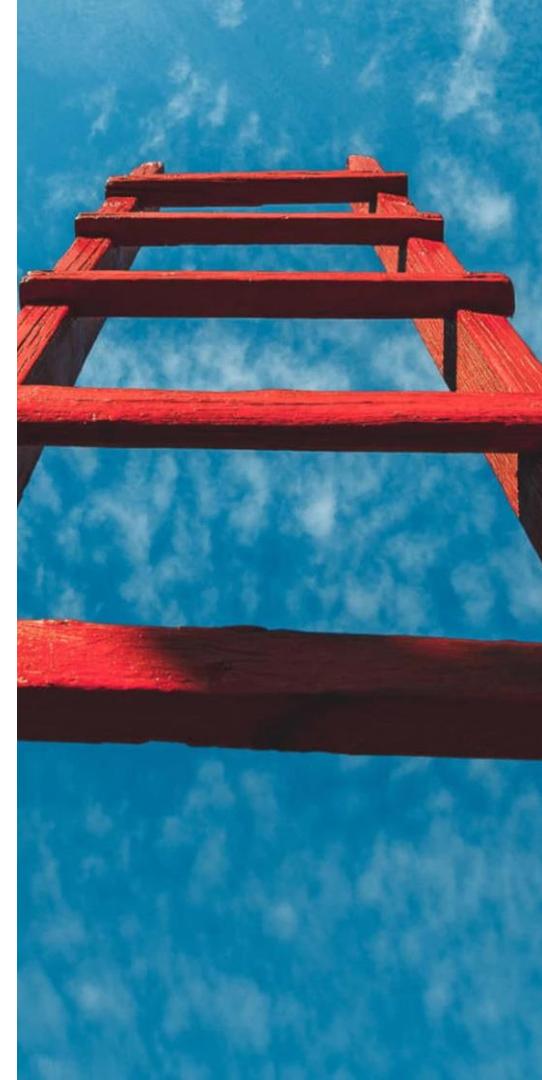
4. Conclusie

Conclusie

Kapitaalgeneratie wordt nog niet breed in de markt toegepast, terwijl dit veel voordelen biedt:

1. In controle zijn van Solvency II
2. Waarde creatie voor de aandeelhouder
3. Voorkom negatieve waarde creatie

Om te sturen op kapitaalgeneratie is een eigen passende aanpak voor het meten en sturen van belang.





IFRS and SII performance and developments 2022-2023

European and Dutch insurance companies

Today

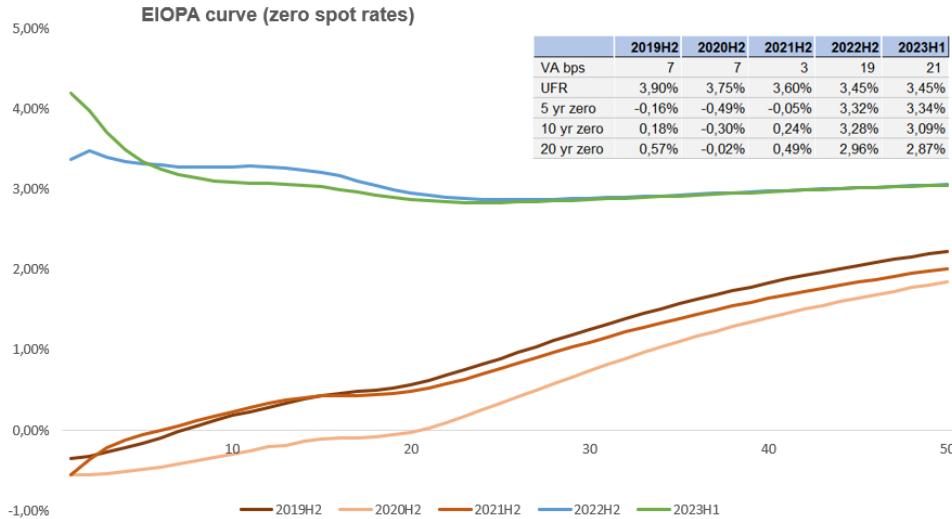
1. Solvency and capital generation
2. a.s.r. and Aegon NL deal
3. Athora capital management and re-risking
4. Woekerpolis
5. IFRS17
6. Closing and key take-aways



Economic developments 2022-2023

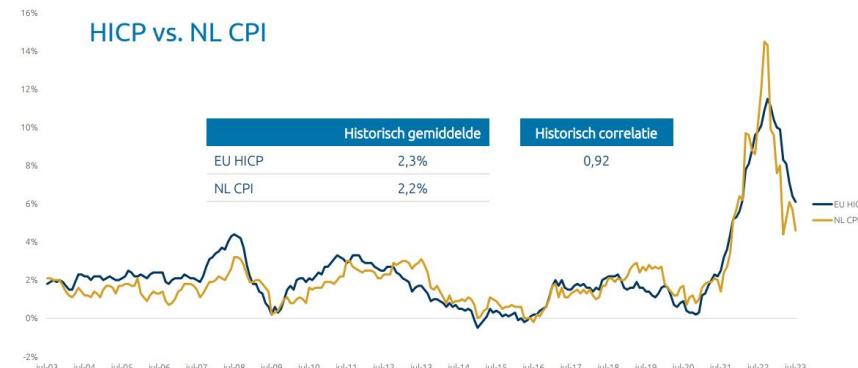
- Rapid increase of inflation and interest rates during 2022

Interest rates



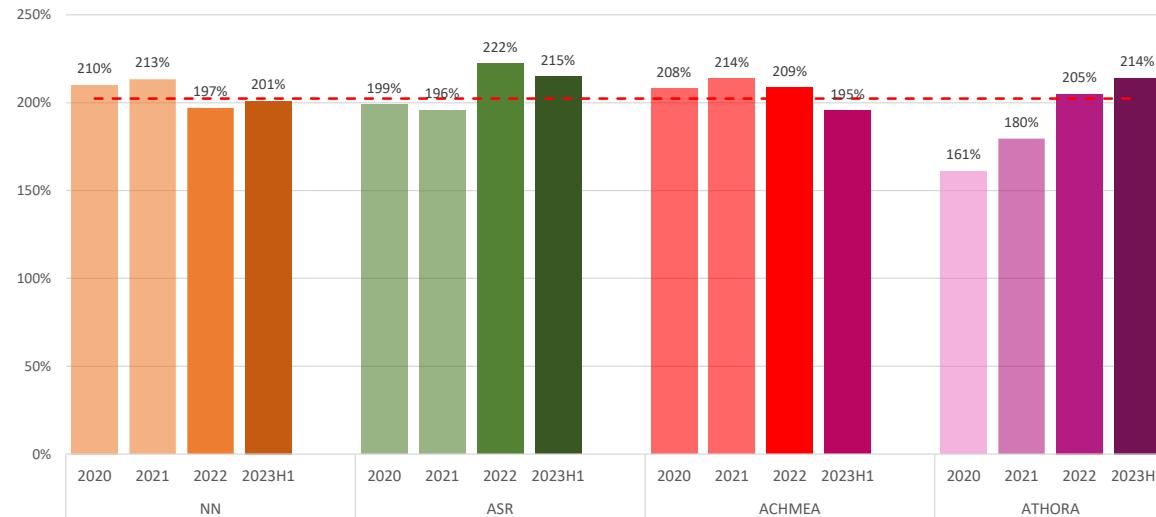
Inflation

HICP vs. NL CPI



Robust solvency ratios Dutch insurance groups

Solvency II Ratios (2019-2022)



Groups	SII-ratio		EOF (bln.)		SCR (bln.)		LAC-DT	
	2021	2022	2021	2022	2021	2022	2021	2022
NN Group	213%	197%	20,9	17,8	9,8	9,0	18,5%	17,2%
ASR NL	196%	222%	8,2	7,3	4,2	3,3	19,1%	19,6%
Achmea	214%	209%	10,4	9,2	4,9	4,4	12,2%	11,1%
Athora NL	180%	205%	4,1	3,2	2,3	1,6	9,6%	24,4%

Source: company disclosures and Triple A analysis

Remark: a.s.r. solvency equals 185%-190% after inclusion of Aegon NL

Capital generation Dutch insurance groups

Disclosed capital generation outcomes for Dutch insurance groups 2020-2023 (€ bln)

	NN	a.s.r.	achmea	ATHORA												
	2020	2021	2022	2023H1	2020	2021	2022	2023H1	2020	2021	2022	2023H1	2020	2021	2022	2023H1
Solvency II ratio	210%	213%	197%	201%	199%	196%	222%	215%	208%	214%	209%	195%	161%	180%	205%	180%
SCR growth (%)	16%	3%	-8%	1%	3%	1%	-21%	4%	18%	-6%	-9%	8%	1%	-11%	1%	-11%
IFRS net result	1,3	1,9	3,3	0,6	0,7	0,9	0,7	0,3	0,6	0,5	0,1	0,4	-0,1	-0,0	-0,9	0,1
(1) Operational FCG	1,0	1,6	1,7	1,0	0,5	0,6	0,7	0,4	0,3	0,4	0,4	-0,2	-0,1	0,1	0,4	0,3
(2) Market impacts / One-offs	1,3	0,0	-2,2	-0,1	0,2	-0,3	-0,7	-0,3	-0,1	0,3	-0,7	-0,2	-0,5	0,1	-0,5	-0,1
(3) Actual FCG	2,3	1,6	-0,5	0,9	0,7	0,3	-0,1	0,1	0,2	0,7	-0,3	-0,4	-0,5	0,2	-0,2	0,2
(4) Capital flows (Divs + Coupons + SBB)	-1,4	-1,0	-1,8	-0,5	-0,4	-0,4	0,1	-0,2	0,2	-0,8	-0,4	0,2	0,3	0,1	-0,0	-0,0
(5) Change Free Surplus	0,9	0,6	-2,3	0,4	0,3	-0,1	0,0	-0,1	0,4	-0,0	-0,7	-0,3	-0,2	0,3	-0,2	0,2
Oper FCF / Eligible Own Funds	6%	8%	8%	6%	6%	7%	8%	6%	3%	4%	4%	-2%	-2%	2%	9%	10%
Actual FCF / Eligible Own funds	13%	8%	-2%	5%	9%	3%	-1%	2%	2%	7%	-3%	-4%	-12%	5%	-4%	7%

Source: company disclosures and Triple A analysis

Operational

Stable, strong

Actual

Lagging

Stable, strong

Lagging

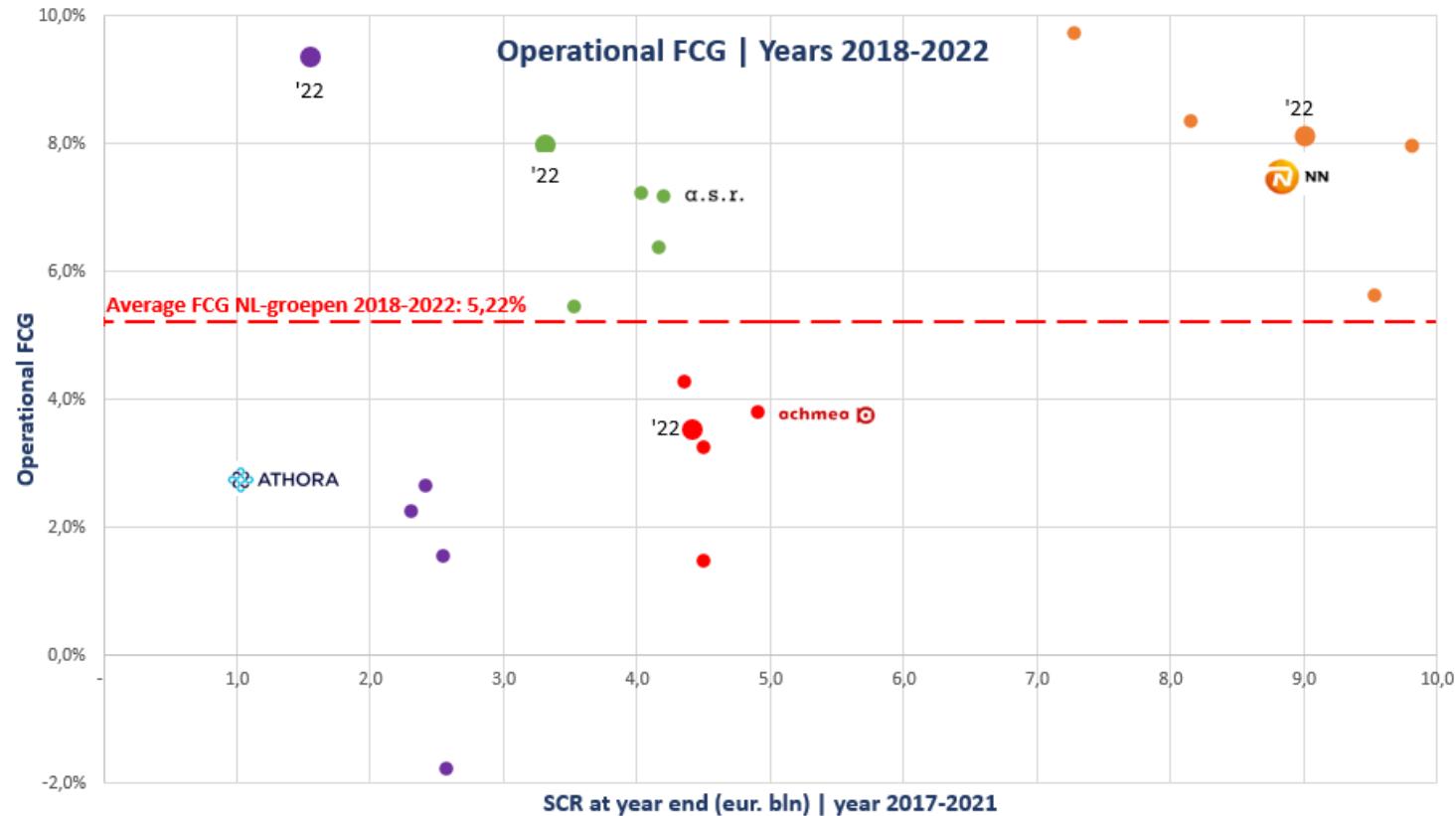
Lower, Health

Negative

Sharp increase

Volatile but positive

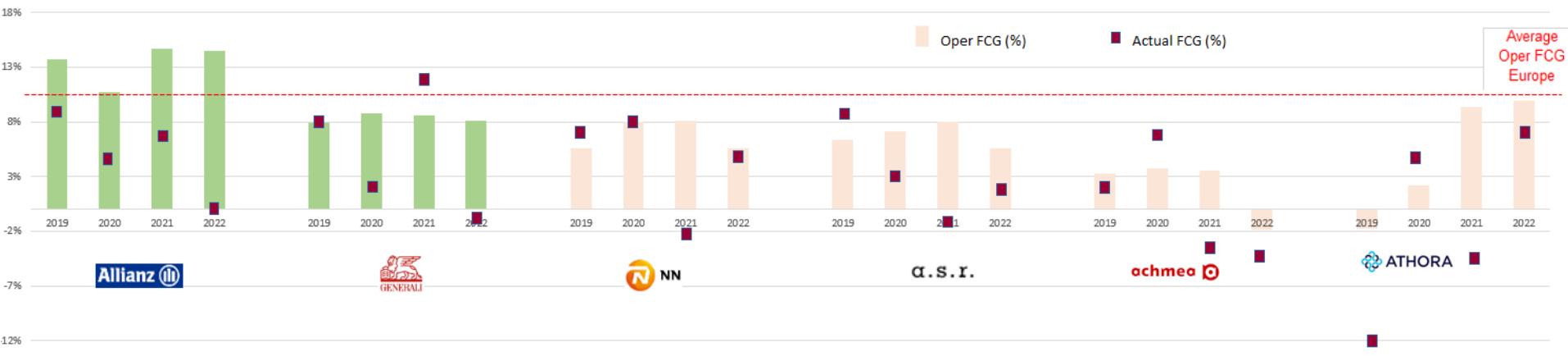
Operational capital generation 2018-2022



Source: company disclosures and Triple A analysis

Actual vs Operational capital generation 2018-2022

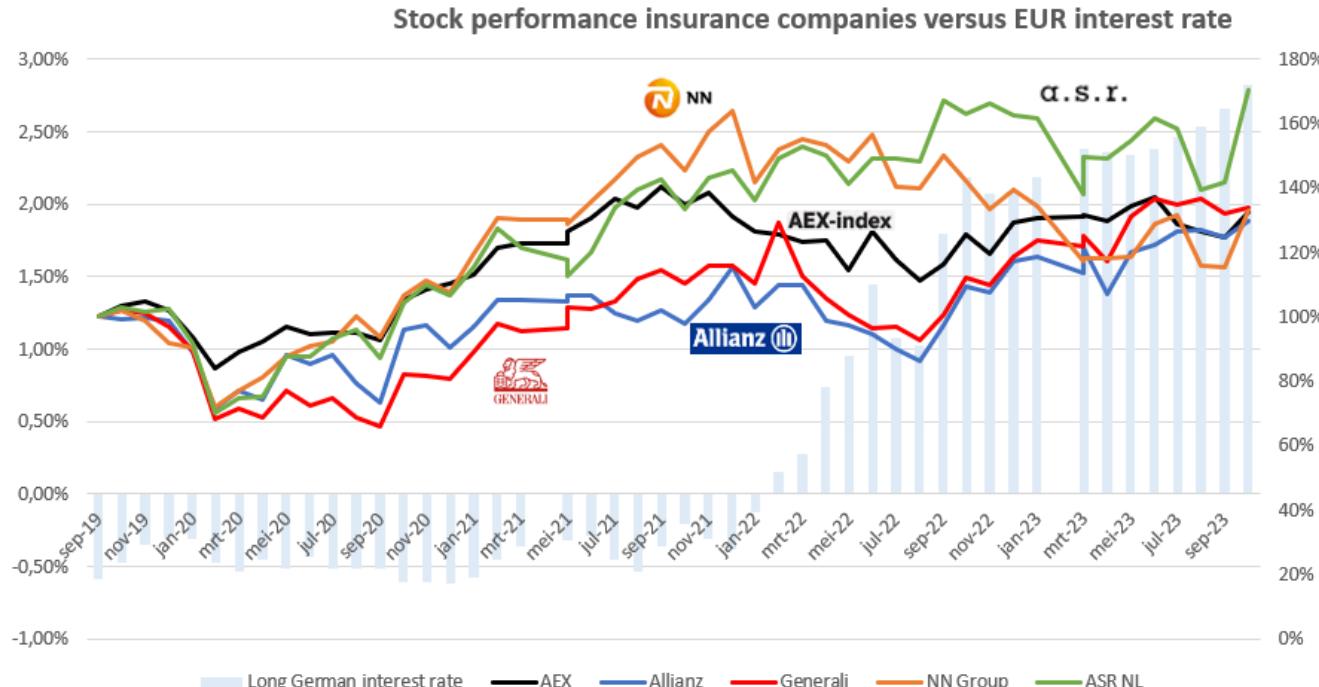
- Operational capital generation for NL insurers slightly below large European peer groups
- Actual capital generation is volatile, but also lagging operational capital generation over longer term



