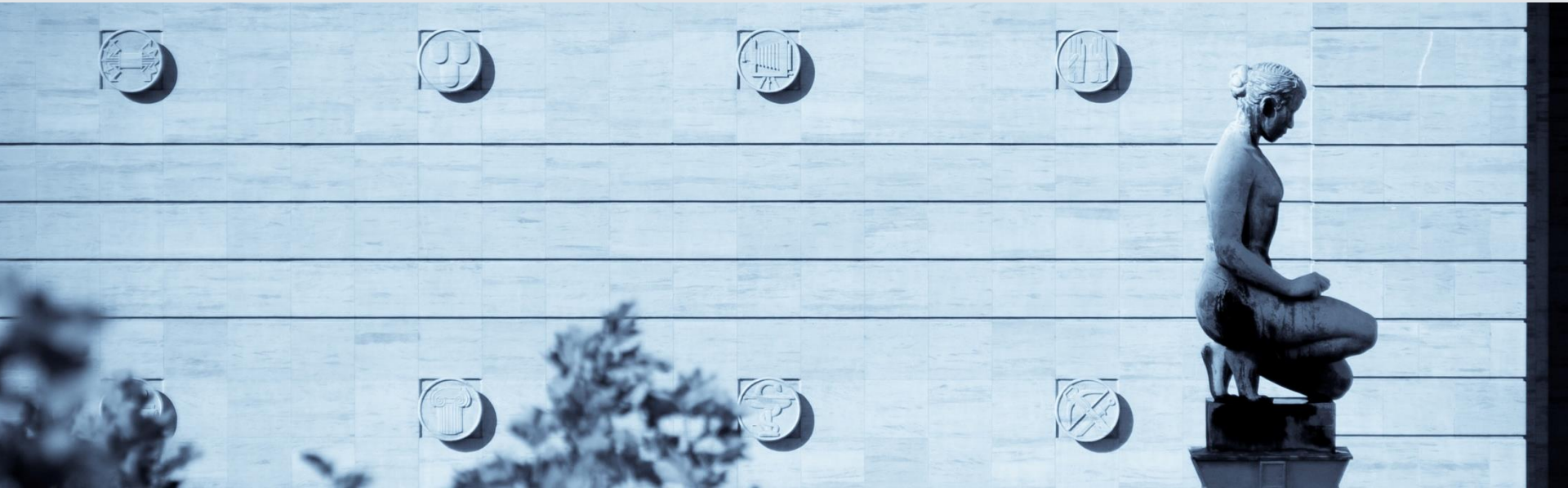# New data needs for monetary policy
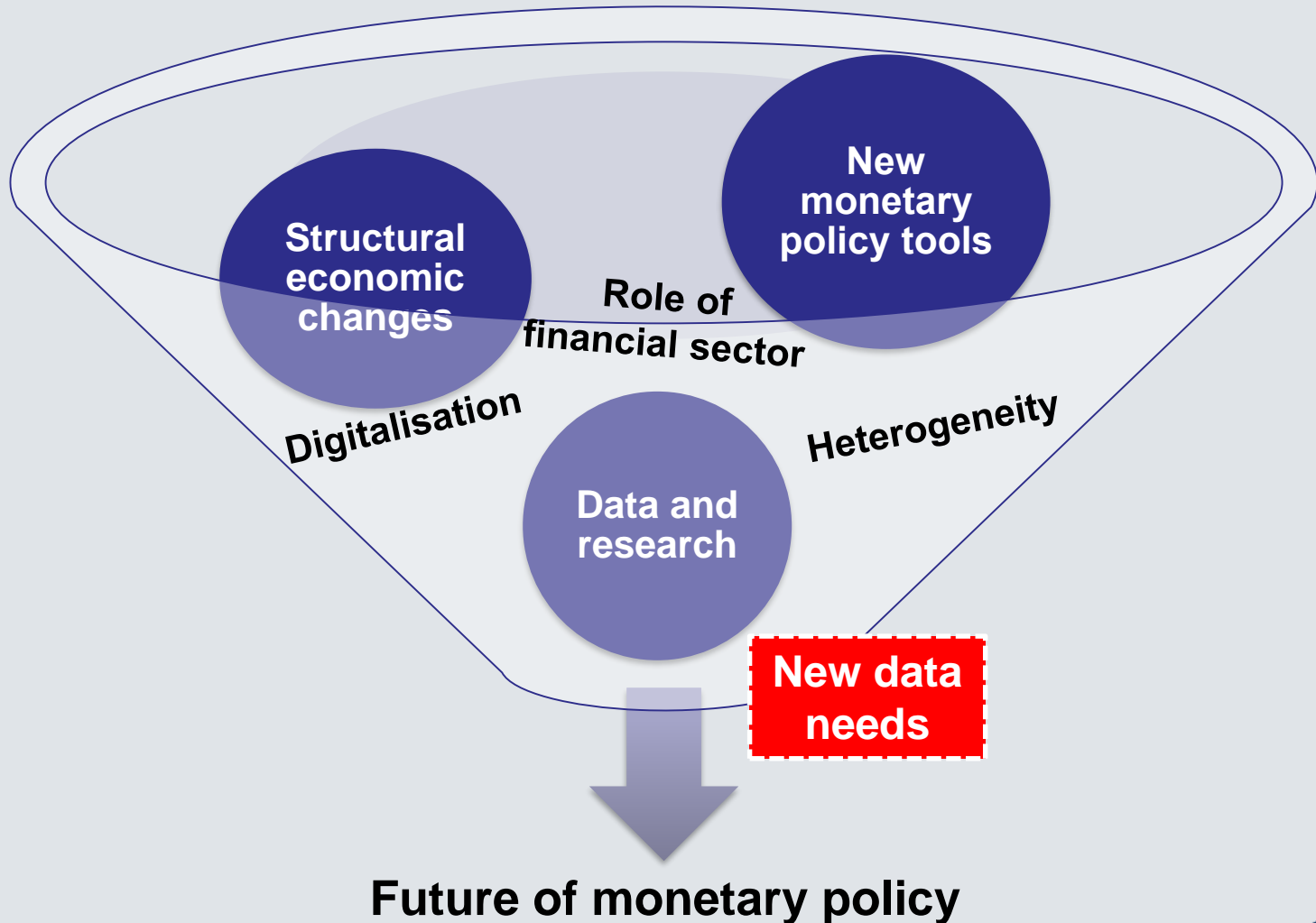
11 July 2018 – Frankfurt

