

Márton Nagy | Deputy Governor

Barnabás Virág | Executive Director



Columbia University | 6 June 2019

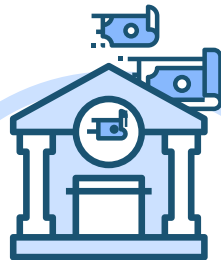
THE FUTURE OF CENTRAL BANKING

THE ROLE OF BALANCE SHEETS IN THE NEW NORMAL

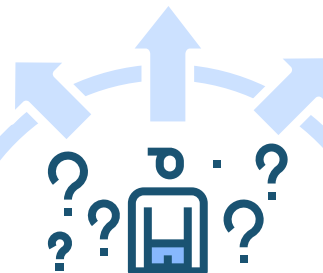


THE FUTURE OF CENTRAL BANKING

THE ROLE OF BALANCE SHEETS IN THE NEW NORMAL



BRIEF HISTORY
OF CENTRAL
BANKING



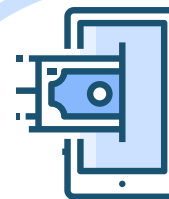
WHAT HAS
CHANGED AFTER
THE CRISIS?



THE
HUNGARIAN WAY:
A UNIQUE
SOLUTION

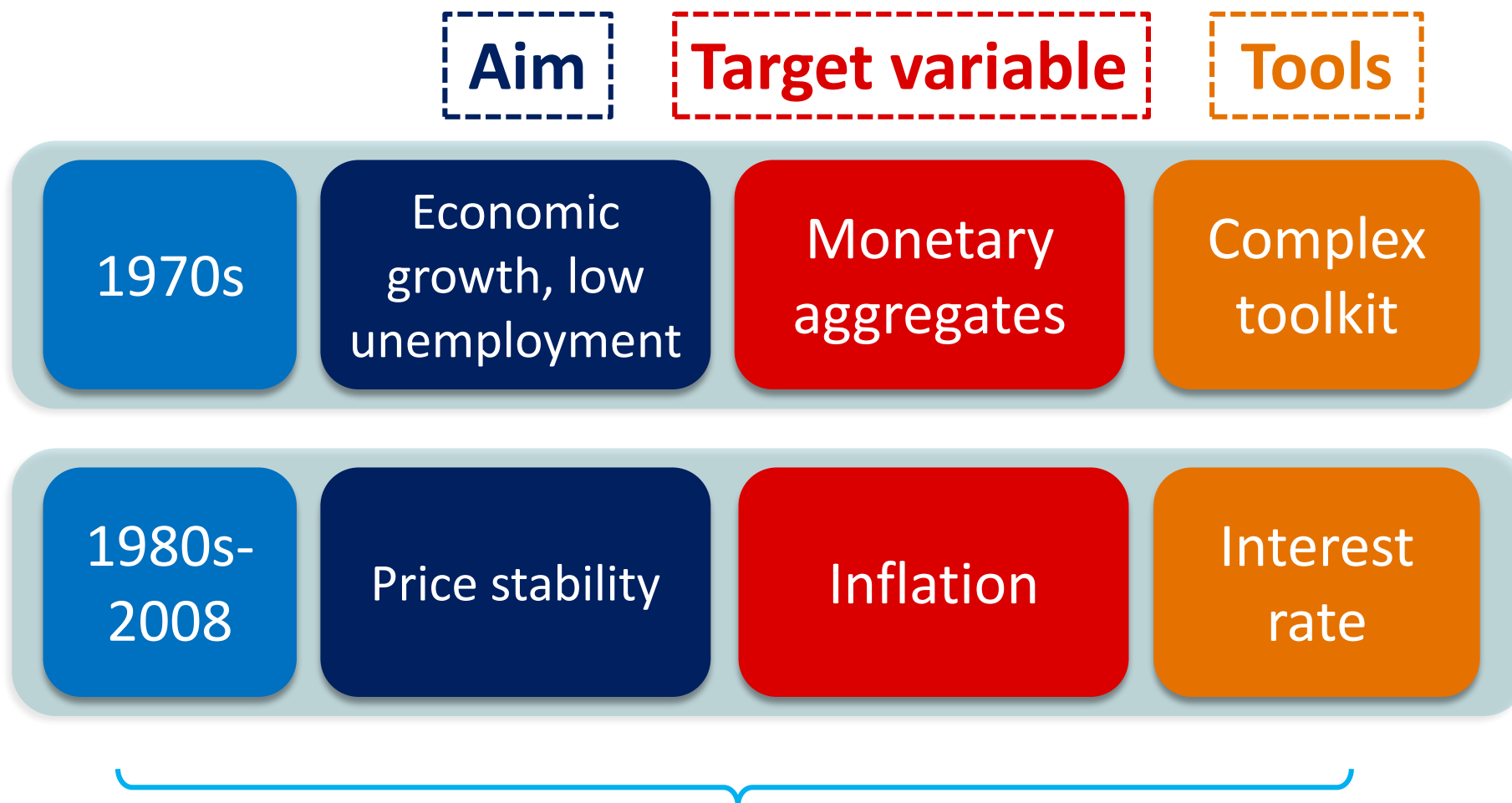


MAIN
MEGATRENDS
SHAPING THE
FUTURE



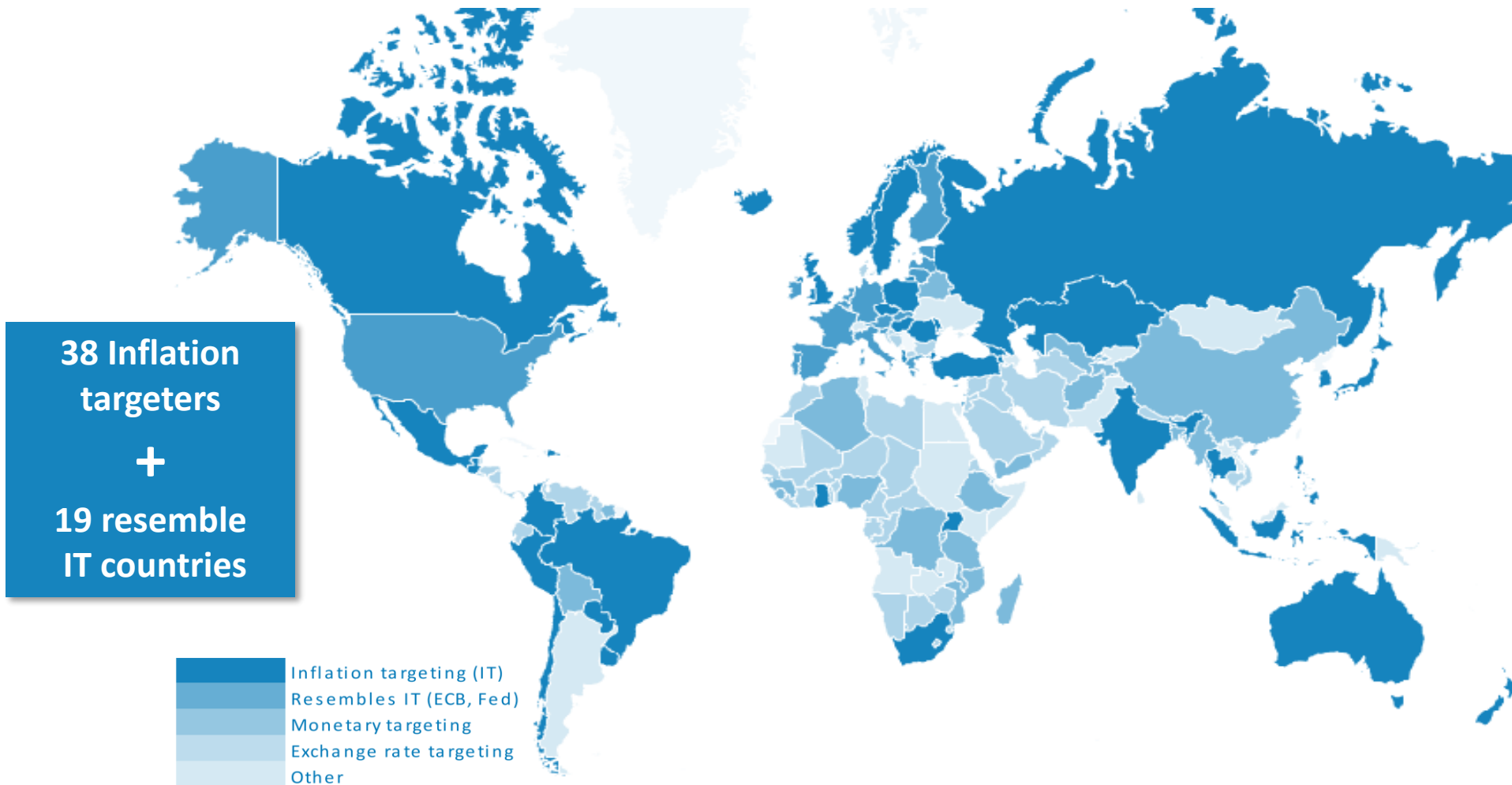
THE FUTURE
OF MONEY

BRIEF HISTORY OF CENTRAL BANKING

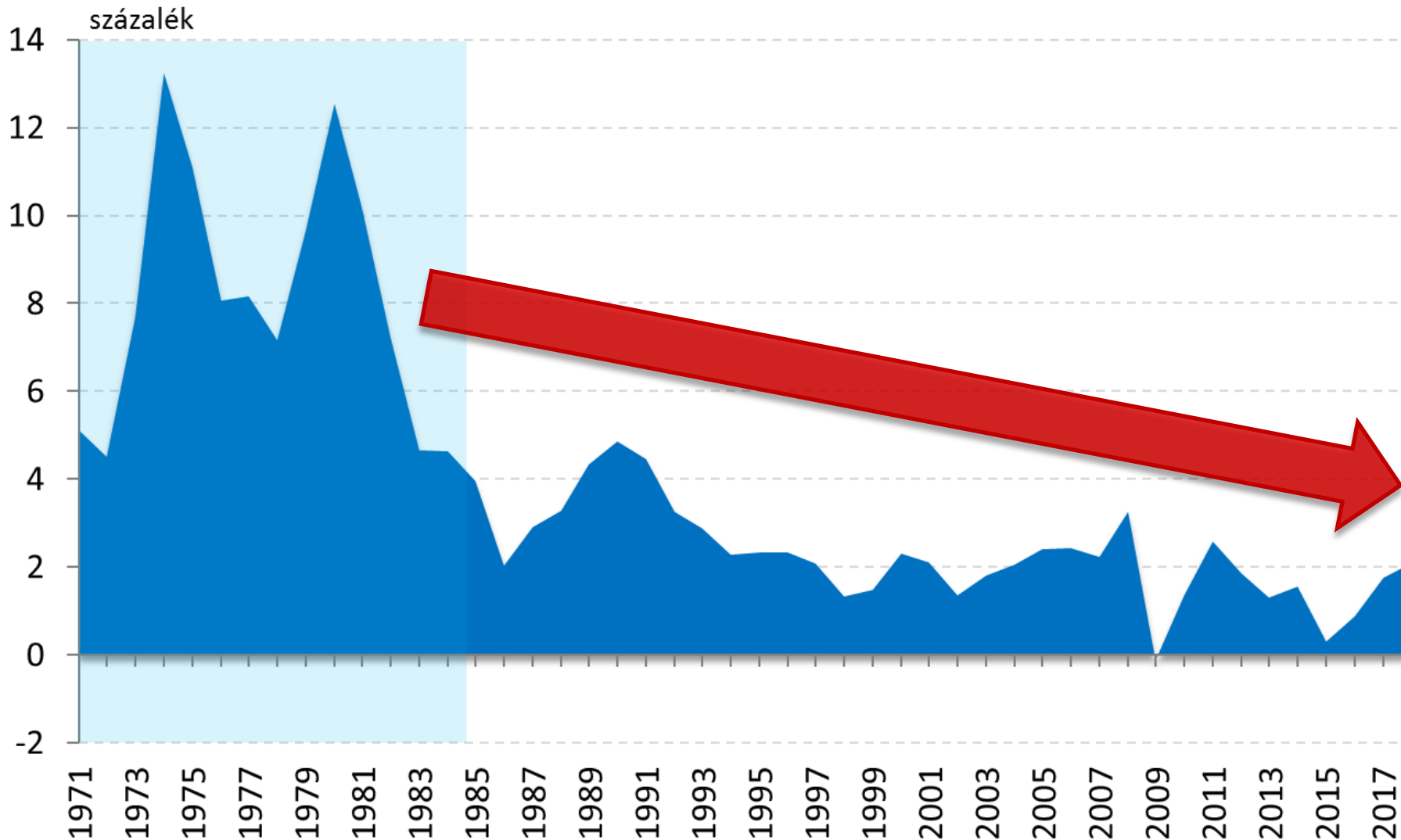


Inflation targeting has spread across the world from the '90s

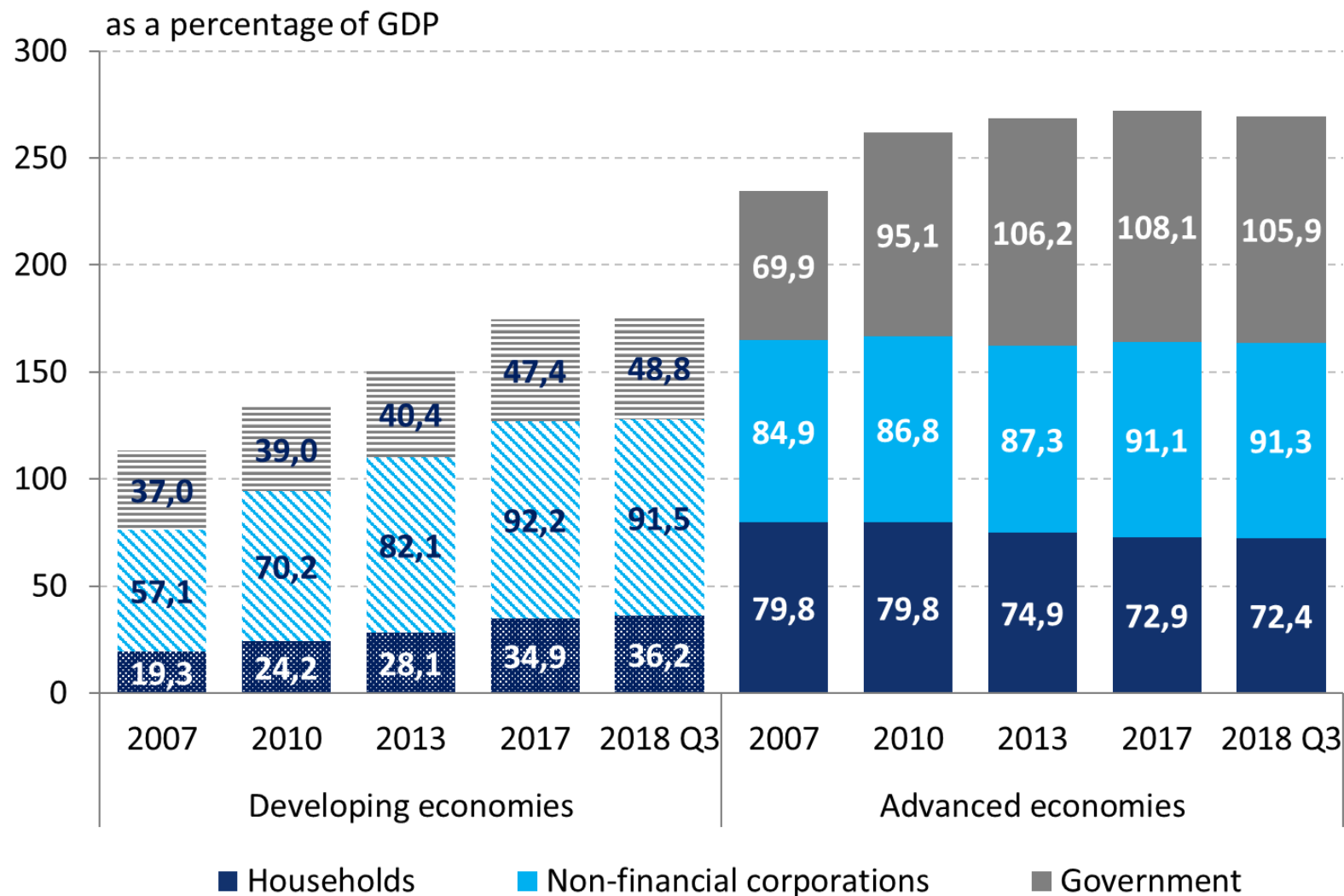
COUNTRIES PURSUING INFLATION-TARGETING POLICIES ACCOUNT FOR 70 PER CENT OF THE GLOBAL ECONOMY



IN THE PAST DECADES CENTRAL BANKS WERE SUCCESSFUL AT BRINGING INFLATION DOWN, BUT...



