FINANCIAL MARKETS AND INSTITUTIONS

CENTRAL BANKS

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DEAMS
University of Trieste

AGENDA

- The FED vs the ECB
- Rationale of different CB models
- Monetary policy instruments and goals: rationale of different CB mandates
- Monetary policy and financial crisis
- The international financial system

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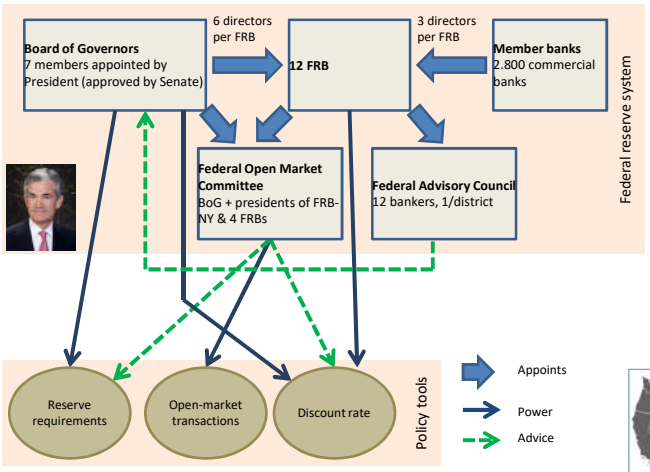
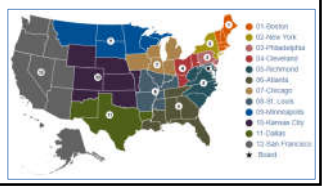
THE US/FED SYSTEM

Complex balanced system of powers, controls and responsibilities

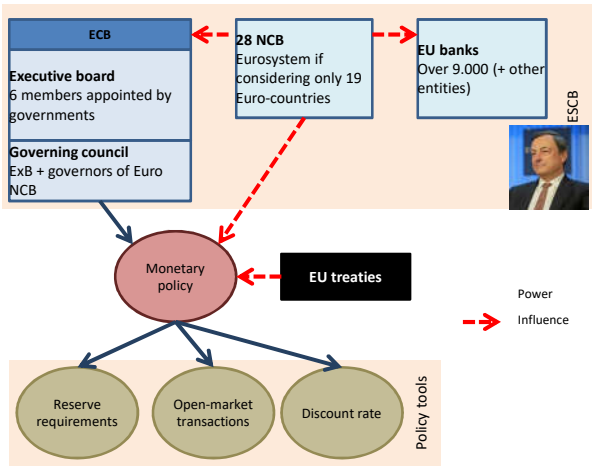


- BoG: chairmen has public and internal influence
- FOMC ("the Fed"):
- Free choice of policy instruments and goals
- However, influence derives from Congress (laws) and President



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

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DIFFERENT MODELS: WHY?

- **Pros** of independence (stronger empirical evidence):
  - Political shortsighted influence can produce inflation by acting on short-term goals (unemployment and IR) depending on election dates rather than economy needs
  - Treasuries' influence could accumulate risk by promoting abnormal absorption of public debt
  - Monetary policy requires great expertise, historically lacking within political circles
- **Cons** of independence:
  - Lack of responsibilities and democratic control/sovereignty
  - No actions possible in case of poor CB's performance
  - Politicians acting on fiscal policy can be opposed by unaccomodating monetary policy
  - Independence did not avoid policy failures (f.i. Great Depression)

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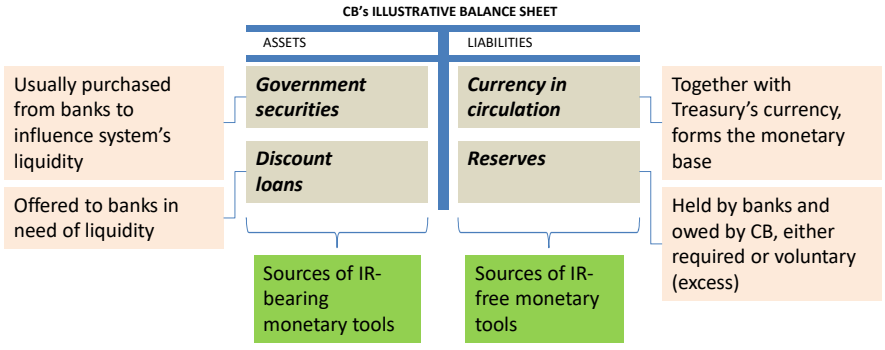
MONETARY POLICY

Clearer by adopting an accounting perspective



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MONETARY POLICY TOOLS

Open market operations

- Main policy tool in influencing IR and system's liquidity
- Purchases increase reserves (CB's liabilities) and securities (CB's assets), through the banking system that sees an increase in monetary base and money supply (the opposite for sales)

