



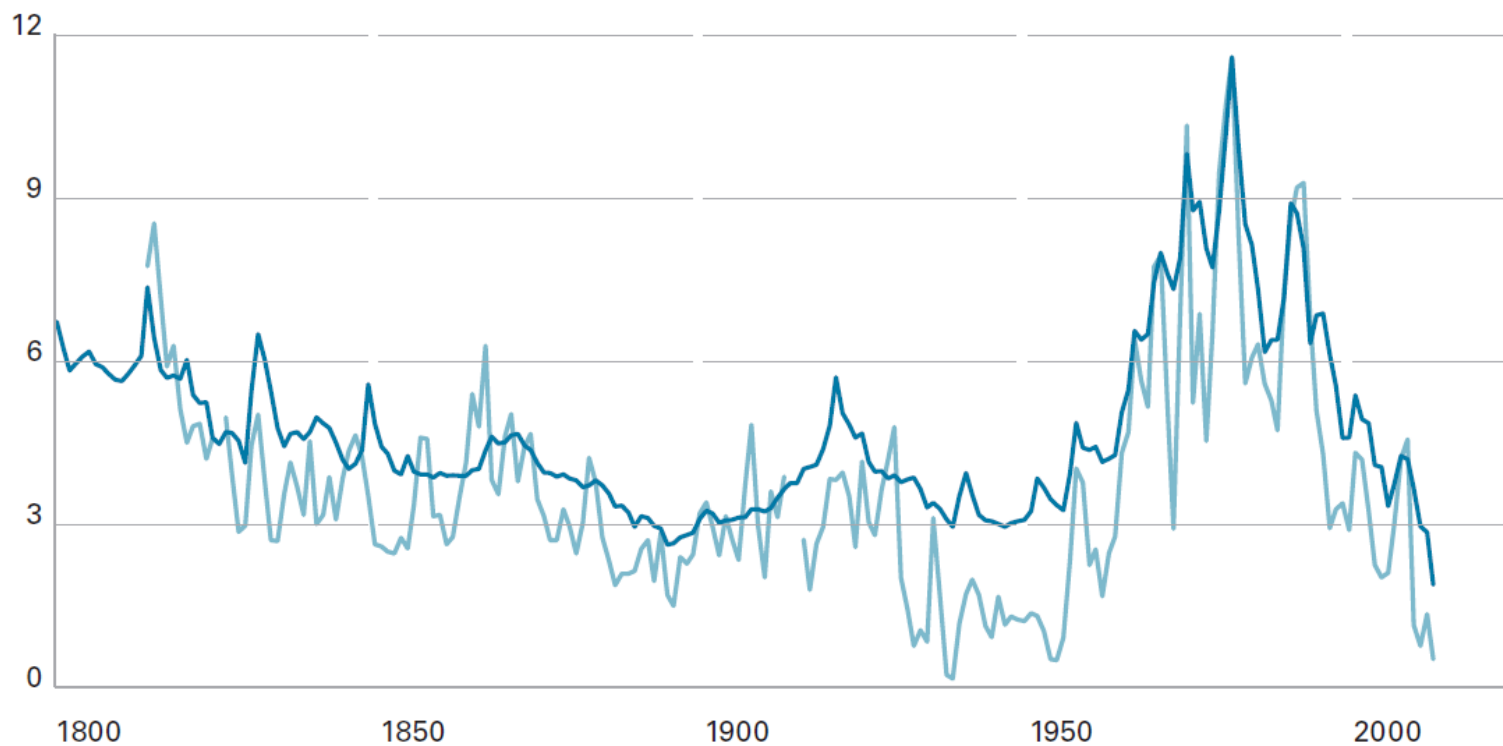
# **Interest rate risk (in the banking book)**