...IN THE MEANTIME SIGNIFICANT AMOUNT OF DEBT ACCUMULATED AND FINANCIAL IMBALANCES EMERGED

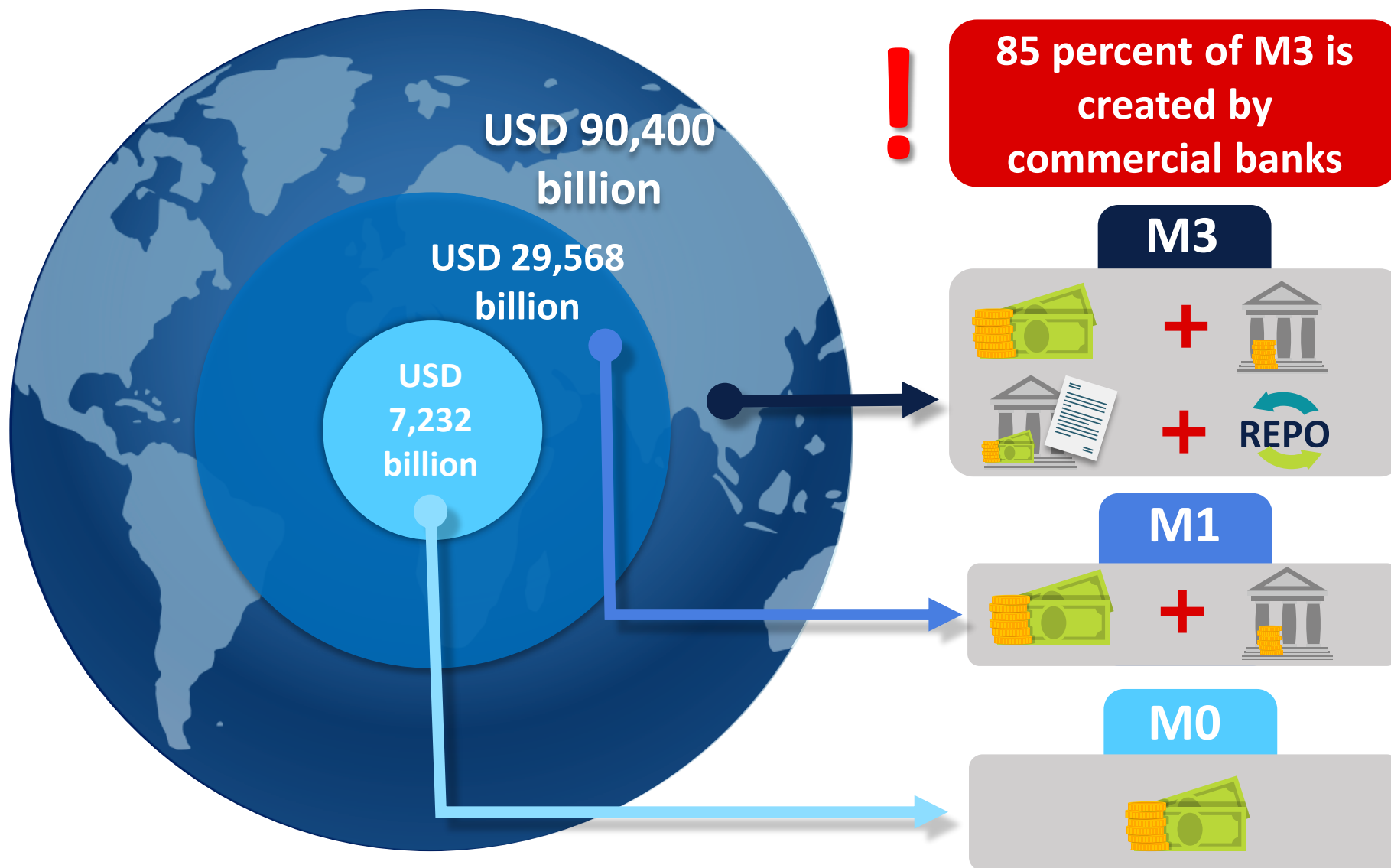


Who creates money?



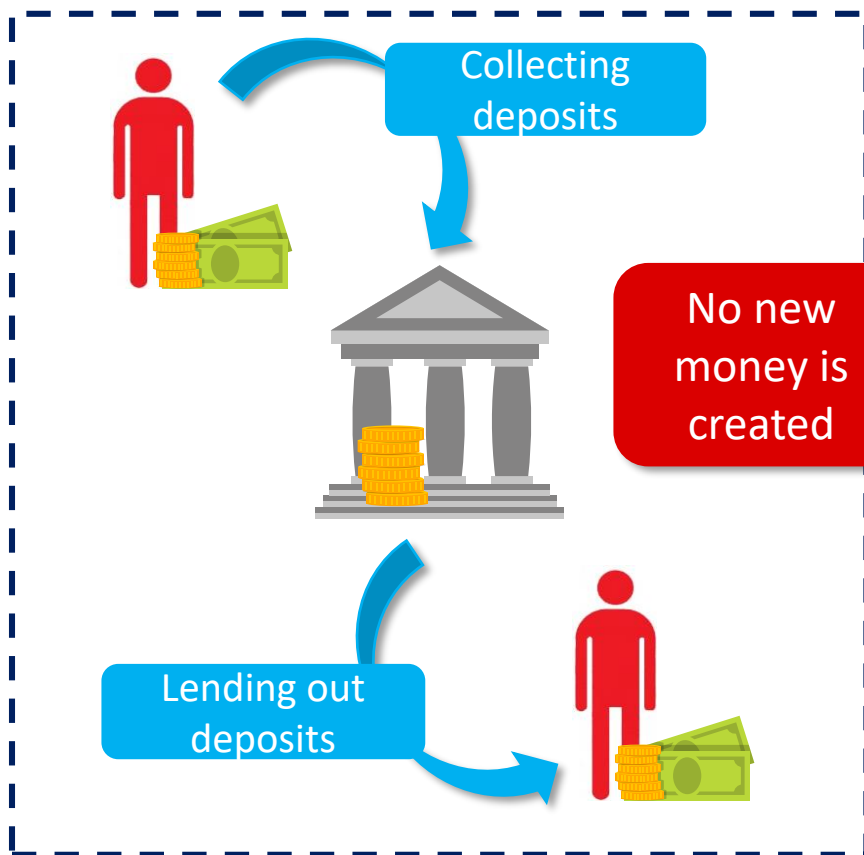
Central banks and/or commercial banks?

NOWADAYS AROUND 90 PERCENT OF MONEY IS ALREADY IN DIGITAL FORM GLOBALLY

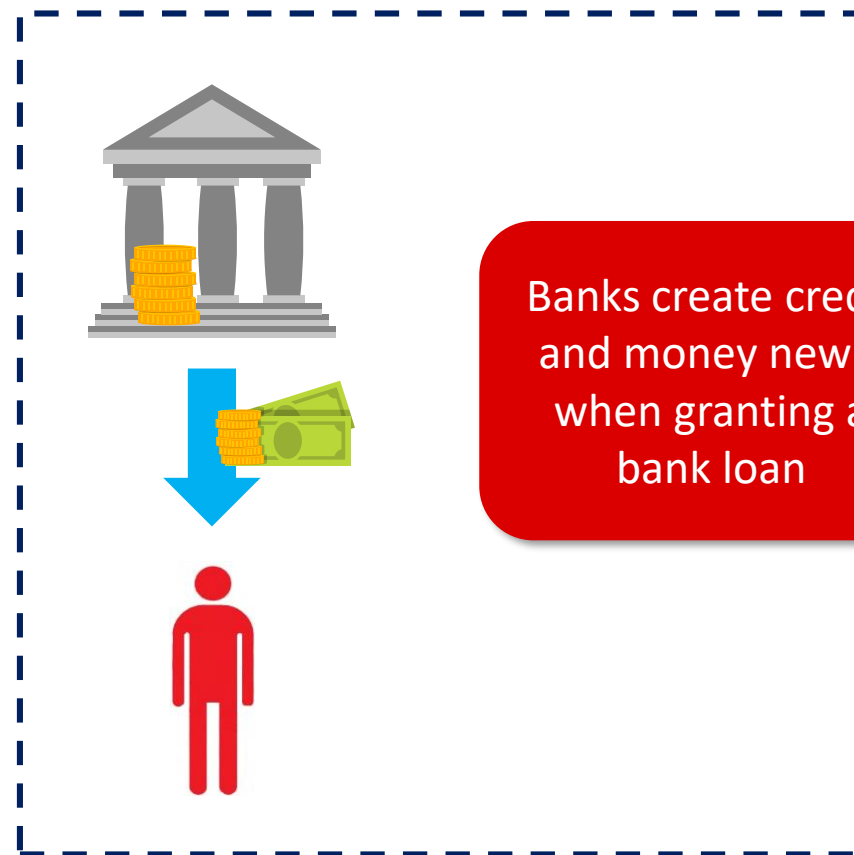


THERE ARE TWO DIFFERENT VIEWS:

Financial intermediation theory of banking

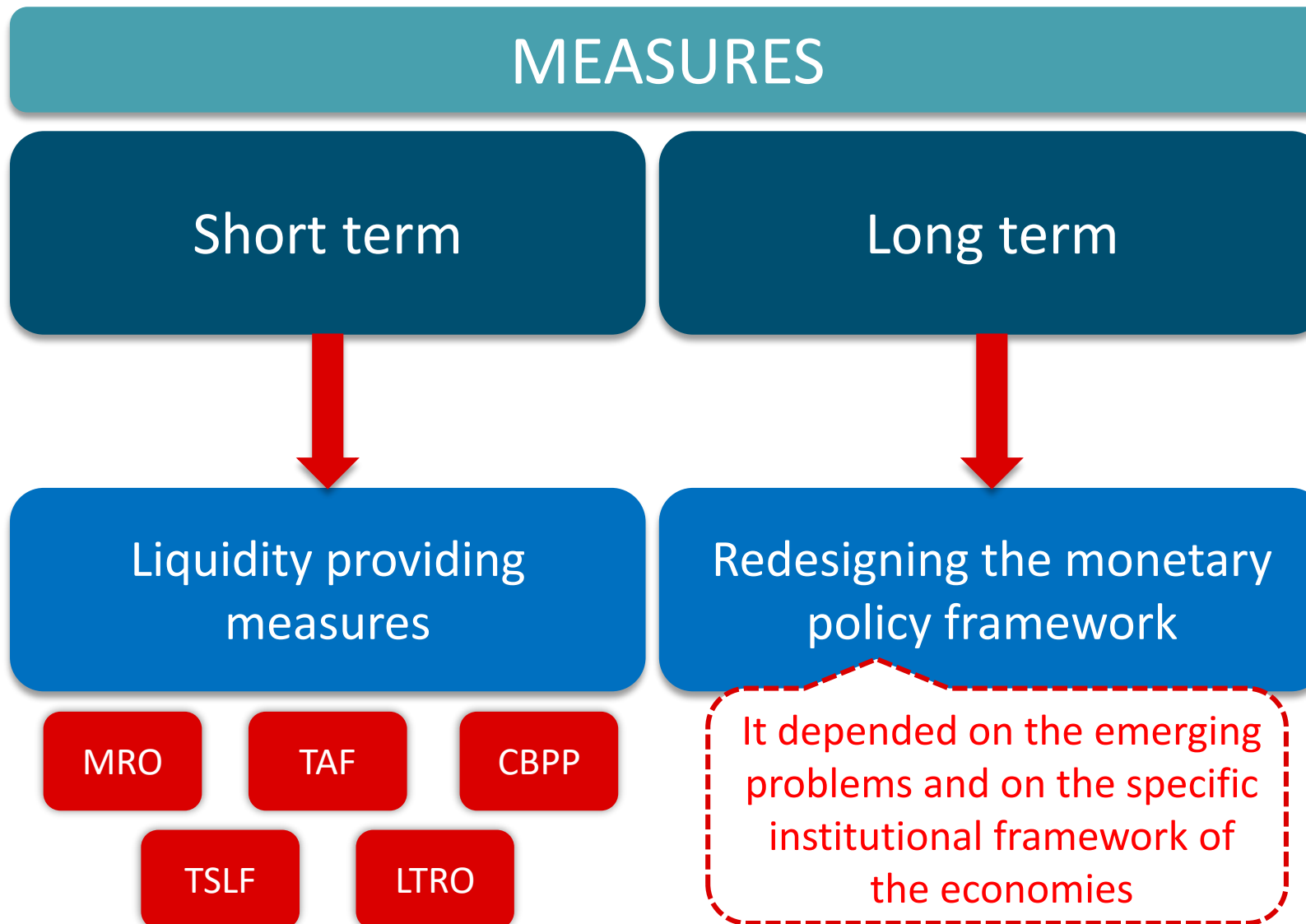


Endogenous credit creation by commercial banks

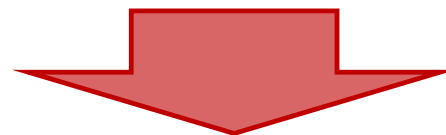


AT THE OUTBREAK OF THE CRISIS TOO BIG TO FAIL ISSUES HAVE AROSE:
BAILOUT OR BANKRUPTCY?





Designing a more flexible framework

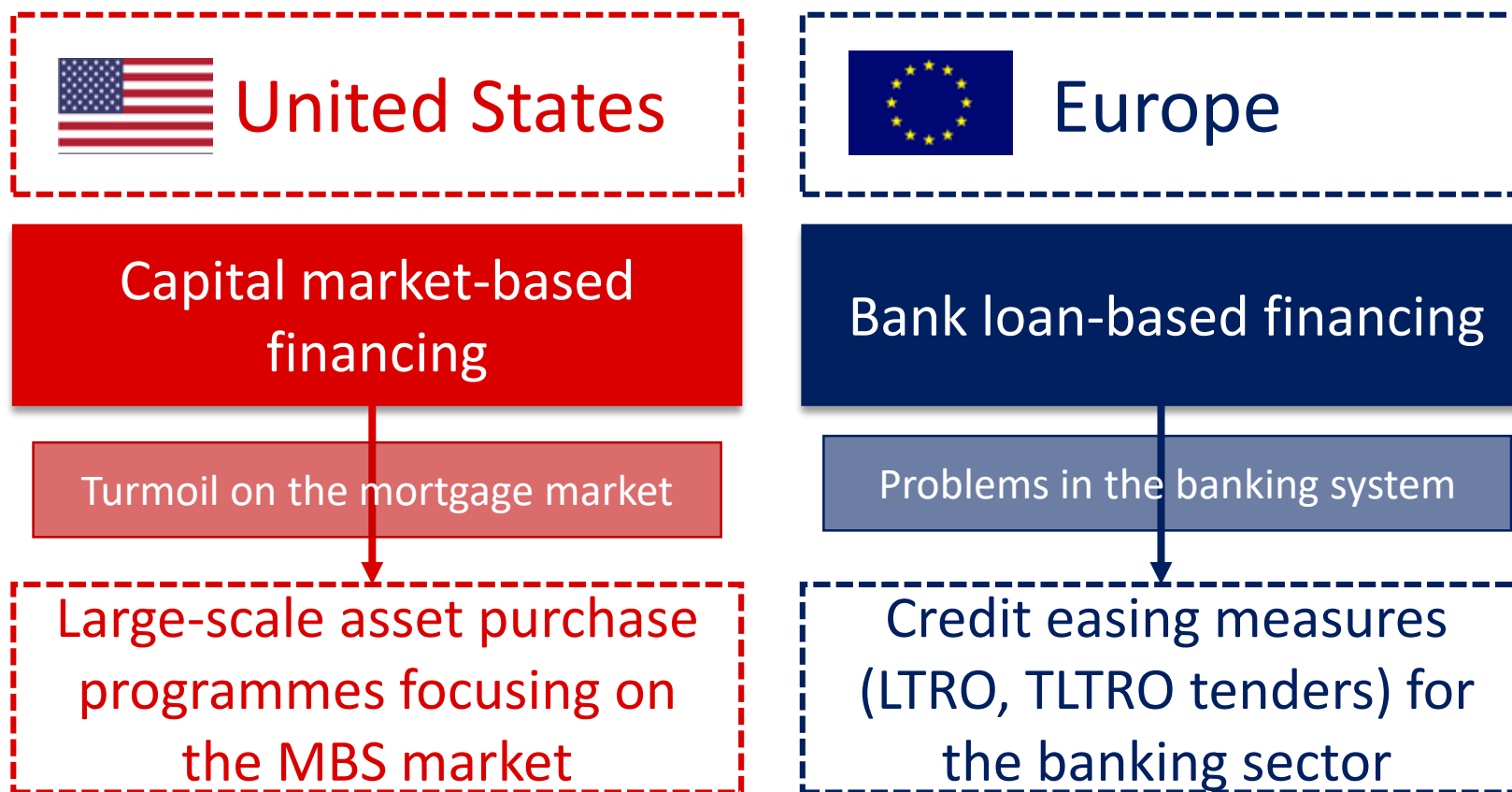


Balance sheet policies (quantitative easing, qualitative easing, targeted asset purchases)

