2. Current central banking in the elastic money system. *Inflation* and *exogeneous* vs. *endogenous* money

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Let‘s first debate the costs of Inflation in elastic money system

- High inflation <u>disruptive for economic activity</u>. The debate now centers on the advantages of, for instance, 0% versus 4% inflation a year. Above 5% certainty about generally negative consequences of inflation. Blanchard (2006)

<u>Within that range</u>, economist identify four main costs of inflation: (1) shoe-leather costs

(2) tax distortions

(3) money illusion

(4) inflation variability

Shoe-leather costs and tax distortions

- **Shoe-leather costs** are the costs of making more trips to the bank in the presence of inflation. They reflect an increase in the opportunity cost of holding money.

- **Tax distortions** occur when tax rates do not increase automatically with inflation, a concept known as bracket creep. Income for purposes of taxation includes nominal interest payments, not real interest payments.

Inflation variability and money illusion

- **Inflation variability** means that financial assets such as bonds, which promise fixed nominal payments in the future, become riskier.

- **Money illusion** is the cost of inflation associated with the notion that people make systematic mistakes in assessing nominal versus real changes, leading people to make incorrect decisions.

The Benefits of Inflation

Low inflation is actually not entirely bad. According to Blanchard (2006) one can identify three benefits of inflation:

(1) seignorage of the central bank

(2) the option of negative real interest rates for macroeconomic policy

(3) the use of the interaction between money illusion and inflation in facilitating real wage adjustments.

Benefits in detail

- **Seignorage**, or the revenues from money creation, allow the government to borrow less from the public, or to lower taxes

- An economy with a higher average inflation rate has more scope to use monetary policy to fight a recession

- The presence of inflation allows **for downward real-wage adjustments more easily than when there is no inflation**

The essence of monetary policy in elastic money systems

- In short, an economy with a **higher average inflation rate has more scope to use monetary policy to fight a recession**

- **<u>The essence of monetary policy in elastic money system – to make sure adjustment to shocks is not entirely borne by the real economy</u>**

- An economy with a low average inflation rate may find itself unable to use monetary policy to return output to a natural level of output. <u>Exactly this has happened after 2008!</u>

