FINANCIAL MARKETS AND INSTITUTIONS

CENTRAL BANKS

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Prof. Alberto Dreassi – adreassi@units.it

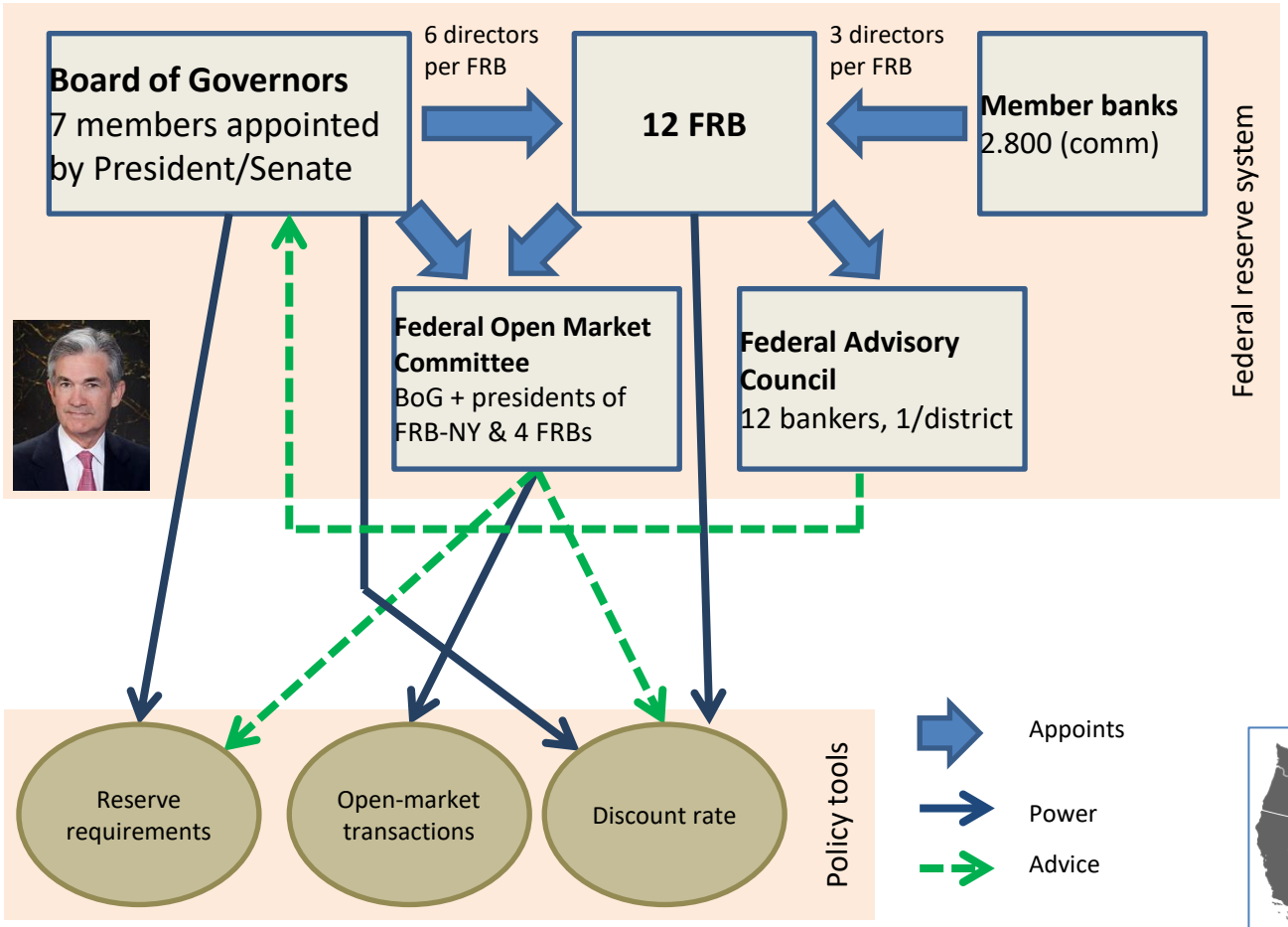
DEAMS
University
of Trieste

AGENDA

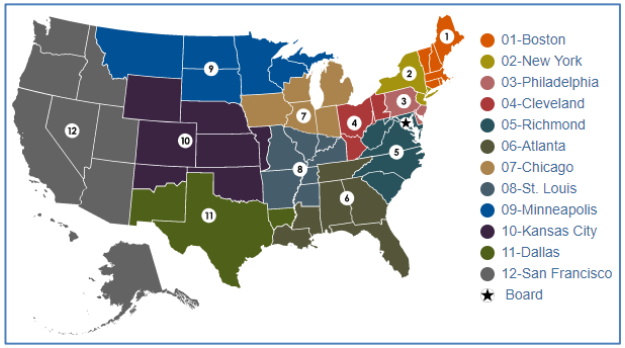
- FED vs ECB
- Why different CB models?
- Monetary policy: why/how/what of different CB mandates
- CB and financial crisis