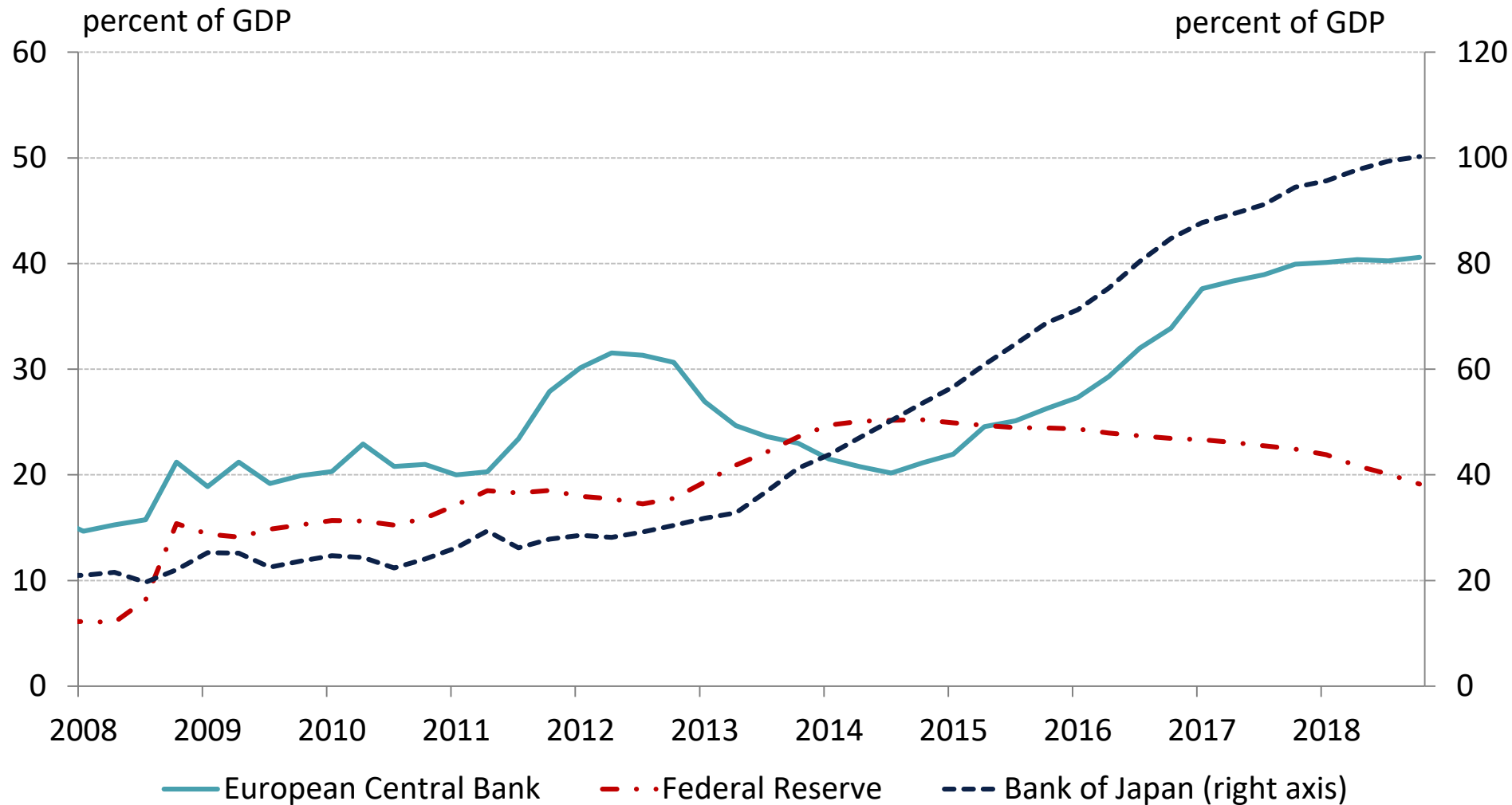


Forward guidance (in order to shape longer-term expectations)

The way of financing differs considerably among advanced economies:



AS A RESULT OF UNCONVENTIONAL POLICIES THE SIZE OF CENTRAL BANK BALANCE SHEETS HAS MULTIPLIED



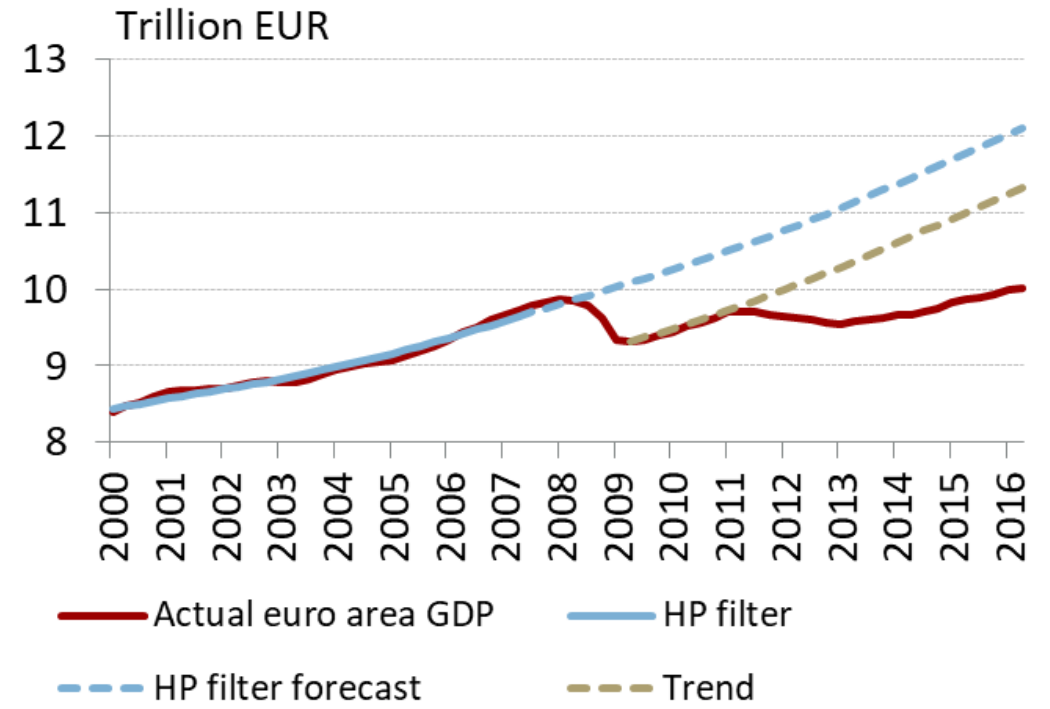
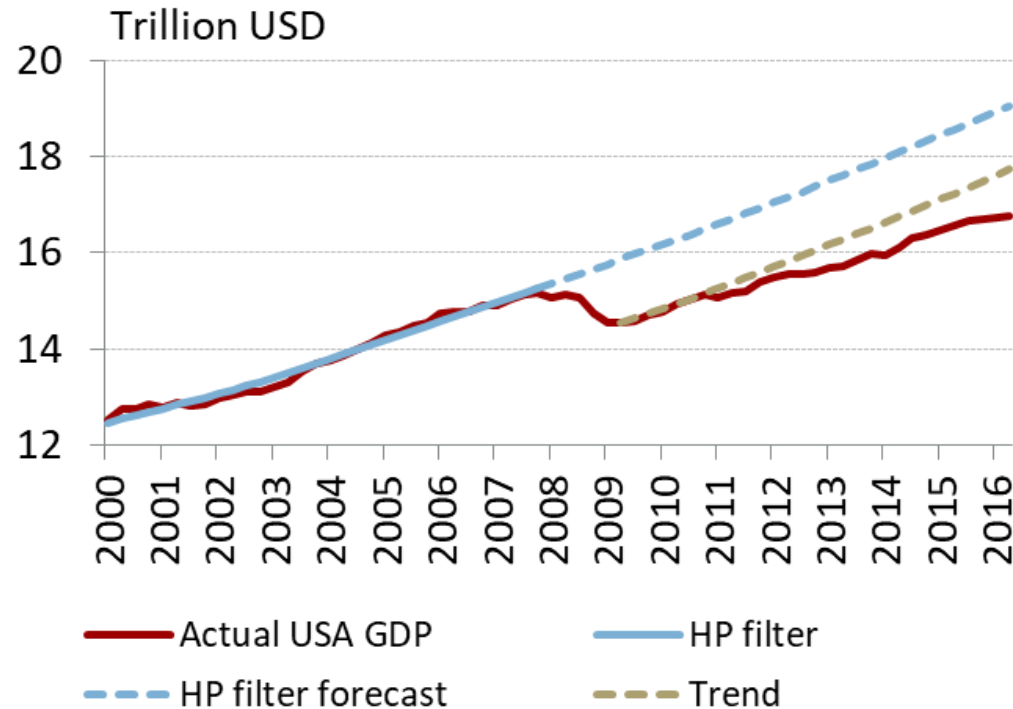
ALTHOUGH BALANCE SHEETS HAVE INCREASED SIGNIFICANTLY, RECOVERY WAS SLOW AFTER THE CRISIS



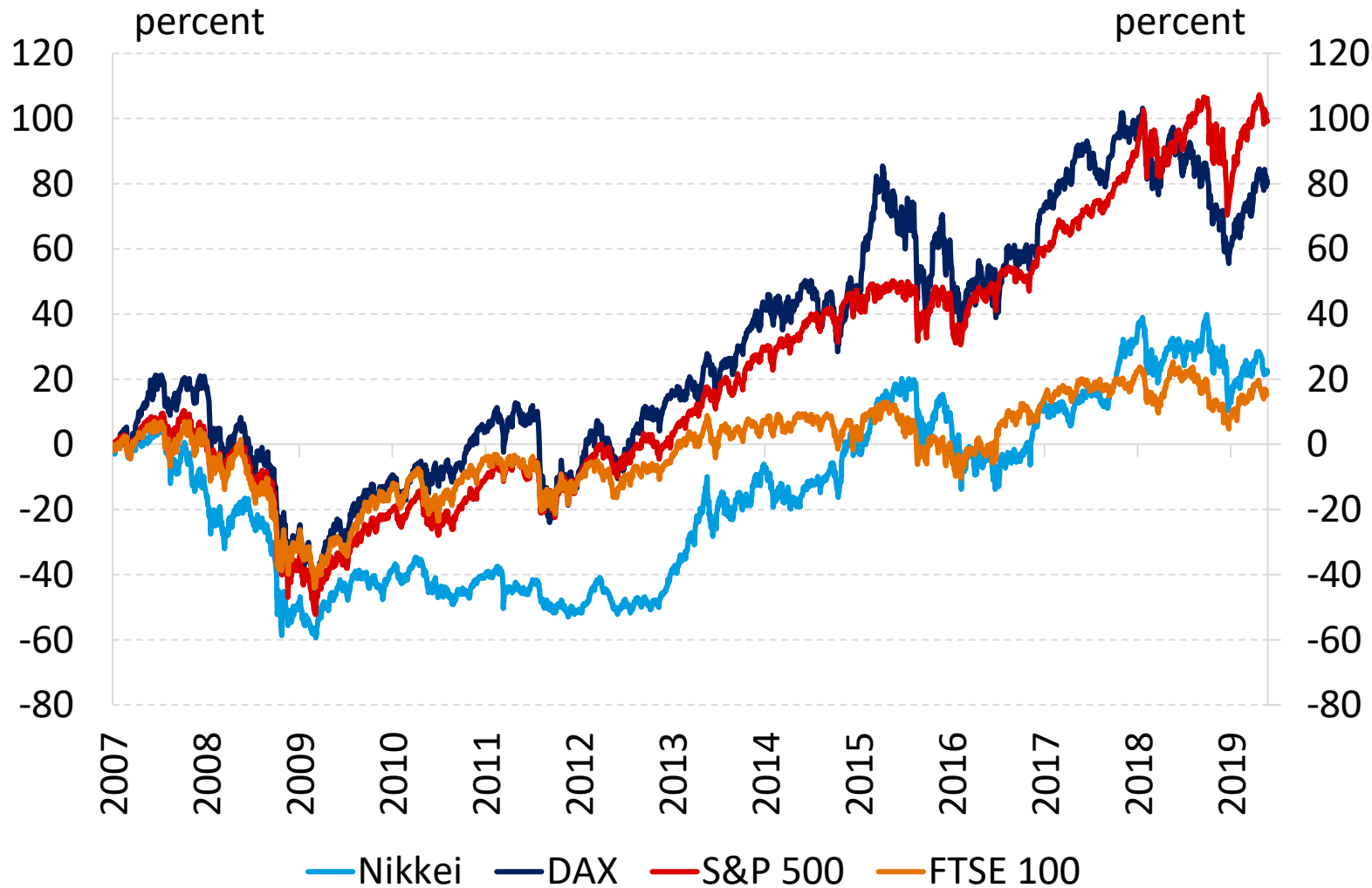
USA



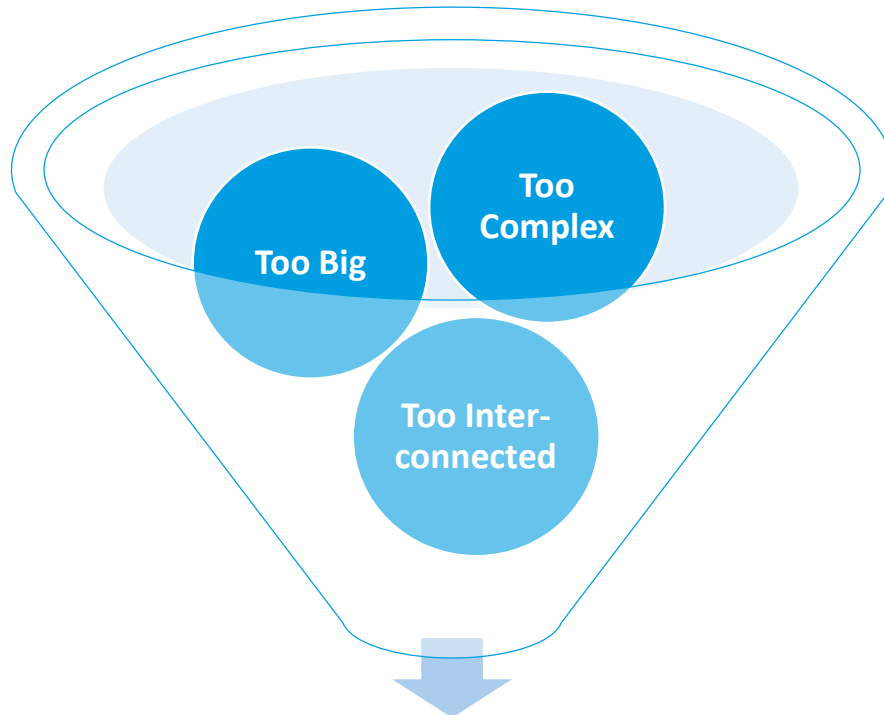
Euro Area



HOWEVER, THE PRICE INCREASE OF SOME FINANCIAL ASSETS WAS REMARKABLE



ADDRESSING „TOO BIG TO FAIL” ISSUES



Measures on the CBs' agenda:

- More intensive risk assessment covering institutional complexity and market structures
- Identifying SIFIs and applying extra capital buffers
- Effective resolution regime

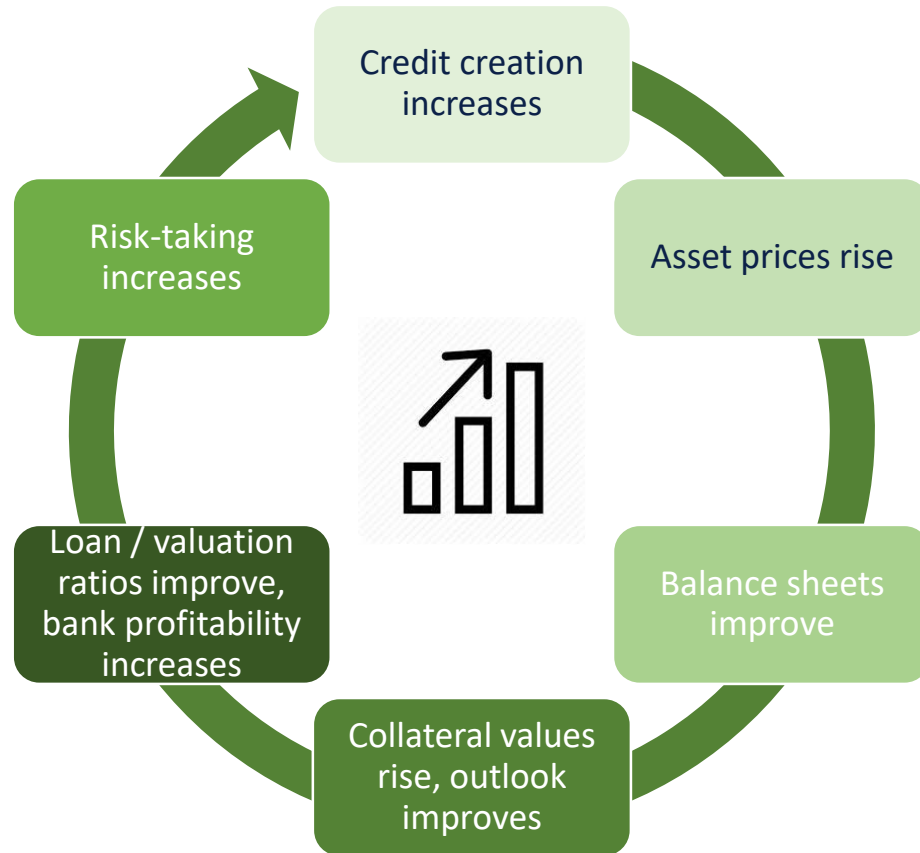
Implicit government guarantee may lead to increasing risk taking with no adequate market discipline (*moral hazard*)

→ Increased expected loss of a failure



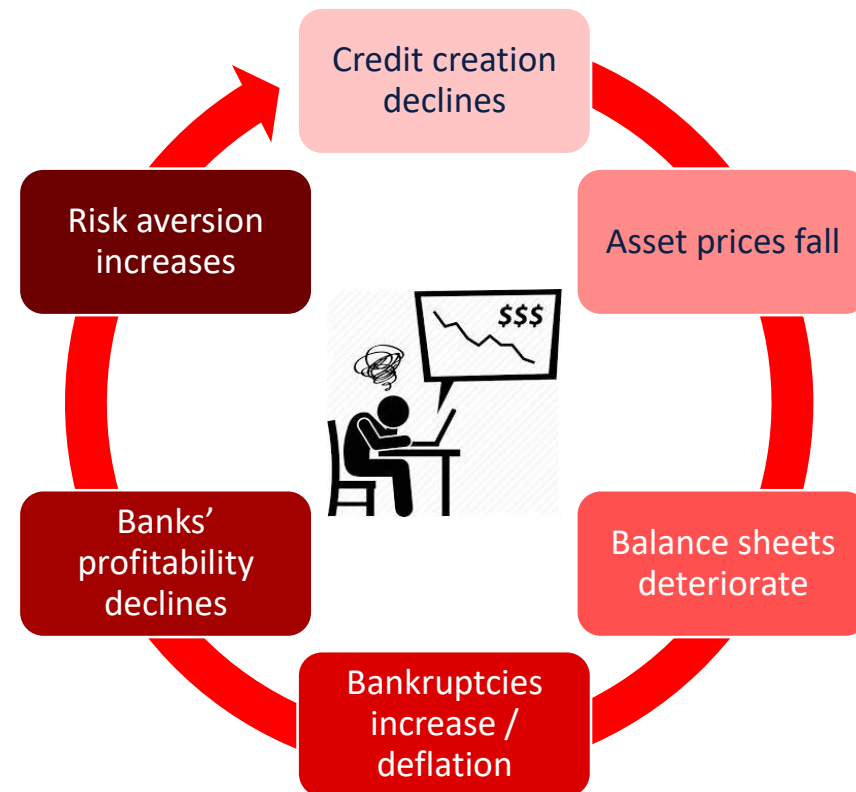
But bailouts in order to stop cascading effects arising in a crisis are expensive

BOOM AND BUST – SHOULD MONETARY POLICY REACT? IF YES, WHEN AND WHERE?