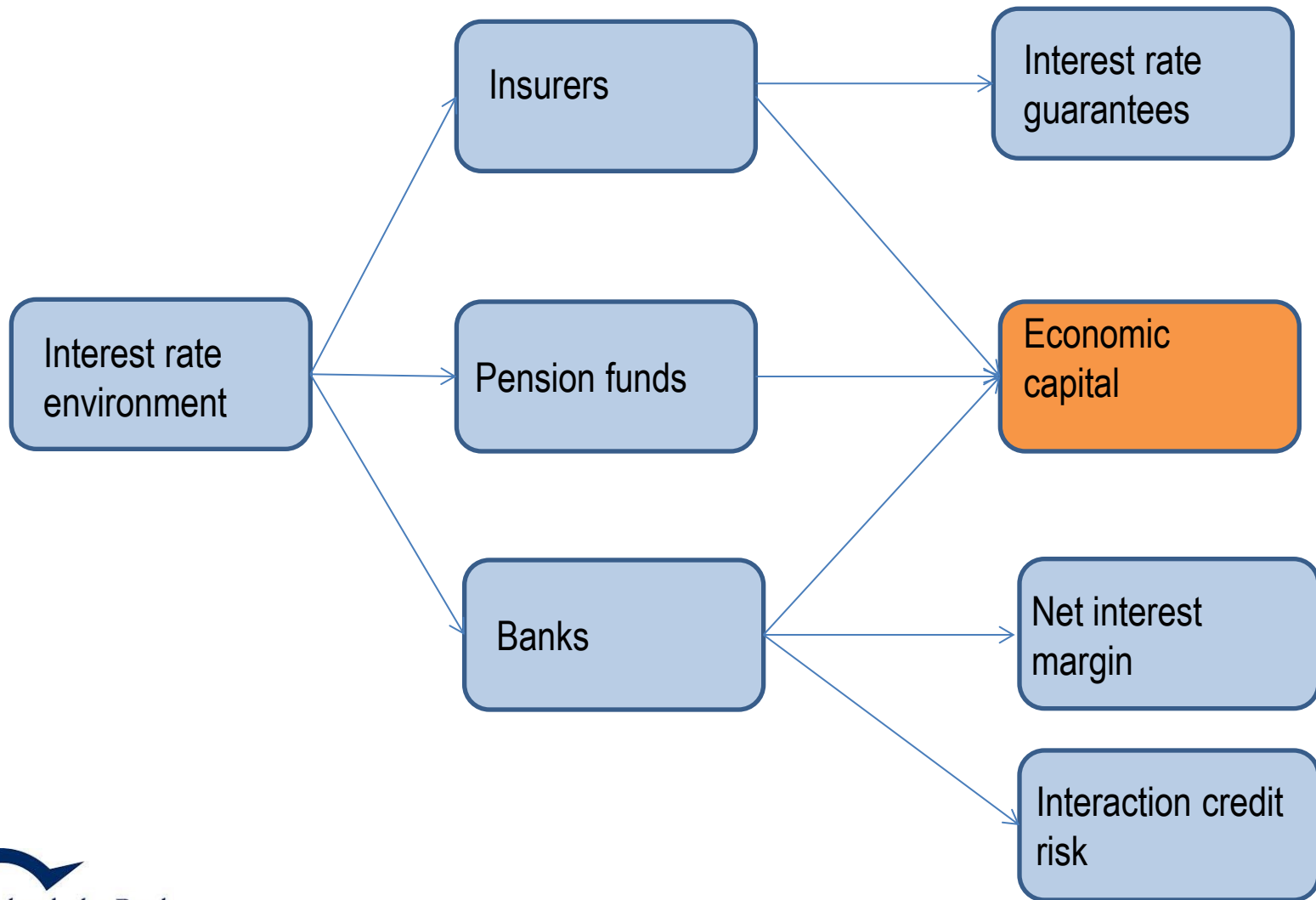
*A financial stability perspective*

Patty Duijm, Economist, Dutch Central Bank  
TopQuants Spring Event 2014, Amsterdam, 28 May 2014

# Historically low interest rates

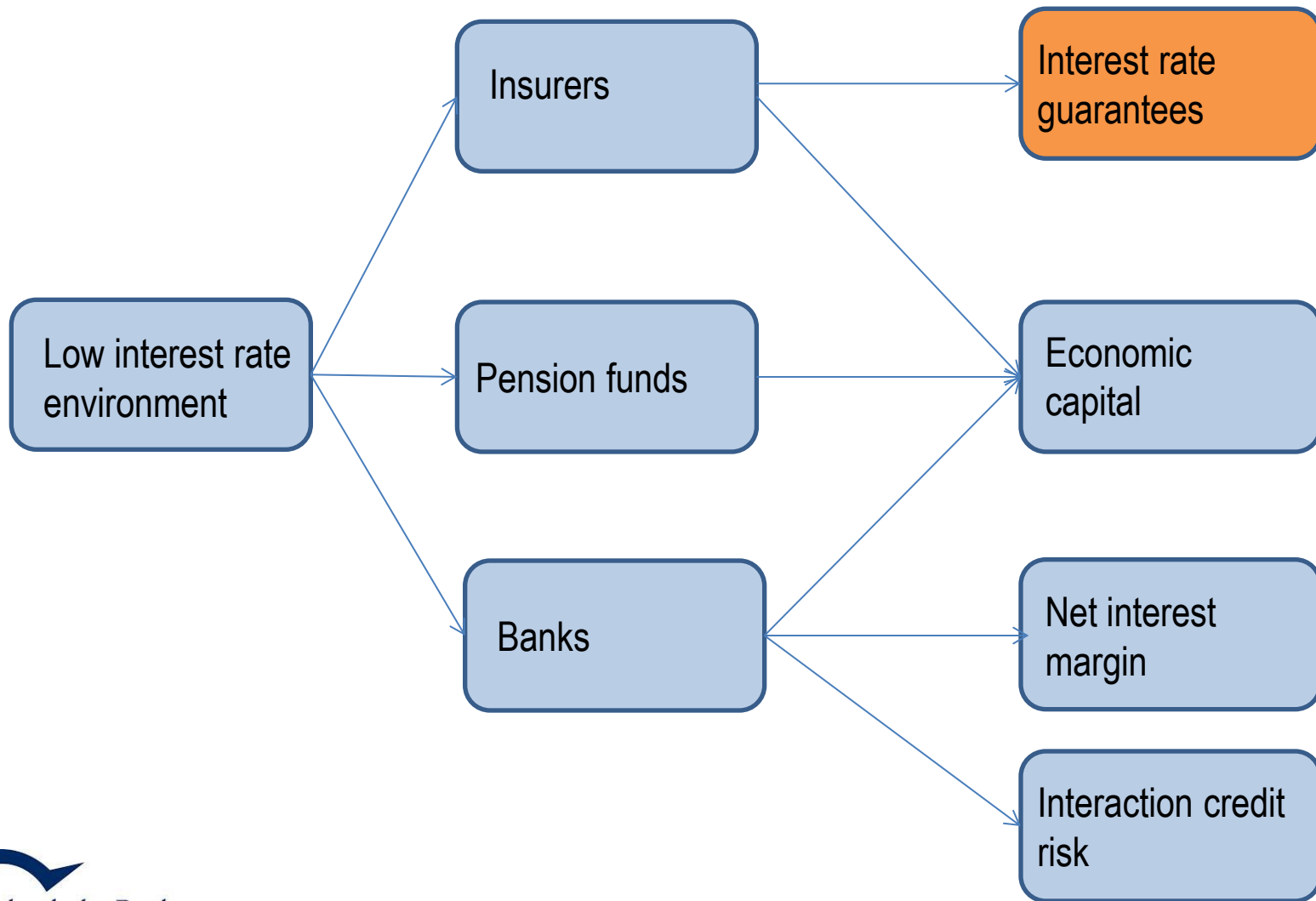
Short-term interest rate   Long-term interest rate





