INTRODUCTION TO MACROECONOMICS

Week 2

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September 2024

1. The Practice of Macroeconomics

Macroeconomics vs Microeconomics

Microeconomics:

- Studies the optimal decision making process of a household, a firm, one market.
- Usually, this process is considered free from any political interference (trade-unions, business confederations, lobbying processes)

Macroeconomics:

- Studies the working of an economy as a whole (all households, all firms, all markets)
- Usually, the economic policies that are designed by public decision making institutions (Government, Central Bank, and others) to manage the performance of the economy are not free from political influence and lobbying processes.

Macro vs Micro: (cont.)

Some examples:

- The interest rate that Maria pays for her mortgage is a "micro" variable
- The interest rate that the European Central Bank (ECB) sets for the entire EuroZone (EZ) is a "macro" variable

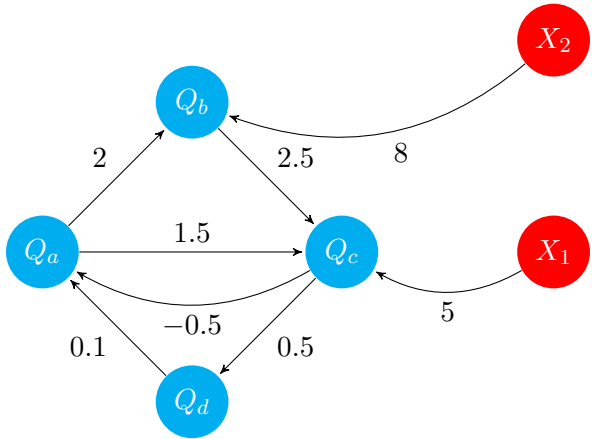
- The increase in the price of electricity is a "micro" variable
- The rate of inflation (of all goods and services) is a "macro" variable

- Can you come up with another example?

Why Macroeconomic Models?

- **Complexity**. The structure of an entire economy is extremely complex: millions of consumers, firms by the hundreds of thousands, a huge number of goods and services, a massive number of prices, and so on ...
- **Experiments are impossible**. It is simply impossible to "see" what is happening in the tremendous complexity beneath a modern economy.
- **Simplify**. We need to simplify that huge complexity: that is the task of building an (abstract) economic model
- **Model**: a simplification ... not a falsification of economic reality

An Example of a Model



Output: Endogenous variables (Q_a, Q_b, Q_c, Q_d)
Input: Exogenous variables (X_1, X_2)
Structure: Parameters: $(2, 0.1, -0.5, 8, 1, 5, ...)$

The Elements of a Macroeconomic Model

- **Inputs**: the values of exogenous variables
- **Structure**: set of impacts given by the parameters values
- **Outputs**: values of the endogenous variables
- Agents:
  - **Private agents**: consumers, firms, comercial banks, financial firms, foreign agents
  - **Public agents**: government, central bank (they have the power granted by law to implement policy measures)
- **Markets**: Goods & Services (G&S), labour, money, foreign currencies

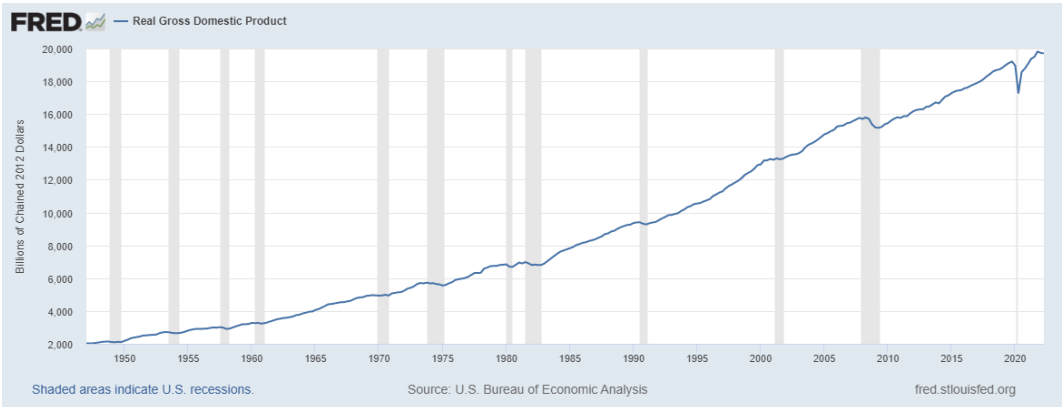
2. The Purpose of Macroeconomics

Main Macroeconomic Variables

- Macroeconomic models focus in particular on four crucial economic data series:
  - Real GDP (Gross Domestic Product)
  - Unemployment rate
  - Inflation rate
  - Interest rate
- For the US go here: FRED Economic Data
- For the EU go here: EUROSTAT: Your Key to Economic Indicators
- For the world go here: CONFERENCE BOARD: Total Economy Database
- We will make extensive use of the FRED data and Total Economy Database

