Inflation, pt. 3

EC 103–004

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Motivation

Housekeeping

Required readings:

- `Board of Governors of the Federal Reserve System`
- `FAQs About Treasury Marketable Securities`

Required listening:

- `Monetary Policy - The Economic Lowdown Podcast Series`
- `Planet Money podcast: The Fed & Volcker's Socks`

Central banks & inflation

Central banks & inflation

Central Banks play a crucial role during an inflationary period.

- But **why** is that so?

So far, we have studied **how** aggregate output (GDP), unemployment, and inflation are *computed*.

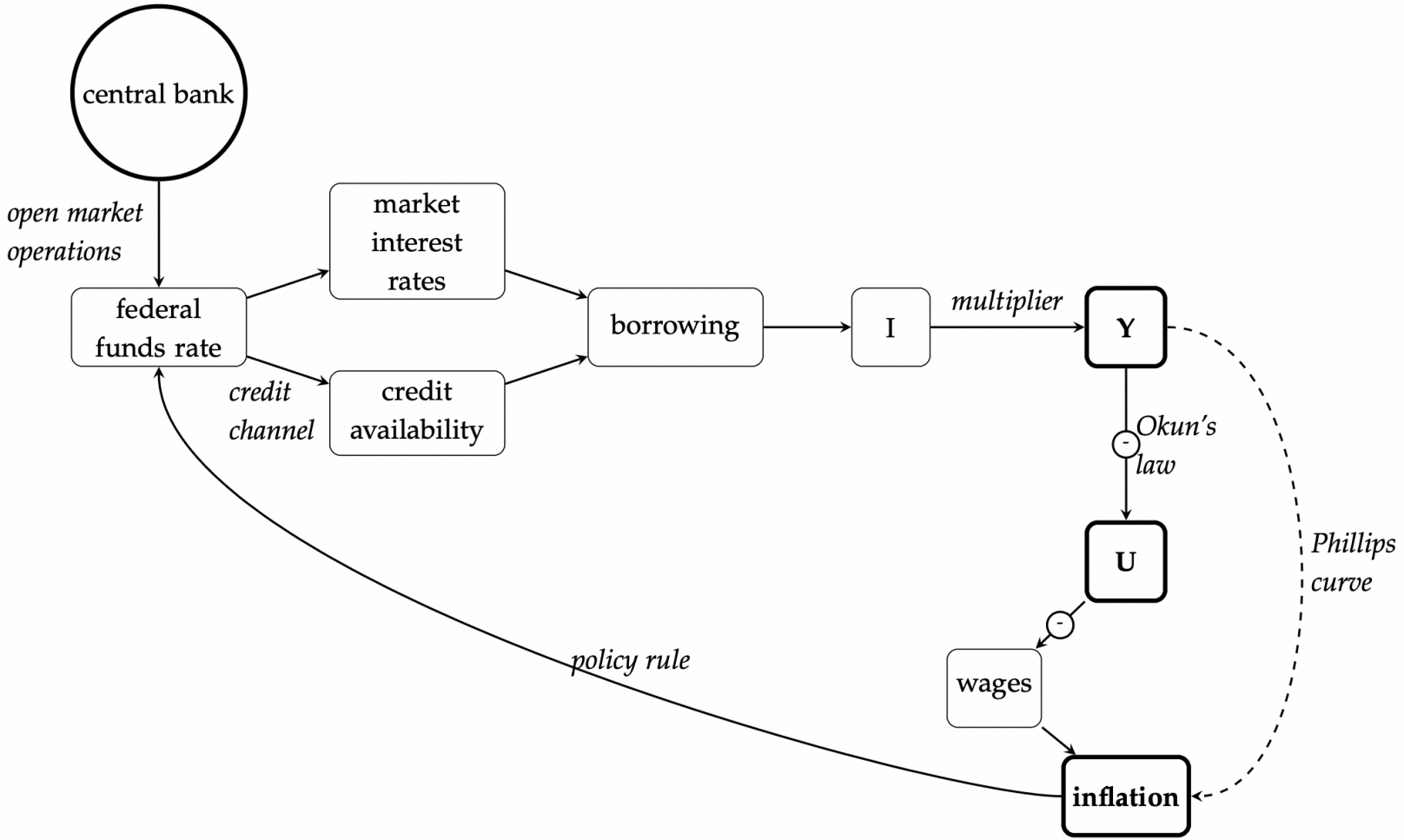
In addition, we have seen how these variables are **intertwined**:

- *Okun's law*;
- The *Phillips curve*.

Now, it is time to see what **policy instruments** can bring **stability** to these relationships.

- More specifically, we will connect this issue with what is going on **today**.