# Cross-sectoral impact economic capital

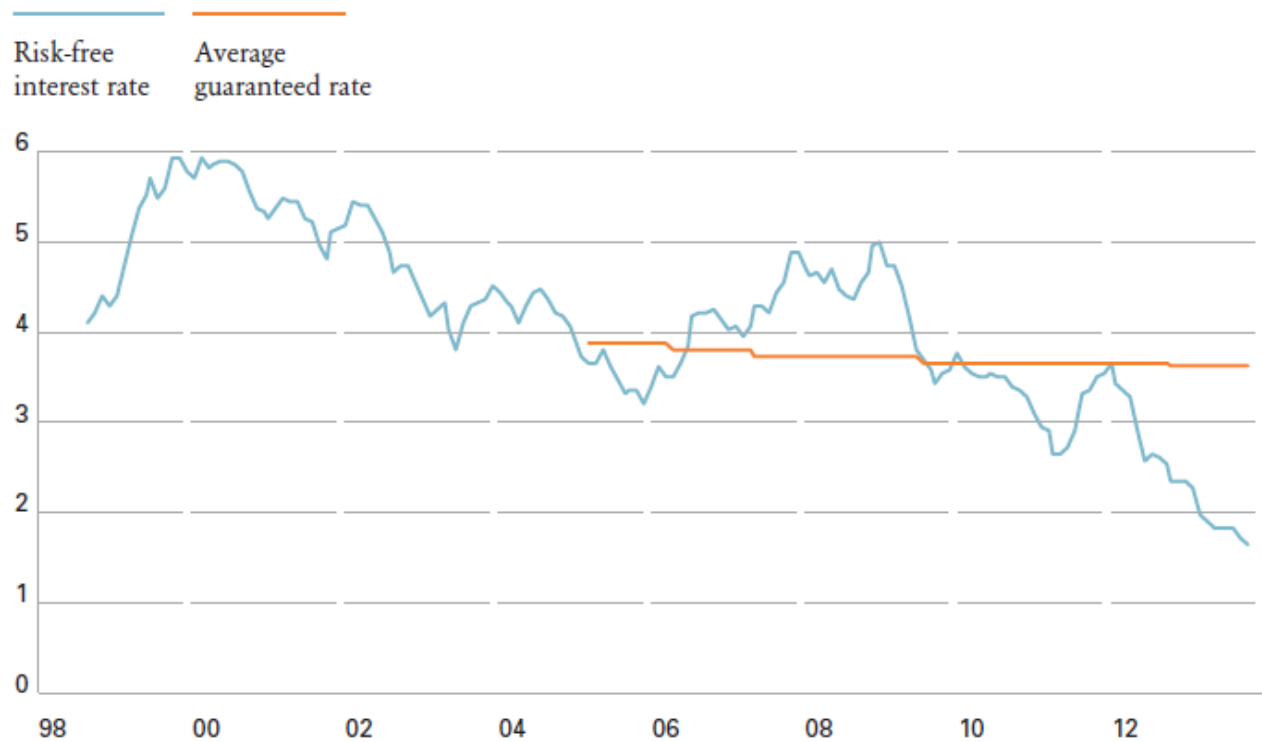
	Parallel shift (+ 250 bps)	'Japan' scenario	Effects (impact business model)
Banks	-	+	<ul style="list-style-type: none"><li>• Client behavior</li><li>• Interaction credit risk</li><li>• Interest rate margin</li></ul>
Insurers	+	-	<ul style="list-style-type: none"><li>• Interest rate guarantees</li><li>• Embedded options</li></ul>
Pension funds	+	-	