Real GDP

Next week, we will define with rigor what "Real GDP" is all about. This figure exposes the evolution of Real GDP for the US economy, for 1947-2021.

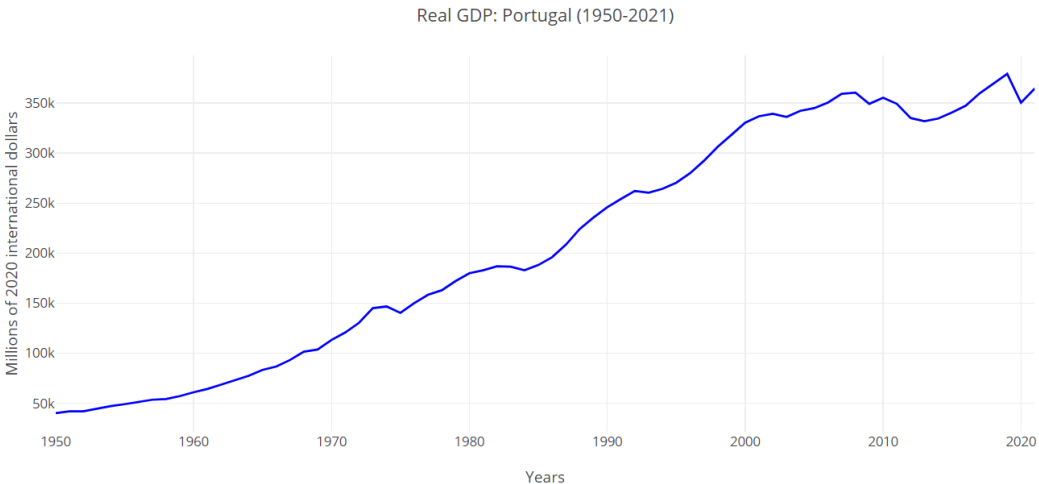


Real GDP vs Potential Real GDP

- The previous figure does not provide much information by itself.
- What more detailed information can we get? For example:
- In which periods GDP grew at higher rates?
- In what periods the US economy was performing above/below its potential GDP level?
- This raises to the surface another crucial aggregate: **Potential Real GDP**.
- **Business cycles** consist of short-term variations in macroeconomic activity and comprise booms & recessions.
- An economic recession: Real GDP is much smaller than Potential Real GDP.
- An economic boom: ???

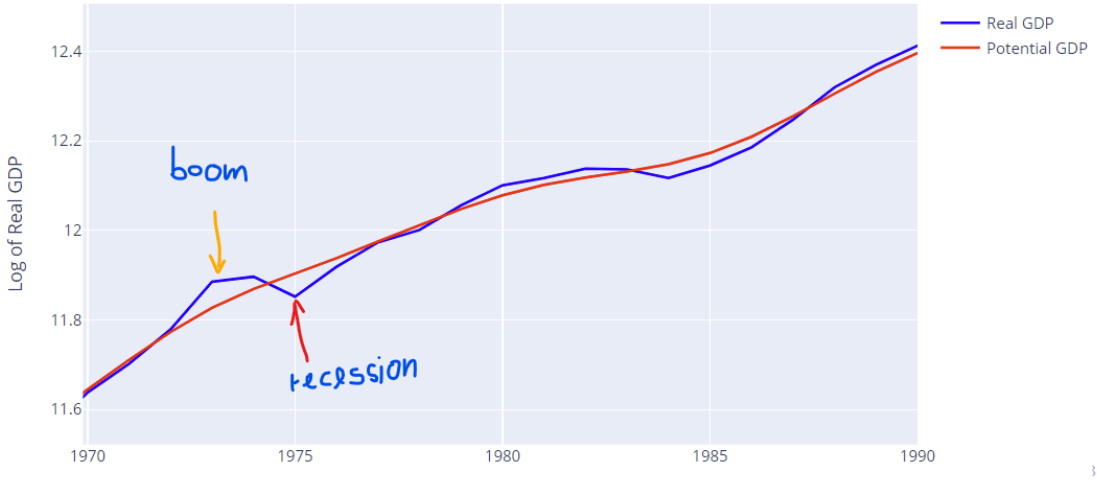
Real GDP: Portugal (1950–2021)