THE US/FED SYSTEM

Complex balanced system of powers, controls and responsibilities

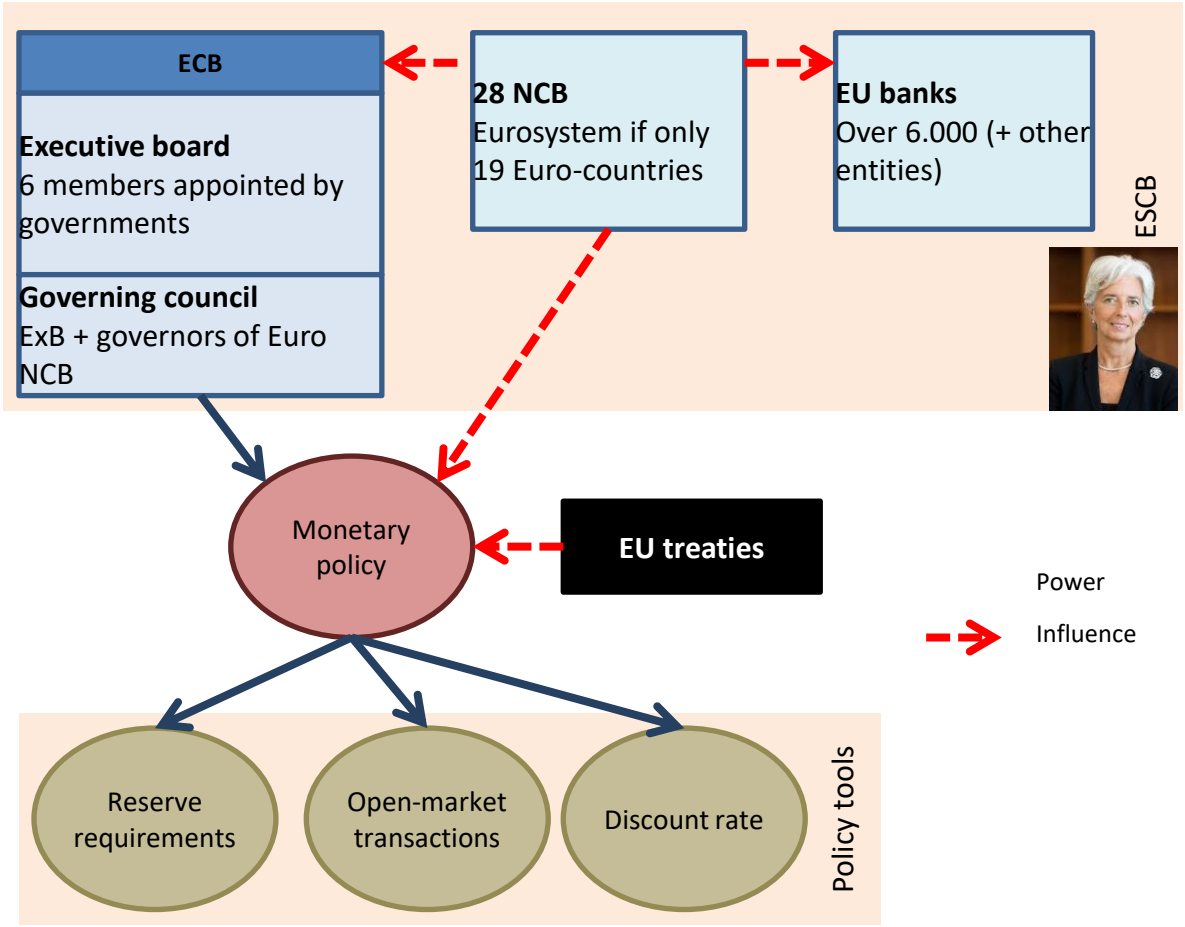


- BoG: chairman has public and internal influence
- FOMC ("the Fed")
- Independent choice of instruments and goals
- Influence from Congress and President



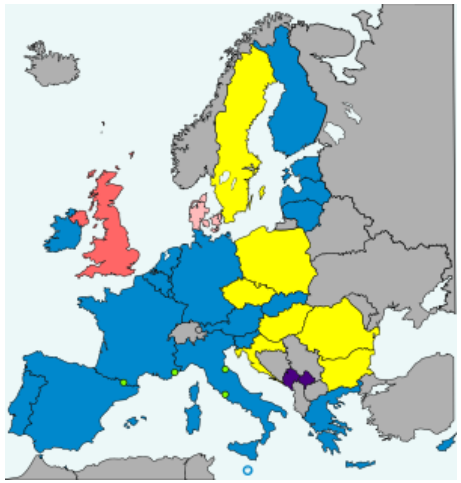
THE EU/ECB SYSTEM

NCBs are the core of the ESCB



NCBs:

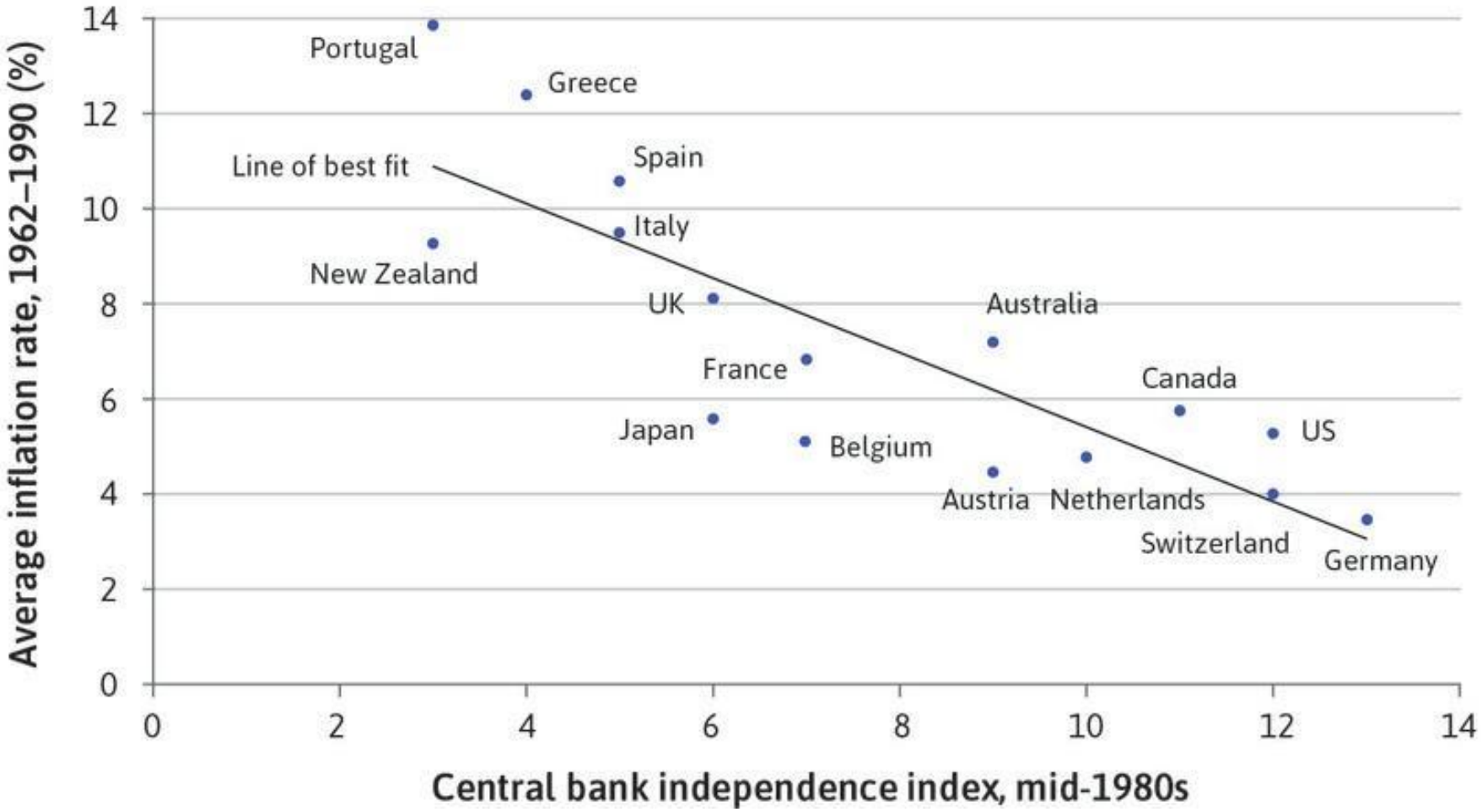
- decide ECB's budget
- enforce monetary policy
- enforce regulation and supervision
- Greater independence
- Treaties require price stability and changes are extremely difficult: more goal independence



DIFFERENT MODELS: WHY?