Source: company disclosures and Triple A analysis

Stock performance versus interest rates

- Stock performance of insurers under pressure, but not significantly different from the broad stock index
- Outperformance ASR stock as a result of Aegon take-over
- High volatility of a.s.r. and NN stock in Sept 2023 due to Woekerpolis file

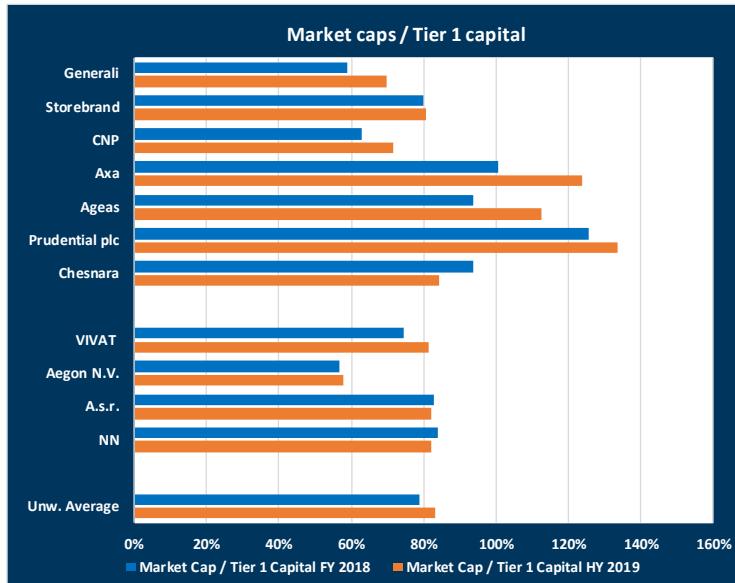


Source: company disclosures and Triple A analysis

1. Solvency and capital generation
2. a.s.r. and Aegon NL deal
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Triple A analysis 2019 – Aegon undervaluation

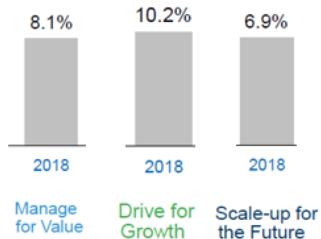
- Multiples derived from the market capitalization as % from Solvency II Tier 1 capital
- AEGON strongly undervalued compared to peers back in 2019



Aegon (2019) – Capital generation strategy (1/2)

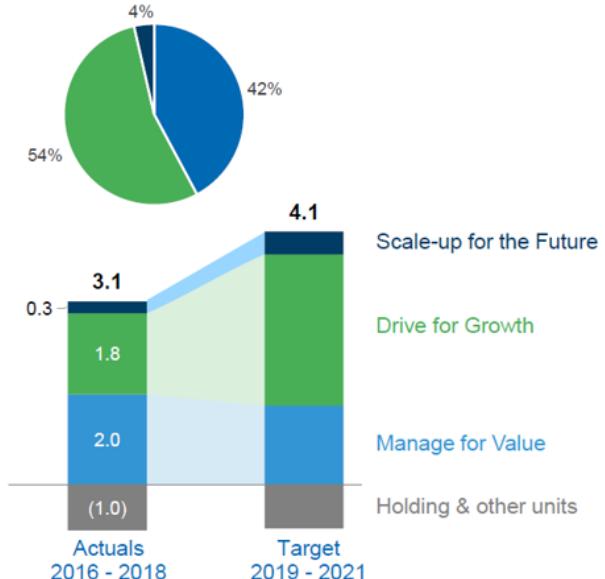
Profitability targets (IFRS)

Return on capital
(in %)



Future Cap Gen targets

Normalized capital generation
(in EUR billion)



- Manage both FCG and profitability
- Focused strategy per category of business

Source: Aegon analyst presentations

Aegon (2019) – Capital generation strategy (2/2)

Manage for Value businesses	Drive for Growth businesses	Scale-up for the Future businesses																																				
<p>Americas ●</p> <ul style="list-style-type: none"> Fixed Annuities Stable Value Solutions Run-off <p>Europe ●</p> <ul style="list-style-type: none"> NL – Life UK – Existing business <p>Asia ●</p> <ul style="list-style-type: none"> Insights <p>Normalized capital generation (in EUR billion)</p> <table border="1"> <thead> <tr> <th>Region</th> <th>2018</th> <th>Trend</th> </tr> </thead> <tbody> <tr> <td>Americas</td> <td>0.7</td> <td>0.7</td> </tr> <tr> <td>Europe</td> <td>0.3</td> <td>0.9</td> </tr> <tr> <td>Asia</td> <td>0.4</td> <td>0.9</td> </tr> </tbody> </table> <p>2018 Trend</p> <p>(1) Continue expense savings (2) Optimize capital position and accelerate CapGen</p>	Region	2018	Trend	Americas	0.7	0.7	Europe	0.3	0.9	Asia	0.4	0.9	<p>Americas ●</p> <ul style="list-style-type: none"> Life Accident & Health Retirement Plans Variable Annuities <p>Europe ●</p> <ul style="list-style-type: none"> UK – Digital Solutions CEE² <p>Asset Management ●</p> <ul style="list-style-type: none"> HNW <p>Normalized capital generation (in EUR billion)</p> <table border="1"> <thead> <tr> <th>Region</th> <th>2018</th> <th>Trend</th> </tr> </thead> <tbody> <tr> <td>Americas</td> <td>0.9</td> <td>0.9</td> </tr> <tr> <td>Europe</td> <td>0.7</td> <td>0.9</td> </tr> <tr> <td>Asset Management</td> <td>0.9</td> <td>0.9</td> </tr> </tbody> </table> <p>2018 Trend</p> <p>(1) Reinvest in new business while growing Cap Gen (2) Leverage platform propositions (3) Benefit from technology investments</p>	Region	2018	Trend	Americas	0.9	0.9	Europe	0.7	0.9	Asset Management	0.9	0.9	<p>Americas ●</p> <ul style="list-style-type: none"> Mutual Funds Latin America <p>Europe ●</p> <ul style="list-style-type: none"> NL – Bank NL – Non-life & income protection NL – Service business Spain & Portugal <p>Asia ●</p> <ul style="list-style-type: none"> Joint ventures <p>Normalized capital generation (in EUR billion)</p> <table border="1"> <thead> <tr> <th>Region</th> <th>2018</th> <th>Trend</th> </tr> </thead> <tbody> <tr> <td>Americas</td> <td>0.1</td> <td>0.1</td> </tr> <tr> <td>Europe</td> <td>0.1</td> <td>0.1</td> </tr> <tr> <td>Asia</td> <td>0.1</td> <td>0.1</td> </tr> </tbody> </table> <p>2018 Trend</p> <p>(1) Develop new business based on clear and closely tracked criteria IRR > 10% (country adjusted) Pay-back period < 10 years Positive MCVNB</p>	Region	2018	Trend	Americas	0.1	0.1	Europe	0.1	0.1	Asia	0.1	0.1
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Source: Aegon analyst presentations

Did Aegon succeed?

- Aegon undervaluation has remained an issue in years following, divestments needed to achieve acceptable returns



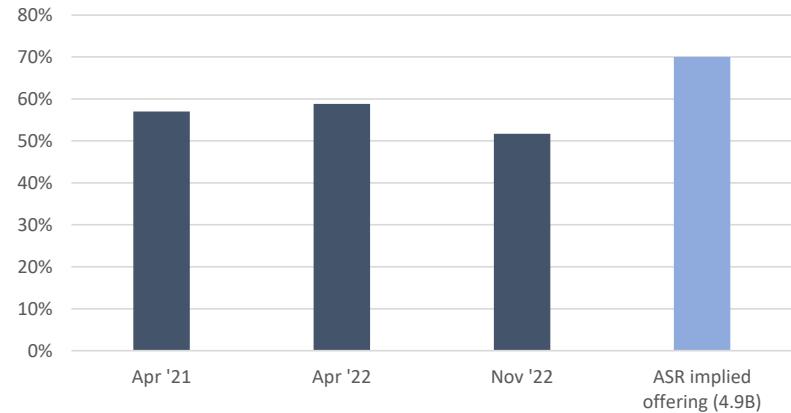
27 October 2022 – a.s.r. takes over Aegon's Dutch business (1/2)

- a.s.r. takes over Aegon NL for 4.9 billion euro, with 2.5 billion euros provided in cash from its surplus capital and Aegon is given a 29.99 percent stake in a.s.r.
- € 1bn Tier 2 bond issued to finance the business combination of a.s.r. and Aegon Nederland
- € 0.6bn Accelerated Bookbuild Offering (ABB)

- ▶ Creating a leading insurer in the Netherlands
- ▶ Sustainable value creation for all stakeholders
- ▶ Robust franchise well positioned for the future

ASR rationale	Aegon Rationale
• Strong Dutch insurer can generate attractive returns through substantial cost savings and diversification benefits	• Return of capital to shareholders
• Better distribution options through combination of platforms from Aegon and a.s.r.	• Accelerate investment in markets well positioned for growth.
• Market leader in income insurance and third player in the non-life insurance market	• Improve operational performance to further improve profitable growth
• Leading position in the Dutch pension market	
• Integration of closed portfolios for individual life insurance on one platform.	
• More scale in providing Dutch mortgages	
• Acceleration of the introduction of Partial Internal Model for SCR calculation	

Aegon - Market Cap / S2 Tier 1 Capital



Source: Press release Aegon and ASR

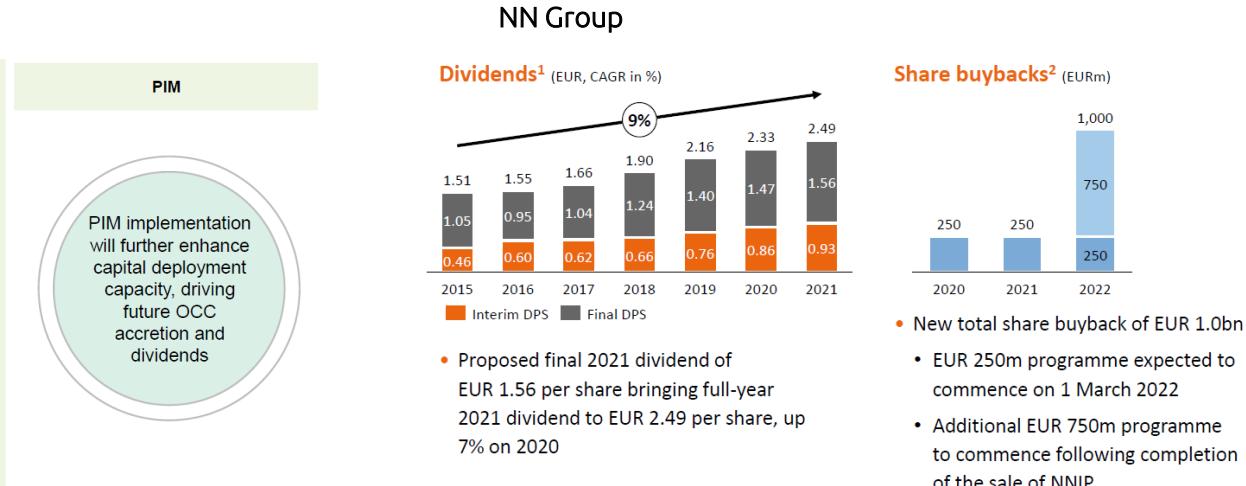
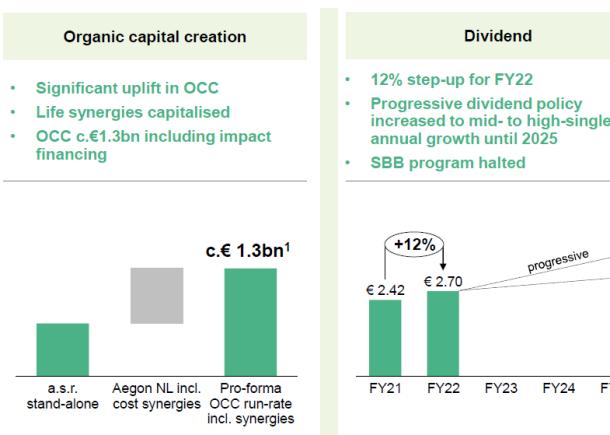
Source: Triple A analysis

27 October 2022 – a.s.r. takes over Aegon's Dutch business (2/2)

- Significant uplift in OCC and double digit step-up in dividend
- OCC | a.s.r. (including Aegon) of €1.3bln versus OCC of NN Group ~€1.4bln
- Remittances | a.s.r. 12% DPS growth versus NN Group 9% DPS growth plus Share Buy Backs (SBB)



a.s.r including Aegon



a.s.r. Investor Day 30 November 2023

Strong start – prompt delivery of transaction milestones

Balance sheet prudence sustained

€ 2.25bn cash and 29.99% equity stake
Transaction financing completed: € 0.6bn ABB and € 1.0bn T2 Hybrid
A rating affirmed (S&P)

Uplift in OCC

ON TRACK:
c. € 620m uplift in OCC
(unlevered and including synergies³)

Financial discipline driving returns

Transaction expected to deliver >16% ROI¹
(incl. prudent leverage)

Step-up in progressive dividend

12% step-up in DPS delivered at FY22
Progressive DPS growth going forward
(mid to high single digit until 2025)

Tangible synergy potential

Raising cost synergies target to € 215m²
Acceleration of PIM modules

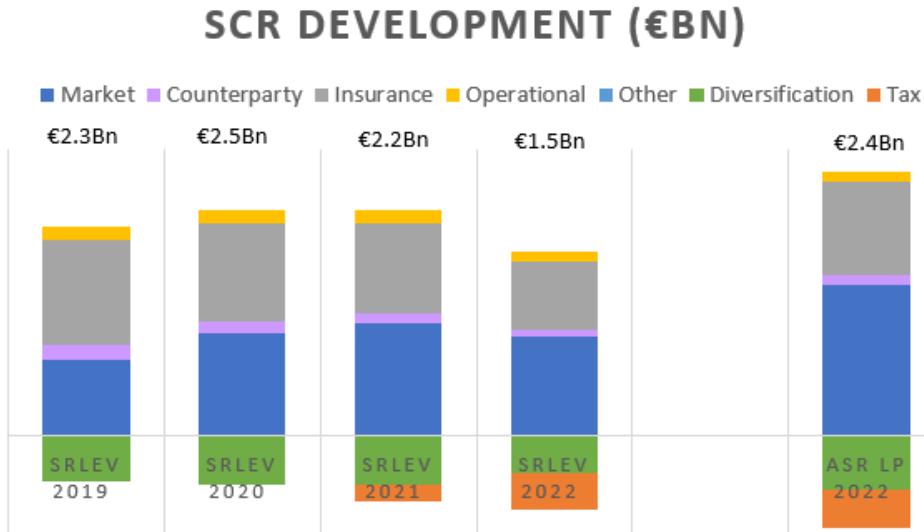
Capitalising on proven integration expertise

ON TRACK:
Strong start in 2023 – all key milestones achieved;
integration largely to be **completed 3 years after closing**

1. Solvency and capital generation
2. a.s.r. and Aegon NL deal
3. Athora capital management and re-risking
4. Woekerpolis
5. IFRS17
6. Closing and key take-aways

Athora NL capital management and re-risking (1/2)

- Key lever Athora NL strategy: increase investment income through repositioning of part of the investment portfolio towards higher yielding assets, offering better risk-return characteristics
- Active capital management, such as longevity reinsurance and LAC-DT
- Development SCR for SRLEV (Athora NL) versus ASR Leven (ASR NL Group)



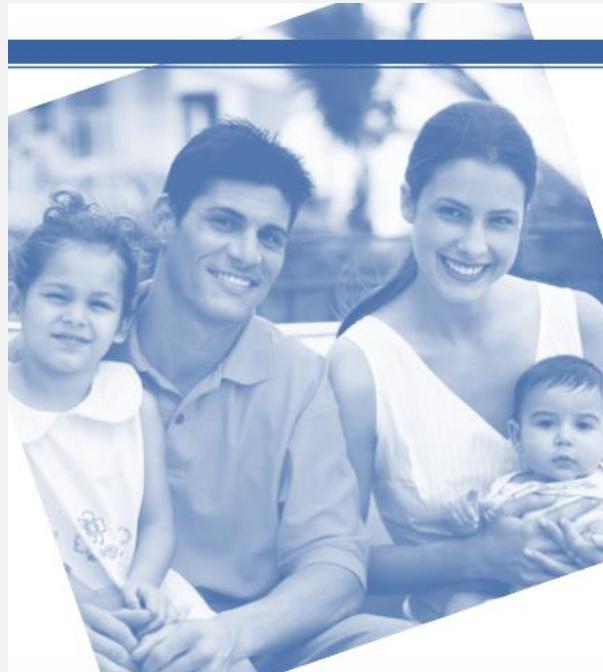
Athora NL capital management and re-risking (2/2)

- Strategy redeployment into Alternatives, Private credits, Mortgages

Athora NL	2017		2019		2023	
	Abs	%	Abs	%	Abs	%
Assets under Mgmt (€ Bn)						
Sovereigns	17,7	51%	18,6	46%	7,2	25%
Supranationals	4,8	14%	4,5	11%	2,1	7%
Money market funds	2,2	6%	1,3	3%	3,9	13%
FI funds	0,7	2%	0,8	2%	0,0	0%
Sovereigns & MMF	25,4	74%	25,2	62%	13,2	46%
Collateralized loans	0,8	2%	1,1	3%	0,8	3%
Mortgages	2,6	8%	2,8	7%	4,4	15%
Real estate	0,4	1%	0,5	1%	1,1	4%
Equity	0,2	1%	0,2	0%	1,1	4%
Alternatives	0,6	2%	0,7	2%	2,2	8%
Euro Financials	2,4	7%	2,8	7%	2,4	8%
Euro Corp	1,8	5%	1,9	5%	1,4	5%
ABS / Covered bonds / Other	0,9	3%	6,2	15%	1,5	5%
Credits	5,1	15%	10,9	27%		18%
Private credits	0,0	0%	0,0	0%	3,2	11%
Total	34,5	100%	40,7	100%	29,0	100%



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Wegwijzer KoersPlan met een ingangsdatum tussen
1 januari 1991 en 1 januari 1996



Wat staat er in Wegwijzer Koersplan van Aegon

Tussen 1 januari 1991 en 1 januari 1996

- Maandelijkse inleg van minimaal: 22,69 euro
- kostenelementen:
 - **Overlijdensrisicopremie**
 - **Administratieloon**

Ter voorziening van de eerste kosten en bedraagt 4% van de som van alle inleg zoals overeengekomen.

