Changing macroeconomic environment: Will guaranteed products come back?

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- Changing macroeconomic environment
  - Focus on higher interest rates
- . . . Will guaranteed products come back?
  - How does the new environment impact the value added of guaranteed products?
  - Value added of guaranteed products: insurance against market risk

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- . . . Will guaranteed products come back?
    - How does the new environment impact the value added of guaranteed products?
    - Value added of guaranteed products: insurance against market risk
- Guaranteed products embed two insurance mechanisms against market risk
    1. Return guarantees
    2. Return smoothing

Insurance mechanism 1: Return guarantees

- Insurance against market risk provided by the insurer
- Variation in the level of return guarantees

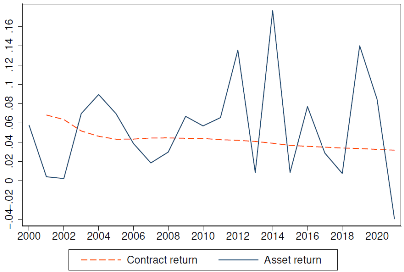
  ... across countries

  ... across time (more later)

Insurance mechanism 2: Return smoothing

- Return smoothing: contract return $\neq$ return of invested assets

Germany



France

! colors are reversed on each graph !

Insurance mechanism 2: Return smoothing

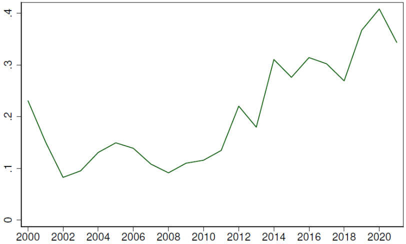
- Accounting identify:

  Asset return = Contract return + ΔReserves + Insurer income

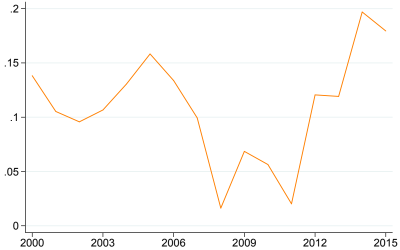
- Most of the difference between contract return and asset return is absorbed by reserves $\Rightarrow$ Reserves fluctuate widely

Reserves in % of account value

Germany



France



Insurance mechanism 2: Return smoothing

- Reserves are carried over across investor cohorts ⇒ wealth redistribution between investor cohorts
- Theoretically: risk sharing between investor cohorts (Allen and Gale, 1997)
- Empirically over the period 2000–2020:

  interest rates ↓

  large bond returns

  ... hoarded as reserves, to be distributed to future cohorts of investors

  ⇒ redistribution from early cohorts to late cohorts

- Quantitatively:

  France: 1.4% of account value is redistributed across investor cohorts every year (Hombert and Lyonnet, 2022)

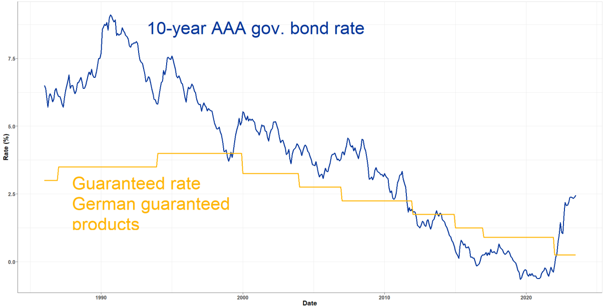
  Germany: between 0.8% and 1.4%/yr depending on product characteristics (Hombert, Mölmann and Weill, 2023)

Rising interest rates

- How do high interest rates affect both risk sharing mechanisms
- . . . and therefore the supply and demand for guaranteed products?

1. Impact of rising interest rates on return guarantees

- Guaranteed rates vary less than 1-for-1 with market rates



- Higher rates make guaranteed products more profitable for insurers

2. Impact of rising interest rates on return smoothing

- Rise in interest rates $\Rightarrow$ reverses the direction of redistribution: from future cohorts to current ones, by depleting reserves now and replenishing reserves later
  - Back-of-envelop depletion of reserves: duration 8 years $\times$ interest rates rise 2.5 pp $\Rightarrow$ reserves drop by 20% of assets
- Implication: today, guaranteed products are unattractive to policyholders
  - Empirically: low reserves lead to lower future contract returns (Hombert and Lyonnet, 2022; Hombert, Möhlmann and Weiss, 2023)

Taking stock

- Higher interest rates $\Rightarrow$ different implications in the transition period *versus* at steady state
  - Transition: reserves are temporarily low $\Rightarrow$ demand $\downarrow$
  - Steady state: wider wedge between market rates and guaranteed return $\Rightarrow$ demand $\uparrow$
- How long is the transition?
  - Potentially quite long! Asset duration $\sim$ 8 years
- Other factors not covered in this brief talk
  - Inflation: guaranteed returns are a poor hedge against inflation risk $\Rightarrow$ demand $\downarrow$?
  - Risk-based regulation: return guarantees consumes regulatory capital $\Rightarrow$ supply $\downarrow$