Jan SMETS
Governor of the National Bank of Belgium

Reflections on the future of monetary policy may require new data needs

Taking a step back: data and the New-Keynesian consensus

Environment

- **Representative agents**
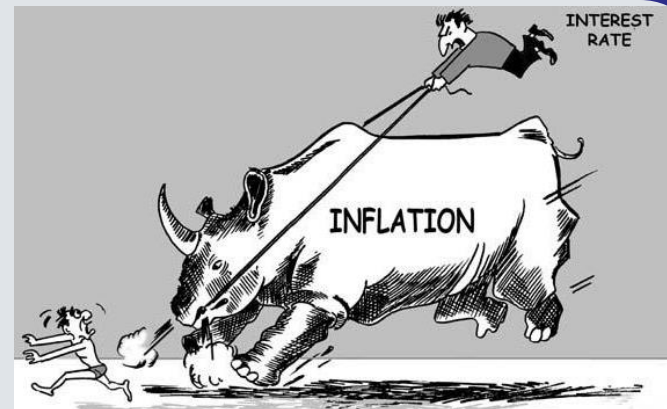- **Labour-intensive production**
- **Limited role for financial factors**

Price dynamics

- **Rational expectations**
- **Sticky prices**

➡️ *Inflation expectations and expected real marginal cost*

Monetary policy

- **Objective:** price stability

- **Channel:** intertemporal substitution

- **Tool:** interest rate

- **Data:** macro-economic aggregates

First challenge: heterogeneous agents

► Focus on some "side effects" of new monetary policy tools…

…reveals that heterogeneity ~ transmission channel for monetary policy

➔ Cross-section vs (New-Keynesian) time-dimension effects

► Micro heterogeneity and distributional aspects in monetary policy research

- Brunnermeier and Sannikov: the distributive role of monetary policy

- Heterogeneous Agent New-Keynesian (HANK) models

► <u>New data needs?</u> Household Finance and Consumption Survey (HFCS) and Anacredit are already good initiatives at EA level

Second challenge: digitalisation

► Two dimensions for the impact of digitalisation

- Issues in measuring macro aggregates

- Possible alteration in price dynamics

➜ Technology makes it harder to understand the transmission process from extra output to inflation

► Welcome advances in the measurement and understanding of consumer prices

- US: Billion Prices Project & Adobe Analytics data

- Euro area: integration of online and scanner prices into HICP indicators in some countries + micro-price research as strategic research priority at Eurosystem level

► Big Data as a new ally?

Third challenge: changing role of the financial sector

► Evidence of the changing nature and role of financial intermediation

- Greater fragmentation during the crisis and unconventional tools

- Larger role for non-banks, also supported by Capital Markets Union going forward

- Developments in private virtual tokens and Fintech revolution

➔ Monetary policy transmission can profoundly change and monitoring the traditional financial indicators can turn out not to be enough.

► Proactive role of the Eurosystem towards good data coverage of new trends in the financial sphere

- Wide effort to exploit bank-level data ➔ TLTRO calibration

- Money Market Statistical Reporting (MMSR) ➔ back-up risk-free benchmark rate

Concrete application and conclusion

▶ Going forward, extensive use of existing micro data and further efforts on exploiting technology-driven data

▶ Big Data poses challenges from a <u>practical</u> point of view

➔ Granularity is multi-dimensionnal (*volume*, *velocity*, *variety*)

- Efficient data analytics tools are needed

- Privacy and confidentiality limitations apply

▶ In some cases, other policies – such as macro-prudential, fiscal or structural policies – could be more appropriate for tackling the challenges that new data reveal.

Thank you for your attention