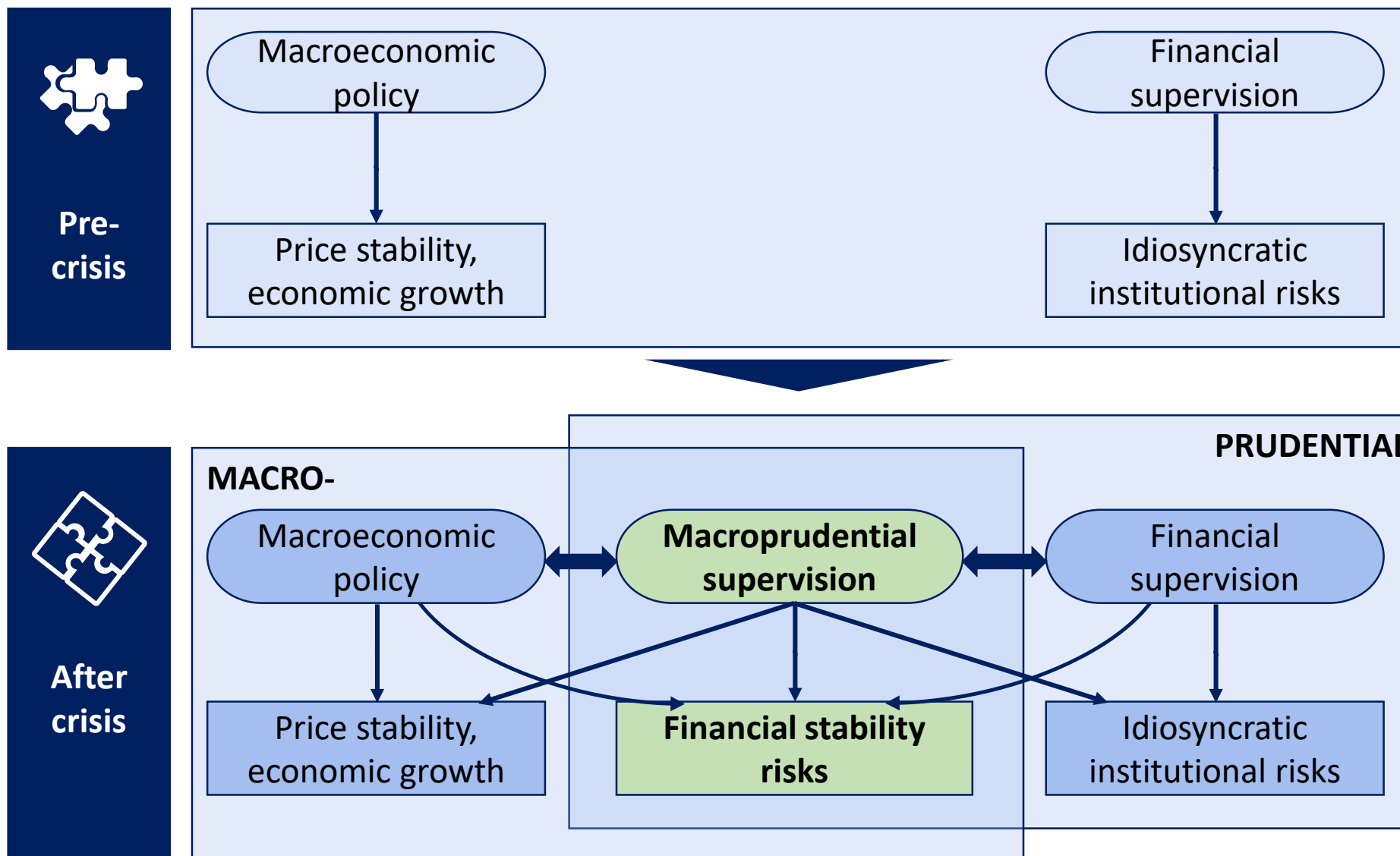


*#manias #peer_pressure #groupthink
#risk-based competition #moral hazard,
#regulatory arbitrage #this time is different
#irrational exuberance*

*#panic #crashes #fire sale
#liquidity shortage #deleveraging
#lender of last resort #NPL
#cherry picking #creditcrunch*

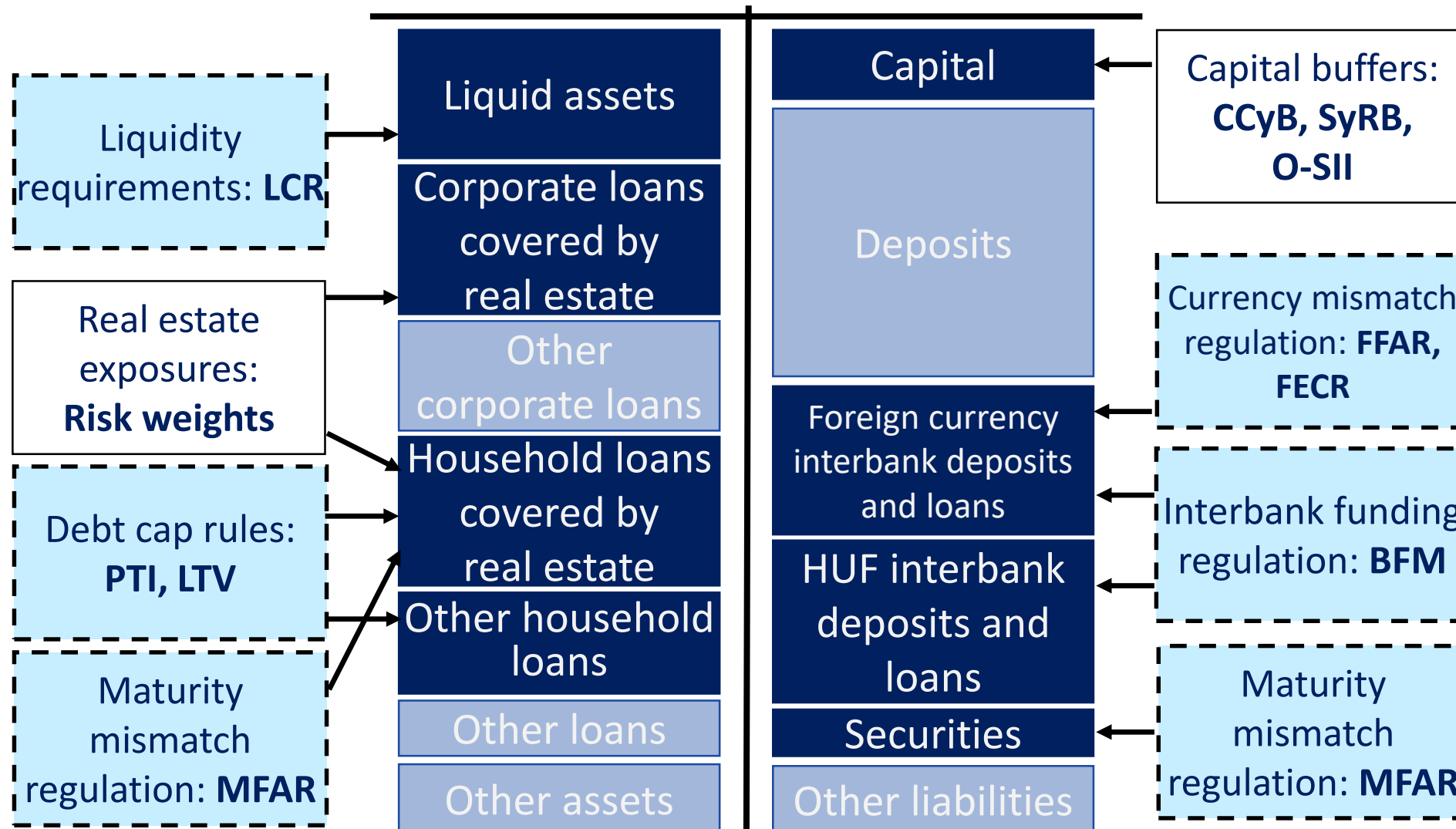


AFTER THE CRISIS, A MACRO-FOCUSED APPROACH TO FINANCIAL STABILITY RISKS HAS GAINED ATTENTION





Banking system balance sheet





Financial sector has grown too big

Not sustainable

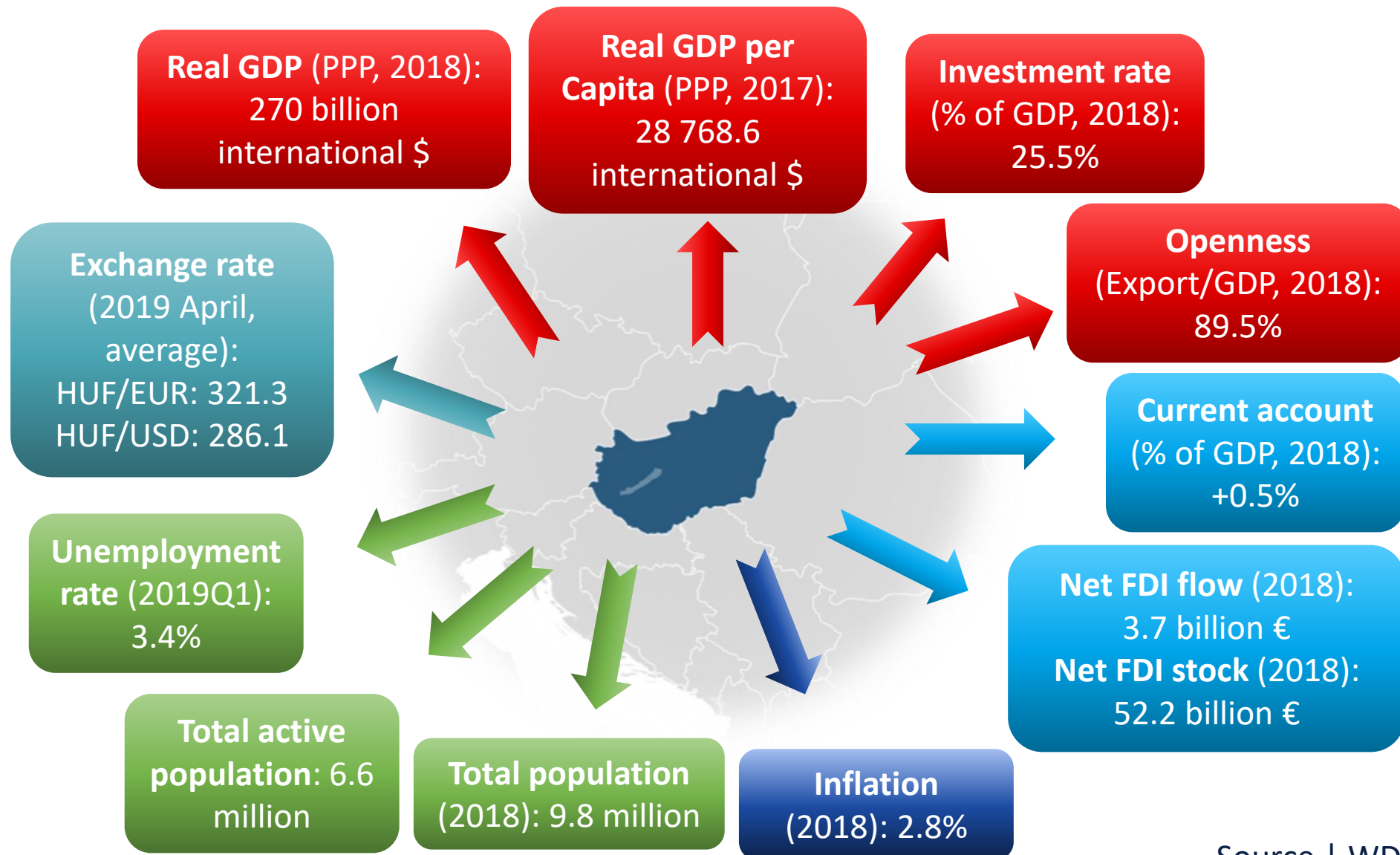


Uncontrolled money creation of the banking sector created asset bubbles instead of financing productive investments

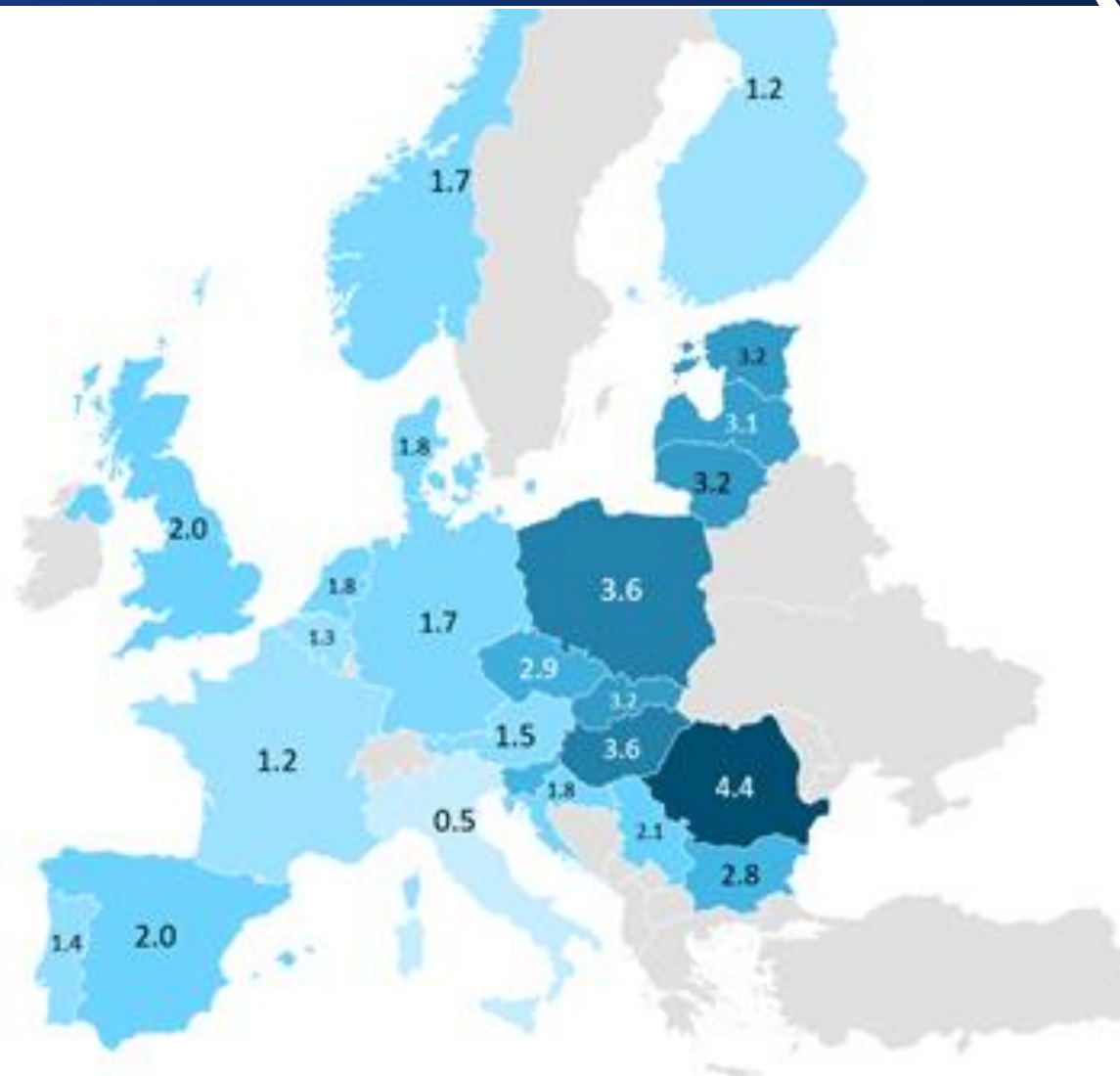
A SMALL OPEN ECONOMY IN THE HEART OF EUROPE