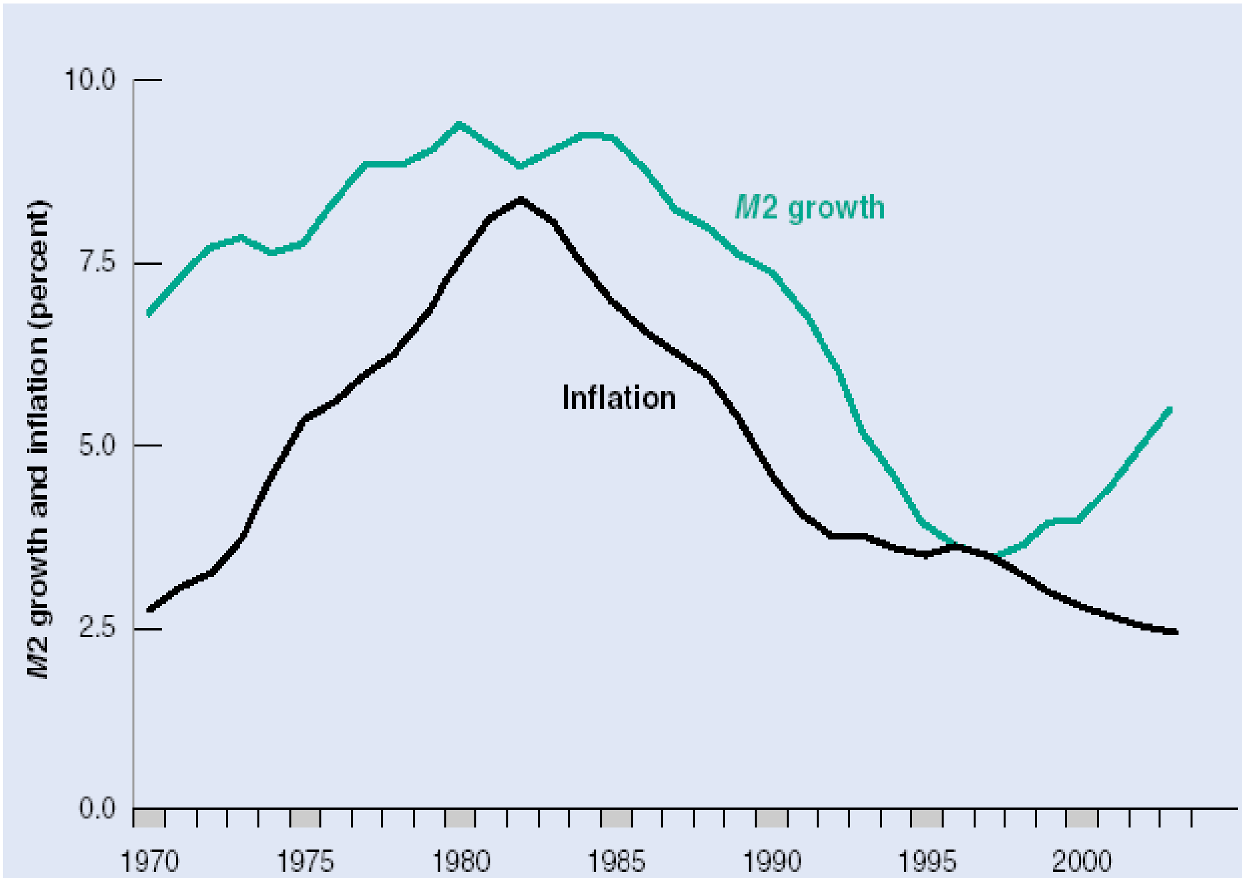
The Optimum inflation rate

- Those who aim for small <u>but positive inflation argue that some of the costs of positive inflation can be avoided, and the benefits are worth keeping</u>

- Those who aim for zero inflation argue <u>that this amounts to price stability, which simplifies decisions and eliminates money illusion</u>

- Today, most central banks appear to be aiming for a low but positive inflation around 2%. See further lectures for more detailed exposure.

Exogeneous vs. endogenous money supply: What causes what?



M2 Growth and Inflation: 10-year averages, 1970-2003

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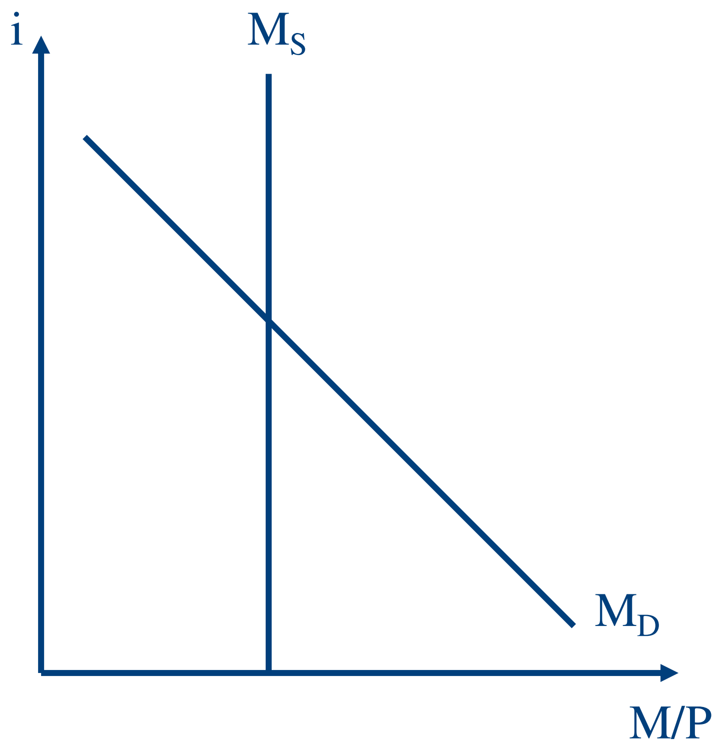
Exogeneous vs. endogenous money supply