Discount lending

- Also important tool, yet more "localised"
- More discount loans increase reserves (CB's liabilities) and loans (CB's assets), through the banking systems that sees an increase in monetary base and money supply (the opposite on repayment)

Reserve requirements

- Although infrequent, mandatorily increase demand for reserves

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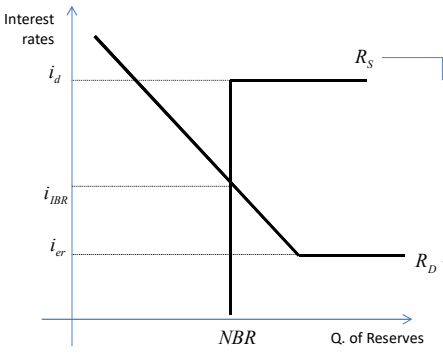
MONETARY POLICY TOOLS

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

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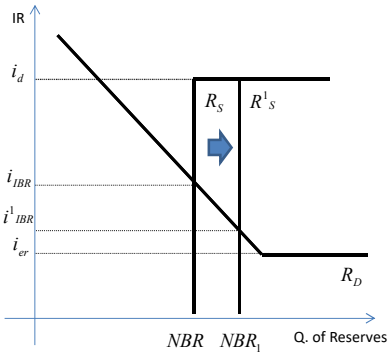
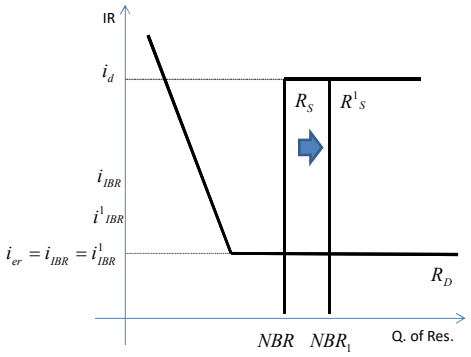
MONETARY POLICY TOOLS

Effects of open-market operations (purchase)





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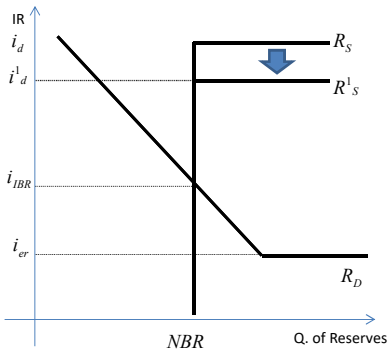
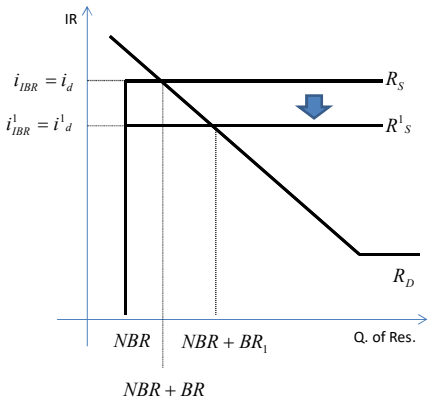
MONETARY POLICY TOOLS

Effects of discount lending (lower IR on discounts)





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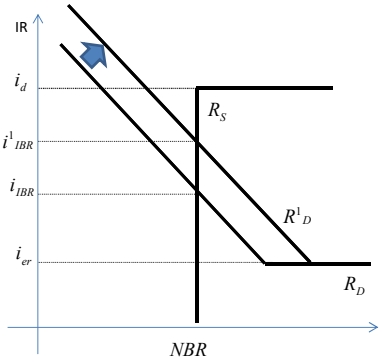
MONETARY POLICY TOOLS

Effects of reserve requirements (increase)



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

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MONETARY POLICY TOOLS

Use of open-market operations

- Involving 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
- ECB: main refinancing operations (MRO), long-term refinancing operations (LTRO) and securities markets program (SMP)

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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
- For ECB, main reference is to "marginal lending facility"

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MONETARY POLICY GOALS

Primary goal: price stability

- "Low" and stable increase in price level
- Reduced uncertainty and economic growth
- Nominal anchor: choosing of a target variable:
  - Typically, inflation or money supply
  - Reduces time-inconsistency problems: short-run policies hamper long-run efficacy
  - Constrains discretionary policies

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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 of labour) is outside CBs' powers
  - match demand and supply: natural rate of unemployment
- Economic **growth**: promoting investments and savings, also in combination with fiscal policy
- **Financial markets stability**: by responding to excessive or insufficient funds within intermediaries
- **IR stability**: reducing fluctuations that create uncertainty
- **ER stability**:
  - to assist internal competitiveness and avoid "imported" inflation
  - to reduce uncertainty and assist economies highly dependent on foreign trade

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MONETARY POLICY GOALS

Relationship between goals:

- In the long run all goals converge whereas in the short term can conflict:
- Therefore CBs are usually ruled as follows:
  - By **hierarchical mandates**: setting price stability as the primary goal, and growth and employment as secondary objectives (f.i. ECB), preferred since time inconsistency is reduced and as long as other goals are pursued
  - By **dual mandates**: achieving together price stability and minimum unemployment (f.i. FED)
- Short-term fluctuations of price stability are tolerated to achieve other goals if not contrasting with long run price stability

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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 excessively rigid
- Acting on inflation is difficult, so CBs choose **intermediate targets**: monetary aggregates and IR

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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…

IR!

