Climate change: impact on the economy and financial system
Agenda

1) Relevance of climate change to central banks

2) Climate-related risks to the economy and financial system

3) Scenarios for central banks and supervisors
What do central banks do?

- Print bank notes and store gold
- Wholesale payments
- Regulate financial firms
- Assess financial stability risks
- Set interest rates in the economy
Historical context

Atmospheric concentrations of CO₂

Global GDP
A hundredfold increase

Global energy use
A twentyfold increase

British Antarctic Survey (2018)
There are two sources of climate-related risks

Physical risks
Risks arising from climate and weather-related events

Transition risks
Risks arising from the process of the adjustment towards a lower-carbon economy

Global Carbon Project (2018)
Physical impacts on economy are large, non-linear, vary by region

Burke et al. (2015)
Physical impacts also translate into financial risks

Transition risk: comparing listed reserves to carbon budgets

Fossil fuels
Potential listed reserves

Atmosphere
2° budget

Grantham Institute (2013)
Cameron Hepburn, INET (2014)
Wider macroeconomic impacts from transition risk

Mercure (2019)
What makes climate-related risks different?

Far reaching, non-linear and irreversible

Foreseeable, although uncertain

For action today to minimise future risks

Central banks also need scenarios

Network for Greening the Financial System (2019)
Thank you

Questions