Data: "The Total Economy Database"



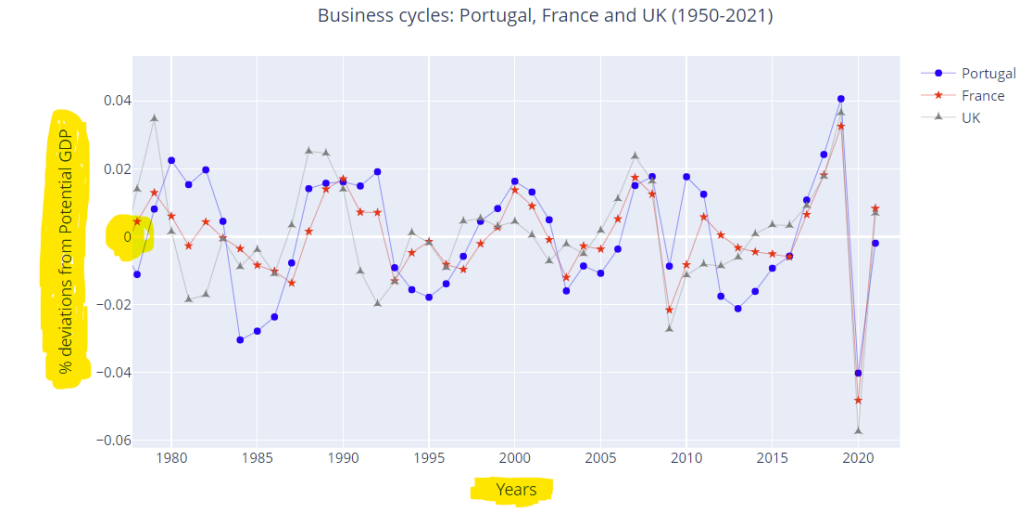
Real GDP vs Potential GDP in Portugal

Data: "The Total Economy Database"



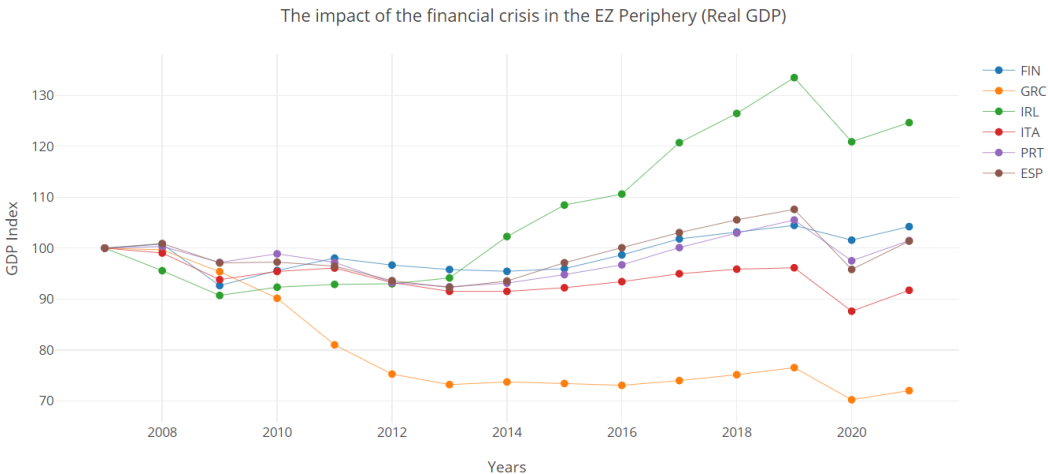
Business Cycles: Portugal, France & UK

Data: "The Total Economy Database"