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MONETARY POLICY AND CRISIS

Asset-price bubbles can lead to crisis:

- Credit-driven: easy credit artificially inflates an asset's price, and when the tendency is reverted credit losses arise and asset values are destroyed (f.i. subprime mortgage crisis)
- Irrational exuberance: excessive optimism over a category of assets inflates its price, and when the tendency is reverted it has a negative impact on economy (f.i. "New economy" bubble)

CBs should therefore consider the following:

- Exuberance bubbles are hard to identify ("beat the market"?) and its impact is not so dangerous to the overall economy
- If credit is booming, it is easier to see it and the impact of a following crisis is usually huge

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MONETARY POLICY AND CRISIS

How should CBs respond?

- Influencing IR has uncertain outcomes: it does not reduce the expectation for high returns of "bubble-investors" and higher IR make bubble burst more severely
- Usually it's a specific asset or a certain asset class being involved: CBs have tools that can impact general macroeconomic variables, instead
- Acting on IR causes a short-term loss of growth, employment and desired inflation (with heavy political pressures)
- Hence, CBs **do not respond** to burst bubbles, but to facilitate **recovery**
- Other players should come in before:
  - Regulators
  - Supervisors

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THE INTERNATIONAL FRAMEWORK

CBs intervene also in the Forex:

- By buying/selling international reserves, thus reducing/increasing the monetary base and appreciating the domestic currency: unsterilised foreign exchange intervention
- Sterilised interventions require an additional offsetting open market transaction to leave the monetary base stable, hence no effect on ER or IR, but signaling effect could influence demand due to future expected monetary policy actions

CBs could be involved because of ER regimes:

- **Floating** ER regimes can be influenced (managed/dirty) with domestic effects
- **Fixed** ER regimes, setting an anchor, need to be managed but require availability of international reserves: if insufficient a devaluation occurs, if excessive a revaluation

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THE INTERNATIONAL FRAMEWORK

Why choose fixed or floating?

- *Floating* systems can induce in smaller countries inflation or lack of monetary policy discipline, but wide fluctuations can damage internal economy
- *Fixed* systems can lead to currency crisis exposing countries to speculative attacks, is expensive to be kept in place and make CBs give up control on monetary policy
- Several countries tried **capital inflow/outflow restrictions** to avoid currency crises (fueling black markets)
- The resulting global system is a mixture of **managed floats** and **temporarily fixed** ER

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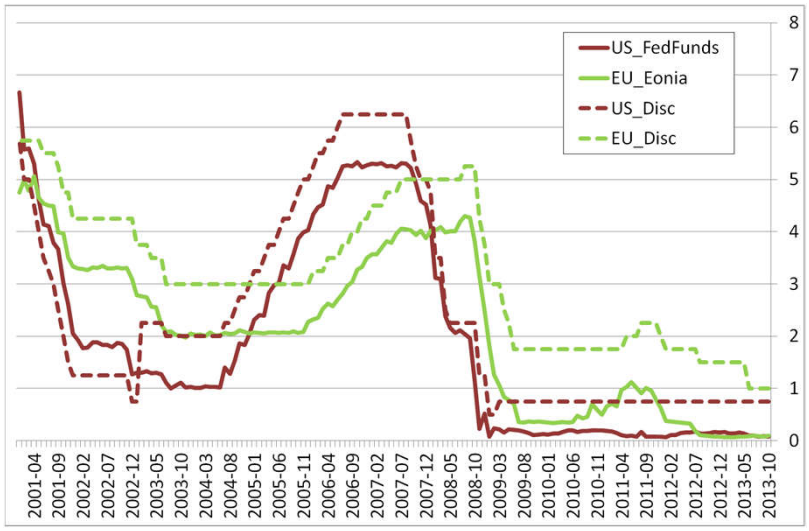
EXAMPLES

1. What is the comparison between IR of interbanking loans and CB's discount rates in US and EU suggesting?



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EXAMPLES

2. On 7th Nov 2013 the ECB "surprisingly" cut IR to an all-time low of 0.25%. The following is part of an article from "The Economist". Comments?

[…] 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.

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EXAMPLES

3. SEBC annual report:
https://www.ecb.europa.eu/pub/pdf/other/eurosystembalancesheet2016.en.pdf

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EXAMPLES

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