- **Aankoopkosten**

Van het te beleggen bedrag:

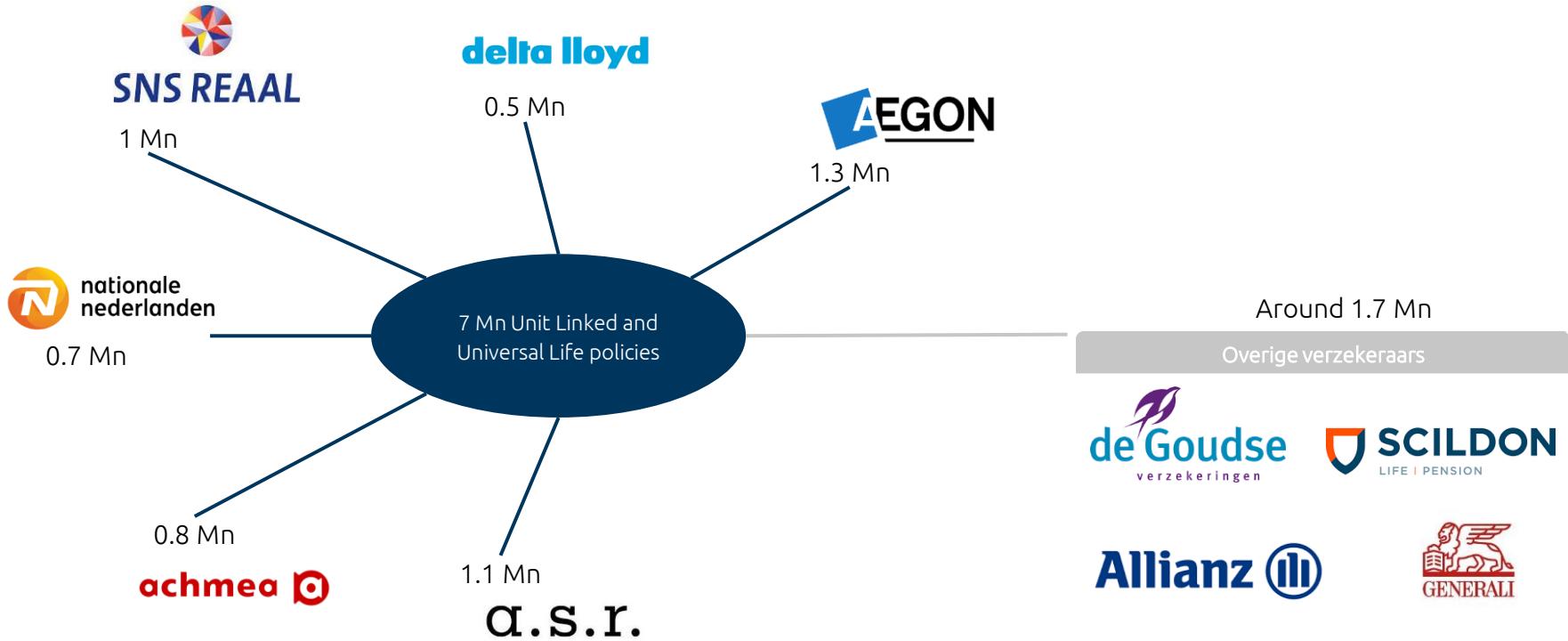
Voor 1 juni 1995: 0,25%

Vanaf 1 juni 1995: 0,30%

- **Jaarlijkse beheerkosten**

0,8% van de waarde van het aandeel in de beleggingskas

Around 7Mn universal life and unit linked policies in NL



Old style compensation: Wabeke norm

Ophef beleggingsverzekeringen

- AFM reports in 2003 en 2006 (not expensive and not transparent).
- Probability of shortage 55%
- Adviescommissie De Ruiter to make the problem transparent
- Radar negative publicity as of 2006
- Long-lasting and historical claim disputes and legal proceedings started as of 2007

Advies Ombudsman: Wabeke-norm

Binding advice how to deal with universal life / unit linked policies and how to derive compensation

- Annual expenses may not exceed 2,5% of fund value
- Expenses above 3,5% are paid back to consumers as compensation



Payments Wabeke

delta lloyd

€ 300Mn

ING

€ 365Mn

 **SNS REAAL**

€ 320Mn

 **FORTIS ASR**

€ 750Mn



Critism

- Wabeke norm can still result in cumulative loadings equal to 67% of the premiums.
- 2,5% is determined on fund value and not on premiums. Total expenses on fund value at maturity can easily reach 30%.

Tijdlijn



Schikking met Allianz en Aegon Sprintplan

Schikking nieuwe stijl



In 2017 sloot Woekerpolis.nl samen met ConsumentenClaim en de Stichting Woekerpolisproces een akkoord.

Minimum bedrag per gedupeerde is **€500** en sommige tot wel **€10.000** of meer

Volgens Flipse (Woekerpolis.nl) in rtlnieuws

In 2021 trof ConsumentenClaim/LeaseProces een schikking met Aegon. Bij ConsumentenClaim waren ca. 12.000 mensen aangesloten die één of meer sprintplannen hadden van de 125.000 klanten met een SprintPlan.

De polishouders kregen **€ 750** voor één polis en maximaal **€ 1250** compensatie als een polishouder meerdere polissen had afgesloten.

Volgens radar avrotros

Actualiteit Beleggingsverzekering

- In 2017 onherroepelijke uitspraak Kifid waarin NN wordt gedwongen om zogenoemde "Eerste kosten" terug te betalen
- In 2019 en in 2020 oordelen rechters in het voordeel van deze verzekeraars
- Op 26 september 2023 komt de zaak voor bij het Hof voor zowel NN als a.s.r./Aegon en deze valt uit in het nadeel van de verzekeraars
- Beide verzekeraars hebben aangegeven in cassatie te gaan



700.000 beleggingsverzekeringen

Proces tegen vereniging Woekerpolis.nl

- 35.000 polishouders aangesloten
- Het product: Flexibel verzekerd beleggen
- NN is in cassatie gegaan



1,3 miljoen beleggingsverzekeringen

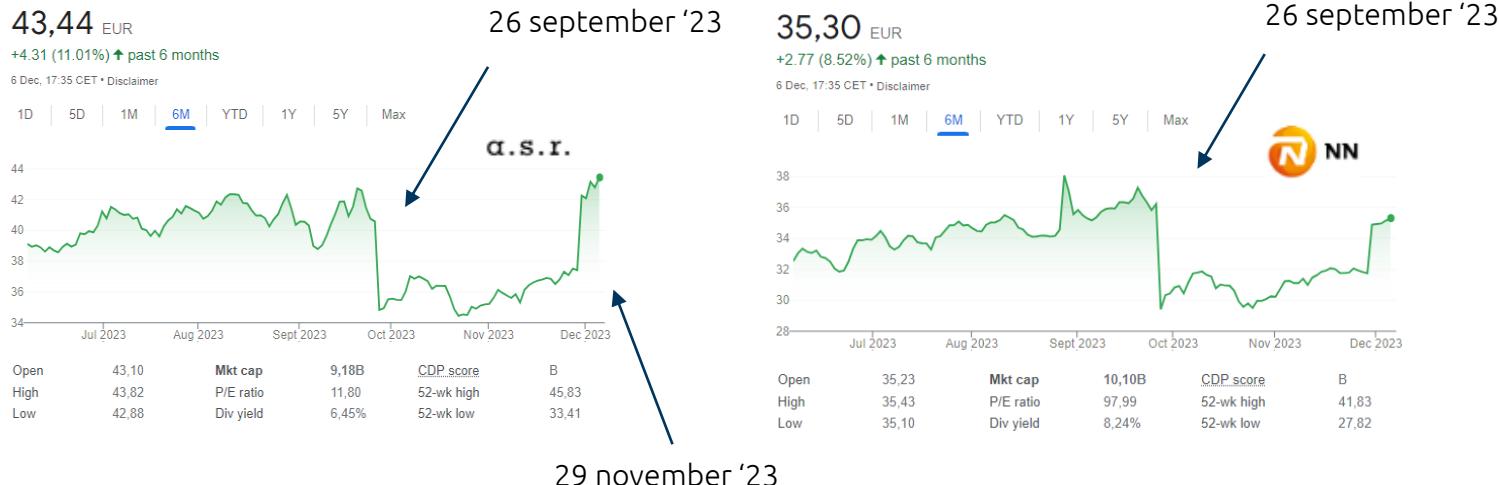
Proces tegen vereniging Woekerpolis.nl

- 30.000 polishouders aangesloten
- Producten: Koersplan, Fundplan en Vermogensplan
- a.s.r. eerst in cassatie, maar later alsnog een schikking

Gevolgen van de uitspraak op de Beurswaarde a.s.r. en NN Group

Op 26 september 2023

- De koers van NN zakte de dag na de uitspraak (26 sept 2023) met 18,8%, die van ASR met 14,2%
- Dit behelst circa € 1,2mrd tot 1,8mrd aan beurswaarde



Deal between a.s.r. and claims organisations

- Agreement with Consumentenclaims, Woekerpolis.nl, Woekerpolisproces, Consumentenbond and Wakkerpolis
- All products of a.s.r and Aegon from claimants represented by the foundations
- Total amount of €250Mn with additional provision of €50Mn
- No new claims by foundations or individual representatives against a.s.r. and/or Aegon NL
- Impact on SII ratio around 4%-points

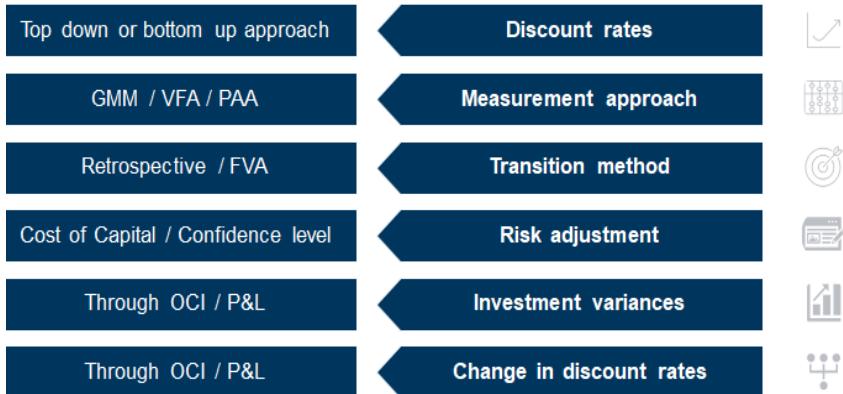
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IFRS 17 Timeline



IFRS 17 accounting policy options and impact IFRS equity

Accounting policy options



Accounting policy choices have big impact on IFRS 17 results

Source: derived from investor presentations of the Dutch insurers

Impact IFRS Equity Dutch insurance groups

Initial publication	IFRS Equity 1 Jan 2022 (€ mln)	IFRS 4 Equity	IFRS 17 Equity	Equity impact
NN Group	34.918	23.632	-32%	
NN Leven	28.348	16.768	-41%	
NN Schade	1.564	1.823	17%	
ASR	7.400	7.200	-3%	
Achmea	10.500	10.300	-2%	
Aegon Group	25.700	11.700	-54%	
Athora NL	4.000	3.700	-8%	
HY 2023 figures	IFRS Equity 1 Jan 2022 (€ mln)	IFRS 4 Equity	IFRS 17 Equity	Equity impact
NN Group	34.918	23.632	-32%	
NN Leven	28.348	16.768	-41%	
NN Schade	1.564	1.823	17%	
ASR	7.400	7.192	-3%	
Achmea	10.500	9.486	-10%	
Aegon Group	25.700	14.046	-45%	
Athora NL	4.000	3.643	-9%	

IFRS Equity and level of CSM at transition

HY 2023
figures

- Opening balance of IFRS 17 as from 1 January 2022 (start of comparative year)
- CSM transition method (and discount curve) very important
- If feasible, IFRS 17 requires a full retrospective application, resulting in a complex transition.

Impact IFRS equity €Bn	€ or £	IFRS 4 Equity	IFRS 17 Equity	Equity impact	CSM (% Equity)
NN Group	€	34,9	23,6	-32%	26%
ASR	€	7,4	7,2	-3%	29%
Achmea	€	10,5	9,5	-10%	16%
Aegon Group	€	25,7	14,0	-45%	84%
Athora	€	4,0	3,6	-9%	53%
Allianz	€	84,2	65,4	-22%	91%
Munich Re	€	31,0	28,5	-8%	80%
Axa	€	75,2	55,6	-26%	60%
Ageas	€	14,2	8,9	-37%	35%
Aviva	£	19,2	16,9	-12%	36%
Legal & General	£	10,9	5,4	-51%	208%
Chesnara	£	0,5	0,4	-3%	25%

Overview different transition methods

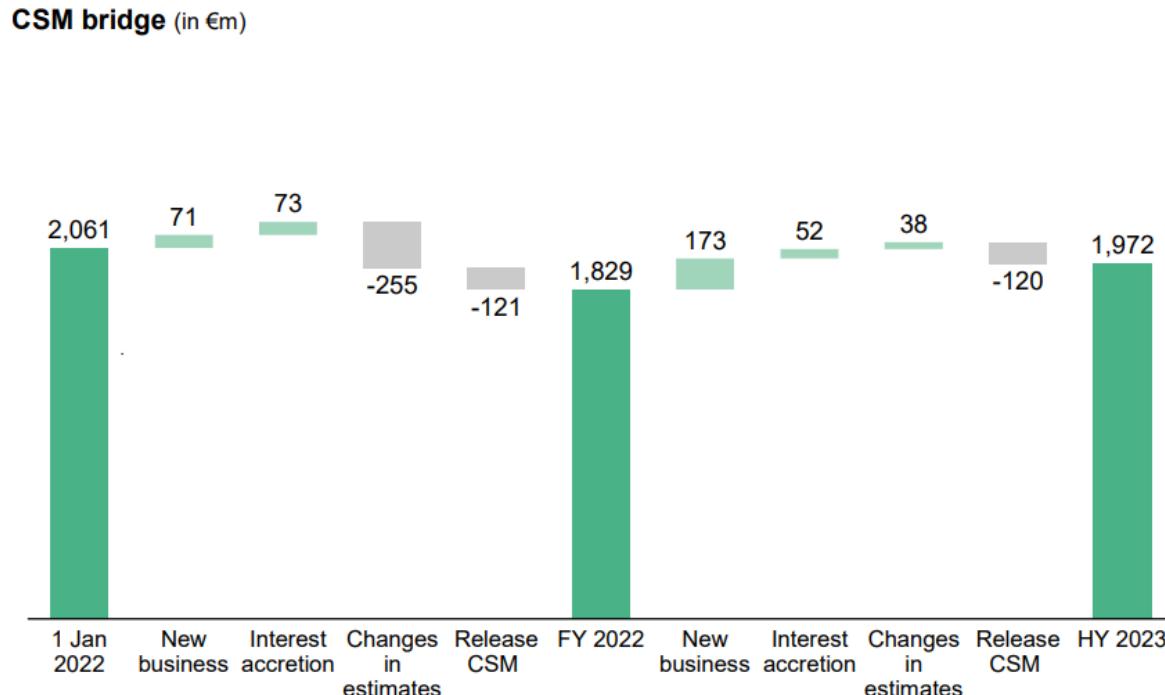
Full retrospective approach	When all historical data is available.
Modified approach	When not all, but some, historical data is available or can be constructed.
Fair value approach	When no historical data is available.

Characteristics transition method Dutch insurers:

- make more use of FVA compared to European peers
- CSM is relatively low compared to European peers

CSM bridge will be new metric for life and disability business

- Example a.s.r.