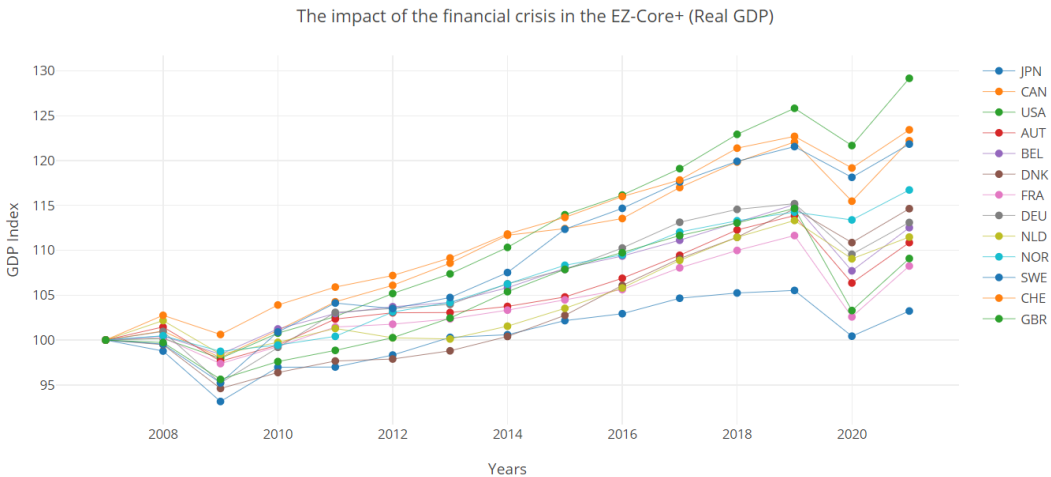
Impact of Business cycles: EZ periphery

Data: "The Total Economy Database"



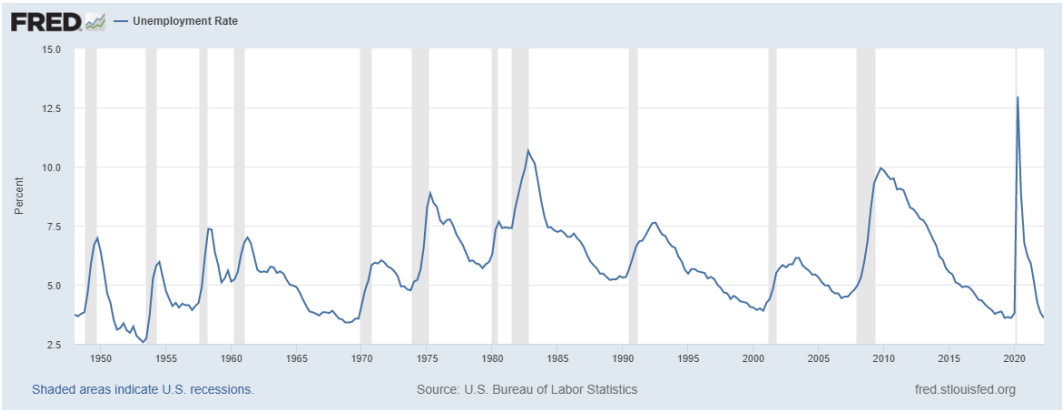
Business cycles outside the EZ periphery

Data: "The Total Economy Database"



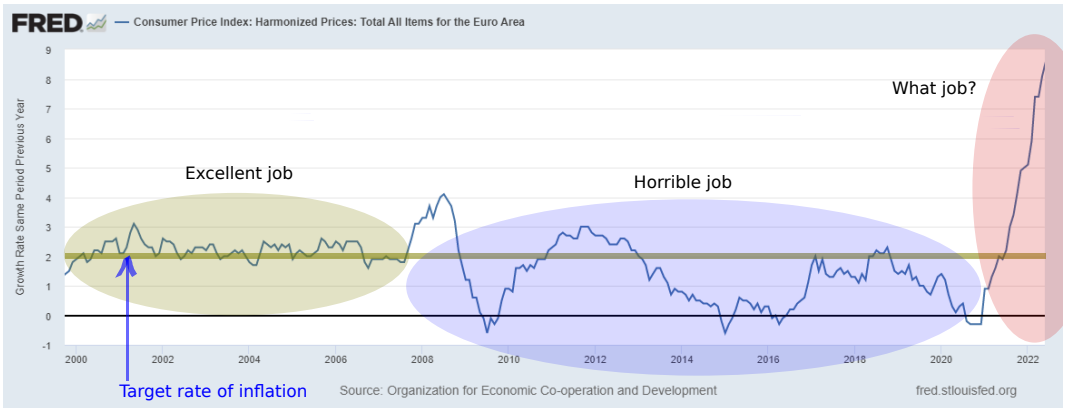
The Unemployment Rate (US)

The unemployment rate measures the percentage of workers looking for work, but who do not have jobs, at a particular point in time.



