

# ROUNDTABLE ON SUSTAINABLE FINANCE

Afternoon session



# Sensitivity analysis of climate-change related transition risks

EIOPA Roundtable on Sustainable Finance

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## WHAT?

Assess and quantify climate-change related risks to the investment portfolio of insurers

Learning exercise

## WHY?

Holdings of especially high-carbon assets may lose value (or become stranded assets) as economies transition away from fossil fuel dependence and CO2 emitting production and consumption

Identify and quantify possible reactions in a set of “what-if” scenarios affecting corporate bonds, equity and government bonds

**Trigger:** A policy shock (late and sudden) towards end of this decade



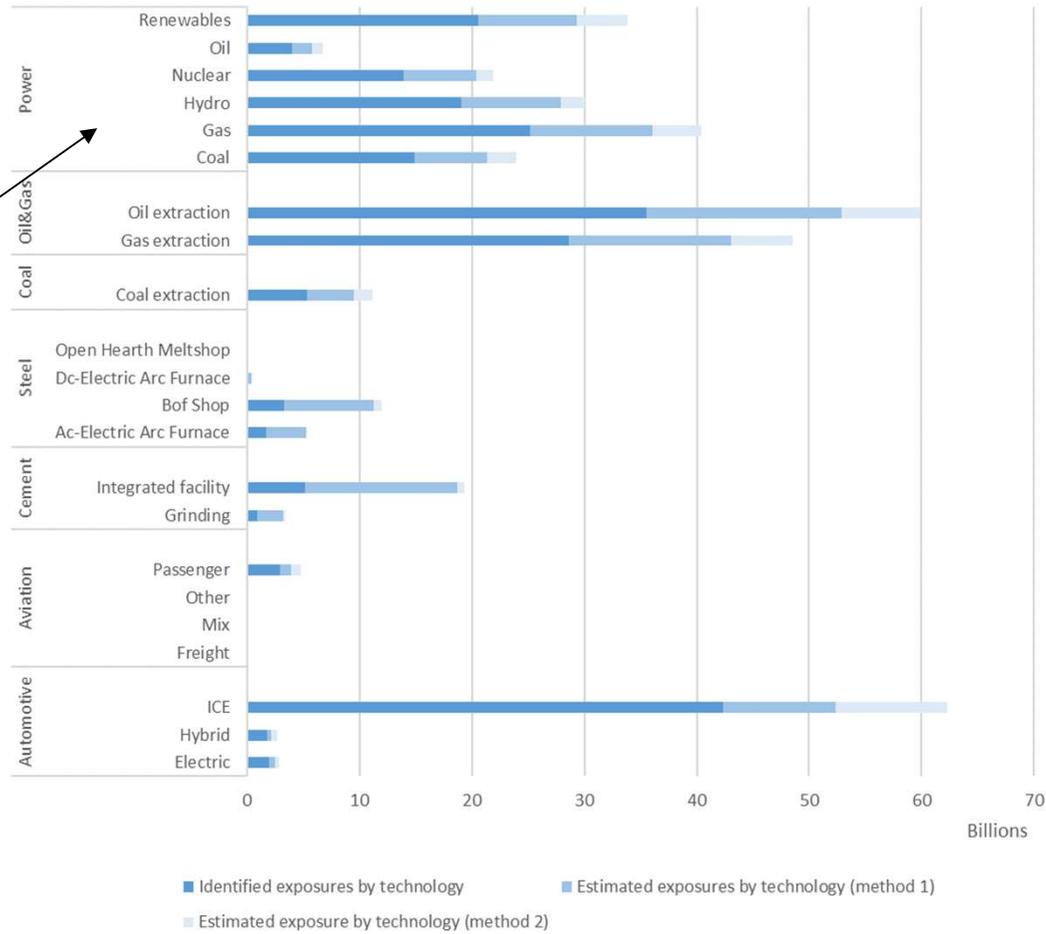
## WHICH INVESTMENTS?