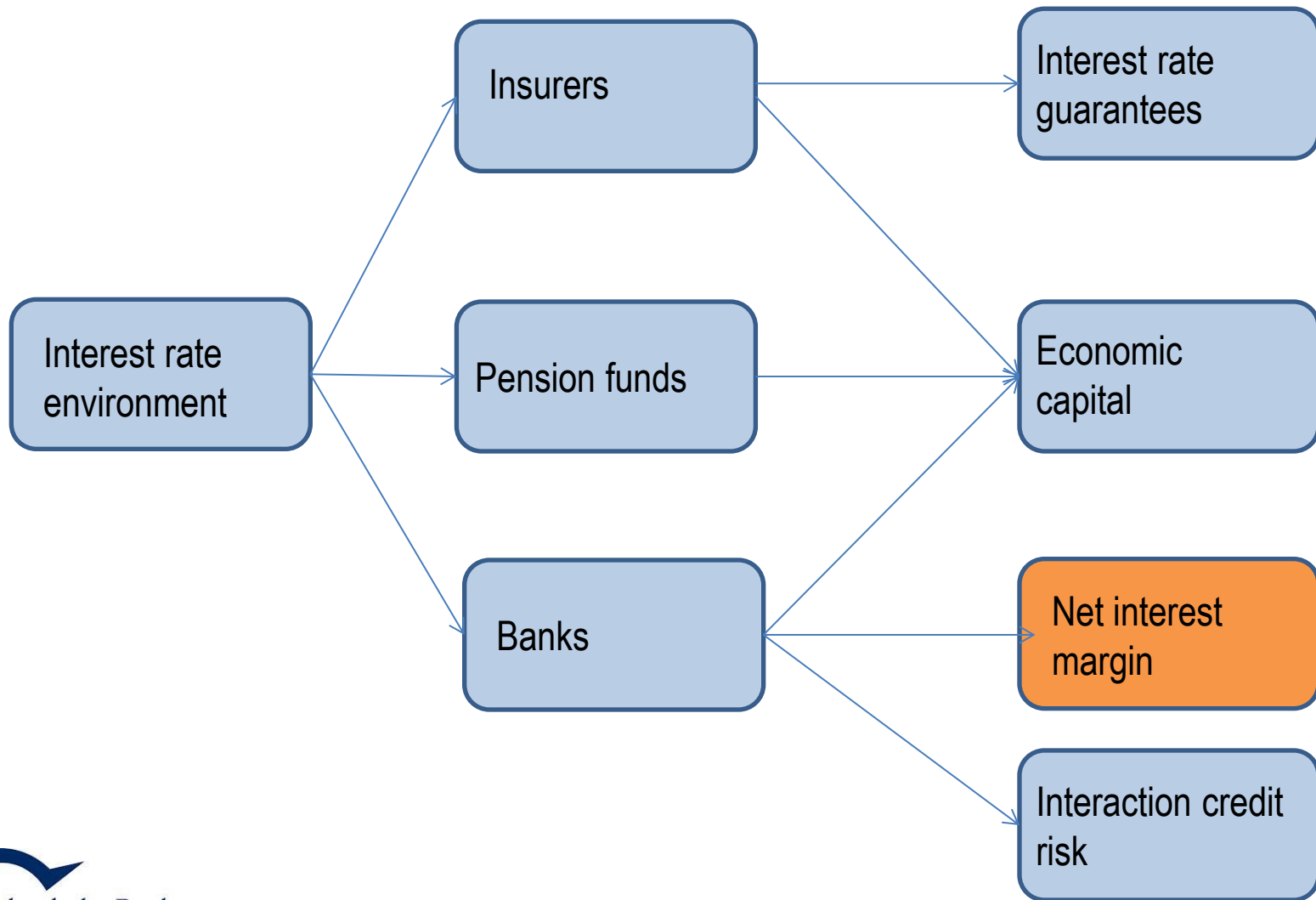


# Insurers – interest rate guarantees

- 60% (EUR 177 mld) of total life insurance contracts
- Low investment returns

In percent, 1998 to 2012.

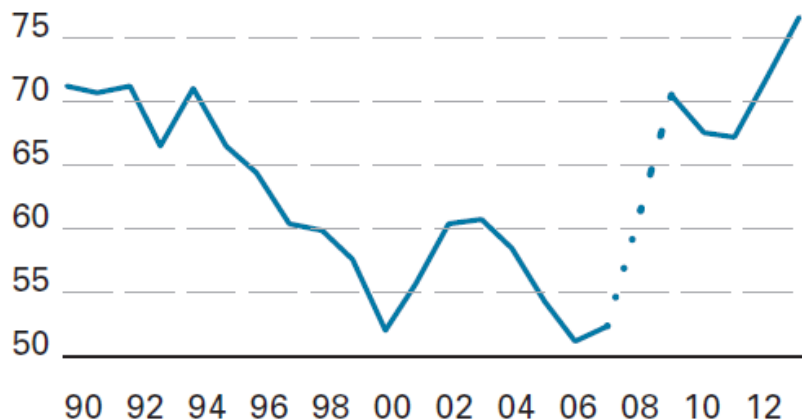




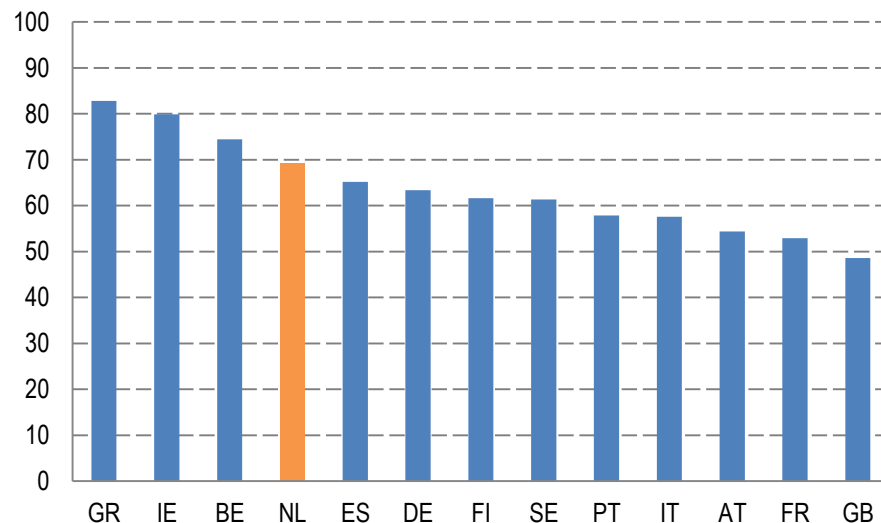
# Banks – net interest margin

- Banks smaller, better capitalized, focus on core activities
- But... also more concentrated
- And... still reliant on market funding