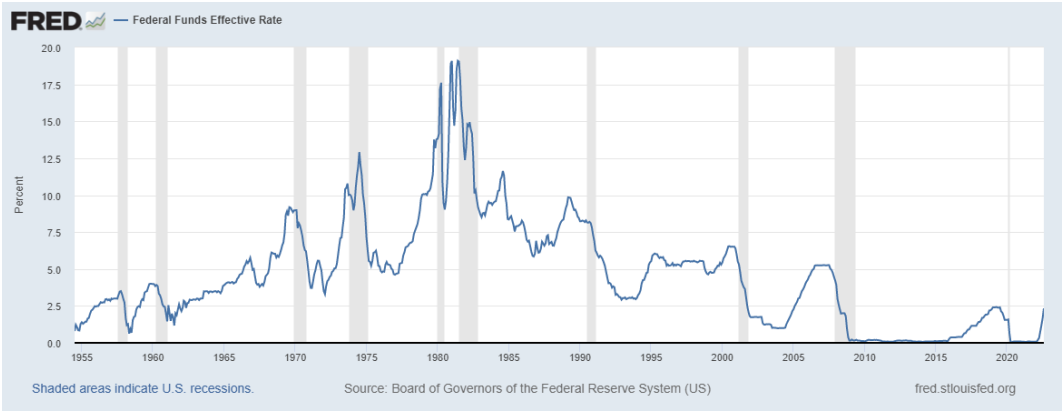
The Inflation Rate (EZ)

The inflation rate is, normally, taken as the percentage change in the CPE (Consumer Price Index). Central banks have a target level: 2% per year.



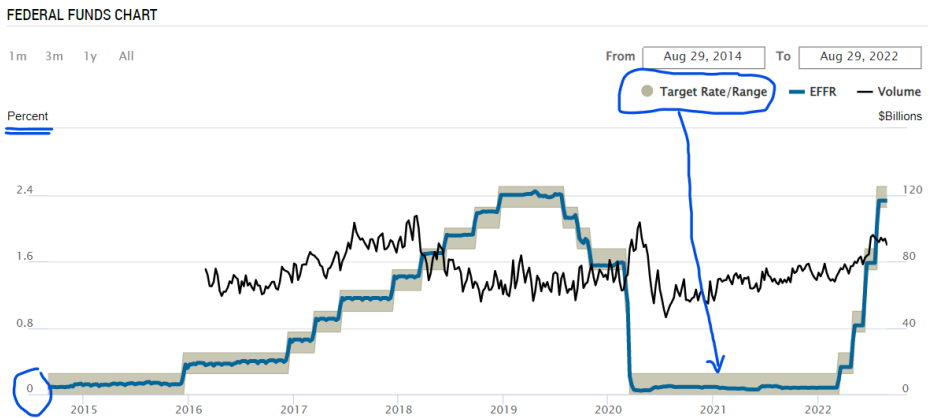
The Interest Rate (US)

The federal funds rate is the rate at which banks trade money (dollars) with each other overnight. The effective federal funds rate is determined by the market but is highly influenced by the Federal Reserve.



The Target Interest Rate (US)

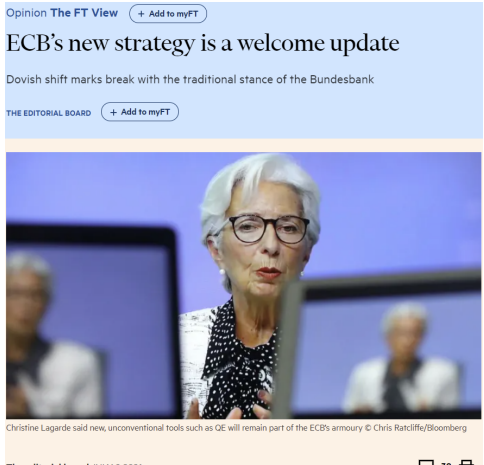
The Federal Open Market Committee (FOMC) establishes the target rate, or range, for trading in the federal funds market. See FRB of New York



3. Macroeconomic Policy

The Economy is Very Volatile: I

In the **summer of 2021**, we were extremely concerned about DEFLATION. One FT's editorial applauded the move by the ECB to review its policy strategy in July 2021.