In scope	Data and approach	Coverage
<b>Equity</b> <i>Common and preferred equity</i>	Solvency II and 2° Investing Initiative <sup>1</sup>	High: Only 1.5% of relevant exposures with no information.  Participations and other non-listed equity and equity issued by real estate firms out of scope.
<b>Corporate bonds</b> <i>Corporate bonds, convertible and hybrid bonds, subordinated bonds</i>	Solvency II and 2° Investing Initiative	Only 3.6% of relevant exposures with no information. Non-listed and covered bonds out of scope.
<b>Collective investment undertakings</b> <i>Equity funds, debt funds and asset allocation funds</i>	Solvency II and 2° Investing Initiative	We get information about underlying asset for 44% of holdings (compared to 0% if we had used only Solvency II). Real estate funds out of scope.
<b>Government bonds</b> <i>All holdings</i>	Solvency II	Full

<sup>1</sup> Funding received from the European Union's Life program under grant agreement n° LIFE19 GIC/DE/001294

Sector

Technology



Identification of exposures carried out using the PACTA method of 2° Investing Initiative (2DII)<sup>2</sup>

The chart shows identified holdings (dark blue bar) per sector and technology for the EEA (excl. UK)

Lighter blue bars show results with extrapolation to account for unmapped assets

<sup>2</sup> Funded by the EU Life action grant PACTA 2.0

## SENSITIVITY ANALYSIS

We can use the detailed knowledge about the holdings in the previous slide to calibrate price adjustments in a typical transition scenario.

Price adjustments to equity and corporate bonds calibrated by 2DII under assumptions about carbon emissions linked to global warming outcomes.

Supplemented with 2019 Bank of England climate scenarios and research on climate risks of sovereign bonds<sup>3</sup>