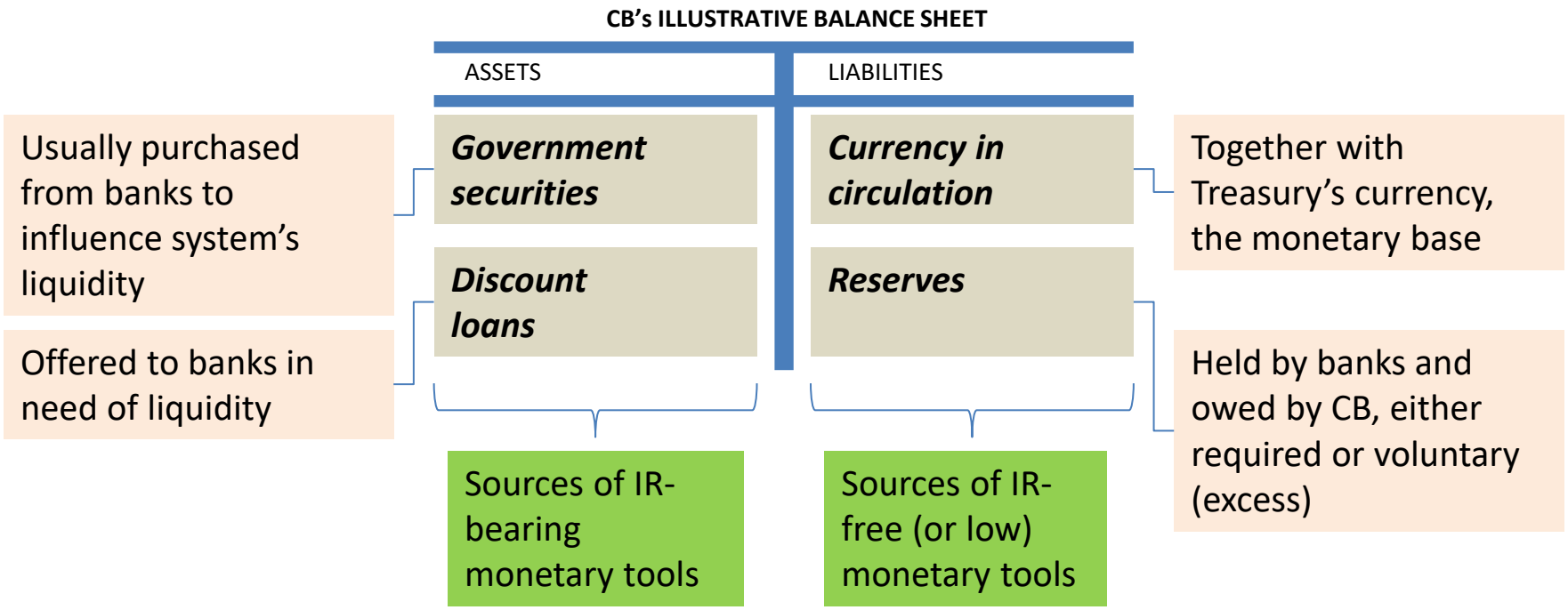
- **Pros** of independence:
  - Political shortsighted influence produces inflation by acting on short-term goals (unemployment and IR): election dates rather than economy needs
  - Treasuries' influence accumulates risk by promoting abnormal absorption of public debt and concentration in CB/banks
  - Monetary policy requires specific expertise
- **Cons** of independence:
  - Accountability and democratic control (?)
  - Governments' fiscal policies weakened by monetary policy (?)
  - Independence did not avoid crisis

DIFFERENT MODELS: WHY?