Source: derived from investor presentations of the different insurers

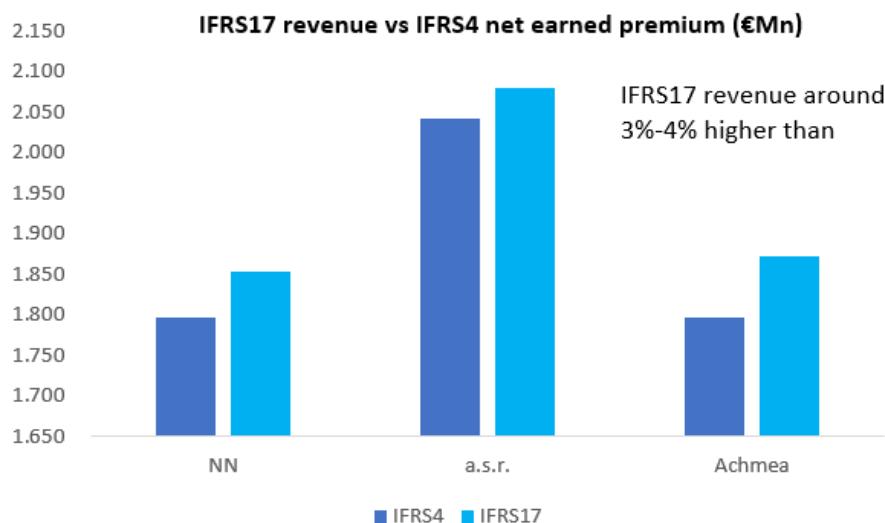
- **ALM mismatch as a result of interest rate movements on non UL business**

- ASR: through P&L
- Achmea: through P&L
- Athora: through P&L
- NN: through OCI
- Large European insurance peers: through OCI

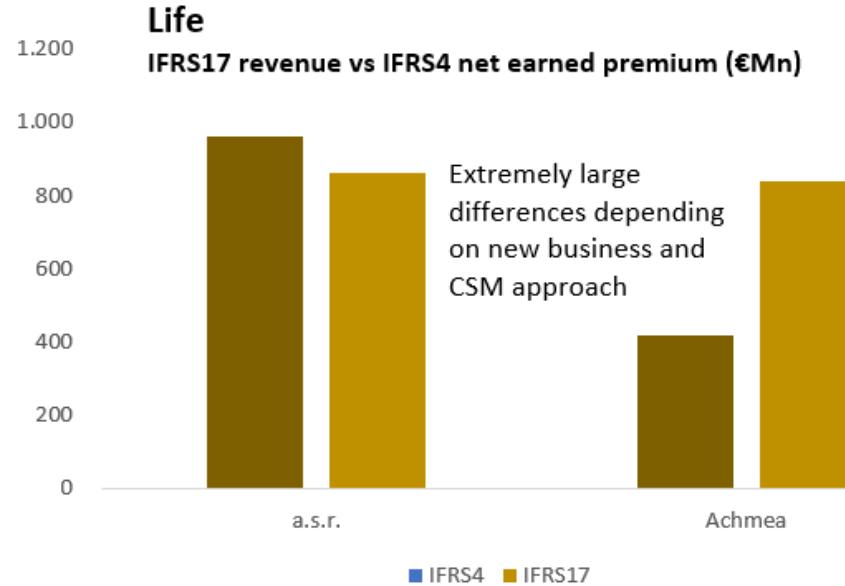
Impact on insurance revenues

HY 2023
figures

Non-Life



Life



Source: derived from investor presentations of the different insurers

Impact IFRS17 versus IFRS4 | Non-Life

HY 2023
figures

Non-Life results



a.s.r.
de nederlandse
verzekerings
maatschappij
voor alle
verzekeringen



Results HY-22 and HY-23	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23
Operational result	127	190	226	151	180	190	106	140	201
Non-operational result	8	-51	-34	-46	-242	-47	n.a.	-124	15
<i>Investment related</i>	18	-41	-30	-35	-212	18	n.a.	n.a.	n.a.
<i>Insurance related</i>	-10	-10	-4	-11	-30	-65	n.a.	n.a.	n.a.
Result before tax	135	139	192	105	-62	143	n.a.	16	216
Taxes	-30	-28	-52	-20	16	-37	n.a.	-1	-56
Net result	105	111	140	85	-46	106	80	15	160
Other comprehensive income (OCI)	0	-206	27	0	0	0	0	0	0
Total Comprehensive Income	105	-95	167	85	-46	106	80	15	160

Impact IFRS17 versus IFRS4 | Life

HY 2023
figures

Life results



Results HY-22 and HY-23	IFRS 4- HY22	IFRS 17- HY22	IFRS 17- HY23
Investment margin	502	635	696
Profit margin	0	64	94
Technical result	50	77	54
Other results	0	-84	-33
Operating result	552	692	811
Non-operating items	254	-58	-428
Special items	-14	-14	-18
Result before tax	792	620	365
Tax	-124	-54	-68
Minority interest	-4	9	0
Net result	664	575	297

Source: derived from investor presentations of the different insurers

Impact IFRS17 versus IFRS4 | Dutch Groups

HY 2023
figures

Dutch Groups



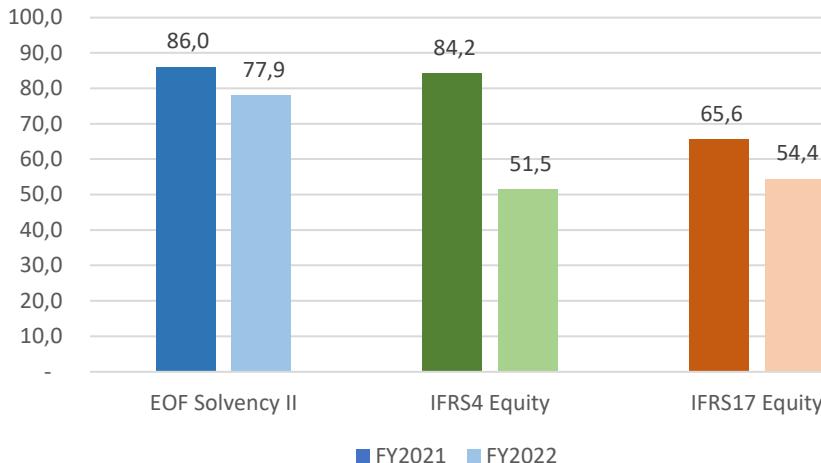
a.s.r.
de nederlandse
verzekerings
maatschappij
voor alle
verzekeringen

Results HY-22 and HY-23	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23
Operational result	983	1.124	1.400	513	454	460
Non-operational result	1.265	703	-642	42	-2.500	-4
<i>Investment related</i>	278	-285	-602	84	-2.419	109
<i>Insurance related</i>	987	988	-40	-42	-81	-113
Result before tax	2.248	1.827	758	554	-2.046	456
Taxes	-234	-127	-166	-112	535	-115
Other	-7	41	-6	-1	-1	5
Net result	2.007	1.741	586	441	-1.512	346
Other comprehensive income (OCI)	-14.202	-1.838	58	-874	412	103
Total Comprehensive Income	-12.195	-97	644	-433	-1.100	449

Impact IFRS17 versus IFRS4 | Allianz Group

HY 2023
figures

Allianz - SII EOF versus IFRS Equity



2022 Full Year (Annual Report)	IFRS 4	IFRS 17
Shareholders' equity BoP	84.222	65.600
Net profit after tax	7.182	n.a.
Other comprehensive income (OCI)	-29.877	n.a.
Transactions equity / subordinated capital	-1.425	
Dividends paid / Share buybacks	-4.860	
Shareholders' equity EoP	55.242	
Non-controlling interests	-3.768	
Shareholders' equity EoP	51.474	54.400

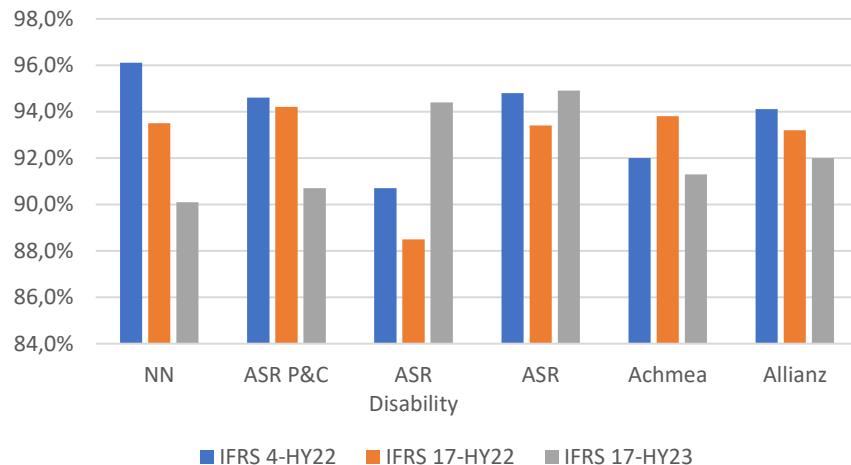
Source: derived from investor presentations of the different insurers

Impact IFRS17 versus IFRS4 | Combined ratio

HY 2023
figures

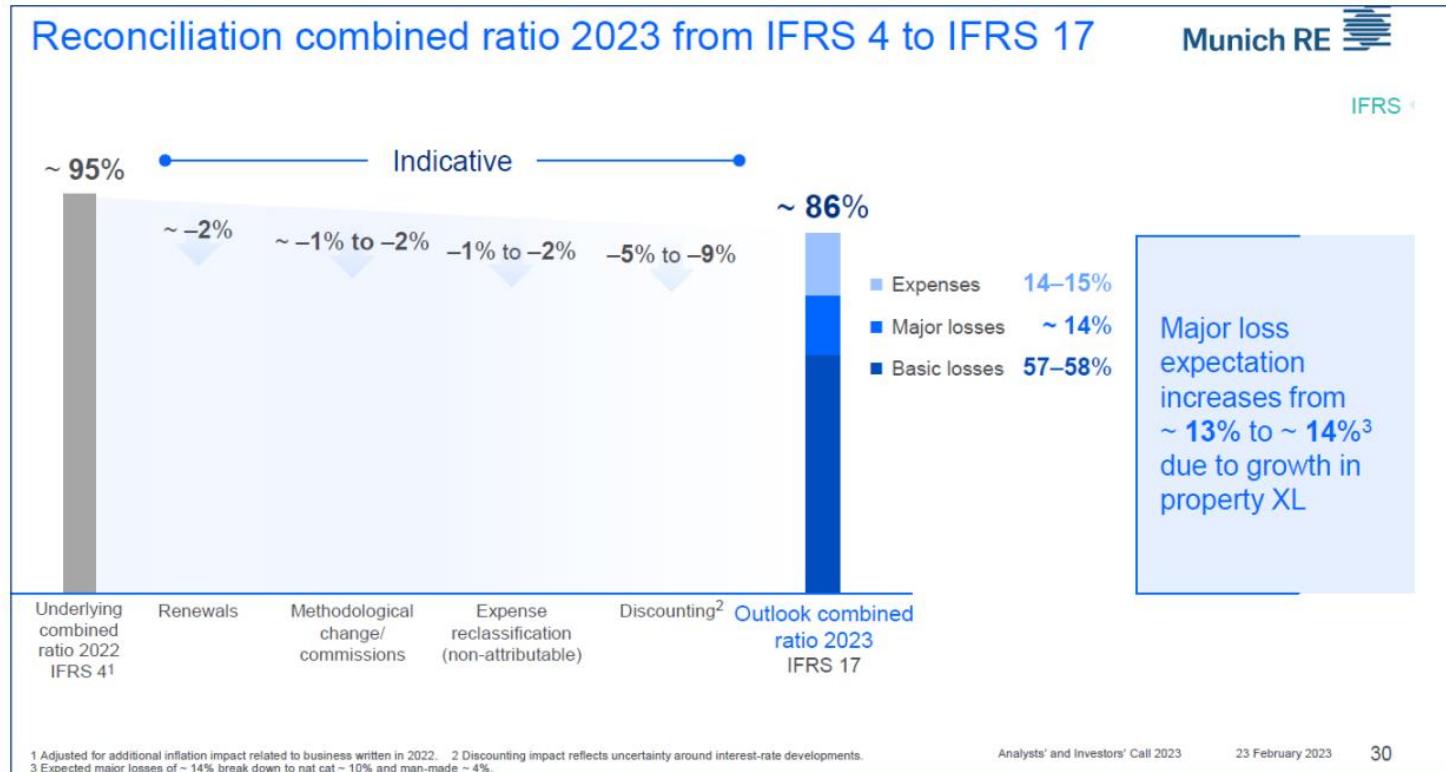
Combined ratio	IFRS 4-HY22	IFRS 17-HY22	IFRS 17-HY23	IFRS 17-impact
NN	96,1%	93,5%	90,1%	-2,6%
ASR P&C	94,6%	94,2%	90,7%	-0,4%
ASR Disability	90,7%	88,5%	94,4%	-2,2%
ASR	94,8%	93,4%	94,9%	-1,4%
Achmea	92,0%	93,8%	91,3%	1,8%
Allianz	94,1%	93,2%	92,0%	-0,9%

Reported combined ratio



Impact IFRS17 versus IFRS4 | Combined ratio

Combined ratio: Munich Re example



Source:
Handout slide 30
from Munich Re
Analysts' and
Investors' Call
February 2023

Impact IFRS17 versus IFRS4 | Combined ratio

Sensitivity analysis

Combined ratio new style	Before IR elimination	After IR elimination	Before IR elimination	After IR elimination
Interest rate scenario	2022 BoP: EIOPA ex VA 2022 EoP: EIOPA ex VA		2022 BoP: EIOPA ex VA 2022 EoP: EIOPA ex VA + 1%	
OneOne	97,2%	102,0%	95,8%	102,0%
TwoTwo	92,6%	97,1%	91,3%	97,1%
ThreeThree	98,0%	100,2%	97,5%	100,2%
FourFour	86,0%	93,0%	83,9%	93,0%
FiveFive	112,9%	125,3%	108,6%	125,3%
Total	95,2%	100,7%	93,5%	100,7%

- 1% increase in interest rates improves the combined ratio by additional 1.7% !!

1. Solvency and capital generation
2. a.s.r. and Aegon NL deal
3. Athora capital management and re-risking
4. Woekerpolis
5. IFRS17
6. Closing and key take-aways

Conclusion

- Stable performance despite extreme economic and legal market conditions
- Some good practices have emerged amongst peers
- IFRS 17 results and balance sheet impacts are difficult



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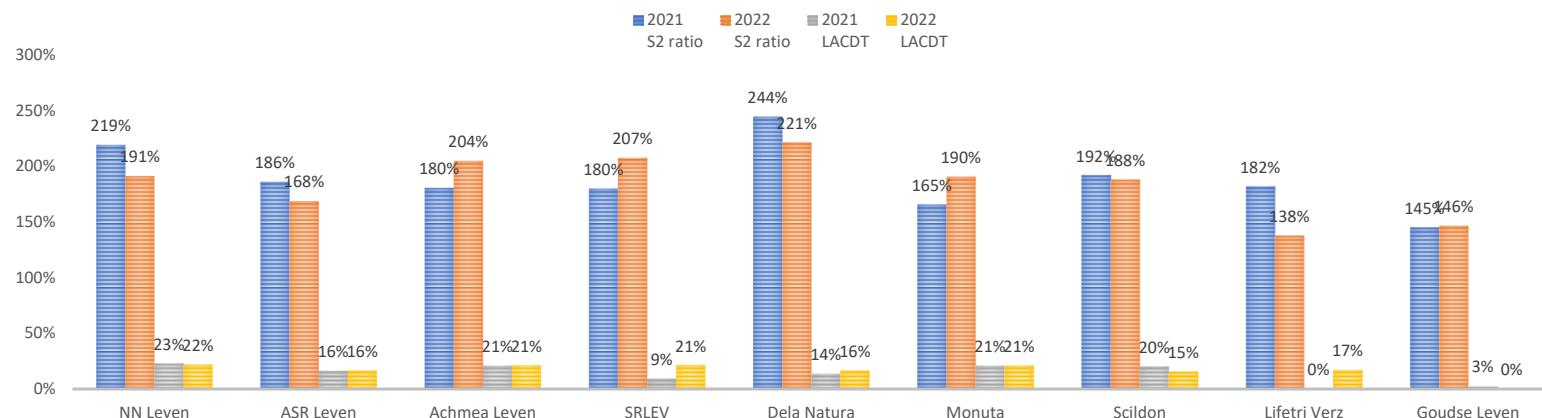
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Appendix

Dutch Life entities

Life	SII-ratio		EOF (bln.)		SCR (bln.)		LAC-DT	
	2021	2022	2021	2022	2021	2022	2021	2022
NN Leven	219%	191%	13,70	10,63	6,19	5,36	22,7%	21,6%
ASR Leven	186%	168%	5,72	4,01	3,58	2,79	16,1%	16,3%
Achmea Leven	180%	204%	4,45	3,43	2,19	1,51	20,8%	20,9%
SRLEV	180%	207%	4,41	3,98	2,29	1,89	9,5%	21,1%
Dela Natura	244%	221%	1,99	2,64	0,94	1,45	13,6%	16,5%
Monuta	165%	190%	0,98	0,92	0,79	0,64	20,7%	20,7%
Scildon	192%	188%	0,17	0,15	0,11	0,09	20,1%	15,5%
Lifetri Verz	182%	138%	0,28	0,22	0,11	0,11	0,0%	16,9%
Goudse Leven	145%	146%	0,14	0,13	0,09	0,08	2,6%	0,0%

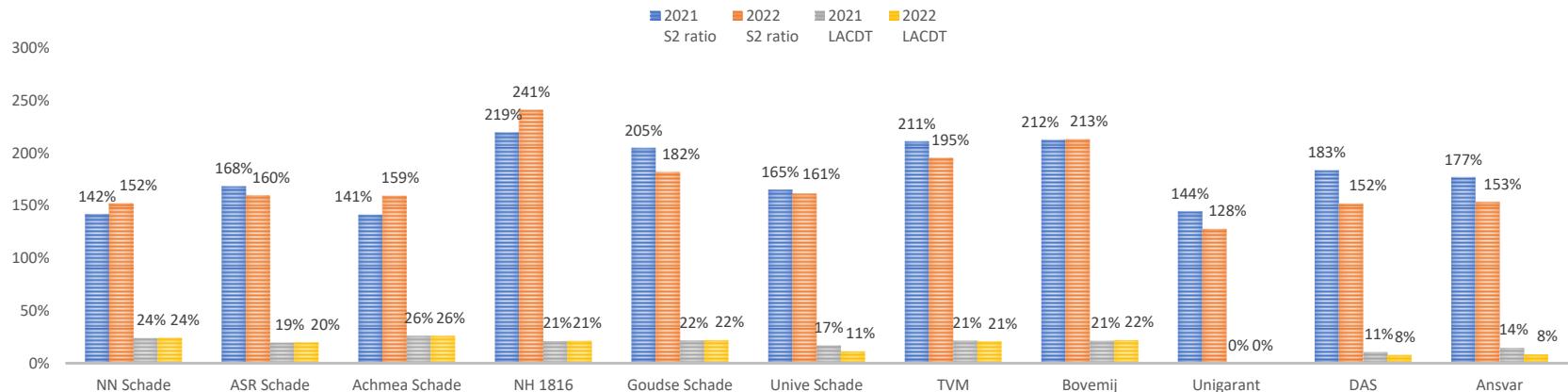
NL LIFE ENTITIES



Dutch Non-Life entities

Non-Life year	SII-ratio		EOF (bln.)		SCR (bln.)		LAC-DT	
	2021	2022	2021	2022	2021	2022	2021	2022
NN Schade	142%	152%	1,70	1,89	1,20	1,24	23,7%	24,0%
ASR Schade	168%	160%	2,27	2,02	1,65	1,54	19,3%	19,7%
Achmea Schade	141%	159%	1,14	1,22	0,80	0,76	25,8%	25,8%
NH 1816	219%	241%	0,70	0,63	0,41	0,34	21,0%	21,1%
Goudse Schade	205%	182%	0,32	0,27	0,19	0,18	21,6%	21,8%
Unive Schade	165%	161%	0,29	0,30	0,20	0,19	16,9%	11,3%
TVM	211%	195%	0,30	0,28	0,18	0,18	21,4%	20,6%
Bovemij	212%	213%	0,23	0,23	0,13	0,13	21,2%	21,9%
Unigarant	144%	128%	0,23	0,21	0,15	0,15	0,0%	0,0%
DAS	183%	152%	0,14	0,11	0,08	0,07	10,6%	7,8%
Ansvar	177%	153%	0,07	0,07	0,04	0,04	14,5%	8,3%