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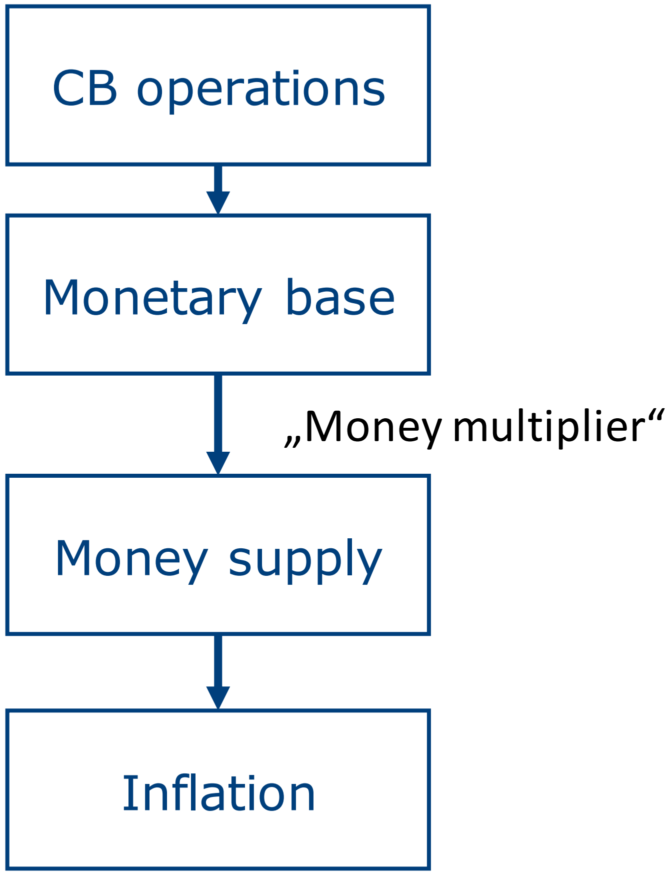
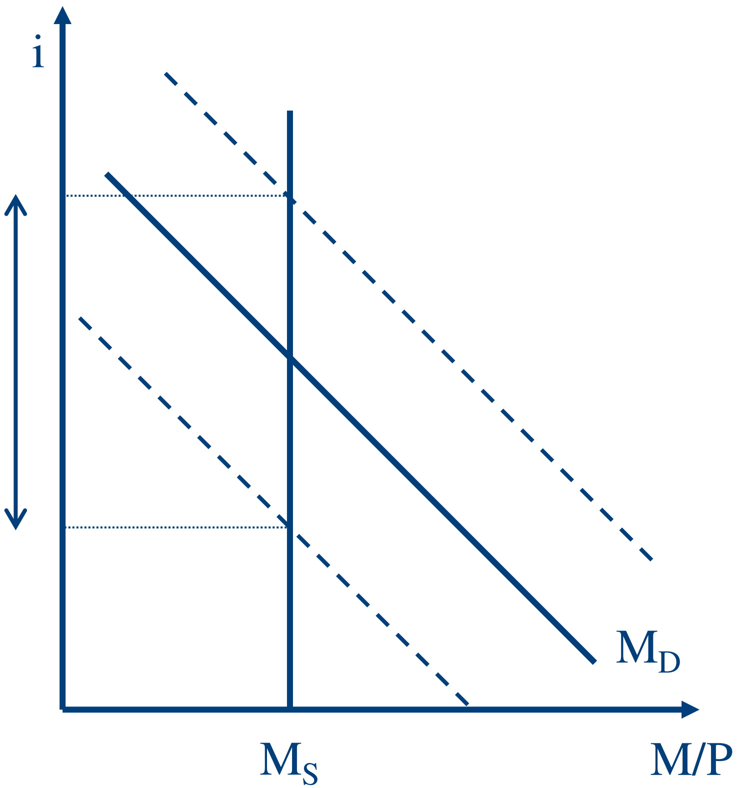


This monetary mechanism traditional in textbooks. It is called exogeneous. CB has got money supply entirely under its control and can change the amount of money as it wishes.

Exogeneous vs. endogenous money supply



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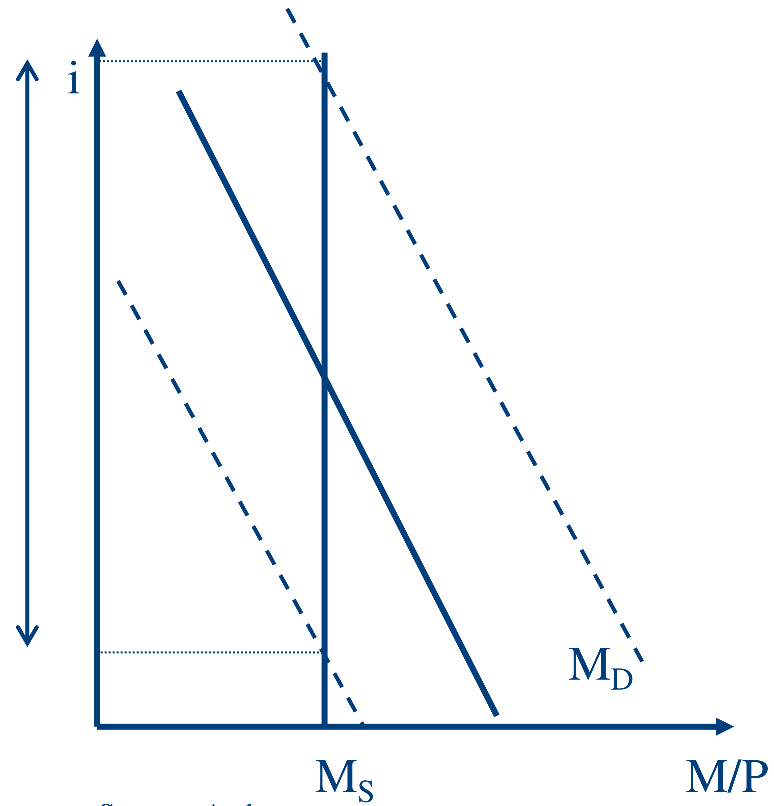