Net interest income over time  
(% total income)

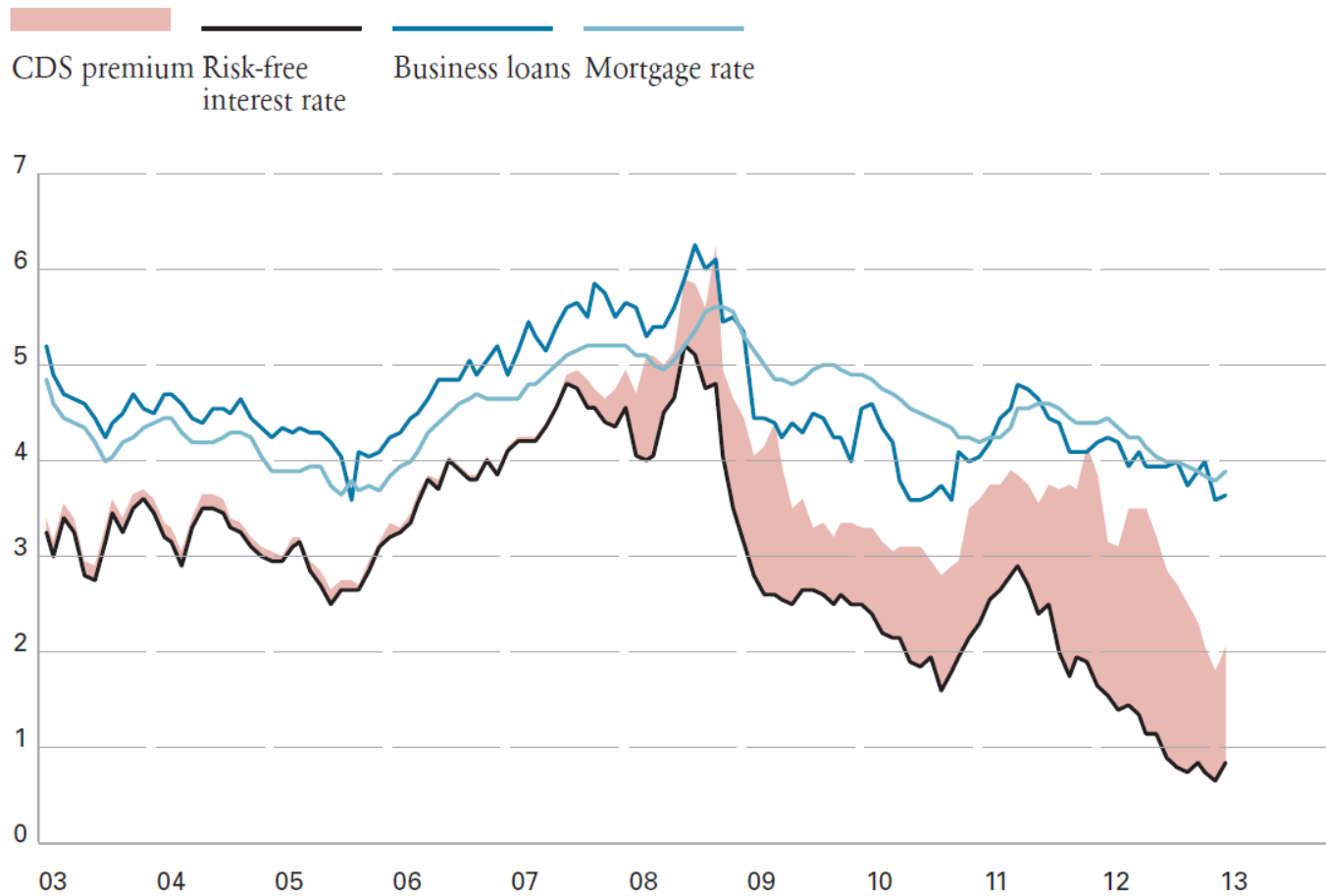


Net interest income  
European comparison (2008 - 2012)