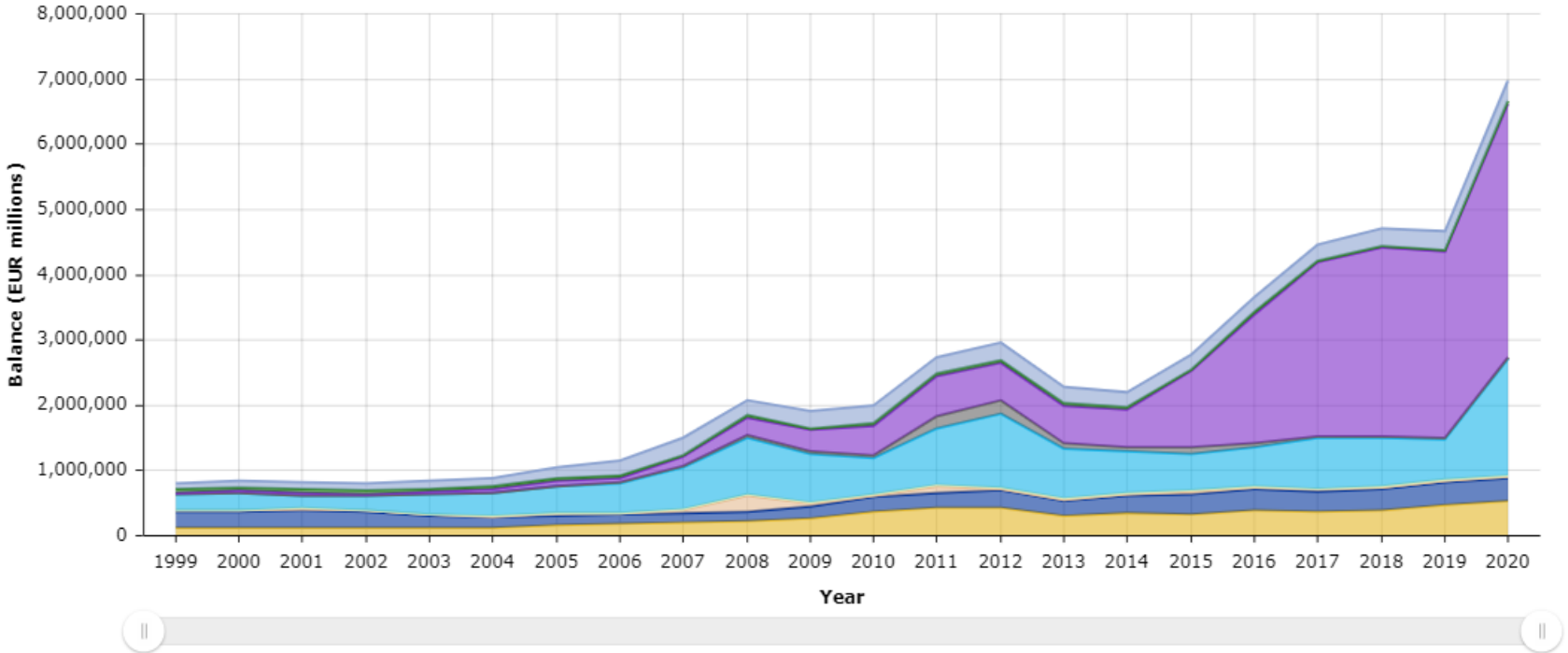


MONETARY POLICY

In an accounting perspective



MONETARY POLICY: ESCB ASSETS



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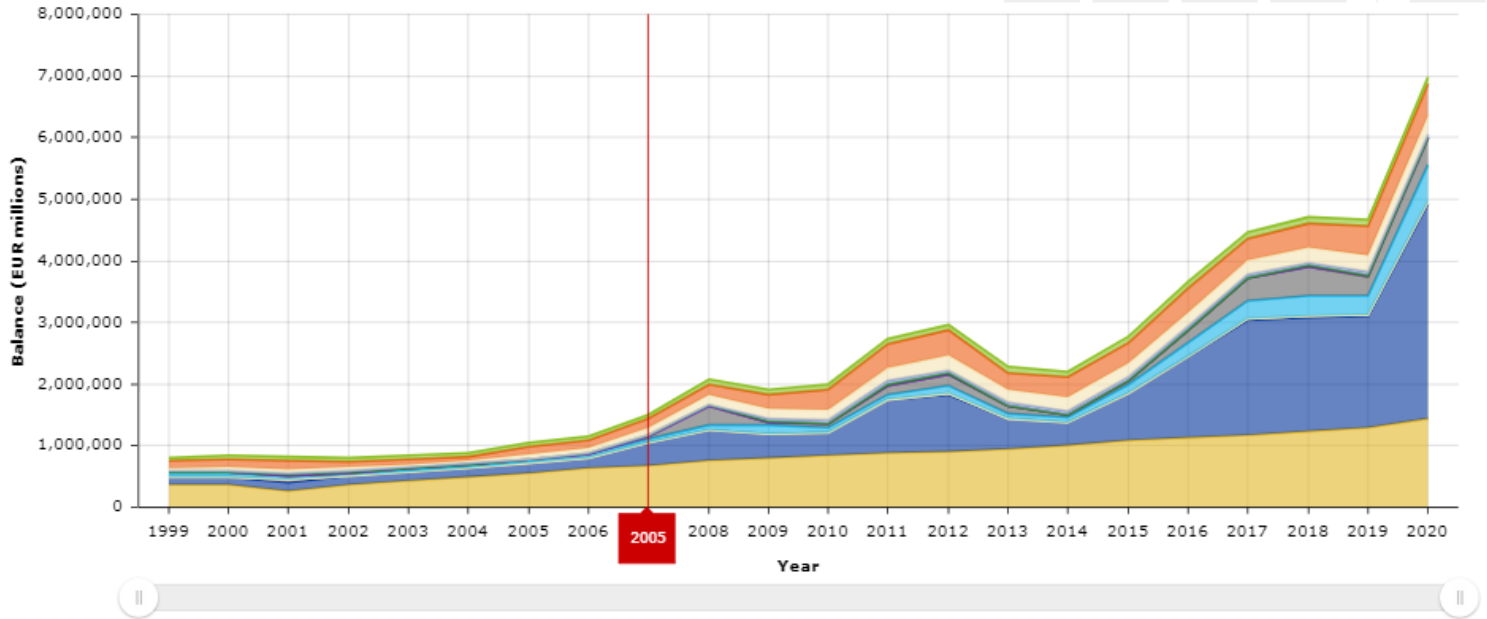
	Balance (EUR millions) 2018
A1 Gold and gold receivables	389,765
A2 Claims on non-euro area residents denominated in foreign currency	334,369
A3 Claims on euro area residents denominated in foreign currency	20,499
A4 Claims on non-euro area residents denominated in euro	21,276
A5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	734,381
A6 Other claims on euro area credit institutions denominated in euro	17,637
A7 Securities of euro area residents denominated in euro	2,899,300
A8 General government debt denominated in euro	23,947
A9 Other assets	261,556

MONETARY POLICY: ESCB LIABILITIES



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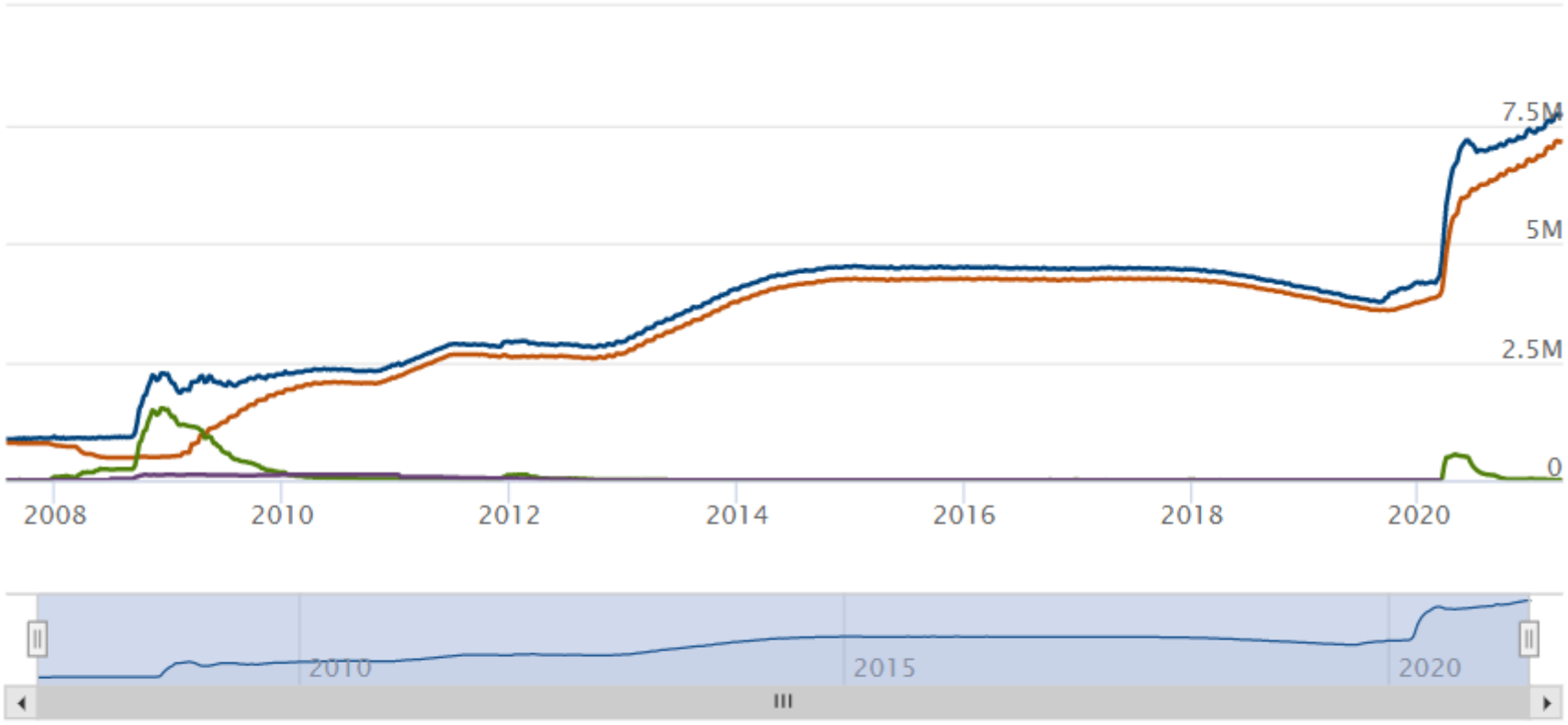
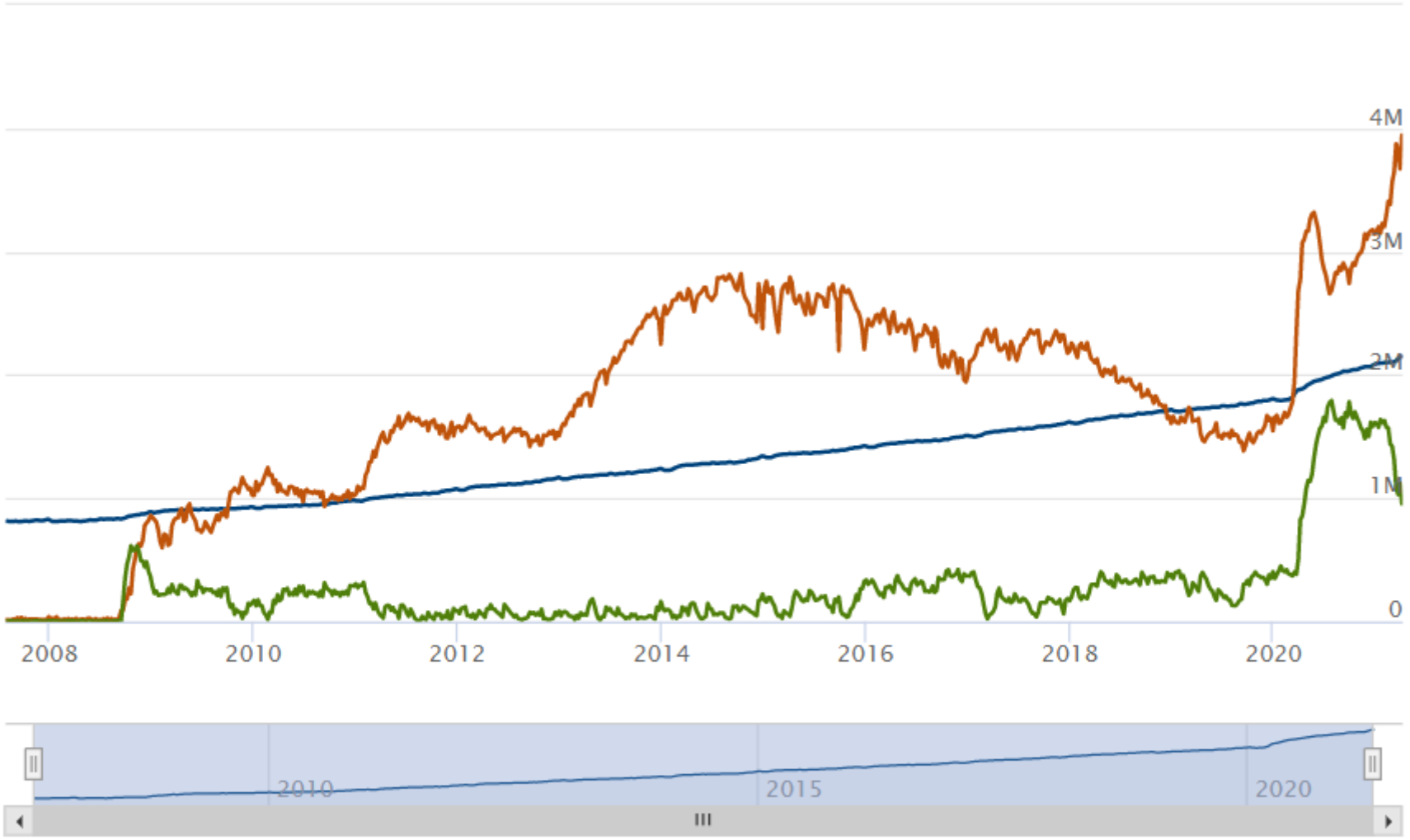
	Balance (EUR millions) 2005
L1 Banknotes in circulation	565,216
L2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	155,535
L3 Other liabilities to euro area credit institutions denominated in euro	207
L4 Debt certificates issued	0
L5 Liabilities to other euro area residents denominated in euro	41,762
L6 Liabilities to non-euro area residents denominated in euro	13,224
L7 Liabilities to euro area residents denominated in foreign currency	366
L8 Liabilities to non-euro area residents denominated in foreign currency	8,405
L9 Counterpart of special drawing rights allocated by the IMF	5,920
L10 Other liabilities	67,325
L11 Revaluation accounts	119,094
L12 Capital and reserves	61,562
Total:	1,038,616