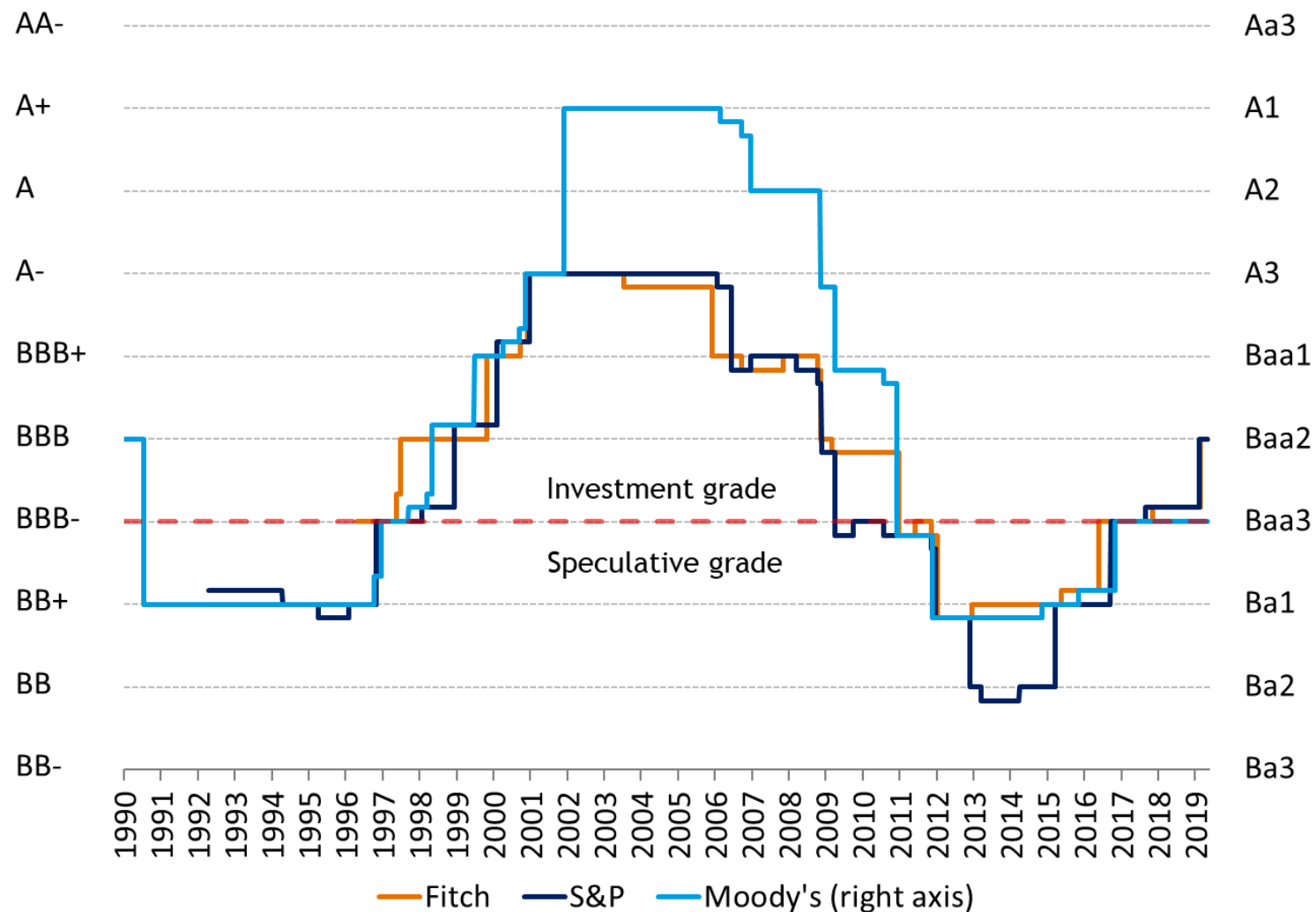
A SMALL OPEN ECONOMY IN THE HEART OF EUROPE



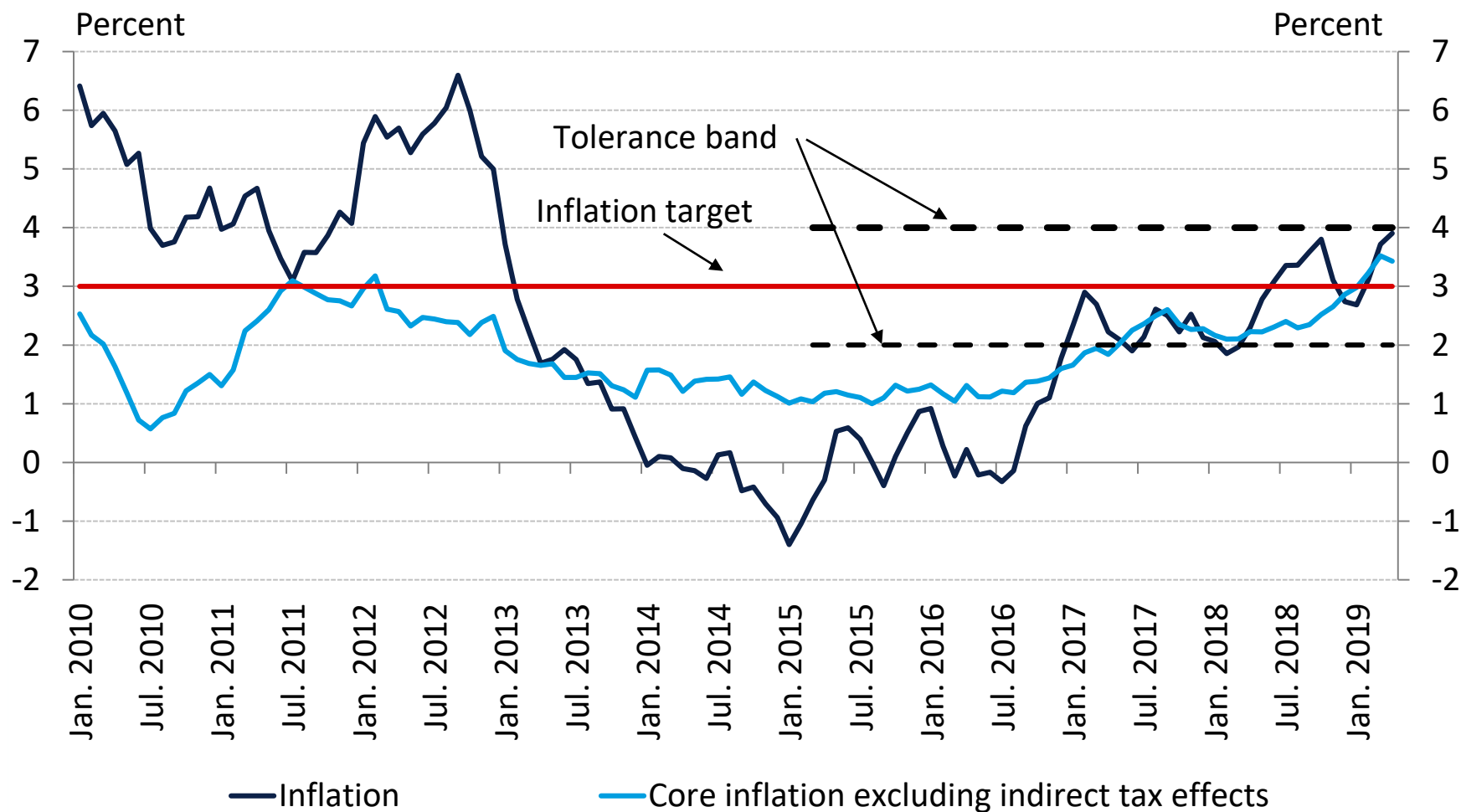
GROWTH MAP
OF THE MEMBER STATES OF
THE EUROPEAN UNION
(2013-2019)



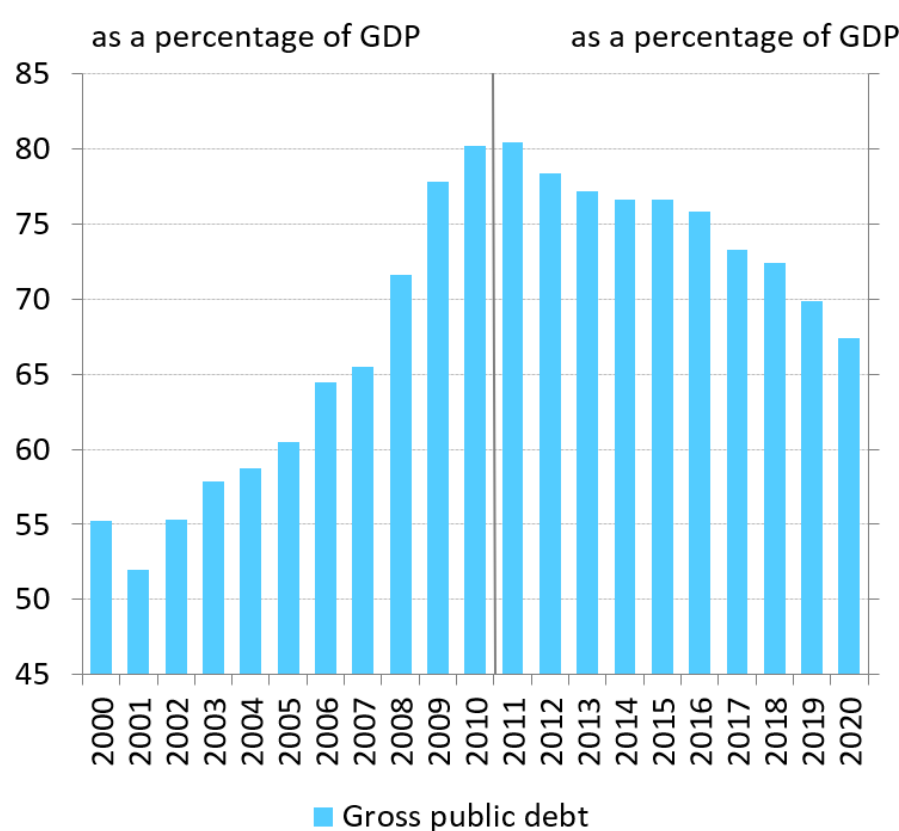
FAVOURABLE ECONOMIC DEVELOPMENTS WERE REFLECTED BY IMPROVING DEBT RATINGS BACK INTO INVESTMENT GRADE