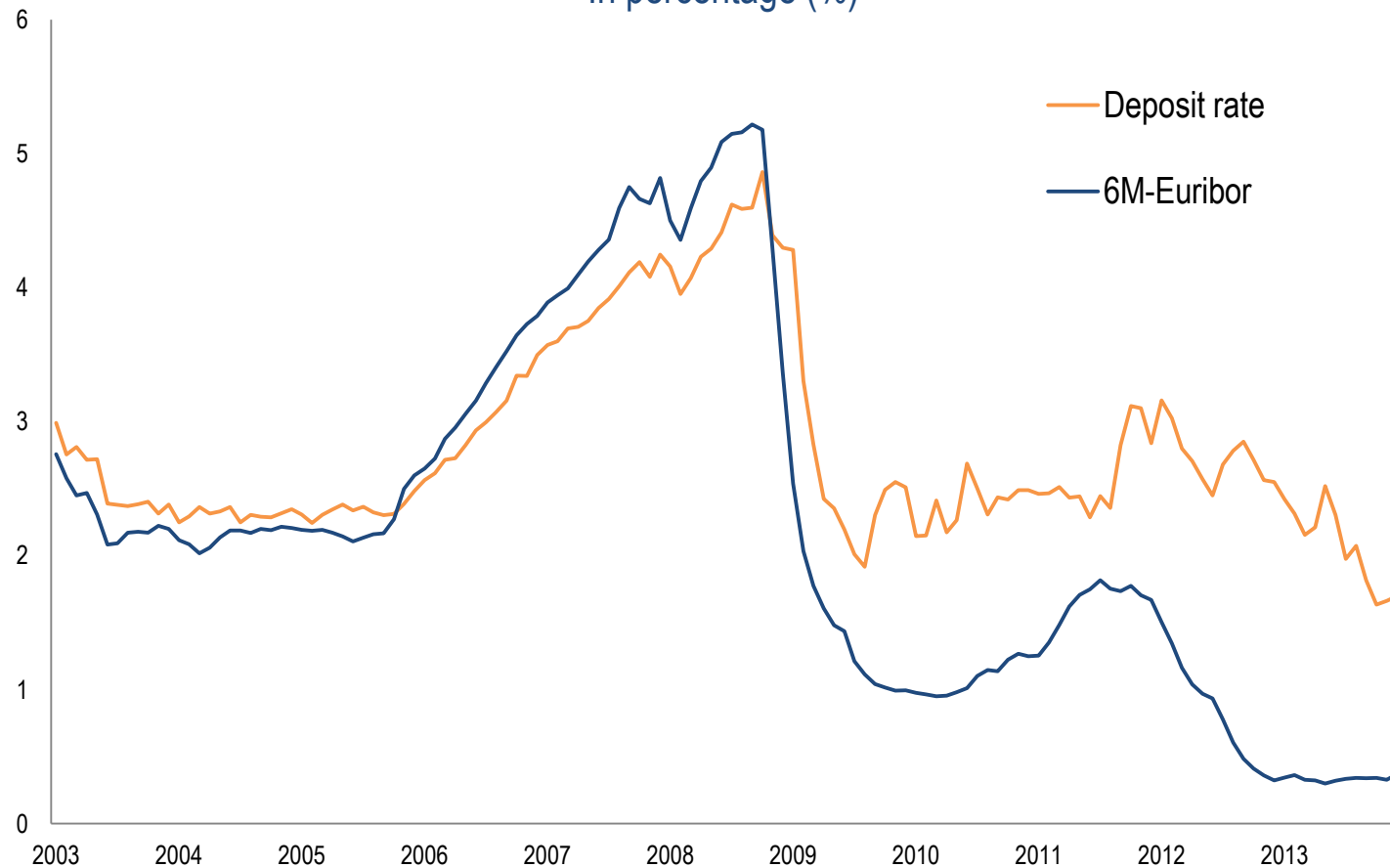


# Banks – net interest margin



# Banks – net interest margin

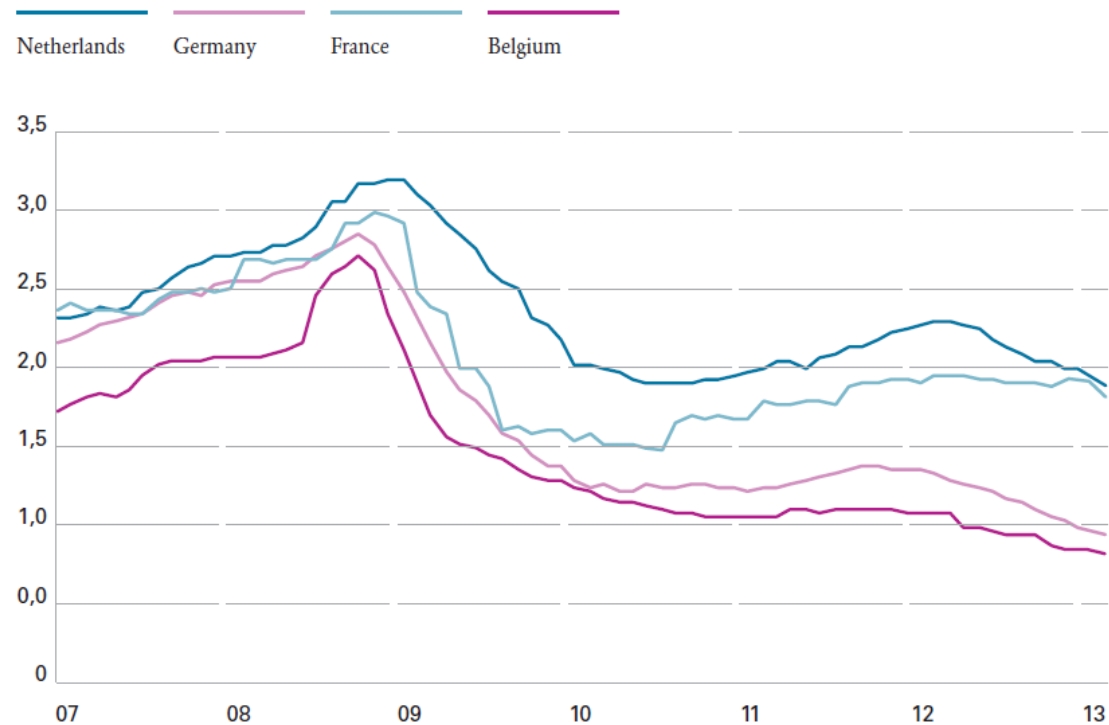
Interest rates on new fixed-term deposits (< 1 year)  
In percentage (%)