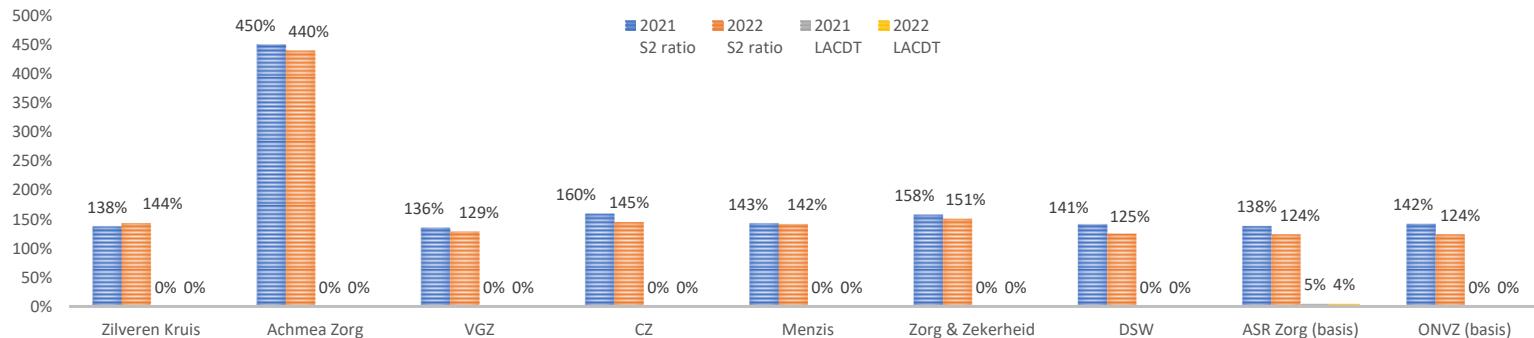
NL NON-LIFE ENTITIES



Dutch Health insurers (including holding if applicable)

Health	SII-ratio		EOF (bln.)		SCR (bln.)		LAC-DT	
year	2021	2022	2021	2022	2021	2022	2021	2022
Zilveren Kruis	138%	144%	2,04	2,27	1,18	1,26	0,0%	0,0%
Achmea Zorg	450%	440%	3,57	3,73	0,76	0,81	0,0%	0,0%
VGZ	136%	129%	2,61	2,55	1,92	1,98	0,0%	0,0%
CZ	160%	145%	2,65	2,71	1,66	1,87	0,0%	0,0%
Menzis	143%	142%	1,42	1,42	0,99	1,00	0,0%	0,0%
Zorg & Zekerheid	158%	151%	0,39	0,38	0,20	0,20	0,0%	0,0%
DSW	141%	125%	0,34	0,34	0,24	0,27	0,0%	0,0%
ASR Zorg (basis)	138%	124%	0,21	0,21	0,12	0,15	4,8%	4,5%
ONVZ (basis)	142%	124%	0,21	0,20	0,11	0,13	0,0%	0,0%

NL HEALTH INSURERS (WITH HOLDING IF APPLICABLE)



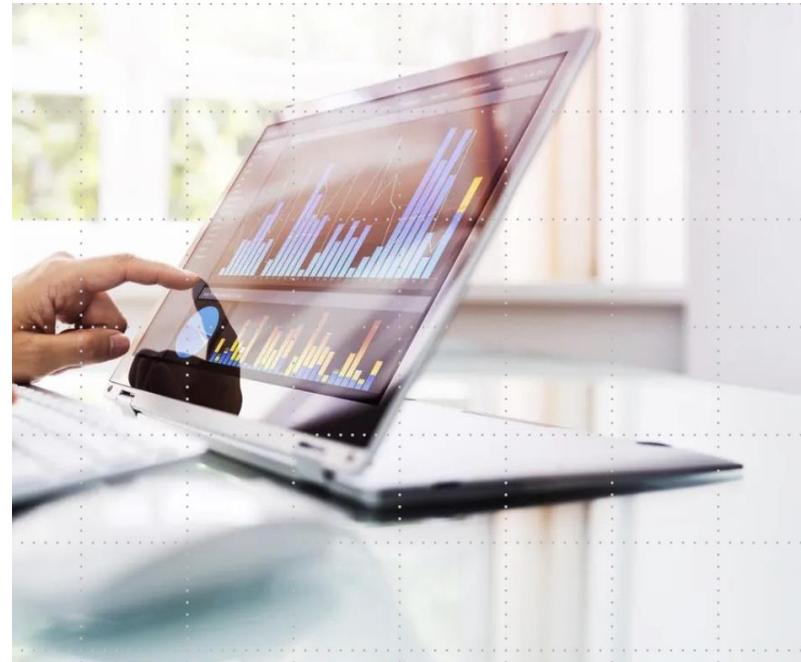


Regscape

**Insurance Reporting
and Decision-Making
Post IFRS 17**

Agenda

- 1. Regulatory Overview**
- 2. Where are We Post IFRS 17**
- 3. SII v IFRS 17 Delta Comparator**
- 4. CFO perspective (Forecasting & scenario analysis)**
- 5. Moving Forward with Regulatory changes (DPM Refit and more...)**



Where are We Post IFRS 17?

IFRS 17 Industry Costs



IFRS 17 will affect insurance KPIs as it will significantly change the pattern of revenue recognition by introducing the CSM concept

Embedding IFRS 17 in BAU

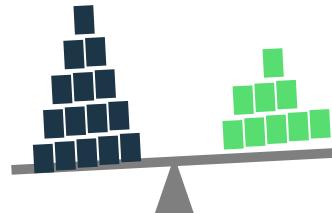


IFRS 17 is a catalyst to invest in long-known data and system issues which are holding back the business – Finance Transformation Projects

Business Benefits



IFRS 17 v SII Comparator



- Rating Agencies/Analysts Reviewing IFRS 17 /4 Results
- Optimising IFRS 17 Results moving forward - peer analyses
- SII Capital

ESG

- For Insurers ESG looming on the Horizon
- Complex – due to assets and underwriting
- New taxonomies



Observations from CFOs

Minimal Disruptions



Most insurers expect minimal disruptions from IFRS 17 and IFRS 9. Strategy, cash flow, capital management and dividend capacity not expected to fundamentally change

CSM as a KPI



CSM will become a key indicator of future profitability. Establishing the CSM and RA on transition has a **downward impact on reported equity** but is a store of future earnings.

KPI Shift



KPIs are continuing the shift to cash flow-based metrics and are focusing on regulatory capital. New business measures **and value-added metrics may make use of the CSM** going forward – e.g. CSM NB

2022 Comparative Numbers



Publication of restated 2022 comparative numbers typically expected for 2Q 2023 (often alongside 1Q/1H 2023 presentations).



Observations from CFOs



Increased Regulatory Burden

- IFRS 9/15/16/17, SII, ESG
- Local GAAP etc...



Poor Integration

- Lack of integration/consistency between Actuarial & Finance



Legacy Systems/Processes

- Difficult to maintain, unresponsive
- Spreadsheets/Manual Processes



Insightful Decisions

- Need for Finance to rapidly , deliver information for decision making



Multiple Data Sources

- No Common Data Model
- No Golden Source



Governance & Compliance

- Improved controls & governance



Elongated Reporting Cycles

- Manual processes & Reconciliations
- Errors , Data Quality etc



Increasing Costs

- Ever increasing costs
- Inefficiencies .



A photograph showing a person's hand pointing at a laptop screen. The laptop is open and displays various financial charts and graphs, including bar charts and line graphs in shades of blue, yellow, and red. The background is a bright, slightly blurred office environment.

Regscape

Impact on Metrics

Observations from CFOs



Increased Regulatory Burden

- IFRS 9/15/16/17, SII, ESG
- Local GAAP etc...



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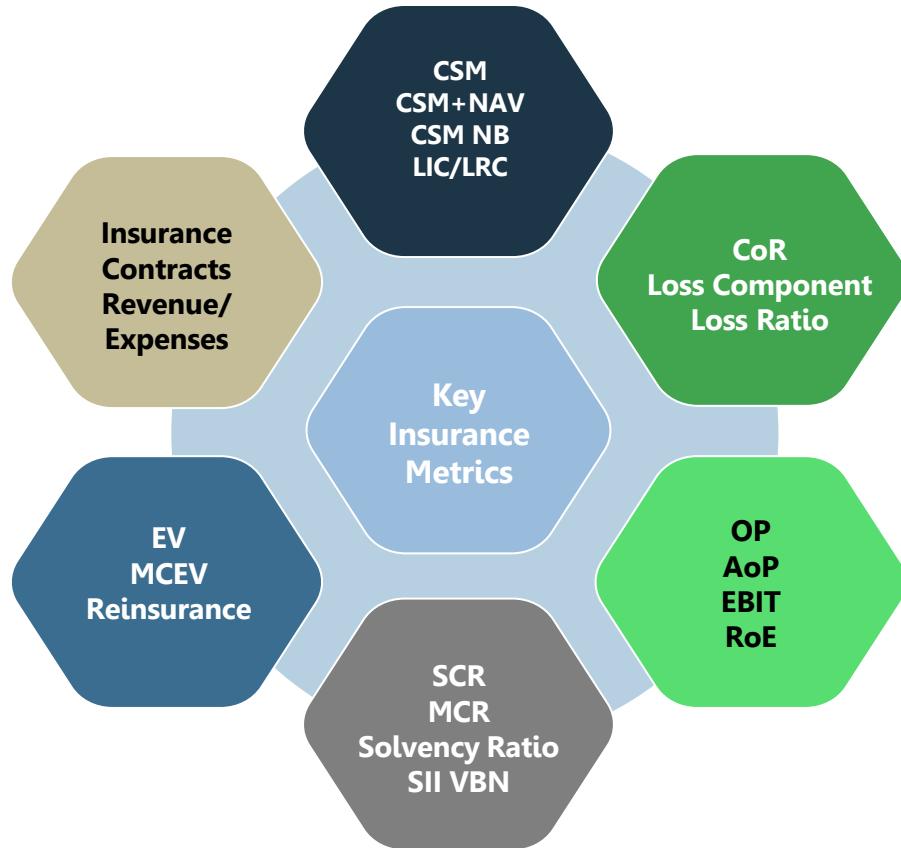
Increasing Costs

- Ever increasing costs
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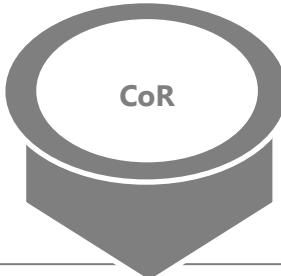
Insurance Metrics – New & Impacted by IFRS 17

- Many business are fundamentally run on an SII basis
- IFRS 17 impacts many existing KPIs across the business – needs adjusting for IFRS 17
- New KPIs will emerge – e.g., CSM/ICR/ICE/LRC etc.
- Parallel running of IFRS 4 & 17
- Need to explain the differences to shareholders, rating agencies & analysts



Insurance Metrics – After IFRS 17 (Survey by E&Y 2023)

Combined Operating Ratio



Mostly planned to be presented based on gross earned premiums. However, others will continue to use net-earned premiums.

The **CoR is likely to improve (decrease) due to the discounting of the liability for incurred claims**

Contractual Service Margin



Insurers may use a new business metric **including the CSM at inception**. Others may use an IFRS 17 value added metric consisting of the **IFRS 17 operating profit plus the change in the CSM for the year**. Some insurers are going present the CSM on the BS

Release of CSM



The pattern of profit release helps analysts to anticipate expected future profitability. Insurers reported an expected release of **CSM ratio** (release divided by CSM before release) **between 4% and 12% per annum depending on the type of business**

Value of New Business



Now includes the CSM of the new business. Certain players are presenting a **gross CSM**, whereas others are presenting it **net of taxes** and of projected non- attributable costs. This would impact the comparability of the NB value across the market.

Insurance Metrics – New & Impacted by IFRS 17

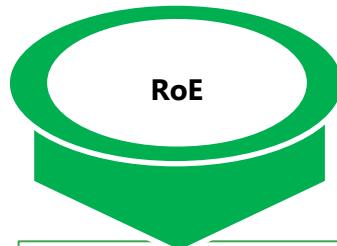
Operating Profit



Operating profit is generally **expected to be similar or lower compared to IFRS 4.**

Reported reduction varies from **5% to 25% compared to the IFRS 4 operating profit**, mostly driven by the Life business

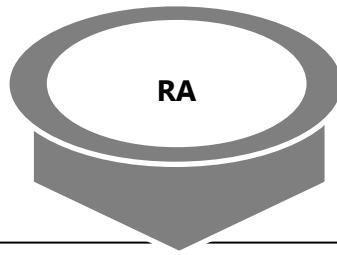
Return on Equity



Some insurers plan to **exclude from equity the total of OCI in ROE calculations.**

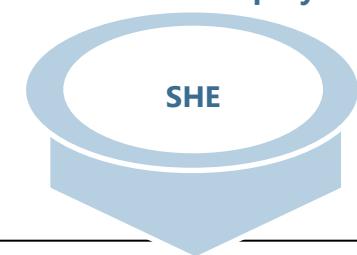
The use of OCI for the impact of changes in financial assumptions on insurance liabilities is envisaged to provide a better matching between the revaluation of investments & insurance liabilities

Risk Adjustment



This could present varying levels of calibration depending on the risk appetite of the groups. Some insurers **plan to use the cost of capital approach, whereas others are using value at risk.** Insurers reported the expected **percentile range of the risk adjustment to vary between 62.5% and 90%**

Shareholder Equity



Expected to decrease at transition for most life and composite insurers, **with reported reduction varying from 5% to 50%.**

Some insurers are excluding OCI from equity, or adding CSM to equity, resulting in equity remaining stable on transition. Several insurers said **reduction of SHE is due to setting up a CSM**

A photograph of a person's hand pointing at a laptop screen. The laptop is open and displays various financial charts, including bar charts and line graphs, on its screen. The background is a bright, slightly blurred office environment.

Regscape

SII v IFRS 17

SII v IFRS 17

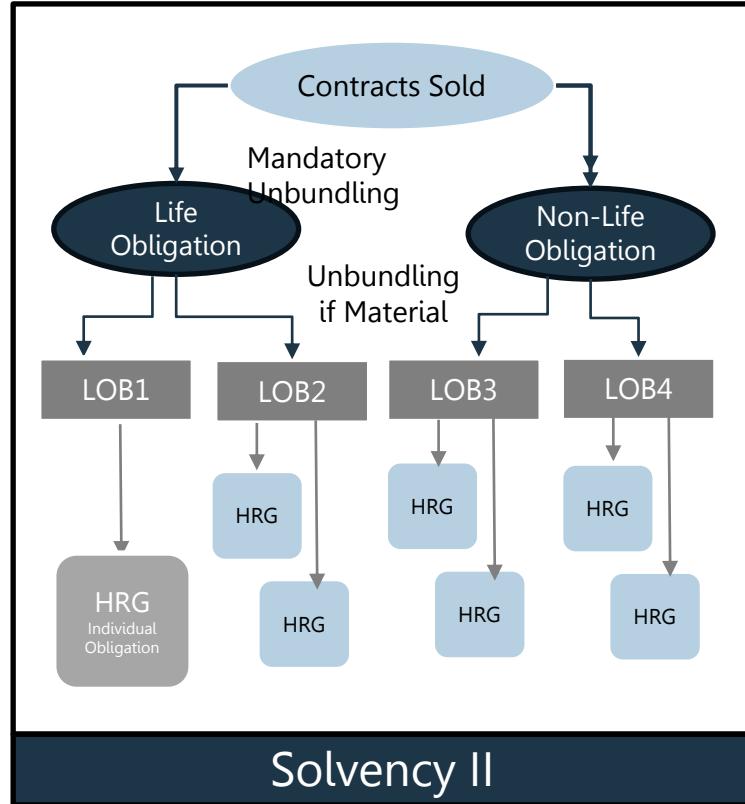
	SII	IFRS 17
Measurement Models	One	GMM/VFA/PAA/Onerous/Profitable etc
Profit	Recognised Immediately	Spread over Lifetime – CSM
Coverage	All contracts	Excludes pure investment contracts
Granularity	Homogenous Risk Groups (typically line of business)	Portfolios/Cohorts/Profitability Status
Discount Rates	EIOPA prescribed	Not prescribed Top-Down/Bottom-Up reflecting liabilities
Reinsurance	Presented gross of RI. Separate RI asset mirrors direct contracts	All contracts measured gross of RI with separate RI Asset - specific requirement for RI held
Risk	Risk Margin (greater risks – Op Risk) 6% CoC	Risk Adjustment – not prescribed
Allocation of Expenses	All overhead expenses incurred in servicing insurance obligations are accounted for. No DACs	Expenses are allocated to groups of contracts if they are directly attributable to the portfolio of insurance contracts to which the group belongs - overheads not included
Profit & Loss	Does not require a separate profit or loss account.	Requires the presentation of a profit or loss account
Tax	Impact of loss adsorbing capacity of deferred tax (LACDT) not permitted	No prescribed approach to LACDT



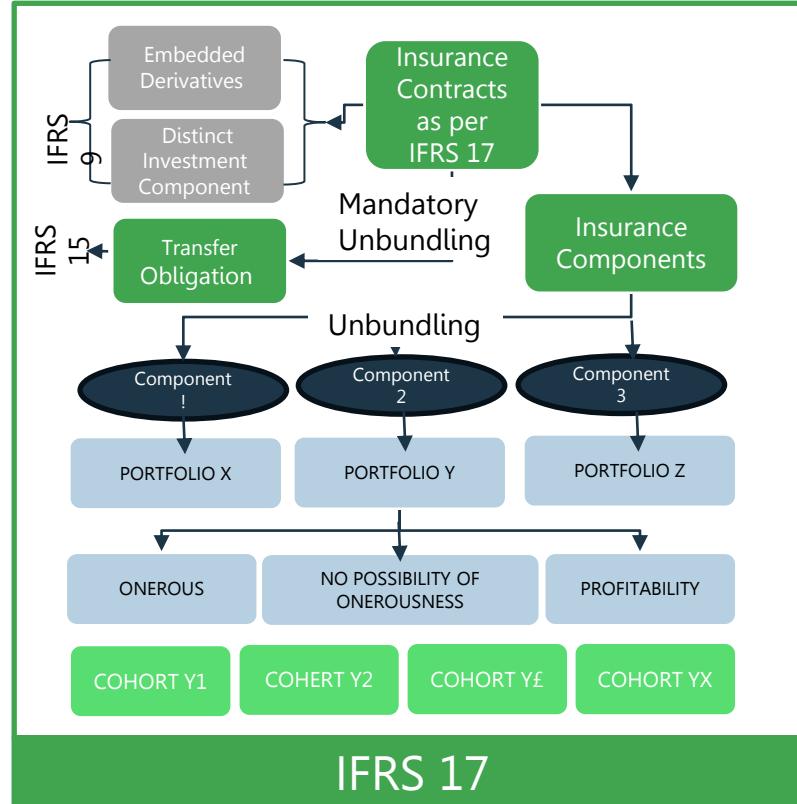
Granularity

Unbundling

Aggregation



Solvency II



IFRS 17



Comparator

- As an example, let's assume there are only three types of adjustment that need to be made (although this could be 20+ in different areas of the Balance Sheet and depending on the granularity required)
- Adjustment 1: To eliminate Goodwill, Deferred acquisition costs and Intangible Assets – these are valued as nil under Solvency II
- Adjustment 2: To reclassify Property into 'held for own use' and 'other than for own use' – this is the split required for Solvency II
- Adjustment 3: To revalue Financial Investments to fair value as required by Solvency II
- Etc.....