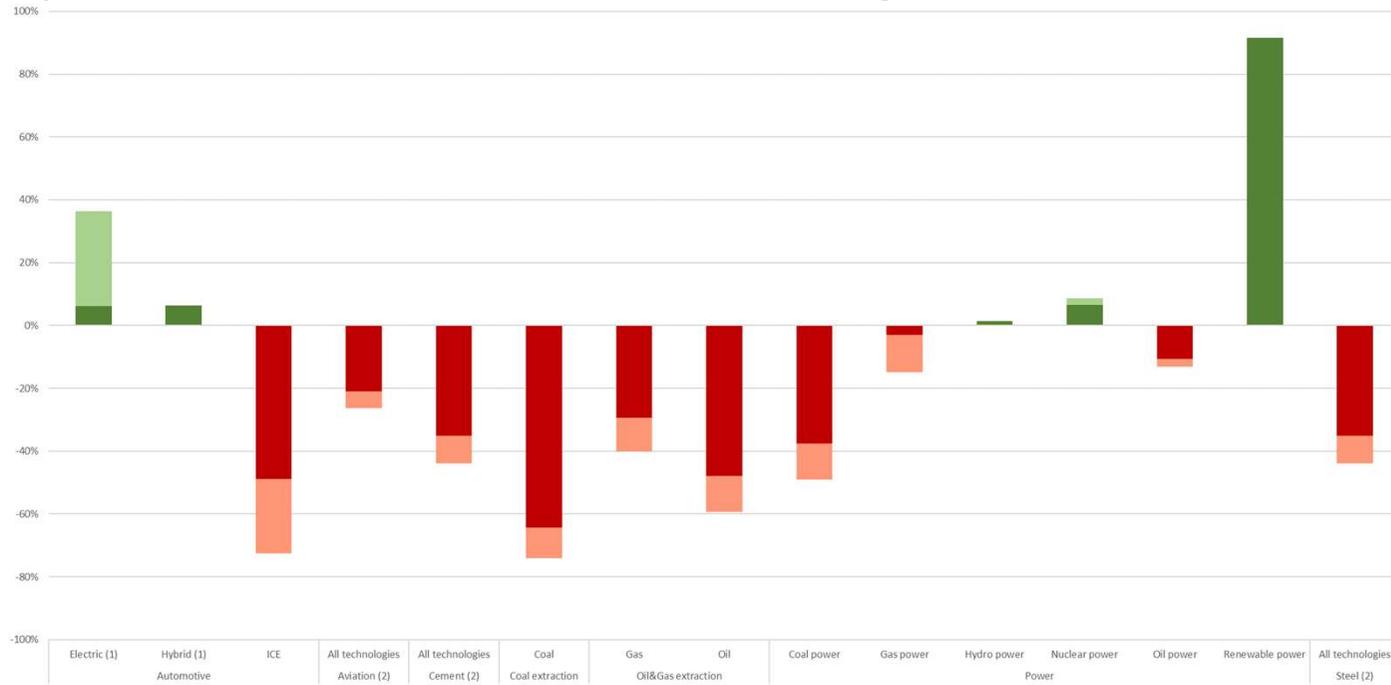


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<sup>3</sup> Battiston, S., Jakubik, P., Monasterolo, I., Riahi, K., van Ruijven, B. (2019): “Climate Risk Assessment of the sovereign bond portfolio of European insurers”, EIOPA Financial Stability Report, pp. 69-89, December.

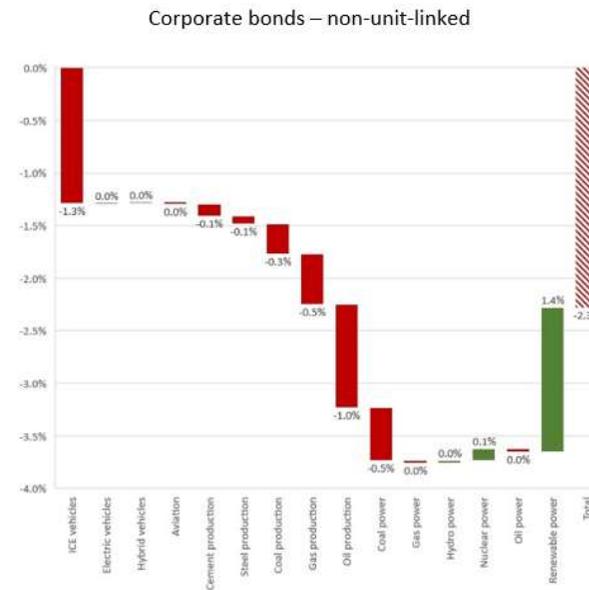
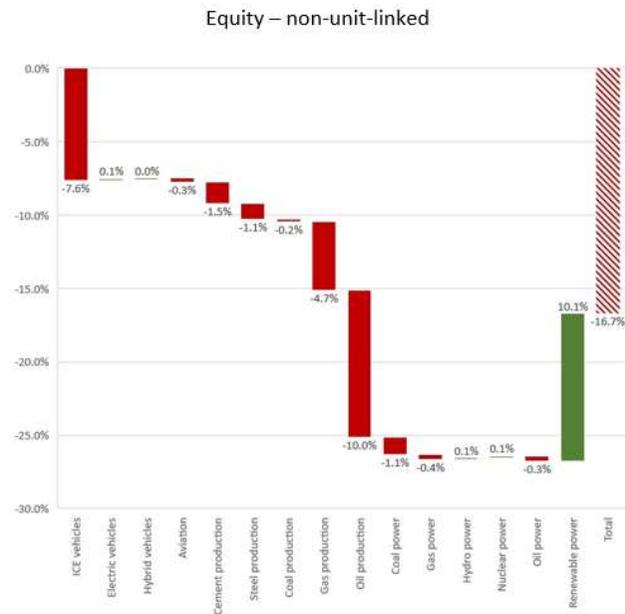
# SENSITIVITY ANALYSIS