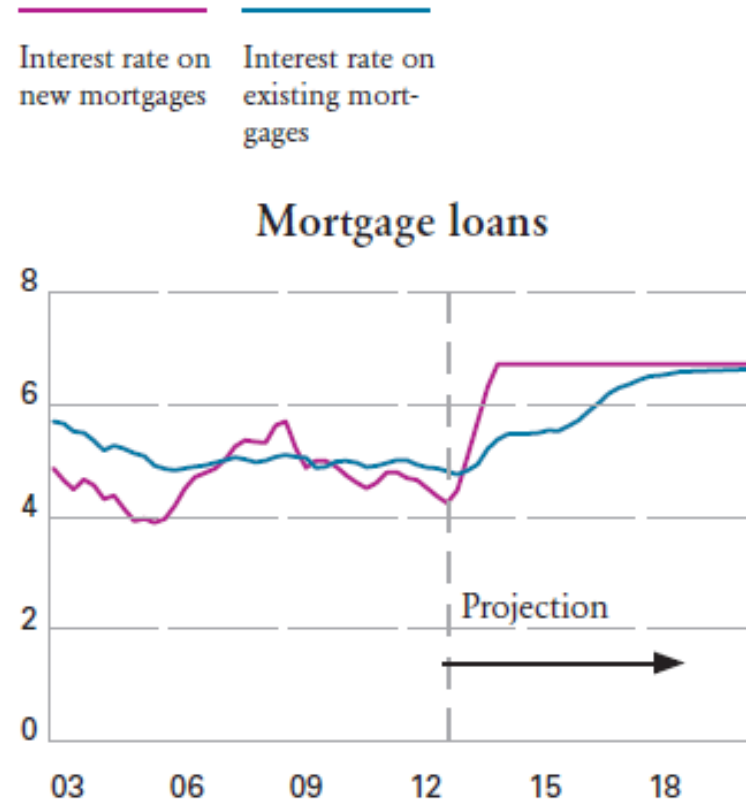
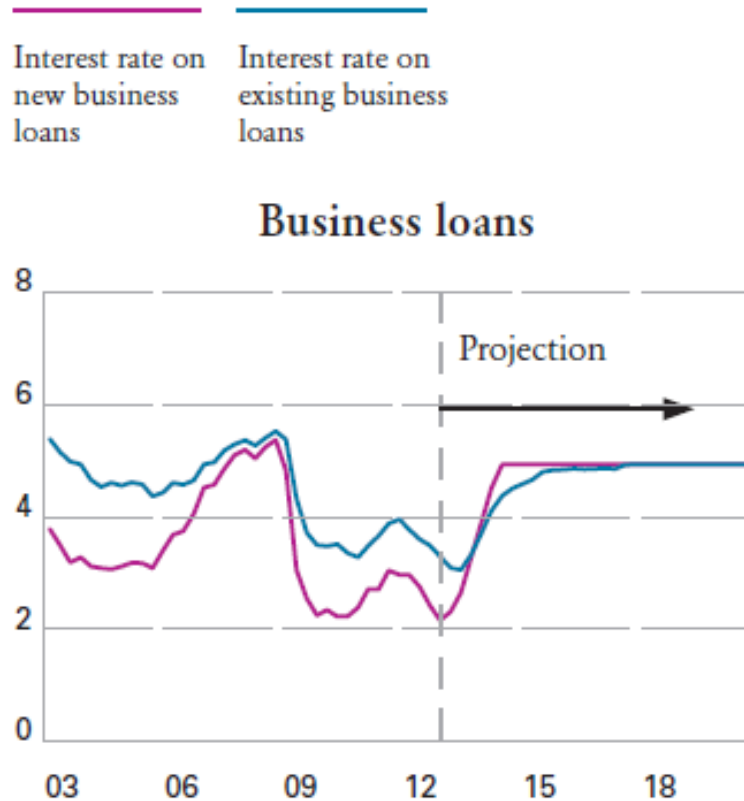
# Banks – net interest margin