MNB HAS MET ITS INFLATION TARGET, FOCUS SHIFTED TO ITS MAINTAINANCE

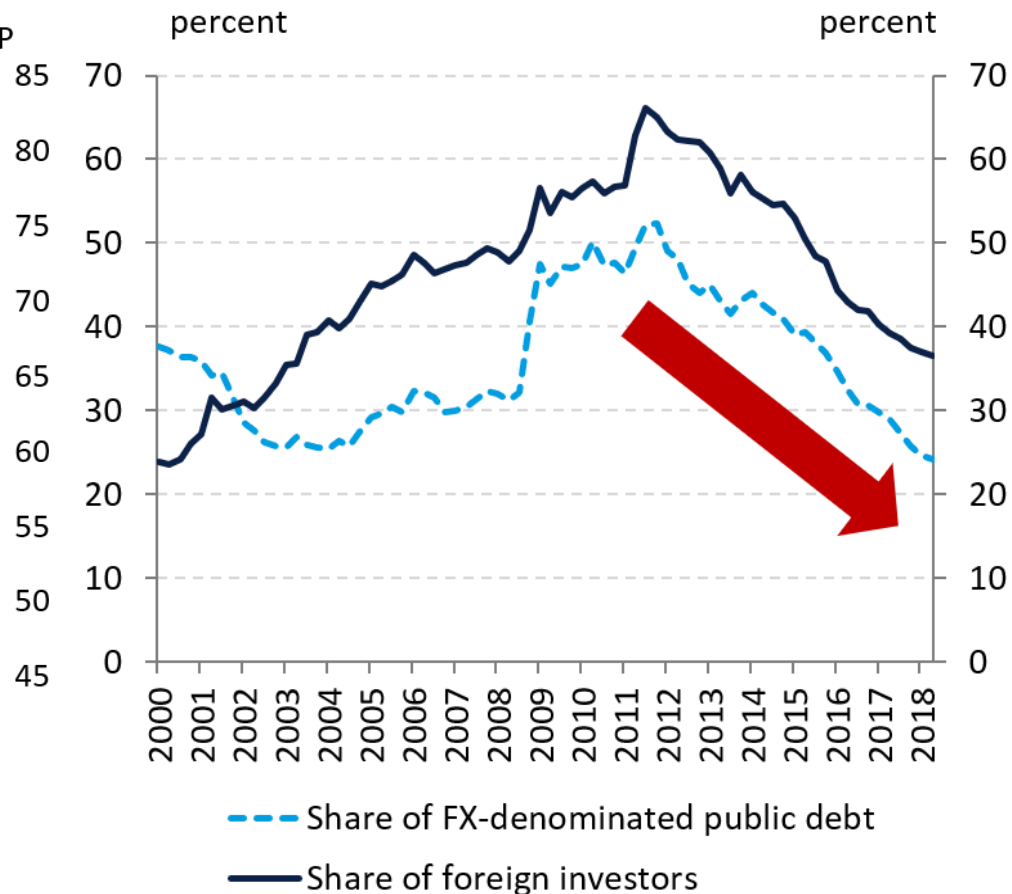


THE FX RATIO OF PUBLIC DEBT DECREASED SIGNIFICANTLY AS A RESULT OF THE SELF-FINANCING PROGRAMME



GROSS PUBLIC DEBT

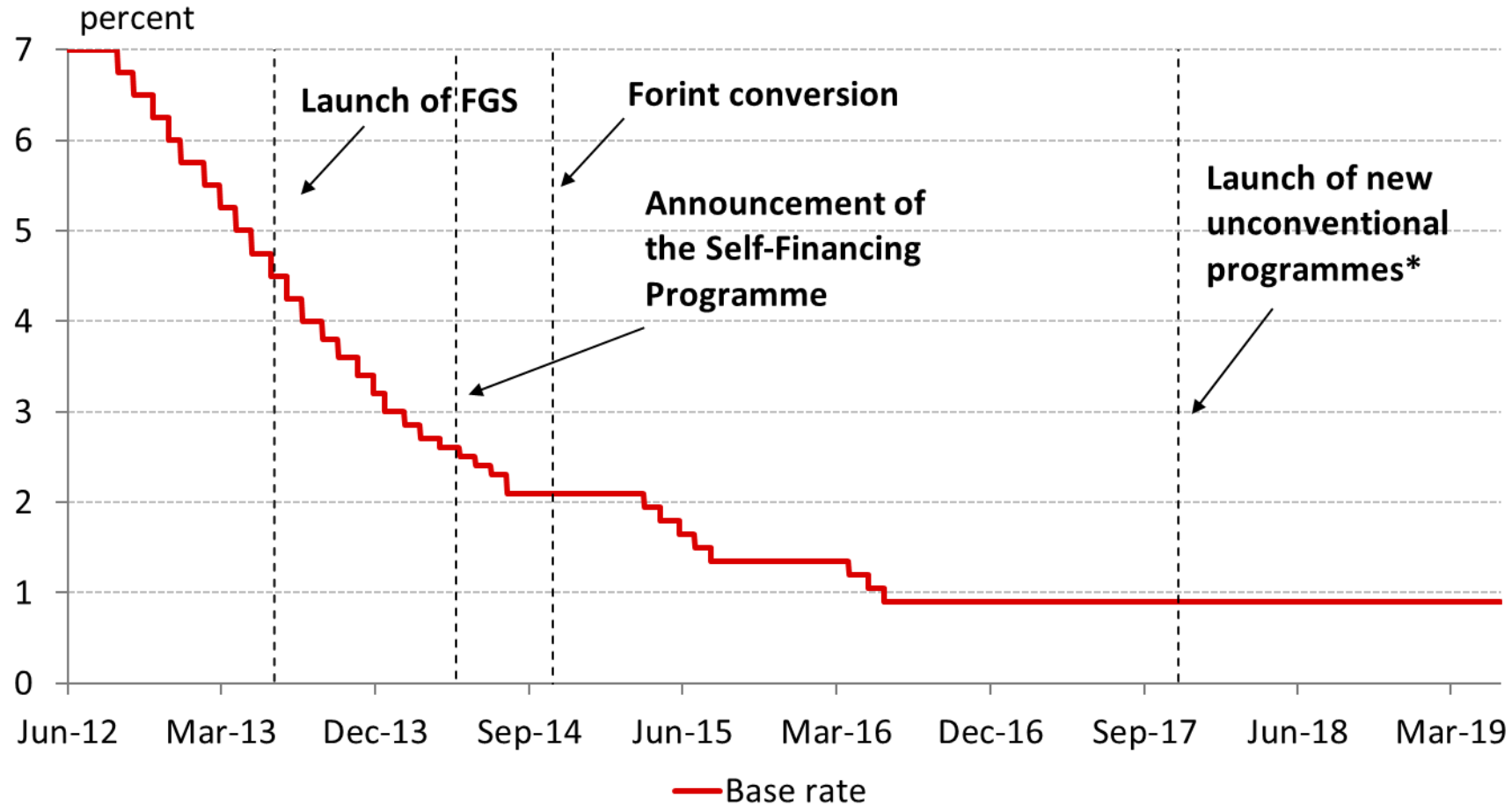
2000-2020, from 2018: MNB forecast



SHARE OF FX-DENOMINATED PUBLIC DEBT AND FOREIGN INVESTORS

2000-2018

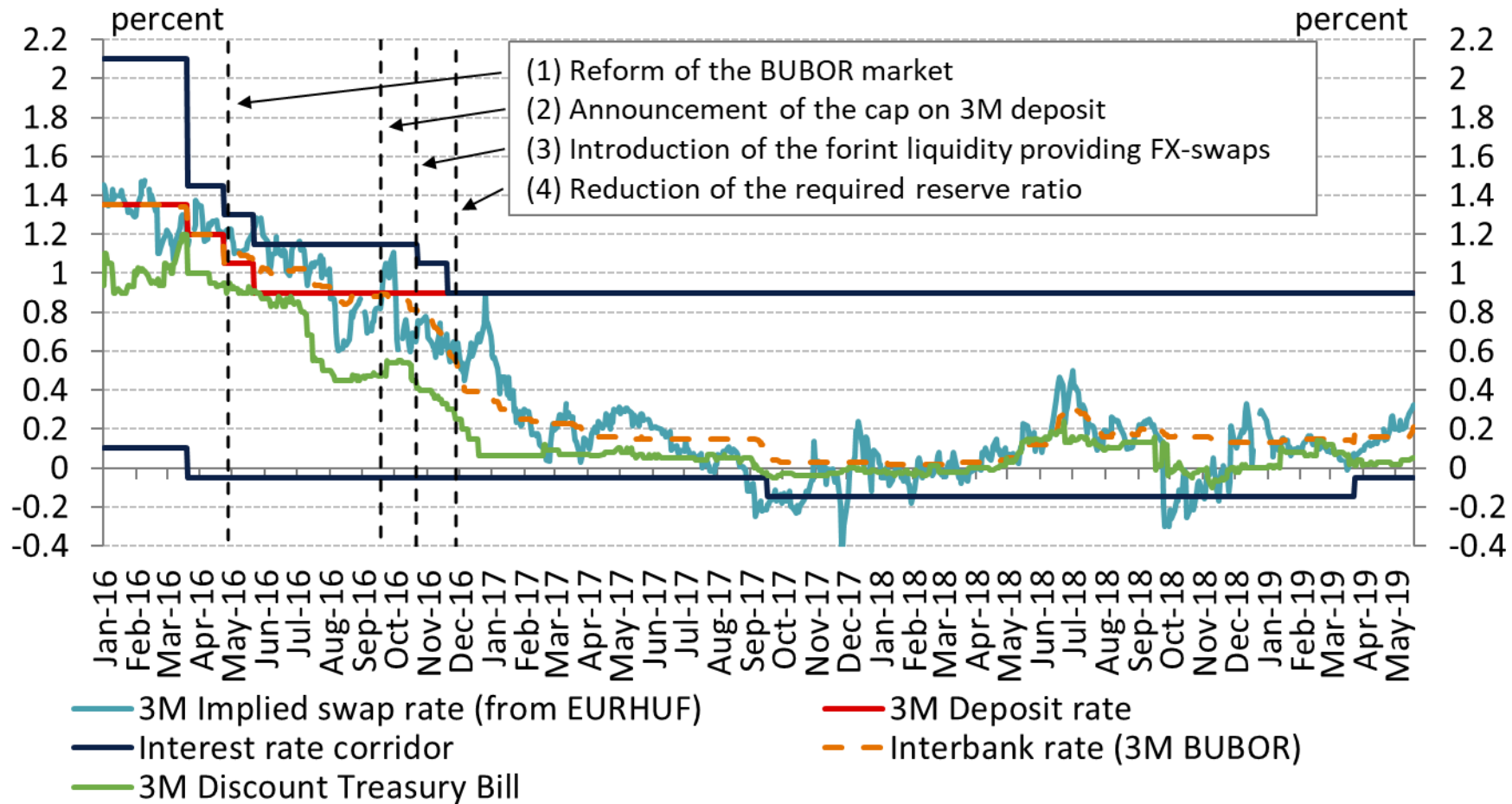
MNB USED CONVENTIONAL AND UNCONVENTIONAL TOOLS AT THE SAME TIME



HUNGARIAN BASE RATE AND TIMING OF UNCONVENTIONAL INSTRUMENTS

Note: *Monetary policy interest rate swap (IRS) facility and the Mortgage Bond Purchase Programme

MNB'S MEASURES PUSHED DOWN SHORT-TERM INTEREST RATES WITHIN THE INTEREST RATE CORRIDOR



DEVELOPMENTS IN SHORT-TERM MONEY MARKET YIELDS
WITHIN THE INTEREST RATE CORRIDOR

UNLIKE ADVANCED COUNTRIES' CENTRAL BANKS, THE MNB REACTED TO THE CHALLENGES IN A TARGETED WAY

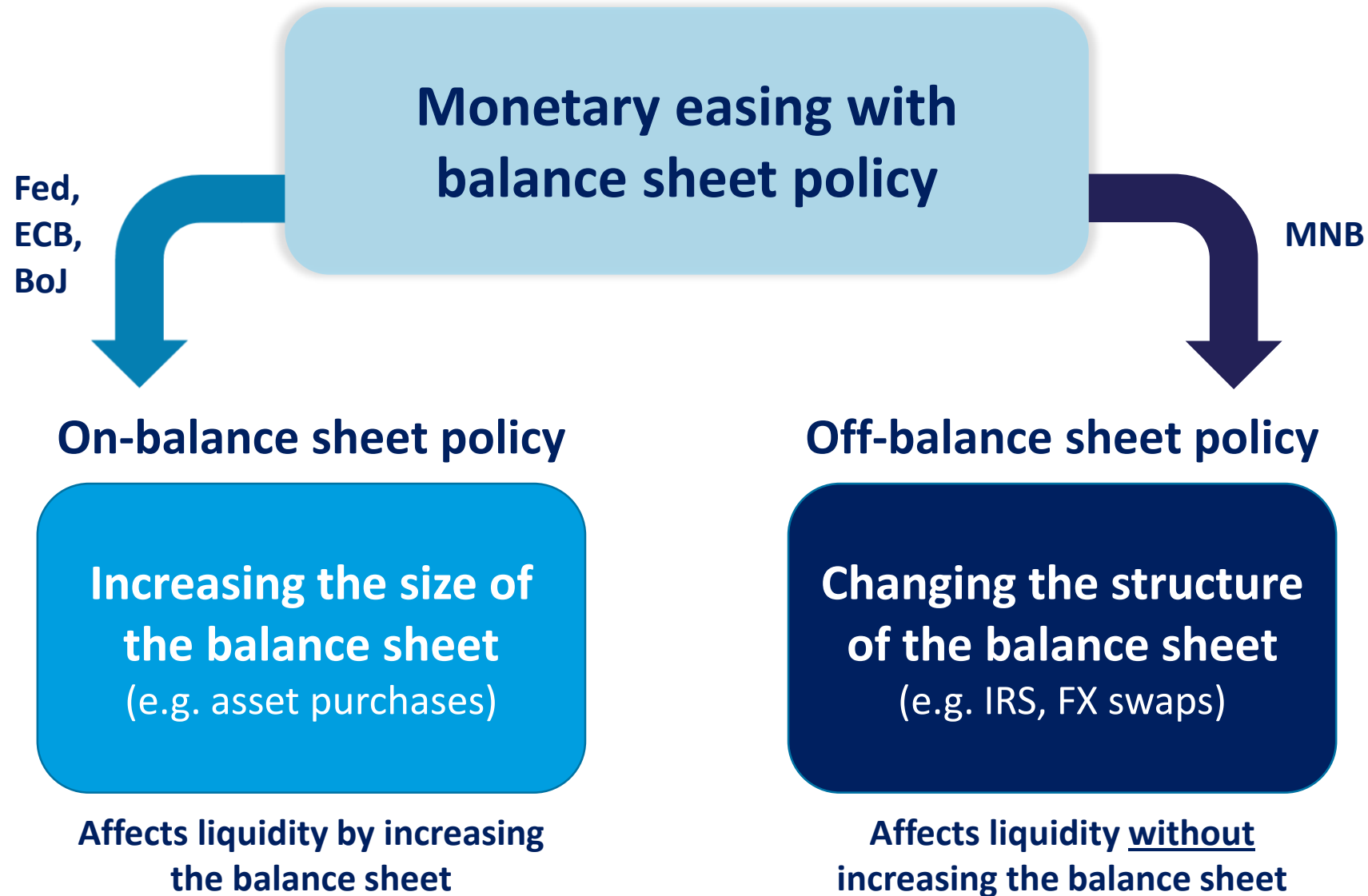


Similar measures

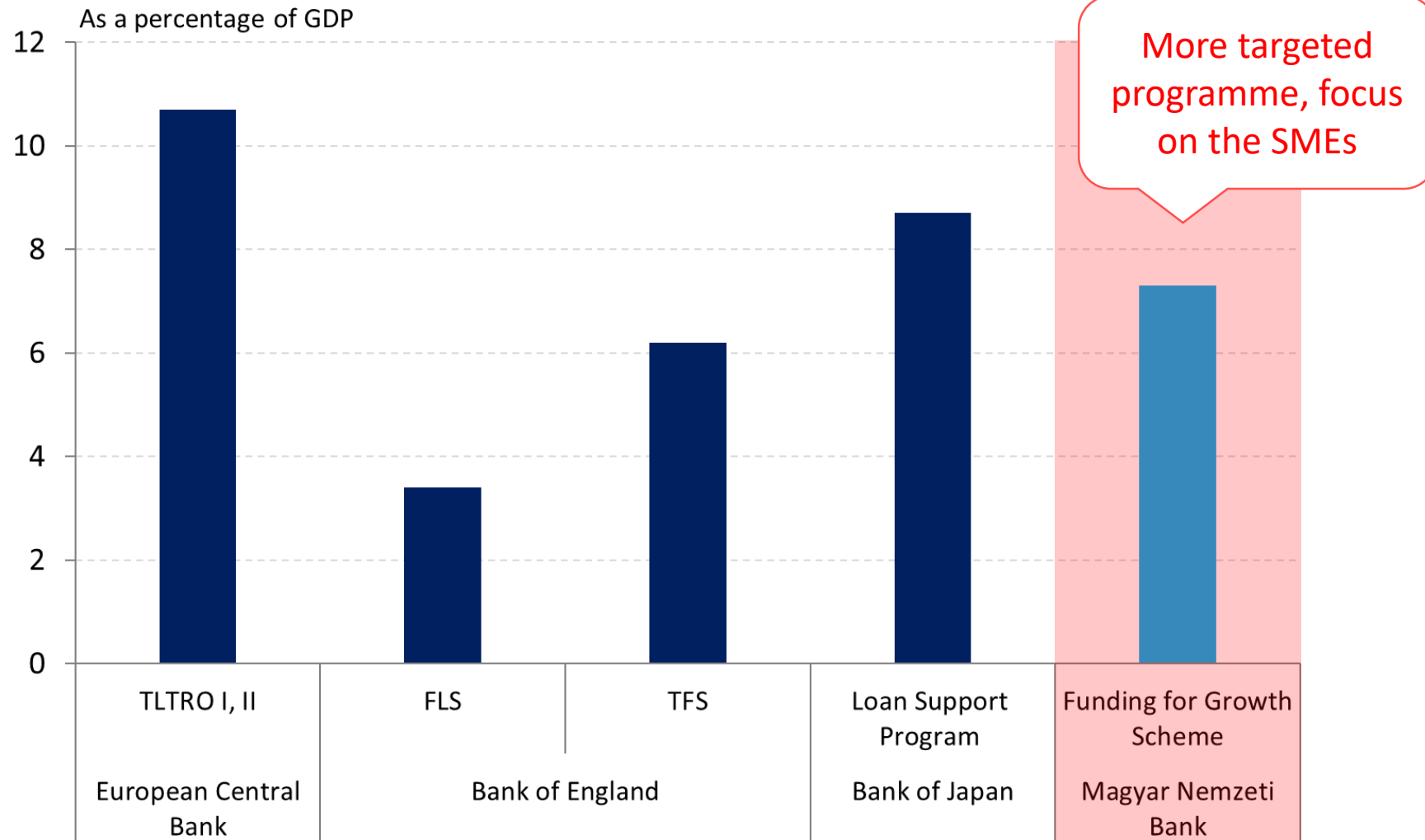
- Forward guidance
- Liquidity expansion
- Targeted credit incentives

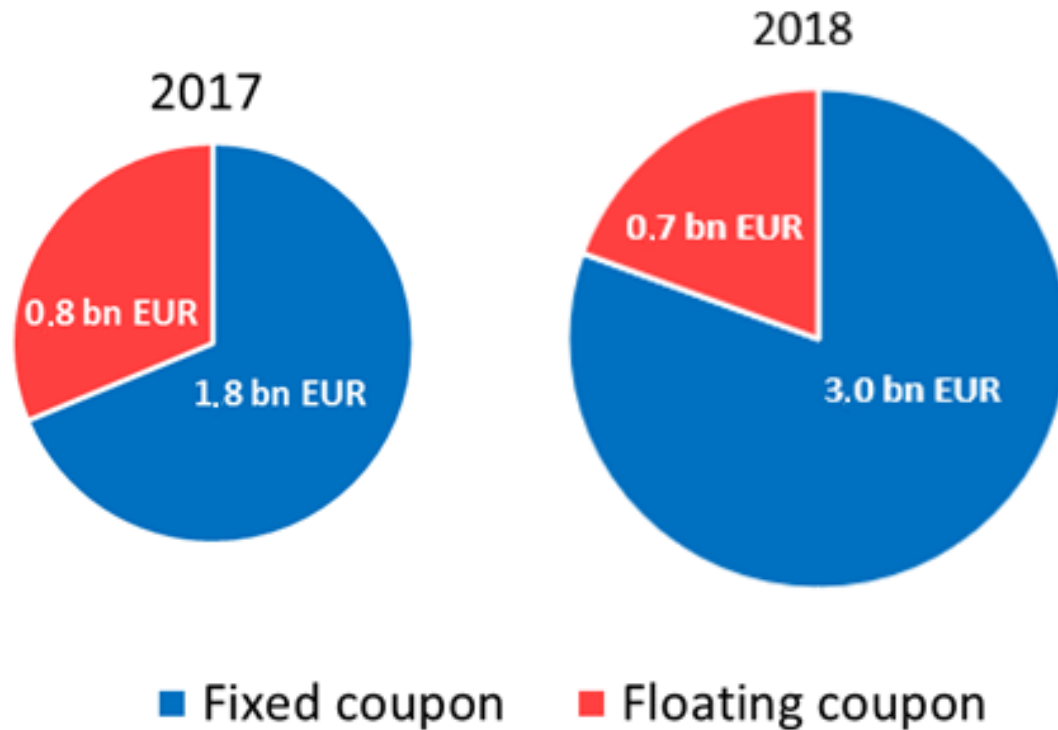
Differences

- No government bond purchase
- Off-balance sheet measures
- Narrowing balance sheet



FUNDING FOR GROWTH SCHEME WAS A TARGETED PROGRAMME WITH A MAIN FOCUS ON THE SME SECTOR





SIZE AND COMPOSITION OF THE HUNGARIAN MORTGAGE BOND MARKET

Purchase programme targets residential mortgage backed fixed-rate bond

- MNB purchased only fixed-rated mortgage bonds
- Secondary market presence lowered yields and spreads
- Focus on the primary market to support fixed-rated mortgage lending
- Total purchases reached **316 bn HUF (~1 bn EUR)**
 - Primary: 191 bn HUF (60 pct)
 - Secondary 125 bn EUR (40 pct)
- Net issuances of fixed-rate mortgage bonds rose to **400 bn HUF (~1.2 bn EUR)**