		IFRS	SII_Adj1	SII_Adj2	SII_Adj3	SII
Assets						
Goodwill		300	-300			0
Deferred acquisition costs		30	-30			0
Intangible assets		60	-60			0
Deferred tax assets		12				12
Pension benefit surplus		200				200
Property, plant & equipment held for own use		150		20		170
Investments		700		-20		680
Loans and mortgages		20				20
Reinsurance recoverables		8				8
Insurance and intermediaries receivables		60				60
Reinsurance receivables		7				7
Receivables (trade, not insurance)		15				15
Cash						
Any	Entity	LE1				
Amount by Col, Coldesc and Row, Rowdes (LE1, 2021)						
Total	Rowdes	CO010	adj1	adj2	adj3	adj4
		Solvency II value	IFA adj	Eq Adv	Valuation	Reclass
Liab	R0030 Intangible assets	23,640				
Tech	R0040 Deferred tax assets	25,438				
Prov	R0050 Pension benefit surplus	17,432				
----	R0060 Property, plant & equipment held ...	18,237				
etc	R0070 Investments (other than assets hel...	23,194				
-----	R0080 Property (other than for own use)	16,073				
Any	R0090 Holdings in related undertakings, ...	12,582				
Total	R0100 Equities	57,128			-57,128	
	R0110 Equities - listed	15,406			-15,406	
	R0120 Equities - unlisted	41,722			-41,722	
Net	R0130 Bonds	18,602			-18,602	
	R0140 Government Bonds	16,943			-16,943	
Equi	R0150 Corporate Bonds	14,818			-14,818	
Shar	R0160 Structured notes	33,346			-33,346	
Reser	R0170 Collateralised securities	29,411				
Non	R0180 Collective Investments Undertakin...	38,749				
Total	R0190 Derivatives	32,339				
	R0200 Deposits other than cash equivale...	15,309				
	R0210 Other investments	39,879				
	R0220 Assets held for index-linked and u...	18,623				
	R0230 Loans and mortgages	14,706				
	R0240 Loans on policies	14,477				
	R0250 Loans and mortgages to individuals	38,601				
	R0260 Other loans and mortgages	41,154				
	R0270 Reinsurance recoverables from:	15,002		-15,002		
	R0280 Total assets	632,811				
						471,185



A photograph showing a person's hand pointing at a laptop screen. The screen displays various financial charts, including bar charts and line graphs, suggesting data analysis or reporting. The laptop is open on a desk, and the background is a bright, modern office environment.

Regscape

CFO perspective

CFO – Perspective

- CFO is under massive pressure not only to cut costs but also provide accurate, granular data for ***decision making purposes***
- This encompasses both current and historic perspectives, but they also need to be able ***look into the future.....***
- They need to be able to forecast key metrics over time without the need to go back to the actuaries to ***rerun the underlying actuarial models***



CFO interactive forecasting dashboard with ***What-If Capabilities*** based on variable sensitives operating in real time

Regulatory portal

The diagram illustrates a workflow process:

- Key metrics:** My Portfolio allows access to an investment manager's complete book of business with analysis and segmentation covering all investments.
- Validations:** Exposure Analysis allows the exploration and identification of funds and investments that have higher than normal exposure and allow for re-calculation of identified accounts.
- Form browser:** Investor 360 provides a single view for all things investor for a deeper look into individual wealth allocations. Bets used for in person or over the phone reviews of individual portfolios.
- What If Analysis:** What if Analysis allows to project returns, distributions, and net asset values based on the dynamic parameters.

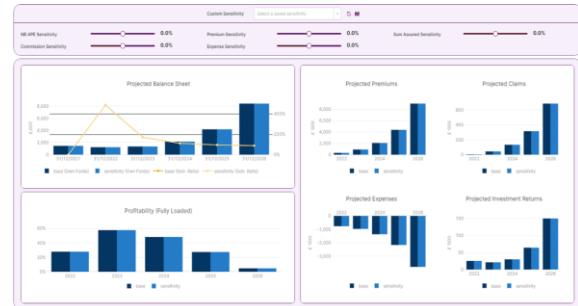
Icons at the bottom represent the steps: a bar chart for Key metrics, a checkmark for Validations, a person for Form browser, and a document with a magnifying glass for What If Analysis.

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Regscape



Prebuilt dash boards and self-service analytics

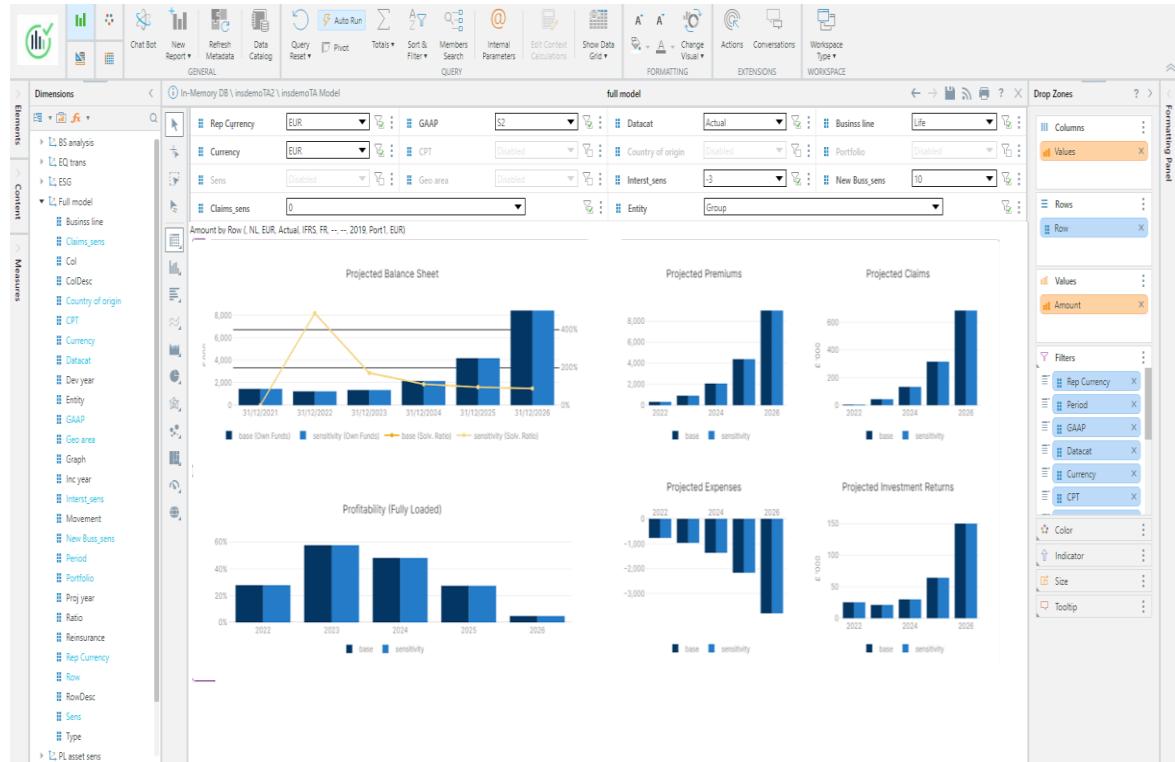


Scenario and sensitivity analysis

Interactive Dashboards

Interactive dashboards for business forecasting & analyses:

- "What-If" scenarios
- Analysis of change
- Movement analysis between reporting periods
- Forward rebasing of projections (e.g.; for future Solvency/Capital/ORSA/IFR S 17)
- Based on range of Sensitives
- Direct access to source data



Self-service design your own dashboard (no code)

The screenshot displays a dashboarding application interface with the following key components:

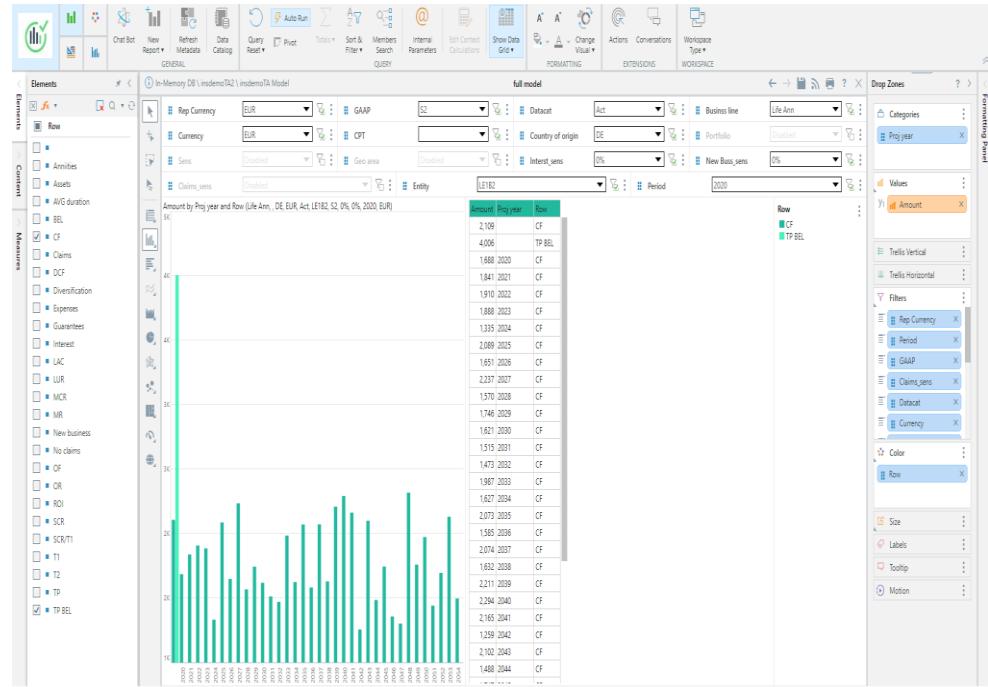
- Top Bar:** Includes icons for New, Advanced Slicer, Unlink All, Paste, Cut, Copy, Delete, Hide, Show Panels, Slide Canvas, Interaction Manager, Show Interactions, Auto Interact, Model Mapping, From Beginning, Runtime Settings, Runtime Timer, and Reset Workspace.
- Left Sidebar:** Contains sections for Targets, Content (with a search bar), and Slicers. The Content section lists various data sources and models, including "Lollipop Chart" under "sens compare scenarios".
- Main Deck:** The central workspace displays several charts:
 - A line chart titled "Forecast Amt" showing values from 2021 to 2027.
 - A bar chart titled "Projected, Exp sens, IR" showing projected values for years 2019, 2021, 2023, and 2025.
 - A bar chart titled "Projected, Investment inc sens, IR" showing projected values for years 2019, 2021, 2023, and 2025.
 - A bar chart titled "Projected, Of sens, IR" showing projected values for years 2019, 2021, 2023, and 2025.
 - A bar chart titled "Projected, Premiums sens, IR" showing projected values for years 2019, 2021, 2023, and 2025.
- Right Sidebar:** Shows a "Slides" panel with three slides: "1 Slide 1", "2 Slide 2", and "3 Slide 3", each containing a preview of the dashboard's content.
- Bottom Navigation:** A red-highlighted navigation bar at the bottom contains icons for various dashboard components: "sens compare scenarios slicers", "SCR ratio", "inflation", "retirement", "unempl", "ESG", "rev split", "main deck" (highlighted in red), "Key figures", "Key ratios", "sens compare scenarios playmodel", and "full model playmode".

Dashboard Example



Analytical and Forecasting Dimensions

- Legal entity/branches
- Reporting Periods
- Forms
- Asset details
- LOB/HRG/LOB or portfolio/Cohort/Onerous/NO
- Type of data (UCF/DCF, TP, BEL, GAAP, BS and PL, SCR/MCR, loss absorbing, Claims, OF, reinsurance, geographical area, currency, off balance, IGT)
- Source data



Where Does Regscape Fit?



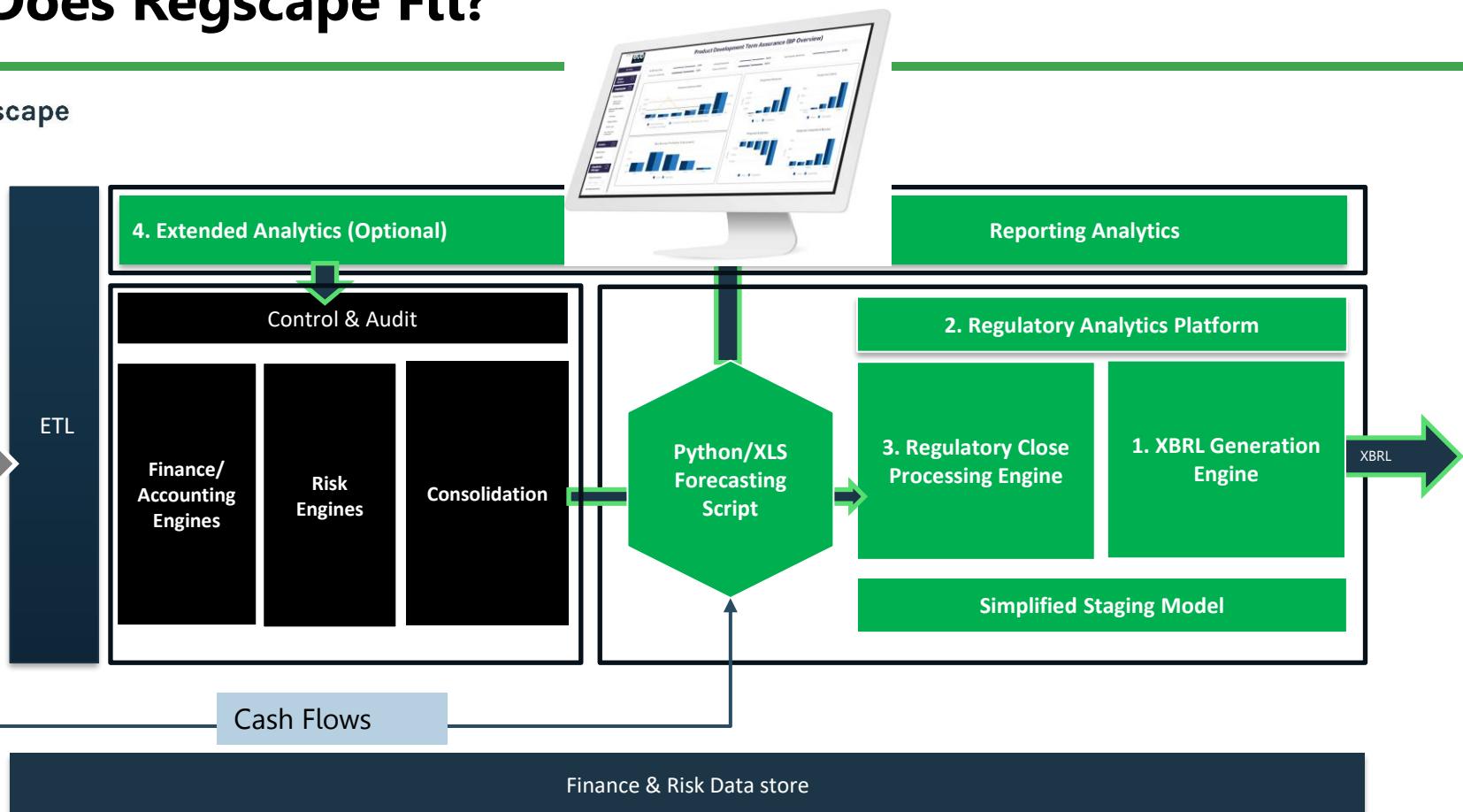
General Ledger

Sub-Ledger

Transactional Systems

- Admin
- Claims
- Investment
- Costing
- Finance

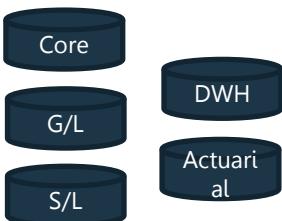
Actuarial Engines



Regscape's platform offering

Capture

- Get data from anywhere (70+ data sources)
- Including XBRL formats
- Connect to multiple data sources to capture cashflows, GL information
- Provide data to various destinations (e.g. core to actuarial/risk engines)
- From risk DW to reporting processes
- Target systems include XBRL format for reg reporting



Self-service data modeling and processing



Enrich

Convert, derive, calculate, forecast, enrich, lookup, data from any source into any destination



Solve Simulations



Tabulate running excel-like formula's

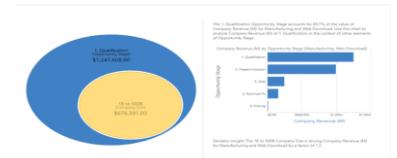


Analyze

Analyse data, self-service analytical , dashboards, AI driven analytics, report distribution and publishing



(prebuilt) Dashboarding & data visualization



AI/ML driven analytics



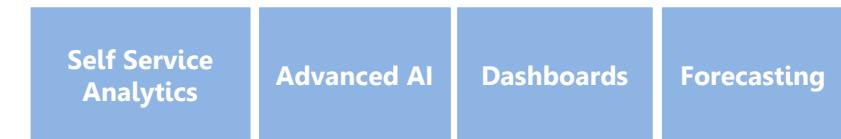
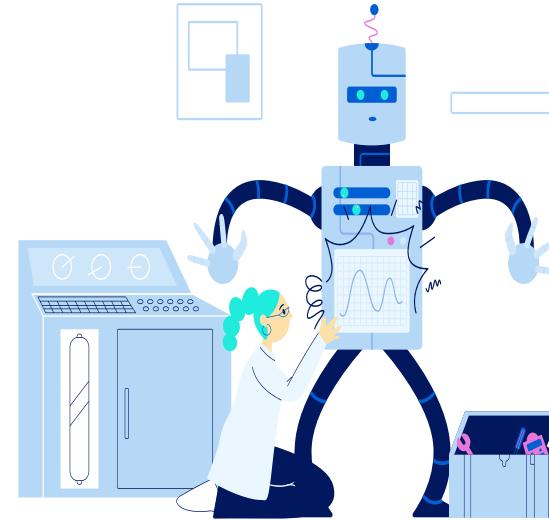
Chatbox driven processing

Regscape 29

Regulatory Platform for Insurers

Single Platform designed to:

- Automate entire process from core systems to filing
- Produce XBRL filings to regulators (any taxonomy in any country)
- Validate filings
- Picture perfect rendering of reports
- Pre-built analytics and outlier detection
- Governance and compliance around end-to-end filing process
- Data lineage and audit trail
- Extended analytics from source data capture to filings



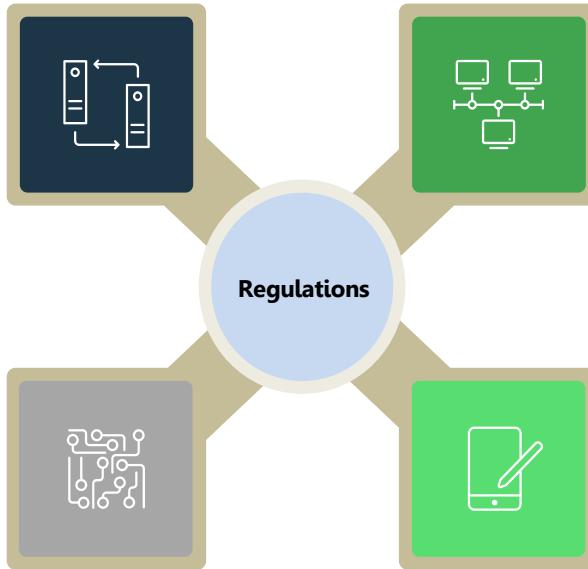
A photograph of a person's hand pointing at a laptop screen. The laptop is open and displays various financial charts and graphs, including bar charts and line graphs. The background is a bright, slightly blurred office environment.

