ESRB
European Systemic Risk Board
European System of Financial Supervision

ESRB adverse market scenario

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The ESRB – Part of the ESFS

European System of Financial Supervision (ESFS)

Micro-prudential supervision	Macro-prudential supervision
European Banking Authority (EBA)	European Systemic Risk Board (ESRB)
European Insurance and Occupational Pensions Authority (EIOPA)	European Central Bank (ECB)
European Securities and Markets Authority (ESMA)	National macro-prudential authorities
Joint Committee	
Micro-prudential supervisory authorities (National & Single Supervisory Mechanism (SSM))	

The ESRB – Bringing together policy makers in Europe

- ESRB General Board is the ESRB decision maker.
  - ESRB includes EU central banks, supervisors, EC, EFC & ESAs.

Mario Draghi
President European Central Bank / ESRB Chair

Mark Carney
Governor Bank of England / ESRB Vice-Chair / Chair of Financial Stability Board

Stefan Ingves
Governor of Riksbank / Chair of Basel Committee of Banking Supervision

  - Membership reflects ESRB broad mandate of macroprudential oversight of the EU financial system and the prevention and mitigation of systemic risk.

The ESRB – Stress Test involvement also in legislation

- EU legislator put weight on stress tests & ESRB involvement.
  - *“The Authority shall, **in consultation with the ESRB**, develop criteria for the identification and measurement of systemic risk and an adequate stress-testing regime which includes an evaluation of the potential for systemic risk posed by financial institutions to increase in situations of stress. …”* (Art. 23.1 of EIOPA regulation)
  - *“The Authority shall, **in cooperation with the ESRB**, initiate and coordinate Union-wide assessments of the resilience of financial institutions to adverse market developments. …”* (Art. 32.2 of EIOPA regulation)
- The ESRB provides a macroprudential perspective through the design of the adverse scenario.
- The ECB plays an important role in the ESRB, including in the design of the stress test scenario.

Scenario scope and coverage

- The scenario has been designed for the
  - harmonised valuation of defined benefit and hybrid pension funds using a common balance sheet approach;
  - market valuation of assets of defined contribution pension funds.
- Coverage: broad range of asset prices (sovereign and corporate bond yields, stock prices, etc.)
- Assumptions about long-term risk premia needed for other components of the stress test, were developed by EIOPA.
- The guidance on applying the scenario has also been developed by EIOPA.

Scenario narrative

- Scenario designed to be
  - relevant and severe while plausible
  - very unlikely to materialise
- “Double hit” scenario:
  - material instantaneous asset price declines combined with
  - fall in risk-free interest rates (swap rates)

  → stress on asset and liability sides of pension fund balance sheets
- Narrative informed by ESRB’s 2017 Q1 risk assessment
  - The ESRB highlighted a repricing of risk premia as the main risk to financial stability in the EU.

Scenario narrative (cont.)

- Triggered by a shock to EU equity markets. Motivated by
  - signs of overvalued equity prices in some regions, both within and outside Europe
  - the fact that pension funds' equity exposures are large when compared with other asset classes they invest in.
- Spillovers to e.g. corporate debt, real estate, commodities.
- Renewed widening of sovereign bond yield spreads over "safe-haven" sovereigns reflecting
  - concerns about creditworthiness of some sovereigns.
  - in addition "safe-haven" sovereign yields do not fall with swaps.