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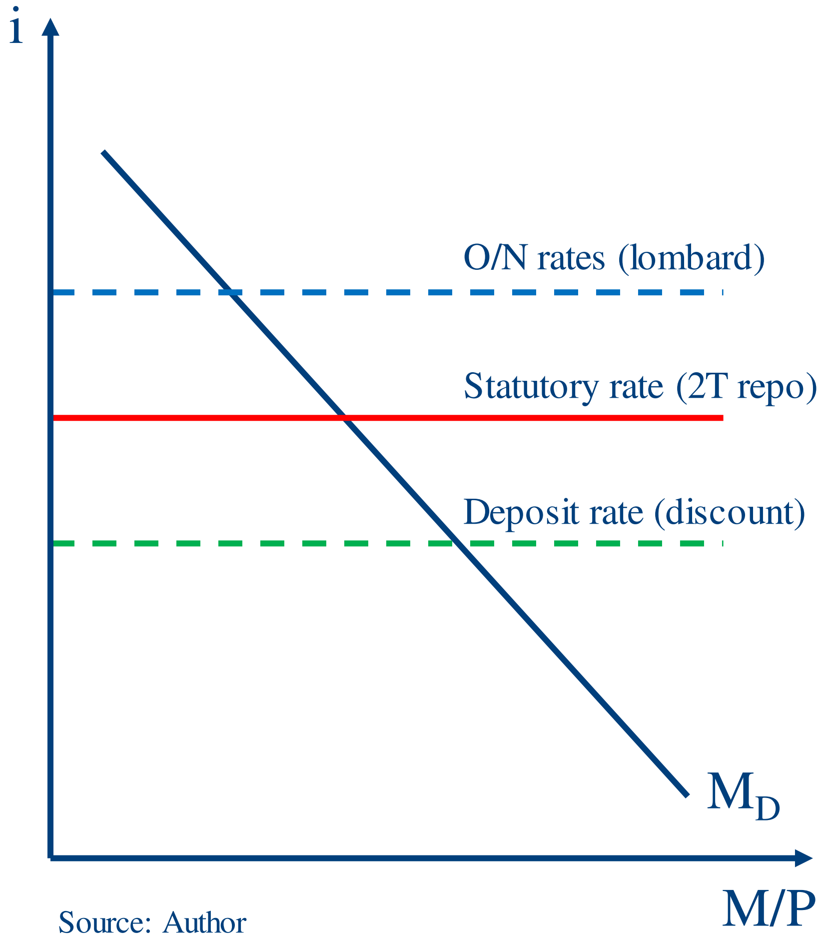
In this system <u>fluctuations in demand for money mean fluctuations of interest rates</u>

Fluctuations are the bigger, the less sensitive is demand for money to changes of interest rates.

Monetarists didn‘t argue for stable interest rates!