The Economy is Very Volatile: II

In the **summer of 2022**, we are extremely concerned about ramping INFLATION. Another FT's editorial supports the aggressive moves by central banks (dramatic increses in interest rates).

Opinion **The FT View** + Add to myFT

A pivotal moment for central banks

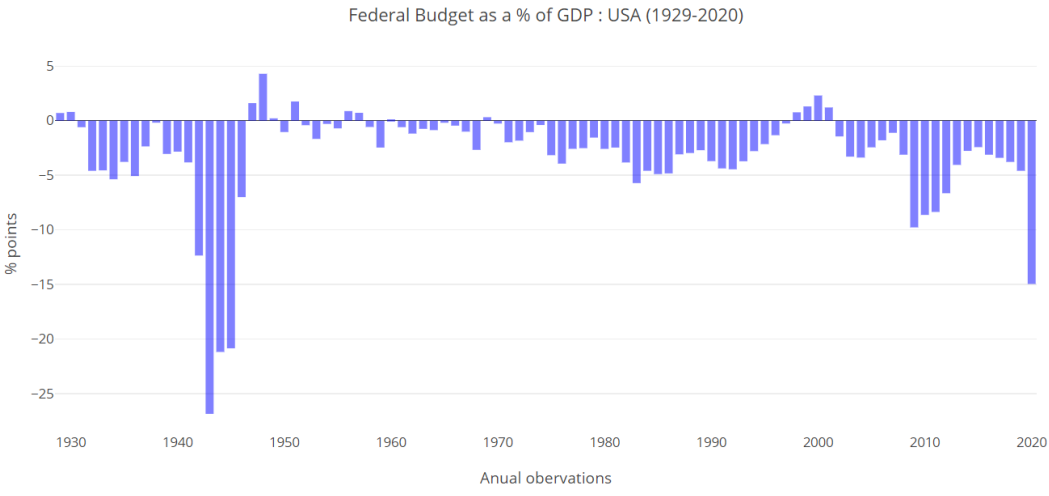
Jackson Hole is a time to reflect on where policymakers made mistakes

THE EDITORIAL BOARD + Add to myFT

Last month US inflation reached 8.5 per cent. Eurozone inflation hit 8.9 per cent. Citigroup now forecasts UK inflation will hit 18.6 per cent in January — nine times the Bank of England's 2 per cent target © FT montage/Getty Images/Reuters/Bloomberg

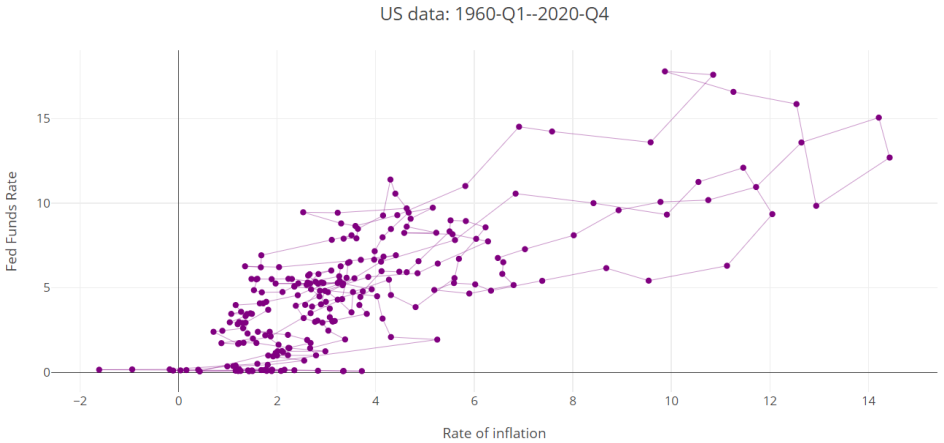
Fiscal Policy and the US Budget: 1929-2020