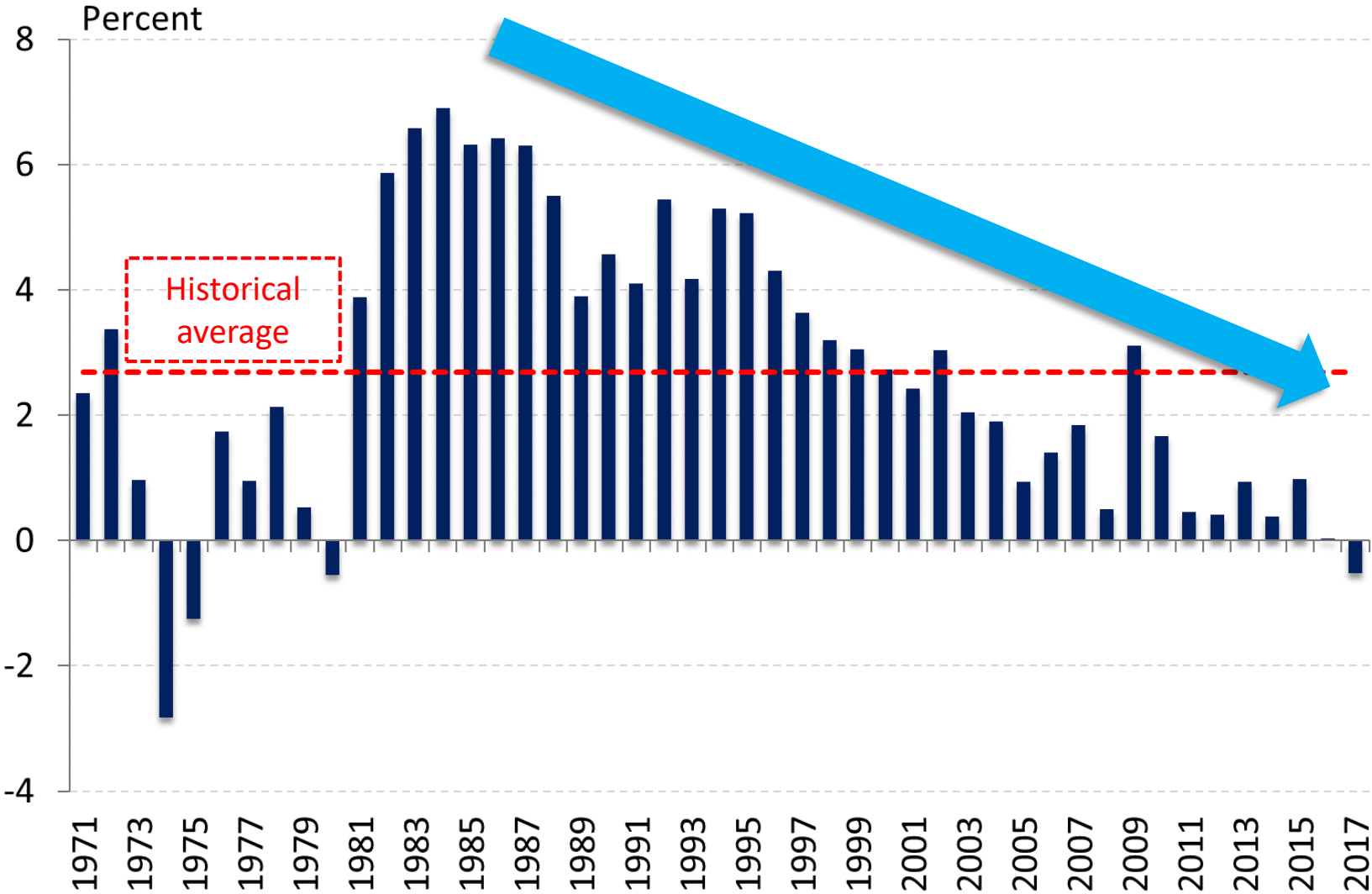
MNB WILL LAUNCH ITS BOND FUNDING FOR GROWTH SCHEME IN JULY 2019



- In order to improve the efficiency of the monetary transmission mechanism
- To promote the diversification of financing
- To strengthen financial stability and increase the liquidity of the corporate bond market
- In case of crisis, the possibility of fast and efficient central bank intervention

| | |
|---|--------------------------------------|
| Total amount | HUF 300 bn (0.7 percent of GDP) |
| Start of the purchase | 1 July 2019 |
| Issuers of the bonds to be purchased | domestic non-financial corporations |
| Credit rating of the bonds to be purchased | at least B+ |
| Denomination of the bonds to be purchased | HUF |
| Original maturity of the bonds to be purchased | Min. 3 years, Max.10 years |
| Proportion of MNB's purchase per bond series | max. 70 percent |
| Maximum exposure of the MNB per corporate group | HUF 20 bn |
| Minimum volume per issuance | HUF 1 bn |
| Sterilisation of the excess liquidity arising from the purchases | by the preferential deposit facility |

REAL INTEREST RATES ARE LIKELY TO REMAIN BELOW THEIR HISTORICAL AVERAGE



Real interest rates in the G7 economies (equal weighting)



STRUCTURAL FACTORS

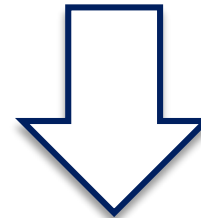
Changing demographics

Rising inequalities

Slowdown of potential growth rate

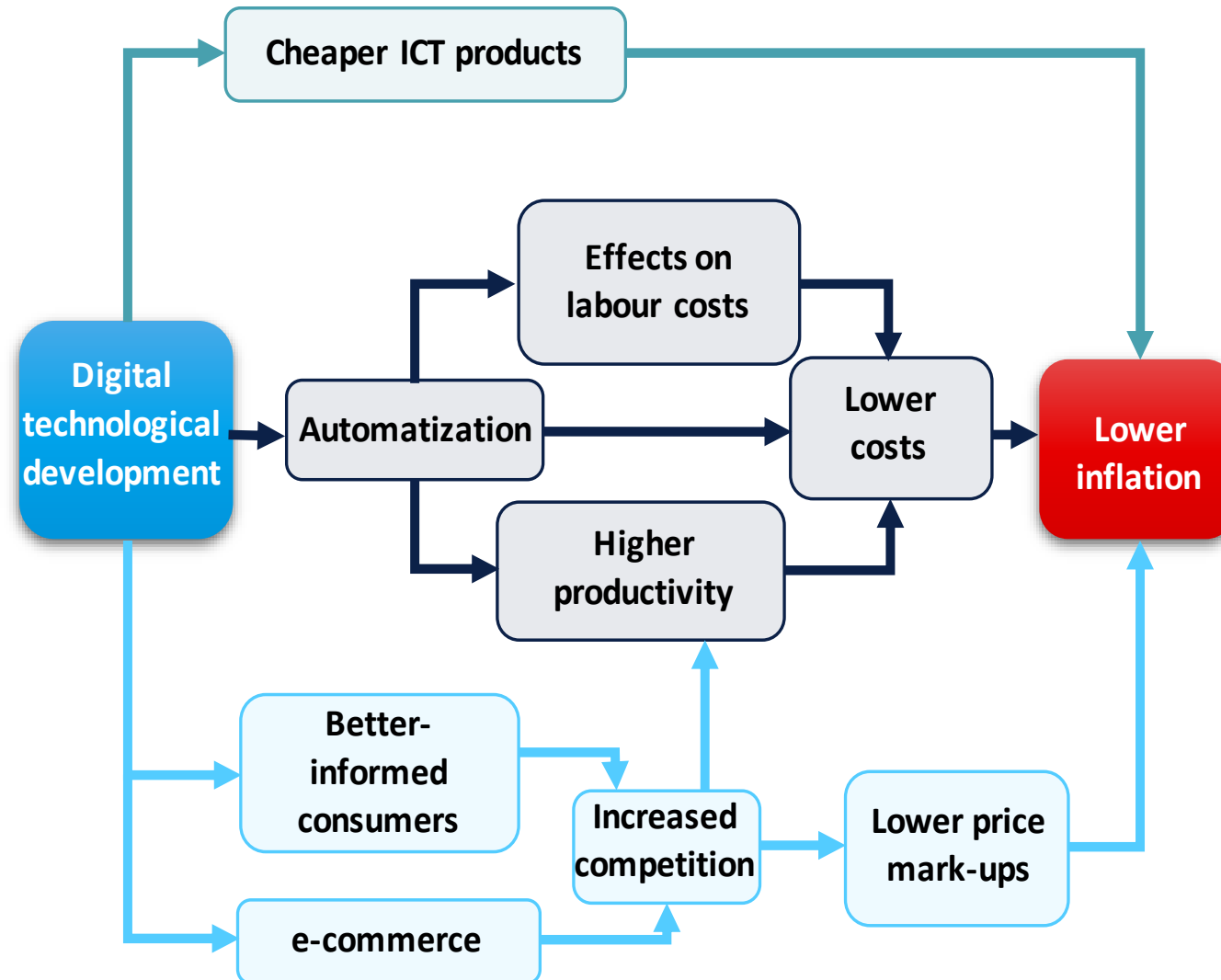
Globalisation

Technological progress



Slowdown in economic growth, lower inflation and interest rates

EFFECT OF DIGITAL TECHNOLOGICAL PROGRESS ON INFLATION DEVELOPMENTS

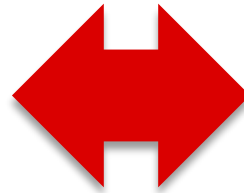


Medium-term
financial factors

Long-term real
economic factors

Repair of the
balance sheets

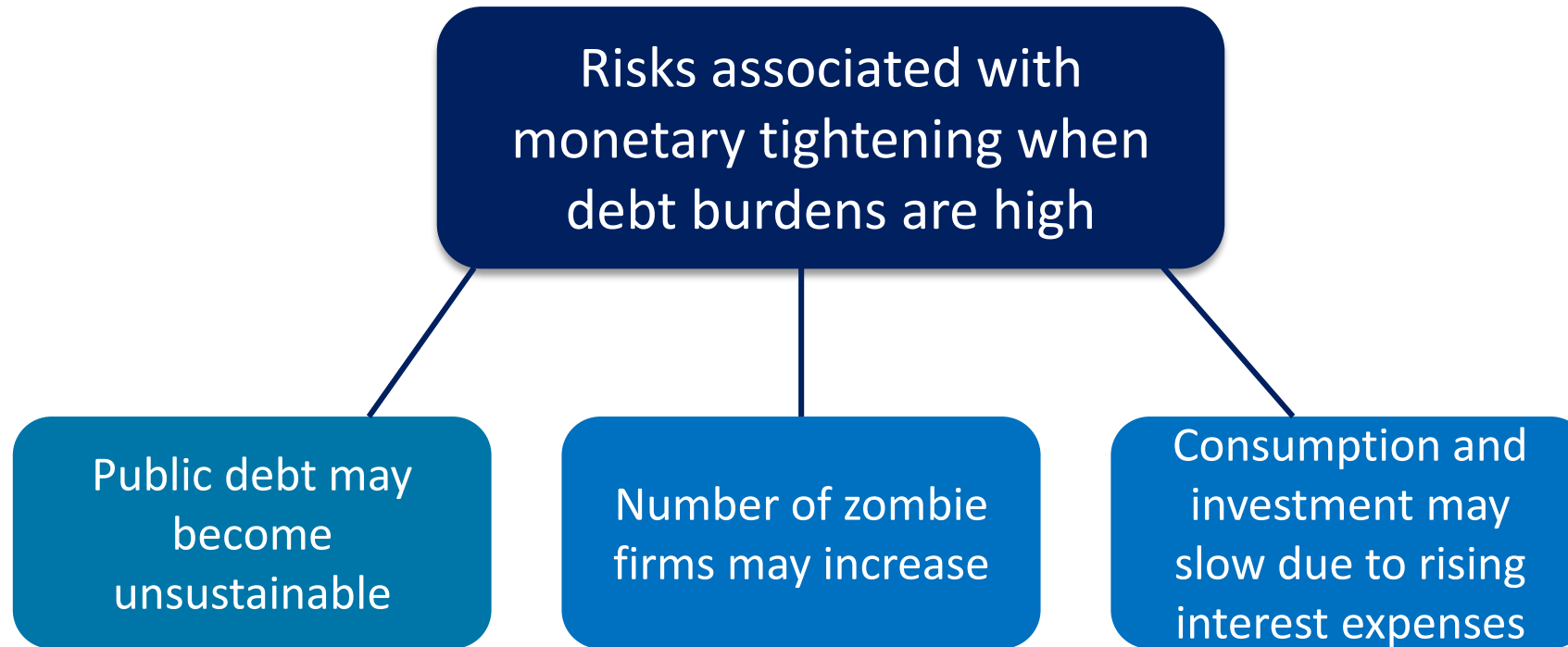
Secular
stagnation



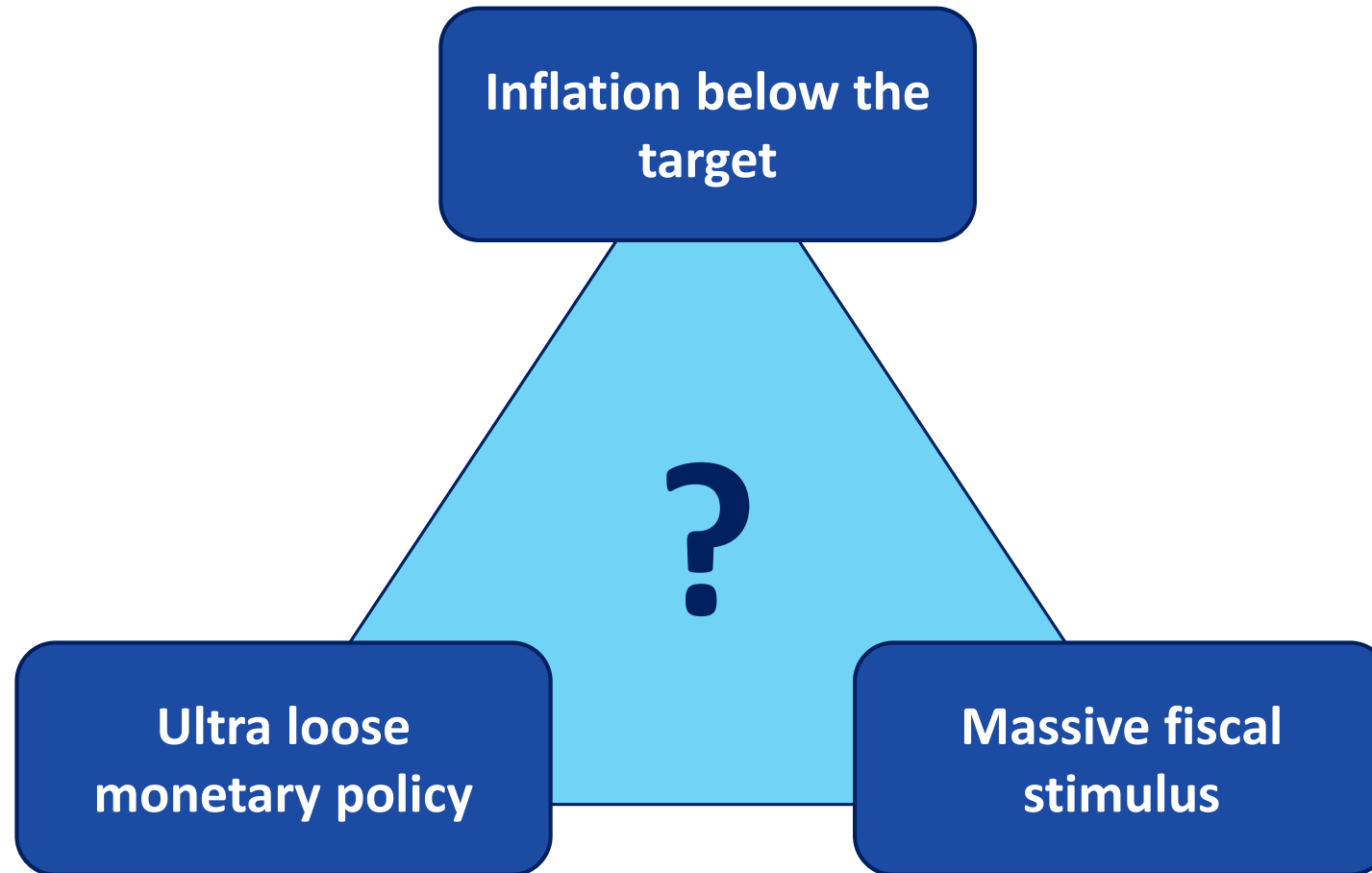
Spokesman
of the theory:
Richard Koo



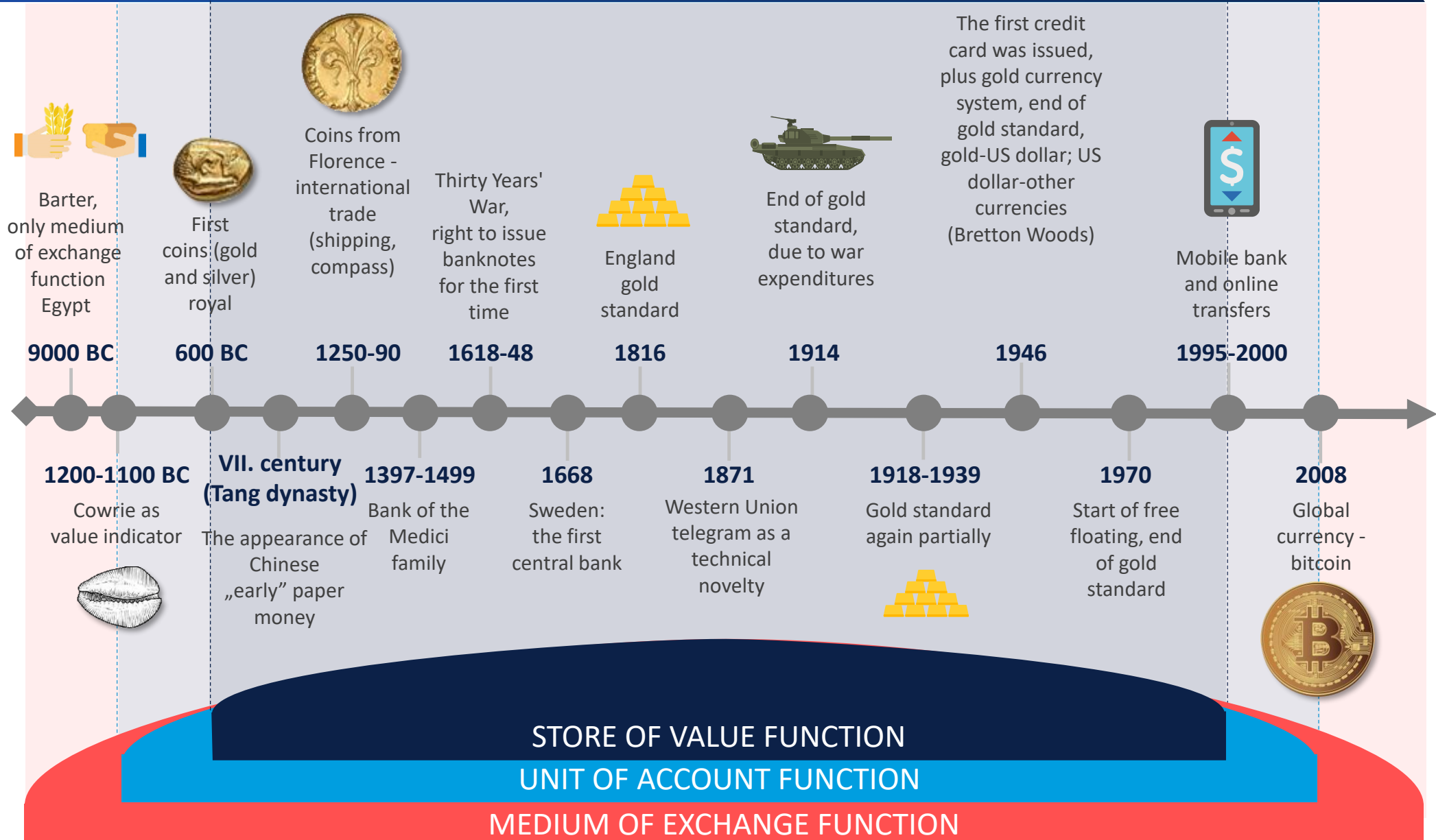
Spokesman
of the theory:
Lawrence Summers