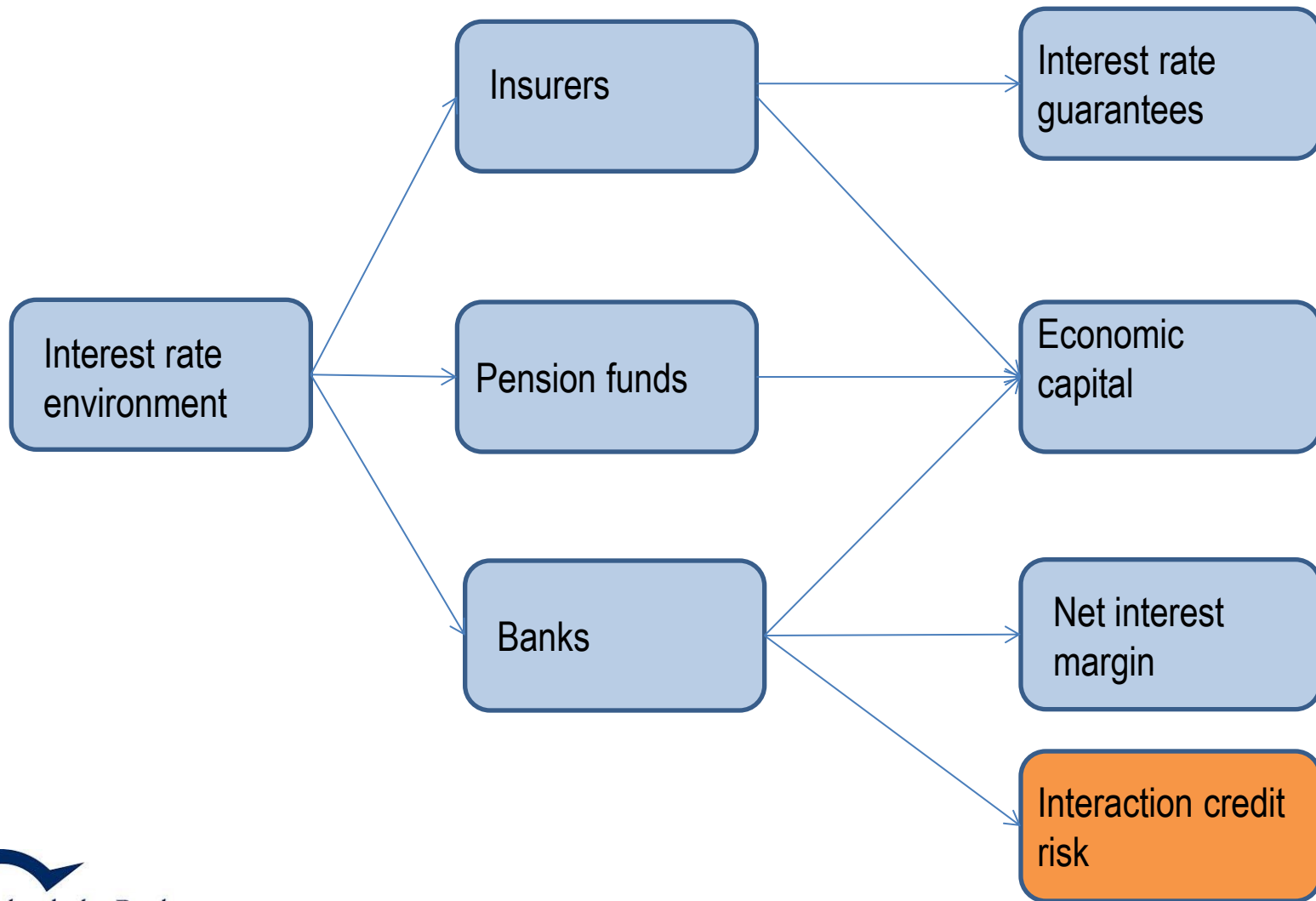
- International perspective
- Behavioral aspects
- Sharp rise in interest rates...?

Interest rate on household deposits, per country



# Banks – impact of an interest rate increase

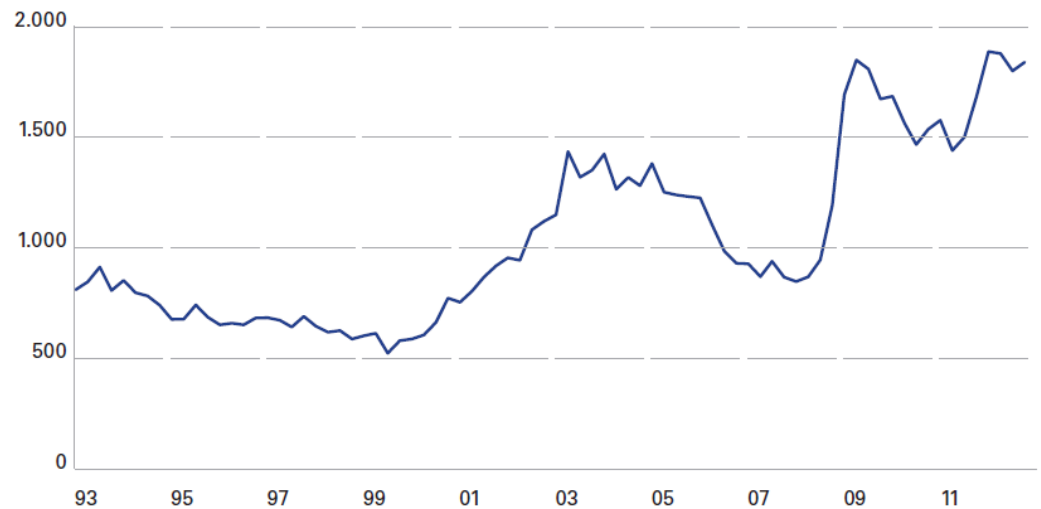




# Banks – credit risk

- Not liquidating problem loans
- Risk of no economic recovery
- 8 EUR billion in 2 years

Number of bankruptcies of Dutch businesses



# Conclusion

## From a financial stability perspective

- Banks: Form provisions timely
  - Insurers: Lower interest rate guarantees
- 
- How do banks model interest rate risk?
  - How to take into account behavioral aspects?