US Government Budget. Source: FRED



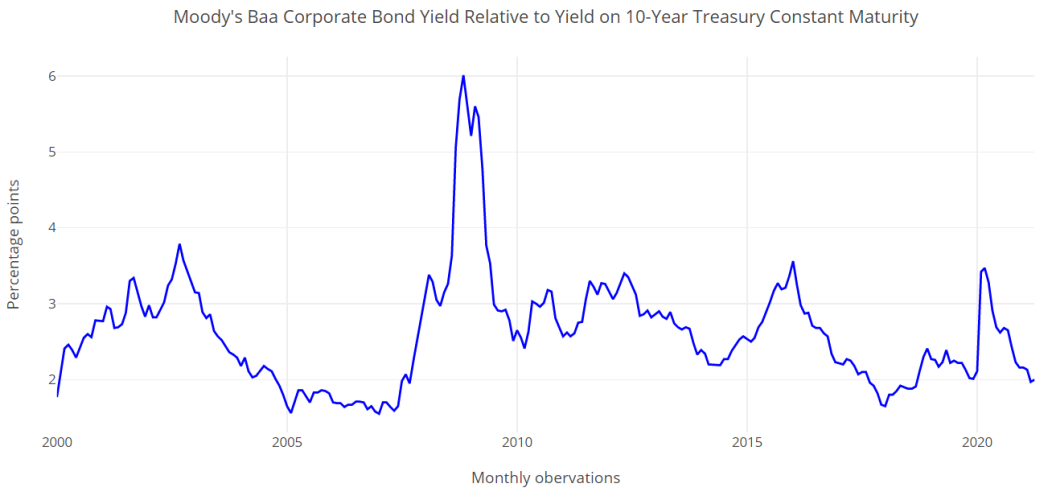
Reduce Inflation: How Costly Is It?

Central banks conduct monetary policy to keep inflation close to 2%. If inflation jumps above that level, the bank will produce a sharp increase in interest rates, causing a recession and higher unemployment. Cost: lost GDP, jobs destroyed.



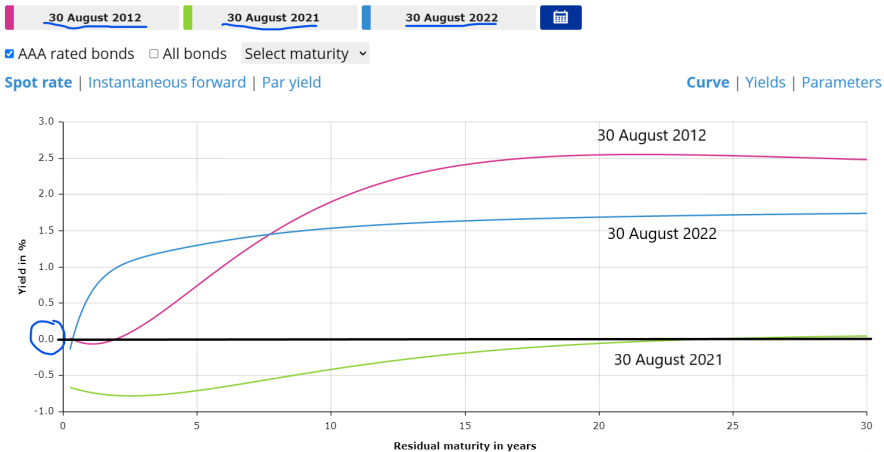
Financial Crises and Spreads

Financial crisis lead to large and unexpected increases in spreads in the financial markets. Source: FRED



Macroeconomic Instability and Yields

Macroeconomic instability leads to large and abrupt changes in the yields of financial assets. Source: European Central Bank



How Active Should Stabilization Policy Be?

- An important goal for macroeconomic policy is to minimize business cycle fluctuations and stabilize economic activity, commonly referred to as **stabilization policy**

- There are two groups of economists who take opposite positions regarding stabilization policy

  - **Activists** (also known as Keynesians): they favor the extensive use of such policy

  - **Non activists** (also known as Classicals): they are against the use of such policy, arguing that markets work very well and have self-correcting mechanisms

Should Macroeconomic Policy Follow Rules?

- The two fundamental macroeconomic policies are:
  - Fiscal policy (Government)
  - Monetary policy (Central Bank)
- Should those policy-making institutions conduct their policies according to:
  - **Discretion**: no rules previously announced; decide as you consider best, given the circumstances.
  - **Commitment to rules**: announce rules and show commitment to such rules no matter the circumstances that my come.
- Rules are good but sometimes they may put policymakers in a straitjacket.
- We are going to study a rule largely discussed in monetary policy: the **Taylor Rule**.

4. Readings

Readings

Read Chapter 1 of the adopted textbook:

Frederic S. Mishkin (2015). *Macroeconomics: Policy & Practice*, 2nd Edition, Person.