MONETARY POLICY: FED ASSETS



MONETARY POLICY: FED LIABILITIES



MONETARY POLICY TOOLS

Open market operations

- Main tool for IR and liquidity
- Purchase/selling of securities on the secondary market through banks

Discount lending

- More “localised”
- More loans increase reserves and assets

Reserve requirements

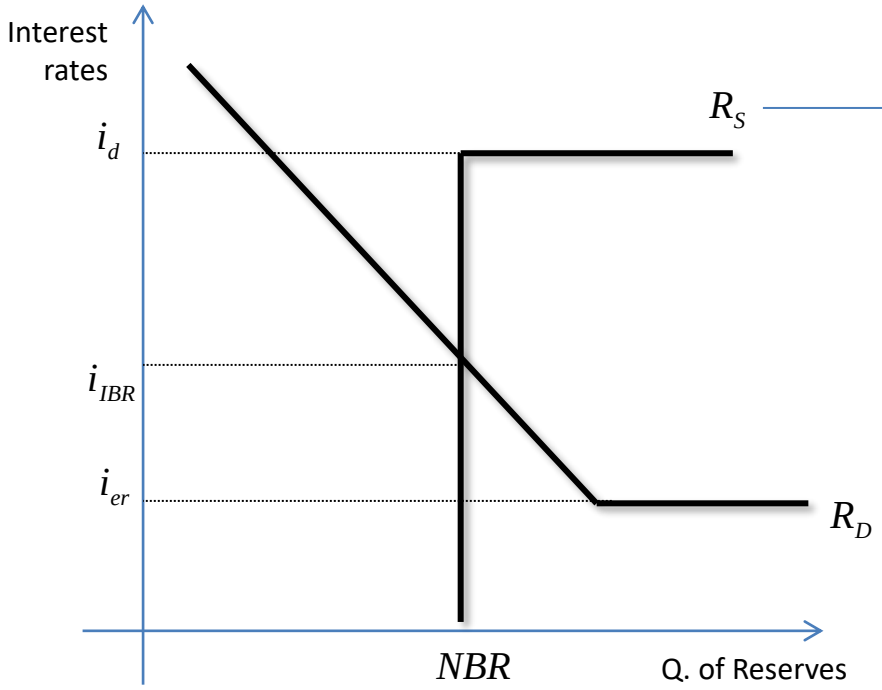
- Amount of requirements
- Also, IR on BR and NBR

“Unconventional policies”

MONETARY POLICY TOOLS

Operations in the market for reserves

- Influence inter-banking rate (i_{IBR}) and therefore other market IR
- Through reserve requirements and IR on reserves (i_{er})
- Influenced by open-market non-borrowed reserves (NBR) and borrowed reserves at the discount rate i_d



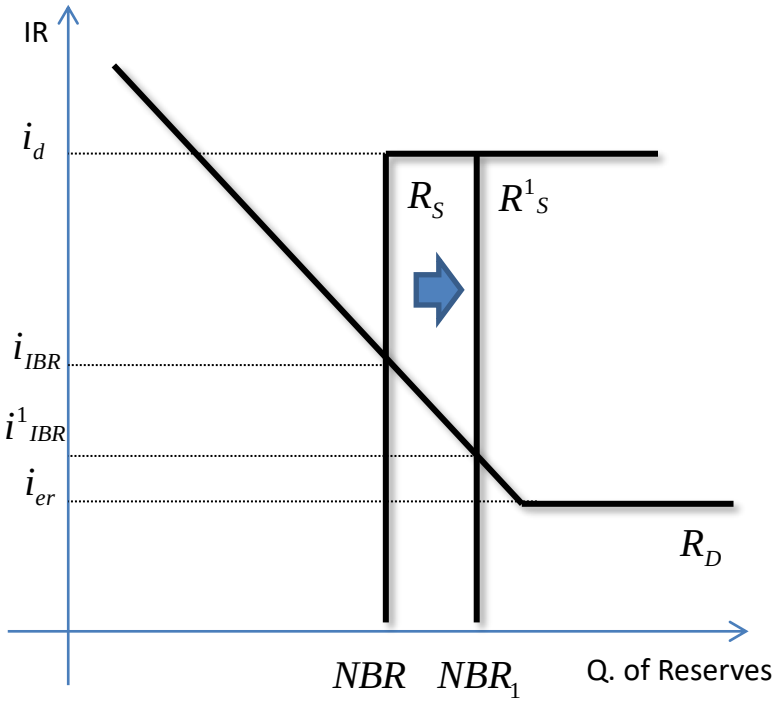
• Borrowed reserves will be zero (interbanking loans are cheaper) unless IBR equals discount rate
• It can't increase further otherwise funds are abritraged between CB and interbanking channels