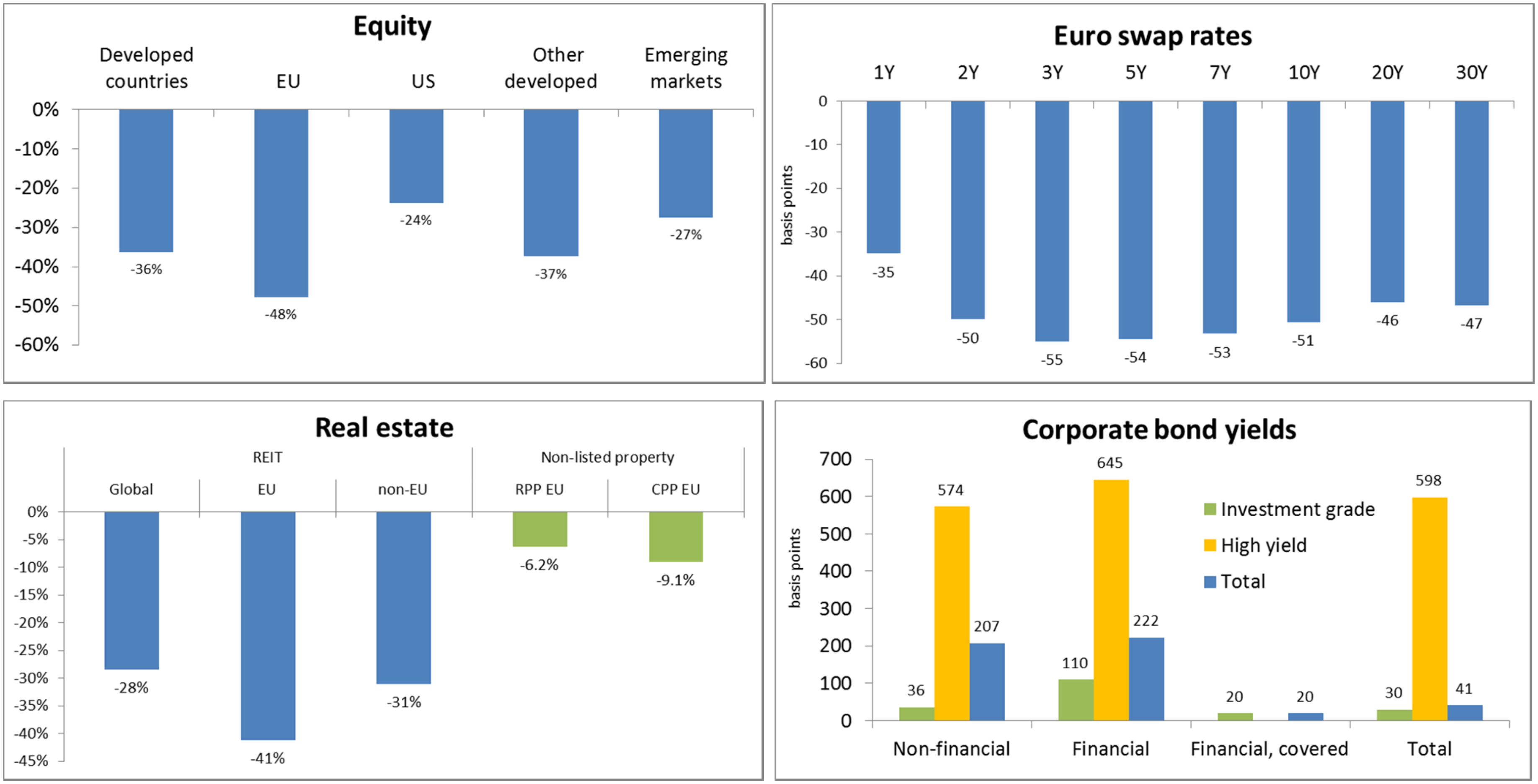
Scenario narrative (cont.)

- Risk-free interest rates fall reflecting
  - assumed continuing structural change (such as adverse demographic developments), to drag on productivity;
  - cyclical support of low interest rates from accommodative central bank policy in the aftermath of the global financial crisis.
- Inflation rates fall slightly reflecting
  - impact of weaker demand following the drop in equity prices and associated generalised increases in risk premia

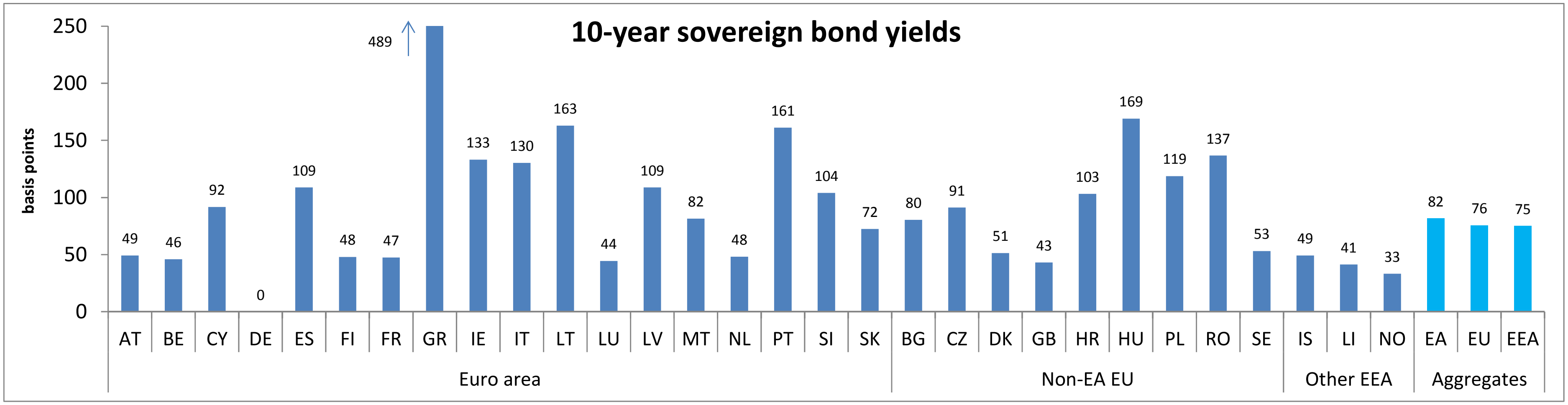
Scenario calibration methodology

- Nonparametric simulation-based methodology
  - Both marginal distributions and copula are not constrained by parametric assumptions to avoid misspecification in the tails
- Akin to Conditional Expected Shortfall methodology
- Shock applied to EU equity market, all other asset prices respond
- Shock probability: 0.5% corresponding to 1-quarter horizon
- Based on historical data (daily freq., 2008-2015) for 257 risk factors

Scenario results



Scenario results (cont.)



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Q&A