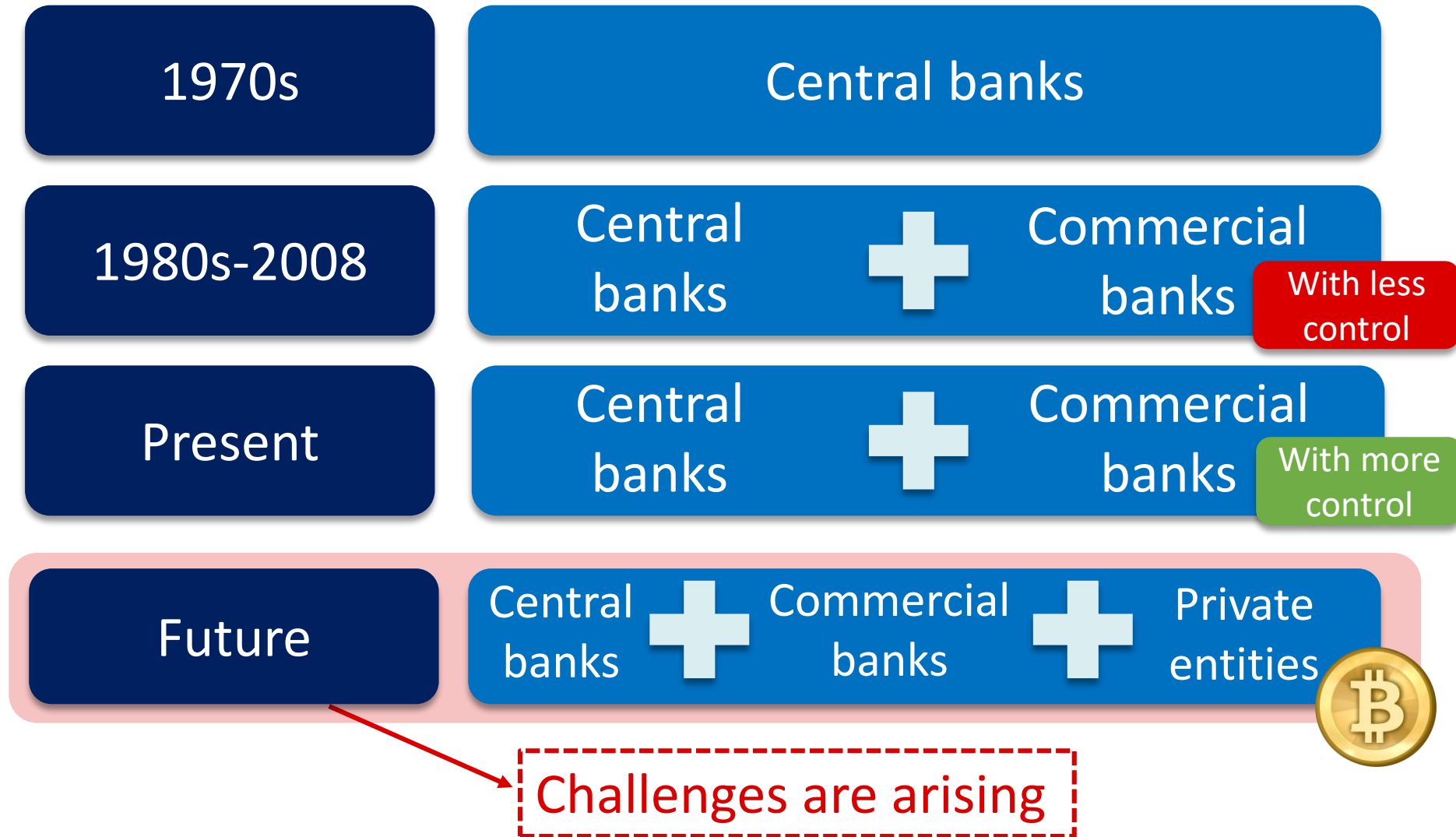
Is it possible for central banks to increase interest rates significantly or unwind their balance sheets if needed under these circumstances?



ADJUSTED TO NEEDS, MONEY HAS TAKEN NUMEROUS FORMS IN THE COURSE OF HISTORY



Who creates money?





E-money

Central bank digital currency (CBDC)



THE FUTURE OF MONEY

Central Bank Digital Currency



Two-tier
banking system



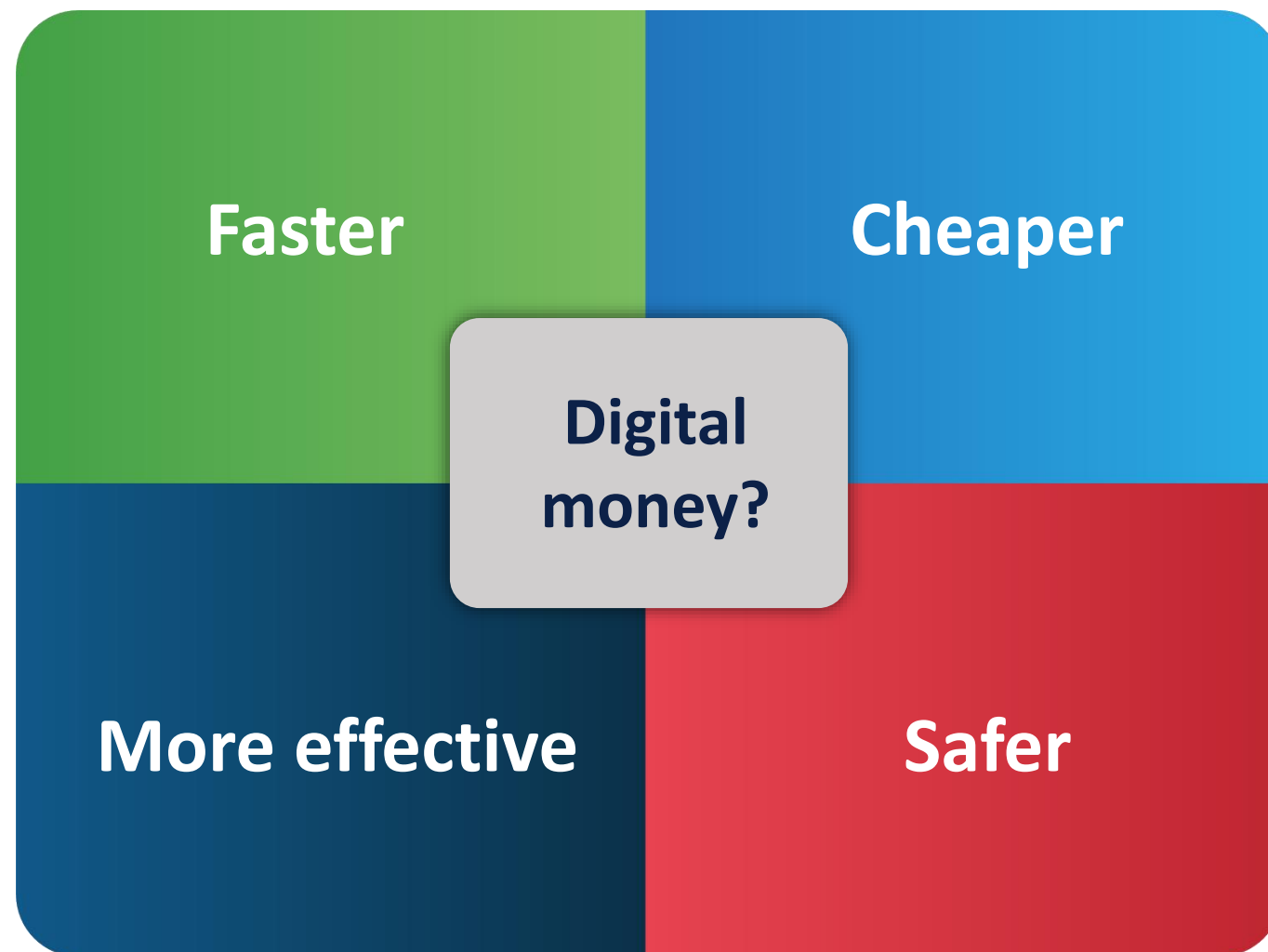
Single-tier
banking system

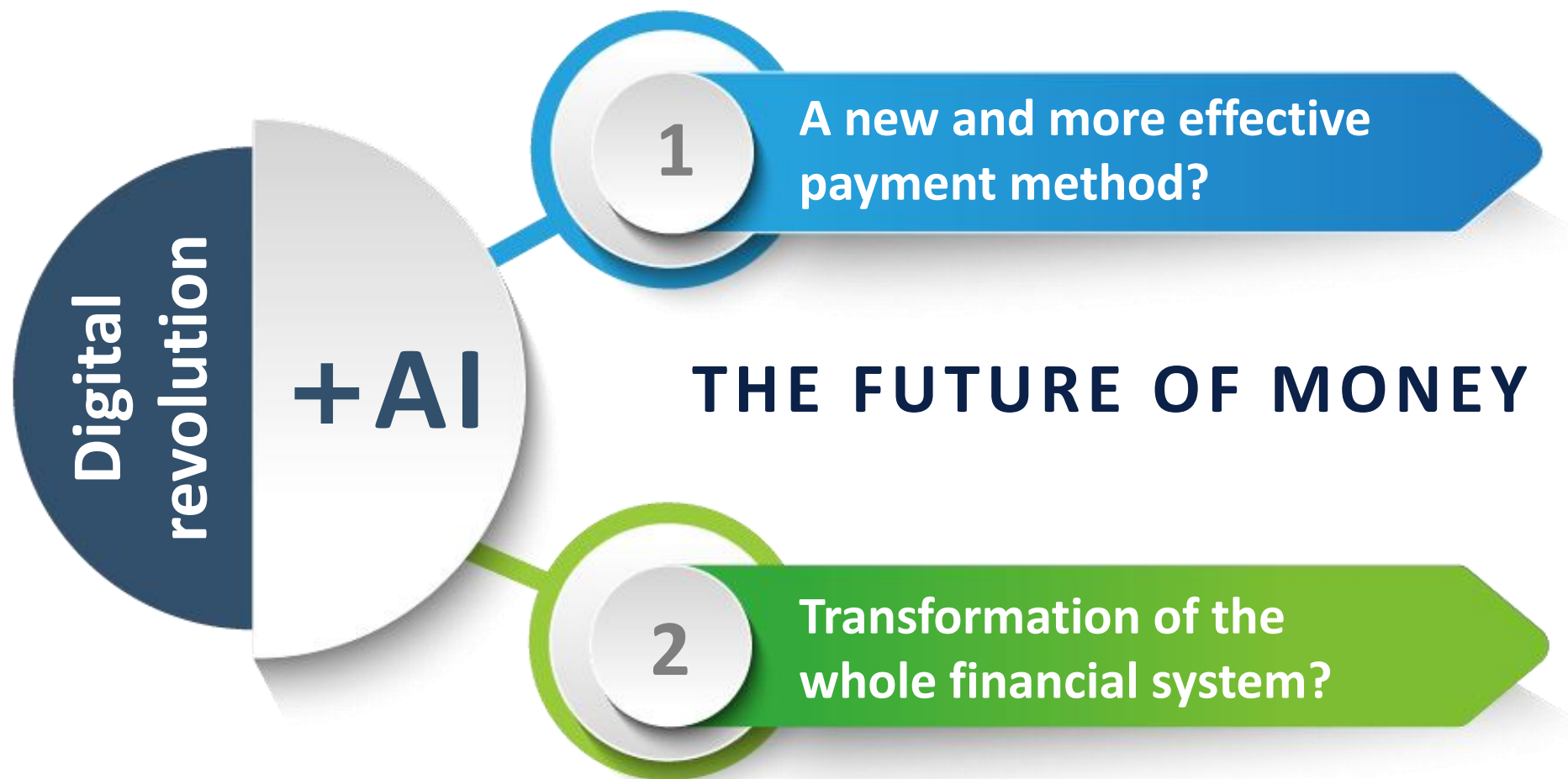


Digital Money

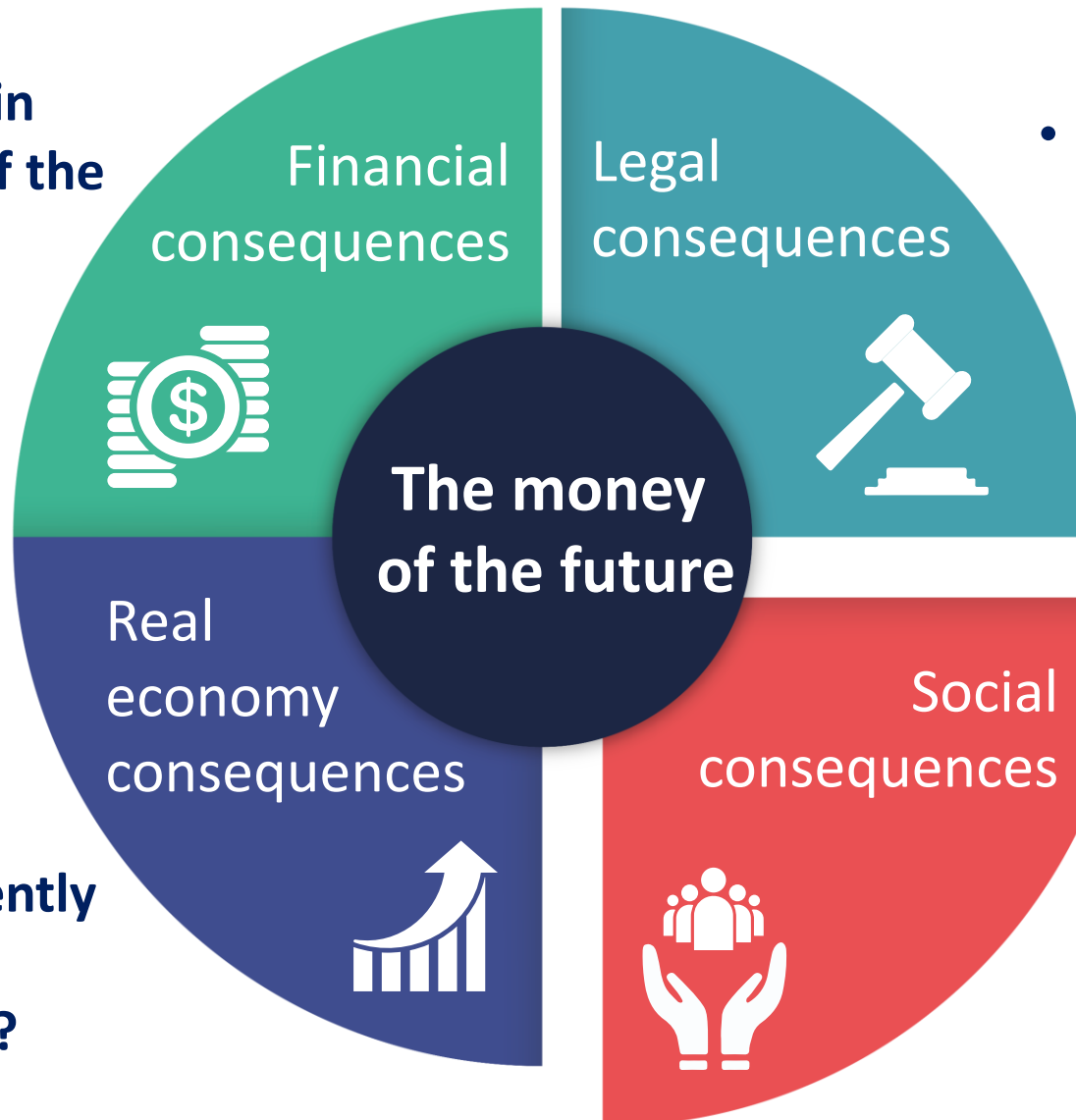


Searching for new solutions that are...





- **Uncertain future of the banking system**



- **What do we consider as legal money?**

- **Permanently lower inflation?**

- **Problem of generational differences**



THANK YOU
FOR YOUR ATTENTION!