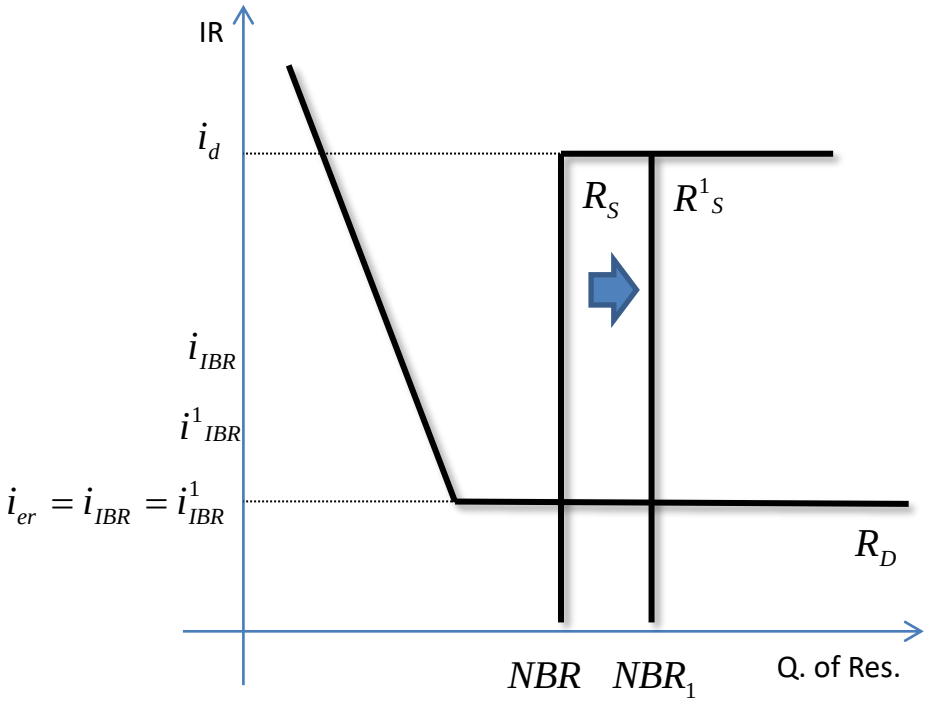
• Opportunity cost of reserves decreases as IBR decreases, increasing demand
• It can't decrease further than IR on reserves

Note that i_{er} for ECB (deposit facility) is currently -0,4% for BR, 0% for NBR

MONETARY POLICY TOOLS

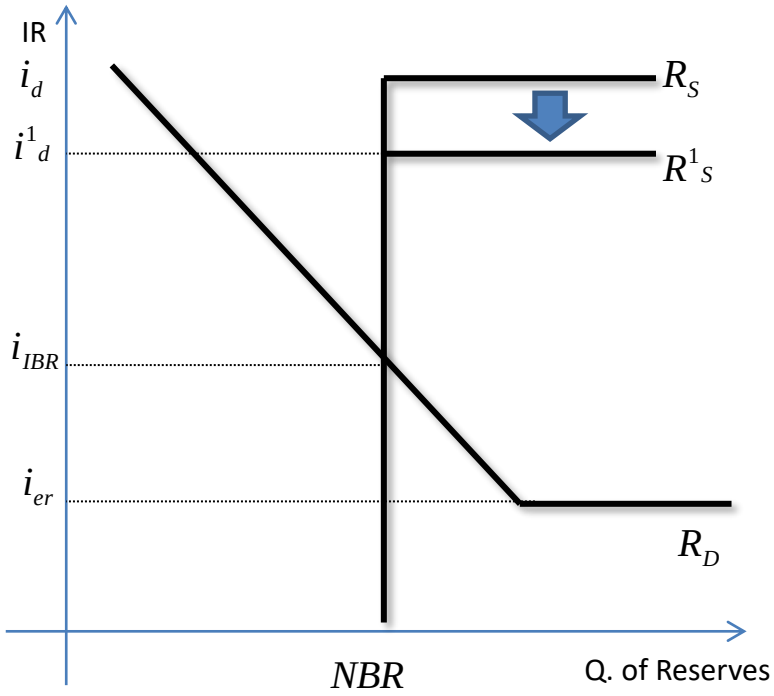
Effects of open-market operations (purchase)