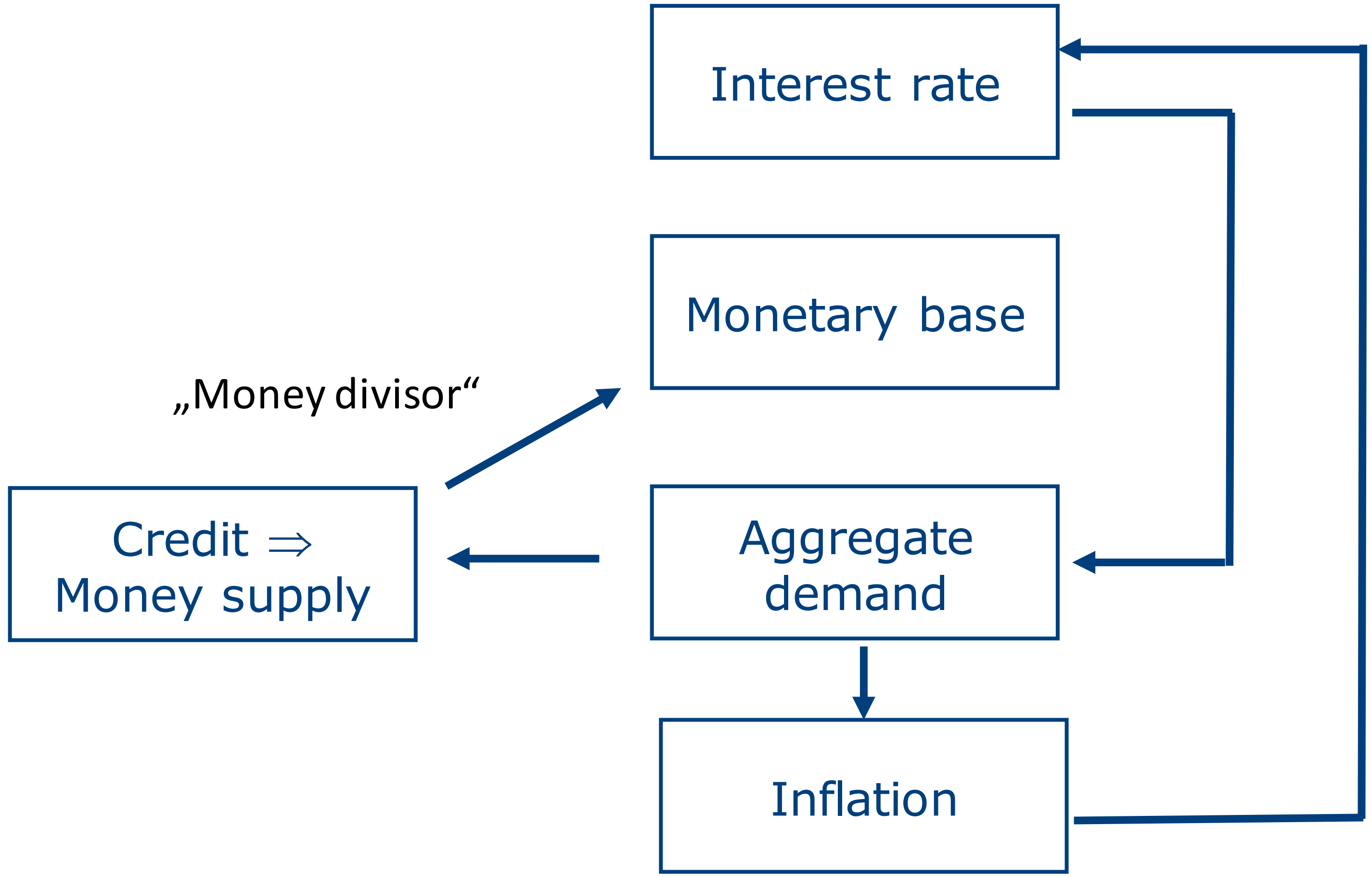
Exogeneous vs. endogenous money supply



Source: Author

- In reality CB controls only interest rates
- Interest rate a standard instrument in standard times
- Interest rates change and money supply adjusts accordingly
- Money supply is not under control of CB, just a residual
- Money supply endogenous

Exogeneous vs. endogenous money supply



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Money supply is not exogenous, but rather <u>endogenous</u>. Money is being created by providing credit to the real economy by credit institutions, not by active monetary operations of CB towards credit institutions.

Exogenous and endogenous

- Exogenous: classical economist, monetarists, partially RBC economists

- Endogenous: post-keynesians, partially neo-keynesians and mainstream monetary theory
  (see further lectures)

Bindseil (2004) describes why the debate on the control variable of the central bank that crucial.

References:

1. **Bindseil, U., 2004.** „The Operational Target of Monetary Policy and the Rise and Fall of Reserve Position Doctrine“, ECB Working Paper No. 372, June 2004.
2. **Blanchard, O., 2006.** „Macroeconomics“, Prentice Hall Business Publishing.

Thank you for your attention!

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