Regscape

**Regulatory changes
(DPM Refit and
more...)**

Regulatory Changes in Insurance

Framework/
Taxonomy Status



Integration of
ESG Reporting

DPM Refit

Data Quality in
Solvency II
Reporting

Reliable data is central to successful data-driven supervision, evidence-based decision making as well as micro- and macro-prudential analysis. EIOPA - together with National Competent Authorities - has been working on assessing and improving the quality of supervisory insurance reporting data.

Historic Perspective

EIOPA Evolution for Regulatory Reporting with Current Data Point Model



- Solvency II Reporting (QIS) 2012
- Impact on regulation development
- Tool for Undertaking (T4U) developed by EIOPA and used by financial services coys to create SII reports
- Pillar III public disclosure templates
- IORP reporting since 2019
- PEPP reporting since 2022
- Financial conglomerates since 2023
- Future: Digital Operational Resilience Act? 2023?

Where are we in the various types of services?

The PEPP Data Point Models and XBRL Taxonomies

PEPP PR Data Point Model and Taxonomy 2.7.0 (Published 16/07/2022, Hotfix 08/11/2022)



Solvency II Data Point Models and XBRL Taxonomies

Insurance Data Point Model and Taxonomy 2.8.0 (Published 17/03/2023), (Hotfix by 13/10/2023), (Validations updated on 28/11/2023)



The Pension Funds Data Point Models and XBRL Taxonomies

Final Release Pension Data Point Model and Taxonomy 2.9.0 (published 17/07/2023)



Pension Data Point Model and Taxonomy 2.7.1 (Published 16/07/2022) (Hotfix by 08/11/2022 and 01/03/2023) (Validations updated on 19/06/2023)



The FICOD Data Point Models and XBRL Taxonomies

FICOD Data Point Model and Taxonomy 2.8.1 (Published 31/07/2023) (Hotfix by 06/11/2023)



Regulatory Changes in Insurance

Timeline for adaptation

Reporting reference date	Taxonomy - application date	Publication	Business changes	Current approach	ATOME	DPM Refit	CSV	DRR
Q4 2022 – Q3 2023	<i>Insurance: 2.7.0 IORPs 2.7.0 (Q4 2022) or 2.7.1 (starting from Q1 2023) PEPP – 2.7.0</i>	July 2022 Hotfix: November 2022 2.7.1 - asap	<i>2.7.1 to be published due to Croatia joining the Eurozone</i>	Yes	No	No	No	No
Q4 2023 – Q4 2024 ⁶	<i>Insurance: 2.8.0</i>	2.8.0: July 2022 (without validations) January 2023 – PWD3 (with validations) March 2023 - Final release with validations Hotfix if needed: July 2023	Solvency II (new ITS on reporting and disclosure)	Yes – for the dictionary and annotated templates No – DB, xBRL and validations that are only provided as ATOME:Matter	Yes	No	No	No

- ATOME - Commercial tool used by regulators
- DPM refit – Alignment program
- CSV – CSV format replacing XBRL format
- DRR – Digital Regulatory Reporting

2024-2026.. (as part of DPM refit)

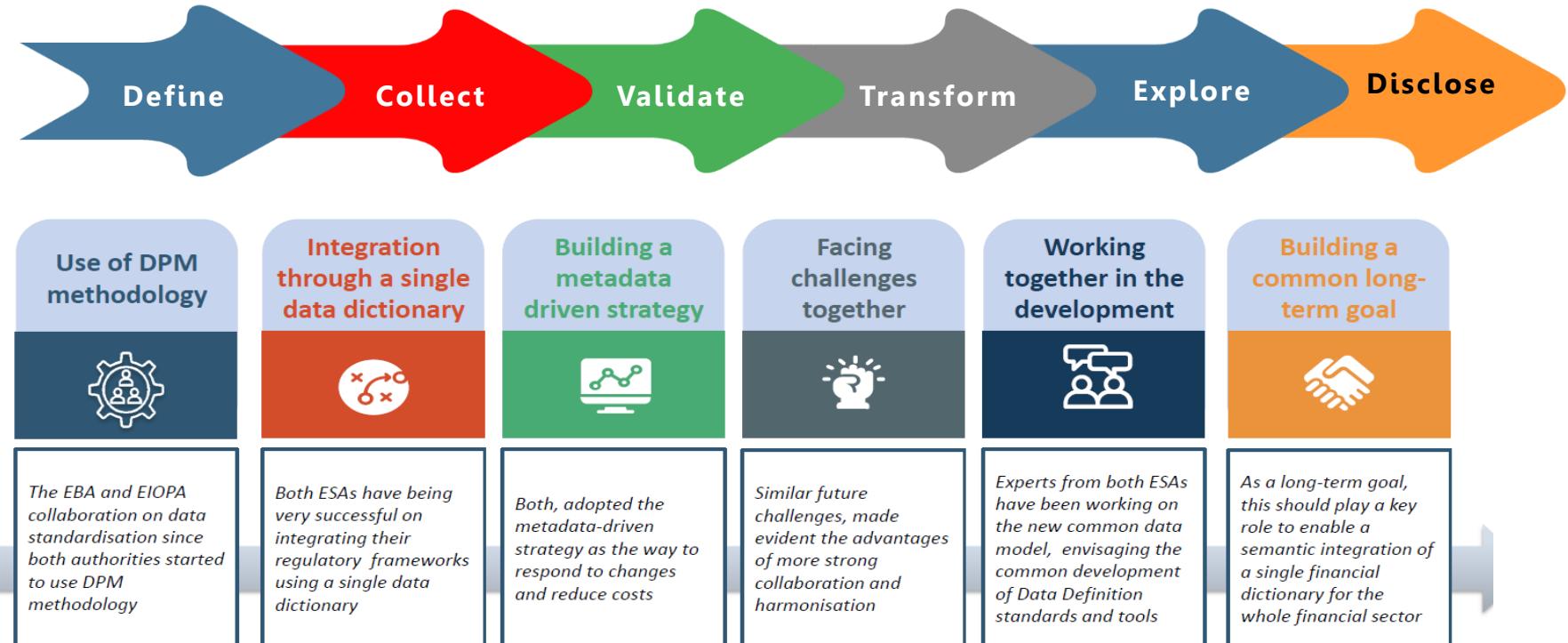
Reporting reference date	Taxonomy - application date	Publication	Business changes	Current approach	ATOME	DPM Refit	CSV	DRR
Q4 2023 – Q4 2024 ⁷	FICOD - 2.8.1	PWD in June 2023 Final version in July 2023	Financial Conglomerates (FICOD)	No	Yes	No	No	No
Q1 2025 – Q4 2025	IORPs, Insurance - 2.9.0	PWD in Q2 2023 Final version in July 2023	IORPs Decision Corrections identified to the 2.8.0 Insurance release	No	Yes	Yes, for comparison purposes only (but later, in 2024)	To be confirmed (only if adequate engines are available to execute rules/validations in csv)	No
Next release	2.10.0	PWD1 with business package consultation without validations PWD 2 once business is closed (with validations) Final release: At least ⁸ 7 months before application reference date.	to be decided	No	Yes	Yes	Yes (assuming adequate engines are available to execute rules/validations in csv)	Potentially for info only

DPM Refit

CHANGE	CROSS INTEGRATION	SCIENCE	BUSINESS
<p>Not like current taxonomy change regime (version changes)</p> 	<p>Cross financial services integration (Banking, insurance, PF & AM)</p> 	<p>Impact on tooling used for regulatory reporting (vendors)</p> 	<p>Impact on scope of DPM frameworks (more than changes to the XBRL taxonomy only or in other words reporting templates & validations)</p> 

DPM refit will initially impact all vendors of XBRL regulatory tooling and subsequently you depending on the way your XBRL software operates

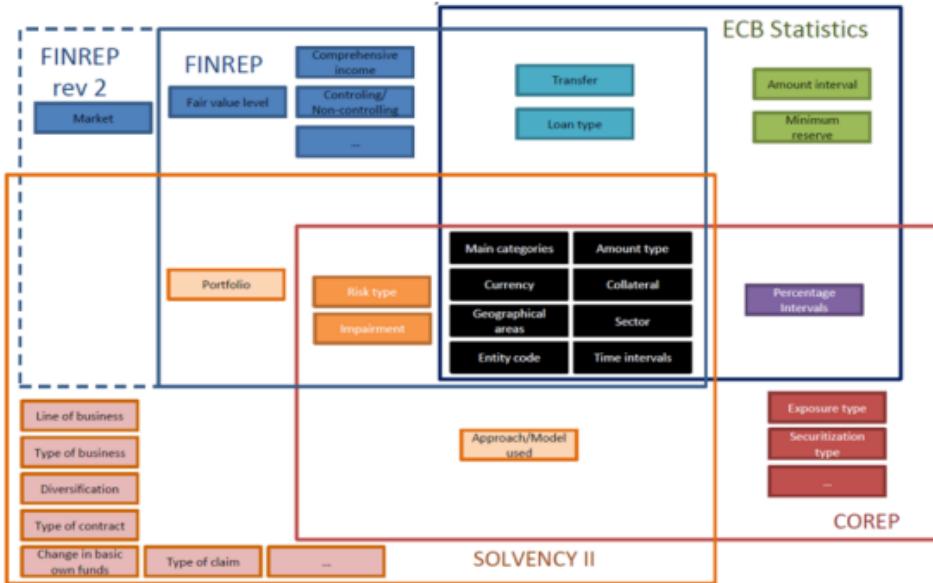
DPM Standard 2.0



Total convergence of EBA and EIOPA methods, models, processes, and tools used for the development of data dictionaries and related regulatory products.

Framework Integration

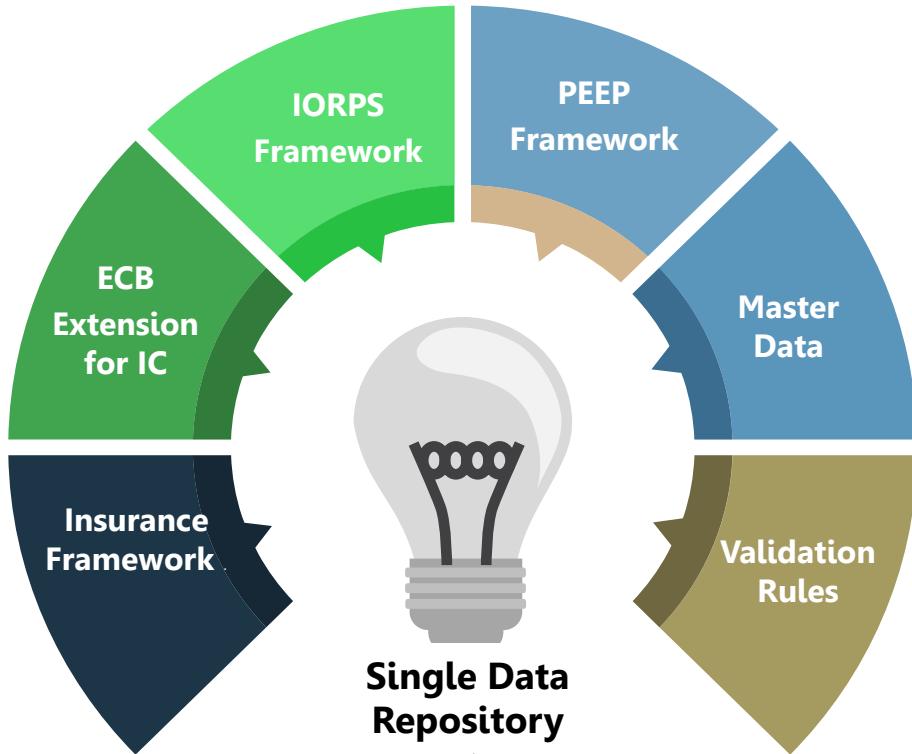
Cross framework harmonization



Commonalities between banking, insurance and pension funds sector are desirable:

- Common dimensions
- Data Point Modelling
- Common data types
- Taxonomy architecture
- Base primary items
- Label constructions
- Tools
- etc.

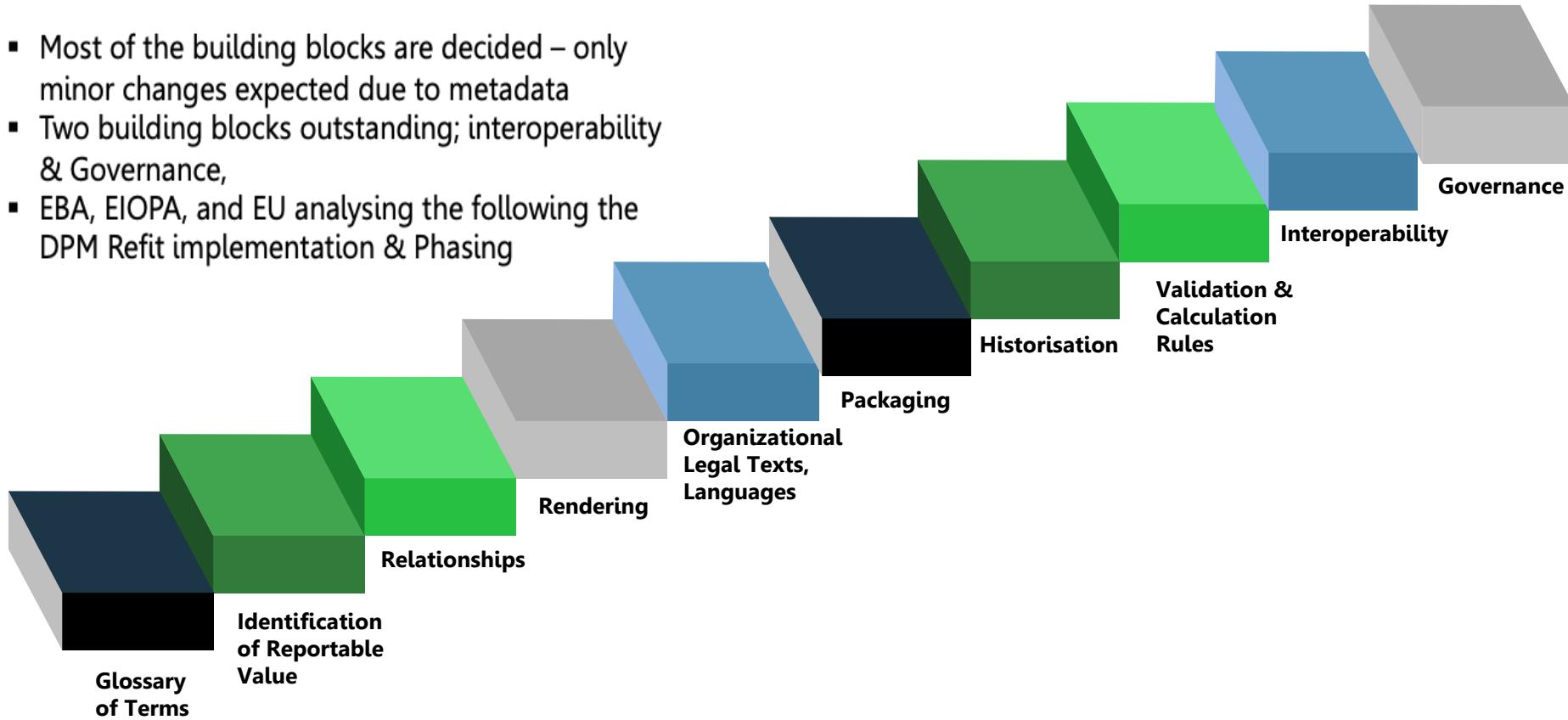
EIOPA Architecture Outline on DPM



- The DPM implements the uniform and consistent definitions included in the implementing technical standards (ITS), guidelines and Board of Supervisors decisions on reporting and disclosure
- Provides a structured representation of the information, identifying all the business concepts and their relations, as well as validation rules
- It is composed of the annotated templates for the Solvency II, pension funds and pan-European pension products with a common DPM dictionary
- One model for all data reporting requirements under EIOPA remit (insurance, pensions, PEPP providers, public disclosure) and for the ECB reporting extensions
- The model facilitates the appliance of waivers and completeness information reporting via the basic information – Master data

Building Blocks of Refit

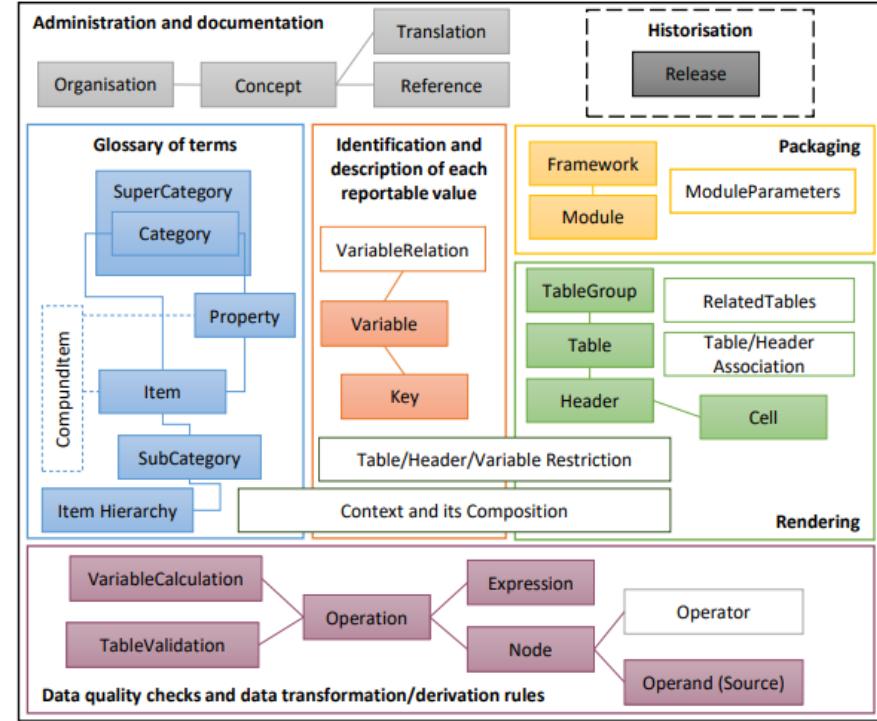
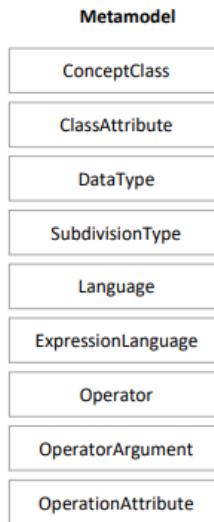
- Most of the building blocks are decided – only minor changes expected due to metadata
- Two building blocks outstanding; interoperability & Governance,
- EBA, EIOPA, and EU analysing the following the DPM Refit implementation & Phasing



Content of DPM refit (yellow boxes are new topics)



DPM Refit meta-model overview



Copyright © 2022 EIOPA

A photograph showing a person's hand pointing at a laptop screen. The laptop is open and displays various financial charts, including bar charts and line graphs, on its screen. The background is a bright, slightly blurred office environment.