Price adjustments tested in a “what-if” learning exercise



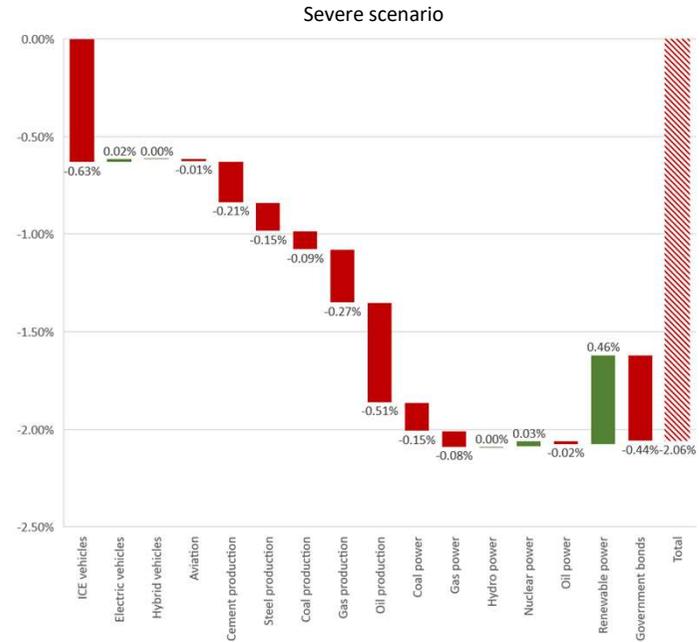
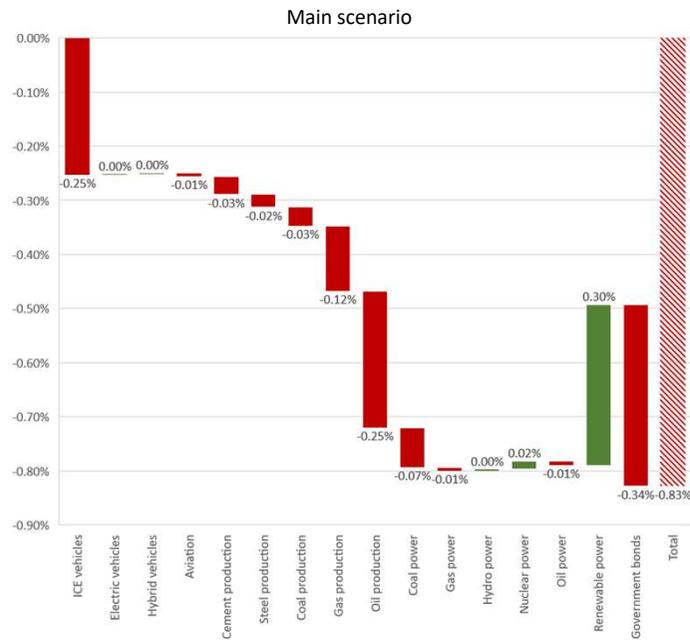
# SENSITIVITY ANALYSIS

Quite substantial losses on (esp. equity) holdings in high carbon sectors, but some re-balance by investments in renewables



# SENSITIVITY ANALYSIS

Chart below shows impact in % of eAOL (govt. included) for non-unit-linked assets



## FULL REPORT INFORMATION AVAILABLE ON EIOPA'S WEBSITE

Detailed output incl. by country and technology, analysis of flood risks and more...



<https://www.eiopa.europa.eu>



*“Sustainable finance will remain a strategic area for EIOPA in coming years. (...) EIOPA expects the industry to manage and mitigate sustainability risks and adopt a sustainable approach to their investments based on principles of stewardship. This will not only support the insurance sector, but also contribute to making sure the financial sector plays a positive role in combatting climate change by channelling funds to more sustainable initiatives”*

**Gabriel Bernardino, EIOPA's Chairman.**



**LEARNING EXERCISE:  
Feedback and comments  
very welcome**

**THANK YOU!**

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