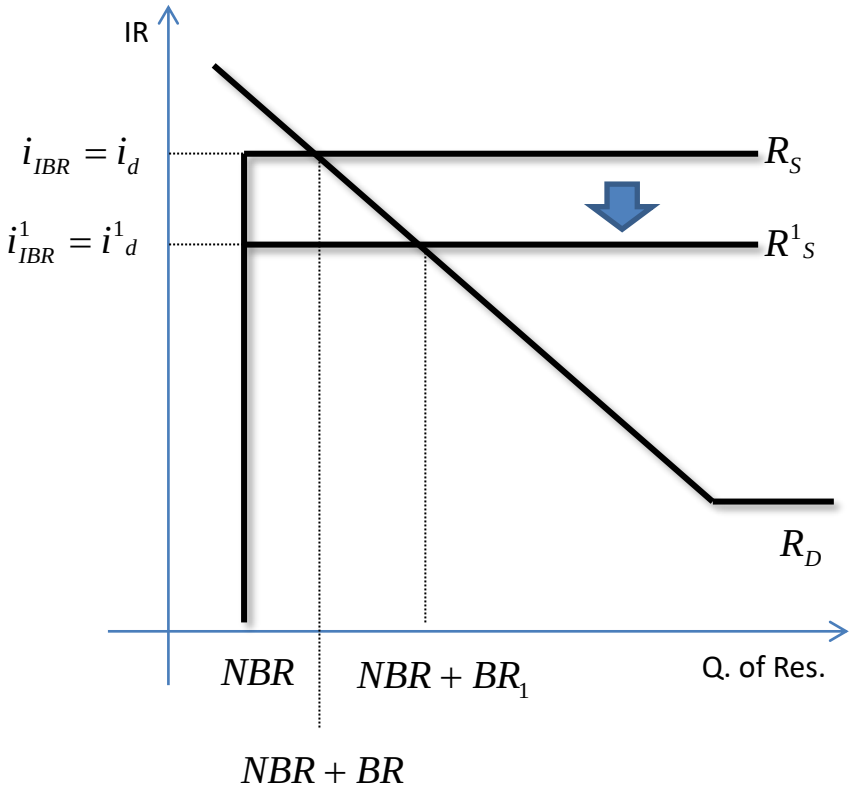




MONETARY POLICY TOOLS

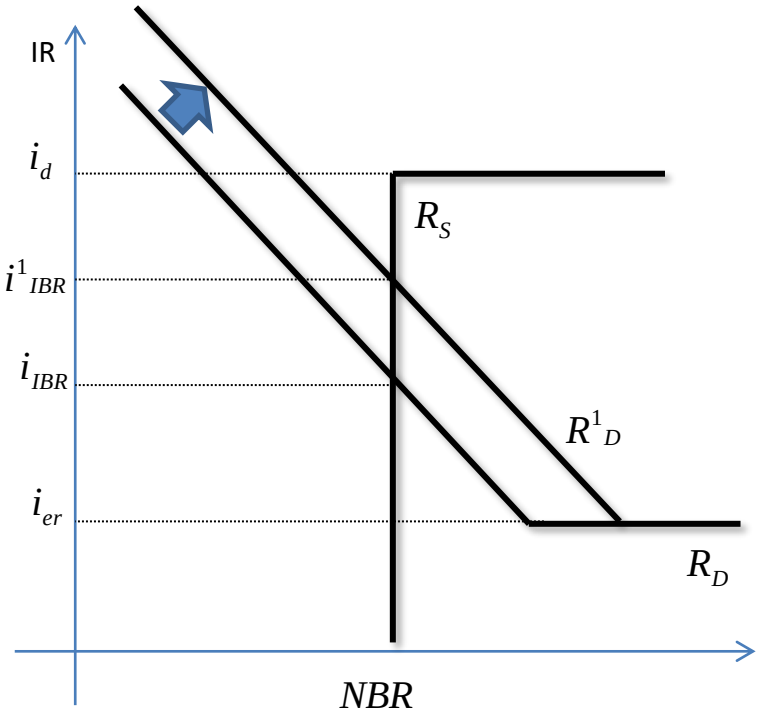
Effects of discount lending (lower IR on discounts)





MONETARY POLICY TOOLS

Effects of reserve requirements (increase)



Effects are different if demand and supply meet where flat, but mostly irrelevant

MONETARY POLICY TOOLS

Use of open-market operations

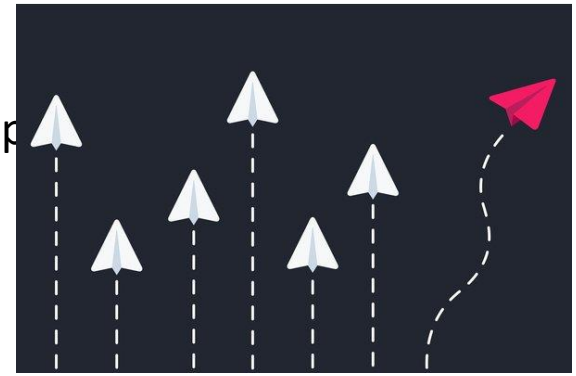
- Above all, government bonds, especially short-term:
  - market is deep, liquid and trades in high volumes,
  - hence could absorb large interventions
- Transactions take the technical form of:
  - repurchase agreement (REPO): CBs buy (or sell) spot and is obliged to sell (or buy) at a future date (usually within days) – temporary and defensive
  - outright transaction: actual purchase (or selling) – by itself not temporary
- Each CB adopts specific names (f.i. ECB main refinancing operations, targeted long-term refinancing operations, …)

MONETARY POLICY TOOLS

Use of discount lending

- Liquidity backup, in the very short-term, for solvent and/or troubled institutions (with different pricing)
- Discount lending could allow CBs to become lenders of last resort to avoid bank runs, by increasing discount lending and extending it particularly to troubled institutions
- Lending of last resort induces moral hazard (as any safety net)
- Different names again (f.i. ECB “marginal lending facility”)

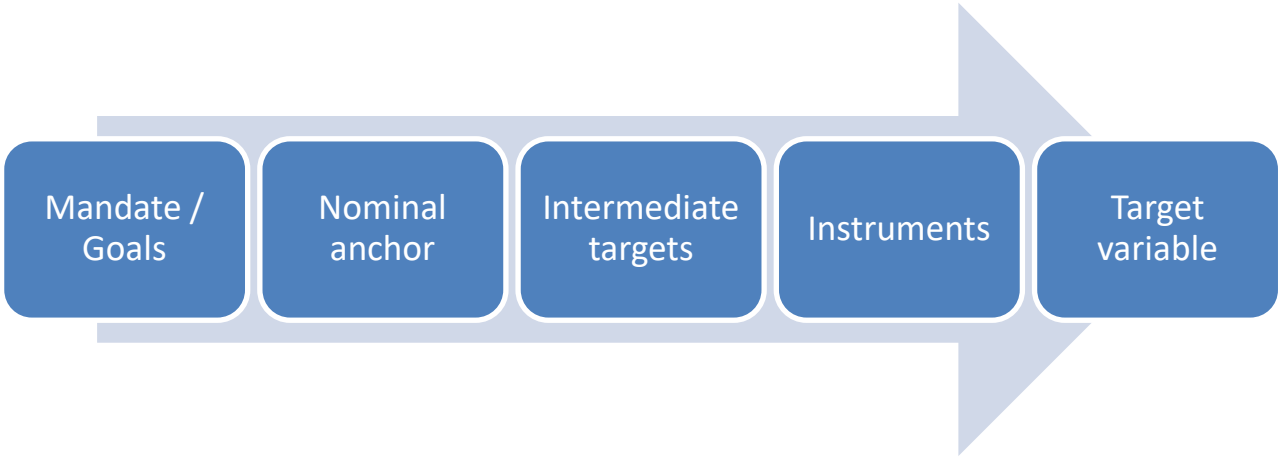
MONETARY POLICY TOOLS



"Unconventional policies" (incomplete list)

- *Negative interest rate policies* to avoid deflationary currency ap
  - Effective in dealing with lower bound events
  - Side effects: less bank interest margins
  - Longer-term effects: ?
- *"Unusual" lending* to deal with disruption of monetary policy transmission
  - Contained funding issues on interbank/money markets
  - Longer maturities, more eligible collateral, more counterparties, different lending terms, setting lending goals (TLTRO)
  - Effective for flows to the private sector and stabilizing expectations
  - Side effects: inefficient allocation of credit, weaker leverage reduction
- *Asset purchase programmes* for lower bound and monetary policy issues
  - Protected assets during fire sales and incentivized loans securitisation.
  - Side effects: limited weakening CB balance sheets, poorer asset valuations, scarcity in repo markets, spillovers on commodity prices
- *Forward guidance* to reduce uncertainty
  - Clarifying ahead of time intentions and tools
  - Quite effective, subject to credibility and flexibility issues

MONETARY POLICY GOALS



Primary goal: price stability

- "Low" and stable increase in price level
- Reduced uncertainty and stimulus economic growth
- Nominal anchor:
  - Typically, inflation or money supply
  - Reduces time-inconsistency: long-run effectiveness
  - Constrains discretionary policies

MONETARY POLICY GOALS

Other goals:

- High **employment** (lower than 100%):
  - frictional unemployment is beneficial (looking for better jobs, education, …), structural unemployment (mismatch between demand and supply) is outside CBs' powers – "natural rate of unemployment"
- Economic **growth**: promoting investments and savings
- **Financial markets stability**
- **IR stability**
- **ER stability**:
  - to assist competition
  - to avoid "imported" inflation
  - to reduce uncertainty
  - to assist economies dependent on foreign trade

MONETARY POLICY GOALS

- In the long run all goals converge
- CBs are usually ruled:
  - By **hierarchical mandates**: price stability first, and growth and employment then (f.i. ECB): less time inconsistency
  - By **dual mandates**: achieving together price stability and minimum unemployment (f.i. FED)

MONETARY POLICY GOALS

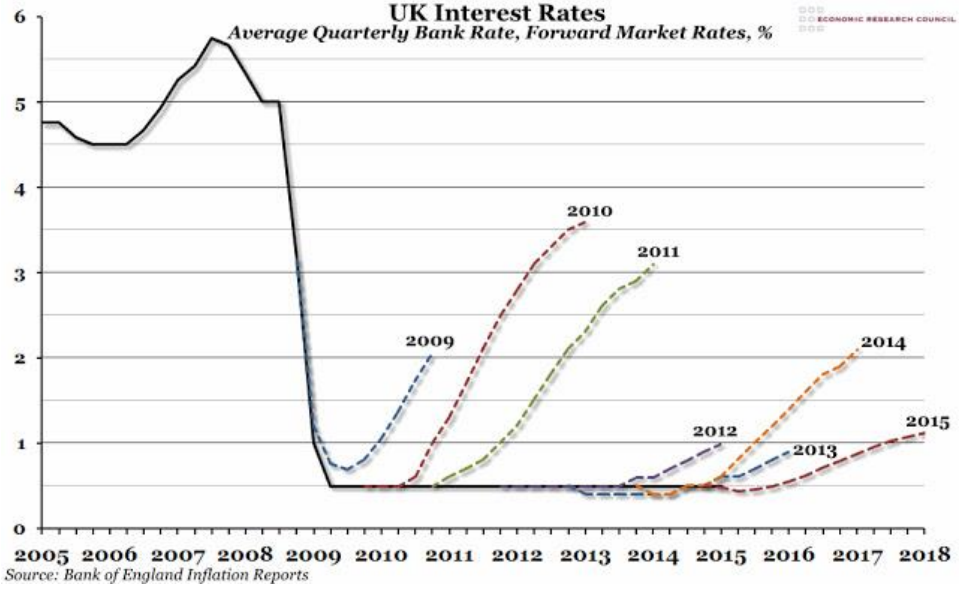
Price stability is usually achieved by **inflation targeting**:

Why?

- Inflation targeting is **easily understood** and communicated
- Provides **easy accountability** and less time-inconsistency
- **Reduces political pressures** requiring a long run focus

But…

- Outcomes are **slow** to emerge and inflation policies lag
- Can be **rigid**
- Acting on inflation is difficult, so **intermediate targets**: monetary aggregates and IR (with credibility issues)



MONETARY POLICY GOALS

- Intermediate targets bear trade-offs:
  - once a monetary aggregate target is set, IR fluctuate
  - if IR are set, monetary base fluctuates
- Choice of instrument depends on:
  - Observability/measurability: IR are immediate to observe in nominal terms but difficult in real terms, monetary aggregates are easy to measure but lag on actions taken
  - Controllability: short-term nominal IR can be controlled tightly (but little control on expected inflation), whereas monetary base fluctuates on demand changes (less controllable)
  - Predictability: IR have a closer link with goals if compared with monetary aggregates
- And the winner is…

CB AND CRISIS

Asset-price bubbles can lead to crisis:

- Credit-driven: easy credit artificially inflates an asset, and when reverted credit losses arise and asset values are destroyed (f.i. subprime mortgage crisis)
- Irrational exuberance: excessive optimism over an asset inflates prices, and when reverted it has a limited impact on economy (f.i. “New economy” bubble)

CBs should therefore consider the following:

- Exuberance bubbles are hard to see and not so dangerous
- If credit is booming, it is easier to see it and the impact is usually huge

MONETARY POLICY AND CRISIS

How should CBs respond?

- Influencing IR has uncertain outcomes: it does not discourage "bubble-investors" and higher IR make bubble burst sooner and harder
- Usually it's a specific asset being involved: CBs have tools that are general
- Acting on IR causes a short-term loss of growth, employment and inflation (with heavy political pressures)
- Hence, CBs **do not respond** to burst bubbles, but to facilitate **recovery**: it's questionable to say that they are "late", or "did not see it"
- Other players maybe, like regulators and supervisors?

CB AND ER

CBs act also on currencies:

- By buying/selling international reserves, changing the monetary base and the value of the domestic currency: **unsterilised intervention**
- **Sterilised interventions** add another offsetting open market transaction to keep the monetary base stable: no effect on ER or IR, but **signaling** effect on future actions

CBs could be involved because of ER regimes:

- **Floating** ER regimes (managed/dirty) with domestic effects
- **Fixed** ER regimes, setting an anchor, require availability of international reserves: if insufficient a devaluation occurs

THE INTERNATIONAL FRAMEWORK

Why choose fixed or floating?

- *Floating* systems can induce inflation or damage internal economy through wide fluctuations
- *Fixed* systems can lead to currency crisis and attacks, is expensive and make CBs give up on inflation
- Some countries tried **capital inflow-outflow restrictions:** black markets!
- The global system is a mix of **managed floats** and **temporarily fixed** ER

EXAMPLES

1. On 7th Nov 2013 the ECB cuts IR to an all-time low of 0.25%. On "The Economist"…

[…] inflation in the euro zone had plunged […] to 0.7% in October. […] the European Central Bank responded by cutting its main policy rate from 0.5%. […] The ECB also extended the time that banks can borrow unlimited amounts from it from mid-2014 to mid-2015.

What are the immediate consequences in terms of ER?

The decision came as a surprise–the euro fell sharply against the dollar-even though the collapse in inflation had brought it a percentage point under the central bank's target of "below but close to 2%.

Traders [thought] that any rate cut would be delayed until December. […] ECB usually moves in a ponderous way. […] the 23-strong governing council would then have available new staff forecasts.

[…] it still remains slow-moving and fettered compared with other central banks

Is the ECB facing new troubles?

[…] falling inflation […] could be highly corrosive, especially if inflation turns to outright deflation. […] once people start to expect falling rather than rising prices it can be very difficult to reverse.

[…] inflation […] is now lower than in Japan. […] Mr Draghi said that the euro area did not face the risk of Japanese-style deflation [but] "a prolonged period of low inflation" until "a gradual" return towards the ECB's target. That […] is deeply worrying, for two reasons.

Why?

[1] sickly countries […] are weighed down by excessive debt. […] it becomes much more difficult

[2] harder to regain their competitive edge, forcing them towards the deflationary precipice.

Enough?

[…] The ECB […] is still not doing enough: […] one option [is] a negative rate on CB's deposits.

EXAMPLES

2. ESCB annual report: https://www.ecb.europa.eu/pub/annual/html/ar2019~c199d3633e.en.html