Regscape

ESG

Integrated ESG Reporting

1 INTEGRATE ESG RISKS IN THE PRUDENTIAL FRAMEWORK OF INSURERS AND PENSION FUNDS

Following an initial focus on governance and risk management, EIOPA will deepen its analysis of the prudential 'Pillar 1' capital treatment of natural catastrophe liabilities, investments associated with environmental and/or social objectives, or associated substantially with harm to such objectives, and climate-resilient insurance products. EIOPA will assess the application as part of IORPs' fiduciary duty as part of IORPs' fiduciary duty. Supervisory reporting under Solvency II will be gradually revised to include reporting on sustainability risks. This should ensure the integration of sustainability in all pillars of the prudential frameworks.

KEY DELIVERABLES

- › Proposals for supervisory reporting of climate risks in Solvency II
- › Analysis of prudential treatment under Solvency II of assets and/or activities associated with environmental and / or social objectives or associated substantially with harm to such objectives
- › Report on underwriting practices and prudential treatment of the integration of climate change-related adaptation measures in non-life insurance products
- › Analysis on the integration of sustainability considerations in IORPs fiduciary duty.
- › Reassessment of the natural catastrophe risk standard formula capital charges



LEARN MORE

Report on non-life underwriting and pricing in light of climate change
[› Read more](#)

Methodological paper on potential inclusion of climate change in the Nat Cat standard formula.
[› Read more](#)

3

PROMOTE SUSTAINABILITY DISCLOSURES AND A SUSTAINABLE CONDUCT OF BUSINESS FRAMEWORK

The sustainable finance ecosystem relies on transparent communication on the sustainability or taxonomy compliance of financial products and activities. EIOPA will engage in providing further guidance on sustainability-related disclosures and reporting. While the industry is facing the challenge of integrating sustainability preferences in insurance and pension products, supervisors will be facing the challenge of fighting greenwashing.

KEY DELIVERABLES

- › Guidance on disclosures and reporting under the Sustainable Finance Disclosure Regulation and Taxonomy Regulation
- › Advise EU COM on measures to address greenwashing
- › Guidance on the application of sustainability-related provisions in the insurance sales process



LEARN MORE

Final Report with draft Regulatory Technical Standards (RTS) on product-related taxonomy disclosures
[› Read more](#)

Advice on RTS on the content, methodologies and presentation of disclosures under the EU Regulation on sustainability-related disclosures in the financial services sector
[› Read more](#)

Advice on KPI for environmentally sustainable activities by insurers or pension funds under Article 8 of the taxonomy regulation
[› Read more](#)

Integrated ESG Templates

ESG in banking industry (example) already integrated in reporting taxonomy EBA)

INDEX - Prudential disclosures on ESG risks (Article 449a CRR)

Table 1 - Qualitative information on Environmental risk

Table 2 - Qualitative information on Social risk

Table 3 - Qualitative information on Governance risk

Template 1: Banking book- Climate Change transition risk: Credit quality of exposures by sector, emissions and residual maturity

Template 2: Banking book - Climate change transition risk: Loans collateralised by immovable property - Energy efficiency of the collateral

Template 3: Banking book - Climate change transition risk: Alignment metrics

Template 4: Banking book - Climate change transition risk: Exposures to top 20 carbon-intensive firms

Template 5: Banking book - Climate change physical risk: Exposures subject to physical risk

Template 6. Summary of GAR KPIs

Template 7 - Mitigating actions: Assets for the calculation of GAR

Template 8 - GAR-(%)

Template 9 - Mitigating actions: BTAR

Template 10 - Other climate change mitigating actions that are not covered in the EU Taxonomy

Template example (fully integrated into existing templates)

Annex I - Templates for ESG prudential disclosures - View-only

Search for tools, help, and more (Alt + Q)

Viewing Edit a copy Comments

File Home Insert Draw Page Layout Formulas Data Review View Help

A1 A B C D E F G H I J K L M N O P Q R

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Template 7 - Mitigating actions: Assets for the calculation of GAR

Million EUR

Total gross carrying amount

a b c d e f g h i j k l m n o

Disclosure reference date T

Climate Change Mitigation (CCM) Climate Change Adaptation (CCA) TOTAL (CCM + CCA)

Of which towards taxonomy relevant sectors (Taxonomy-eligible) Of which towards taxonomy relevant sectors (Taxonomy-eligible) Of which towards taxonomy relevant sectors (Taxonomy-eligible)

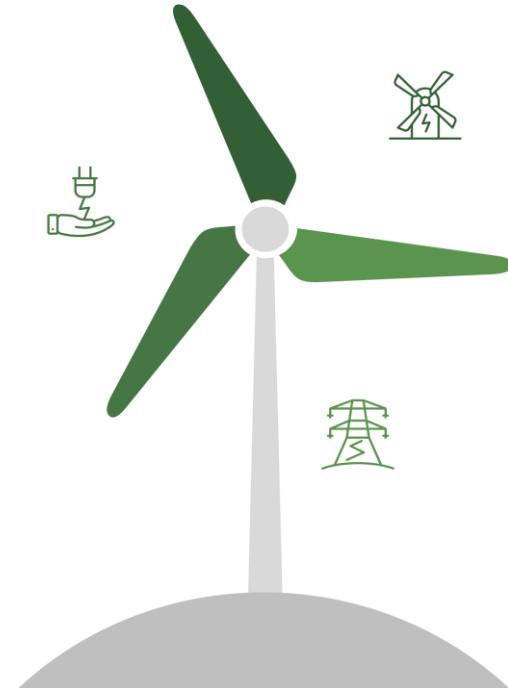
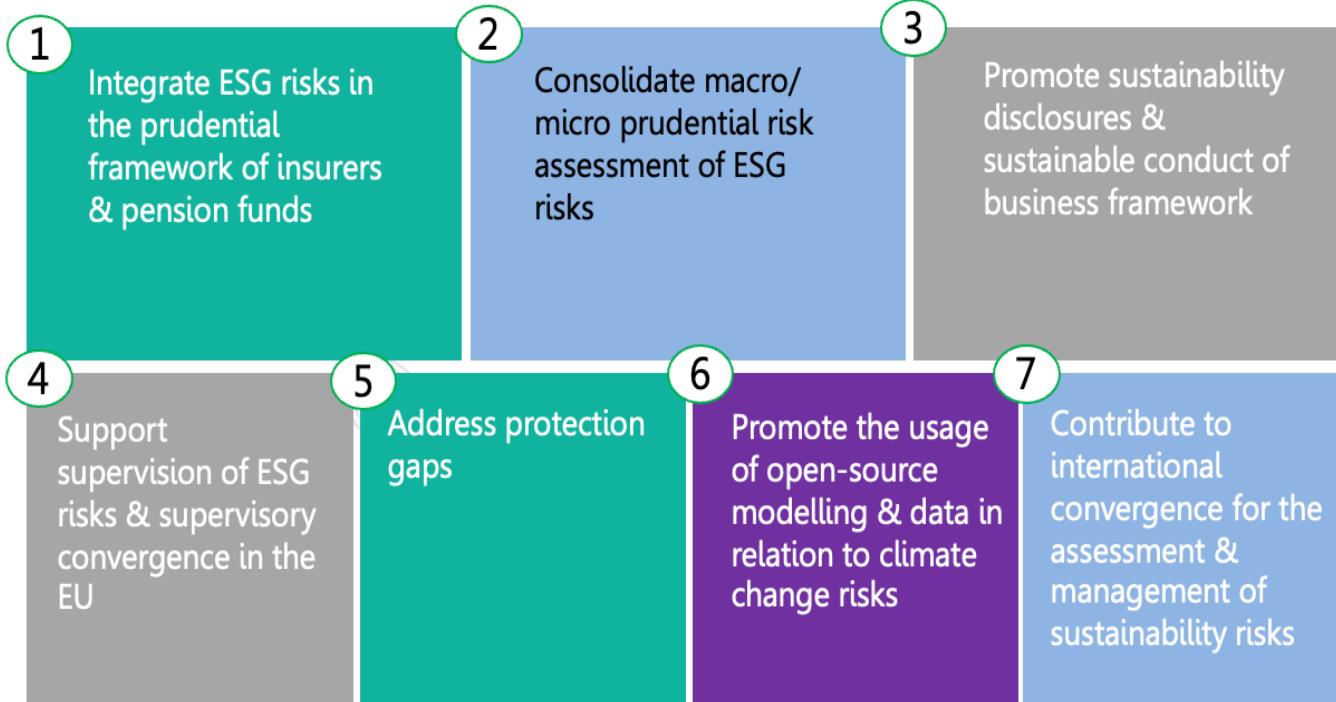
Of which environmentally sustainable (Taxonomy-aligned) Of which environmentally sustainable (Taxonomy-aligned) Of which environmentally sustainable (Taxonomy-aligned)

Of which specialised lending Of which transitional Of which enabling Of which specialised lending Of which adaptation Of which enabling Of which specialised lending Of which transitional/a Of which enabling

GAR - Covered assets in both numerator and denominator

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	Loans and advances, debt securities and equity instruments not HFT eligible for GAR calculation																										
2	Financial corporations																										
3	Credit institutions																										
4	Loans and advances																										
5	Debt securities, including UpP																										
6	Equity instruments																										
7	Other financial corporations																										
8	of which investment firms																										
9	Loans and advances																										
10	Debt securities, including UpP																										
11	Equity instruments																										
12	of which management companies																										
13	Loans and advances																										
14	Debt securities, including UpP																										
15	Equity instruments																										
16	of which insurance undertakings																										
17	Loans and advances																										

Key Areas



A photograph showing a person's hand pointing at a laptop screen. The screen displays several data visualizations, including bar charts, line graphs, and a pie chart. The laptop is open on a desk, and the background is a bright, slightly blurred office environment.

Regscape

Data Quality

Data Quality for Insurers

Data quality
in the insurance sector

— 8 —

Requirements and
regulations on data quality

Prudential regulation for the banking sector, Basel III¹¹, shows no major differences compared to Solvency II. The main data quality definitions are the same: accuracy, completeness and appropriateness. Moreover, both regimes allow working with internal and external data and focus on sufficient documentation of used data, especially in case of data limitations. Only in respect to used length of data observation periods, Basel III is giving more and concrete details compared to Solvency II.

The General Data Protection Regulation (GDPR) is the regulation of the European Union that makes uniform rules for processing of personal data by most data processors, both private and public, across the EU. This is intended, among one other thing, to protect personal data within the European Union, and on the other hand to guarantee free movement of data within the European internal market. GDPR is the common data protection framework that will replace Directive May 25, 2016. As insurance companies handle significant volumes of private data, GDPR plays an important role. For calculations or analysis, most of the data is not aggregated (anonymous) and thus not underlying the GDPR. The quality of data is mentioned in "Article 47 (2 d): Binding corporate rules". Only

The International Financial Reporting Standards (IFRS) don't force any specific data quality requirements but since it represents the core related to Accounting and Bookkeeping principles, it is clear that data quality is of high importance. Furthermore,

SPOTLIGHT

Data quality dimensions in the context of Solvency II

Accuracy

- Data is free from material errors
- Data from different time periods used for the same estimation is consistent
- Data is recorded in a timely manner and consistently over time
- Data is not excluded from use in an internal model without justification

Completeness

- Data includes sufficient historical information to assess the trend and characteristics of the underlying risk
- Data is available for all of the relevant model parameters
- Data is not excluded from use in an internal model without justification

Appropriateness

- Data is consistent with the assumptions underlying the actuarial and statistical techniques applied in an internal model
- Data reflects the relevant risks to which the underwriting is exposed
- Data amount and nature ensure that estimators made in an internal model do not include material biases
- Data is collected and processed in a transparent and structured manner according to data definition and quality assessment criteria
- Data is updated regularly or whenever circumstances demand

The elements of data quality management

The elements of the data quality management framework in the figure below may help structure to insurance industry expectations. A way to achieve this is by defining various aspects of data quality management within the organization, such as data governance, data quality, data management and data architecture¹².

```

graph TD
    A[Data quality policy and data governance] --> B[Data identification and risk assessment]
    A --> C[Data controls]
    A --> D[Data monitoring]
    B --> E[Data architecture and information systems]
  
```



Insurance companies experience data quality challenges on a daily basis. A wrong address leads to lost mail or a missing customer identification number turns the service to a bad experience. Data quality plays a critical role in the success of an organization, especially in a digital economy context, and can be a competitive advantage to those organisations that make the most of the digital connectivity of their value networks, data errors and misuse are having more significant effects than they did in the age of isolated information technology applications.¹³

Financial assets, human resources, buildings, or machinery are fundamental assets of every organization. Data assets, however, have not gained similar attention from the management so far. Data quality management has been emphasized since the 1980s. Data fulfills all of the characteristics of a financial asset, as defined by accounting standards, according to which intangible assets, to the definition, intangible assets are characterized as non-physical, separable from the company, yielding an economic benefit when used in the production of future benefit¹⁴. Moreover, data has unique characteristics that make it different from other assets. Data is mobile and transport, but it is not easy to reproduce if it is lost or deleted. It is not always possible to store and can be used for multiple purposes or by many users simultaneously.

Analytics can spend as much as 40% of their time validating data relevant to their analysis before any outcome can be derived from specific decisions¹⁵. At several insurance companies, executives are sceptical

of data presented to them. Strategic thinkers will ask themselves about the potential opportunity of using data insights or economic understanding. Little imagination is needed to see that insurance companies could increase proportions and operating models would be possible if data were of higher quality¹⁶.

There are many different definitions for data quality, some very detailed, others quite technical. For the purpose of this paper, data quality is defined as "as a multidimensional construct that reflects the quality of data, namely the ability to fulfil risk management requirements in its processes".¹⁷

Data quality is not only a necessary pre-requisite for risk management, but rather a risk in itself: an operational risk. Data quality is often seen as a source of "operational innovation" and the reliability of business reporting. Errors in reporting data can lead to erroneous conclusions. It is well known that lack of trust in data leads to wrong decisions and erroneous decisions are missed when data is inaccurate, incomplete, delayed or incomprehensible.

Requirements and regulations on data quality

Solvency II regime foresees data quality requirements in the following areas¹⁸:

Technical Provisions	Art. 19 to 21	Art. 34	Art. 284, 285
USPs	Art. 219		
Internal Models	Art. 231 (1-3)	Art. 237	Art. 244, 248
Underwriting & Reserving	Art. 200		
Internal Control System	Art. 266		Art. 267 (4)
Actuarial Function		Art. 272	

Data Quality for Insurers

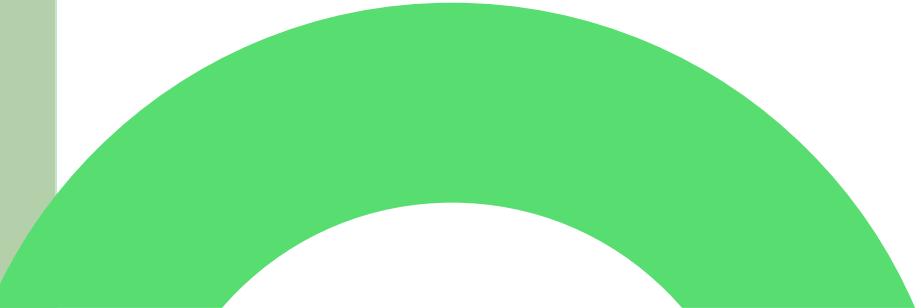
- Aligned closely to BCBS-239 for Banking
- Much of the usual data quality control items
- Current focus on Lineage (banking industry)
- Also focus on data sourcing and data quality aspects
- Increased focus on governance and on governance on reporting processes
- Automated processes (replacing workarounds and manual data collection processes)
- Focus on analytics prior to submission processes (outlier detection and trend analysis)

BCBS 239 Structure

- I. Overarching governance and infrastructure
 - 1. Governance
 - 2. Data architecture and IT infrastructure
- II. Risk data aggregation capabilities
 - 3. Accuracy and integrity
 - 4. Completeness
 - 5. Timeliness
 - 6. Adaptability
- III. Risk reporting practices
 - 7. Accuracy
 - 8. Comprehensiveness
 - 9. Clarity and usefulness
 - 10. Frequency
 - 11. Distribution
- IV. Supervisory review, tools and cooperation
 - 12. Review
 - 13. Remedial actions and supervisory measures
 - 14. Home/host cooperation
- V. Implementation timeline and transitional arrangements

Summary

- Regulatory changes are business as usual (always in a state of flux)
 - Taxonomy/framework changes
 - Communication not always as clear as desired
 - Hotfixes are just another thing to cope with
- DPM refit is impacting vendors and potentially you as a client
- ESG reporting, multi (GAAP/framework) analysis and data quality/lineage are new topics to focus on



**DO YOU HAVE ANY
QUESTIONS?**

A photograph of a person's hand pointing at a laptop screen. The laptop is open and displays various financial charts and graphs, including bar charts and line graphs in shades of blue, yellow, and red. The background is a bright, slightly blurred office environment.

Regscape What's Next?