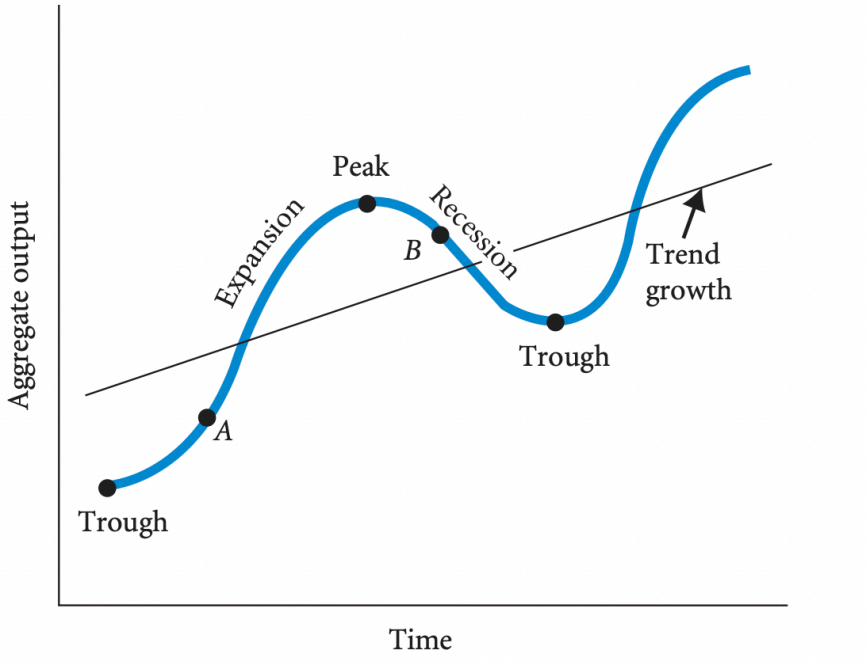
Central banks & inflation



Central banks & inflation

Over the past four decades, governments have delegated to **Central Banks** the role of *addressing macroeconomic (in)stability*.

In other words, Central Banks would act to make **business cycles** *smoother.*



Central banks & inflation

Depending on the **state** of the economy, aggregate spending (mostly via aggregate *consumption* and *business investment*) will either over or underwhelm the economy's productive capacity.

When the economy is **overheated**, individuals try to buy *beyond* what producers can make available.

- **Aggregate demand** can put pressure on the price level.

Conversely, when there is excess **supply** of goods and services, more people tend to be unemployed and the price level tends to fall.

In both scenarios, **central banks** are the those in charge of adjusting **observed GDP** to its **potential** level.

Central banks & inflation

There are **several** ways in which central banks can act as to either **encourage** consumers and firms to spend more, or to **cool down** aggregate demand.

This way, central banks basically employ **countercyclical** policies to manage the economy.

> **Countercyclical** policies are measures that aim to either *boost* aggregate demand in recession periods, or *hit the brakes* on demand when the economy is overheated.

Economic policies conducted by central banks fall under the category of **monetary policy**.

> **Monetary policy** involves influencing the economy through changes in the banking system's *reserves*, thus affecting the *supply of money* and the availability of *credit*.

- The **main** monetary policy tool is controlling **interest rates**.

Monetary policy

Monetary policy

How much money, **how easy** to obtain money, and **how costly** it is to have money in hand are crucial factors in a money- and credit-based economy.

Beyond other issues, monetary policy addresses these three problems through **controlling interest rates**.

- `How much money?` Money supply;
- `How easy to obtain money?` Controlling credit access;
- `How costly to have money in hand?` Controlling interest rates.

These three categories go hand-in-hand via the **interest rate**.

> In **macroeconomic** terms, **interest rates** are the *price of credit*. In addition, interest rates can be thought of as the price of *current* money in terms of *future* money.

Monetary policy

Central banks usually **do not** have **power** over private banking institutions regarding what interest rates these will charge.

Instead, what central banks **can do** is creating **incentives** for these banks to to either *rise* or *lower* their rates, depending on the state of the economy.

In the case of the US economy, the interest rate that the US Federal Reserve (FED) controls is the **federal funds rate**.

> The **federal funds rate** is the interest rate large banks charge each other for *short-term* (usually overnight) reserve loans.

Monetary policy

Central banks may change their *policy rate* (i.e., the interest rate) through:

1. **Open market** operations;
2. Using the **discount window**;
3. Paying **interest on reserves**.

Monetary policy

Board time.

Monetary policy

Open market operations involve the central bank buying (selling) government treasuries, thus increasing (decreasing) the amount of reserves banks have to borrow.

Changes in the interest rate through the so-called **discount window** work in a similar way, but involve loans made directly by the central bank to other banks.

Lastly, the central bank may also pay **interest on banks' reserves**.

Monetary policy

Even though the **terminology** may be confusing, the federal funds rate is the **only** rate the central bank can actually decide on.

However, there are **several different** interest rates practiced in financial markets.

- 1-year government bonds;
- 10-year government bonds;
- 30-year mortgage...

Usually, these other interest rates will be equal to the policy (federal funds) rate, plus a **spread**.

Monetary policy

Another way of applying monetary policy is, instead of changing interest rates, act in the economy through the **credit channel**.

> The **credit channel** affects the *availability* of loans, even if interest rates remain unchanged.

This can be made concrete by banks being more **selective** in their lending decisions.

At the end of the day...

- How do interest rates **affect** spending decisions?
- In other words, how does monetary policy **affect** consumers and businesses?

Monetary policy

The *pipeline* goes as follows:

- The central bank changes its *policy rate*, namely the **federal funds rate**, which is the rate other banking institutions charge each other for short-term loans;
- According to the availability of reserves these banks have, their *nominal interest rate* (car loans, mortgage rates, etc.) will be changed, either making **credit** more or less accessible;
- How these interest rates change will affect households and businesses, especially in their **consumption** of durable goods (e.g., cars), and **investment** decisions (higher price of credit → less willingness to invest);
- With better (worse) access to credit, aggregate spending is more (less) encouraged. For the case of aggregate investment, an additional dollar spent on investment results in more than 1 additional dollar of spending, and thus, of GDP.
    - This is known as the **multiplier** effect of investment.

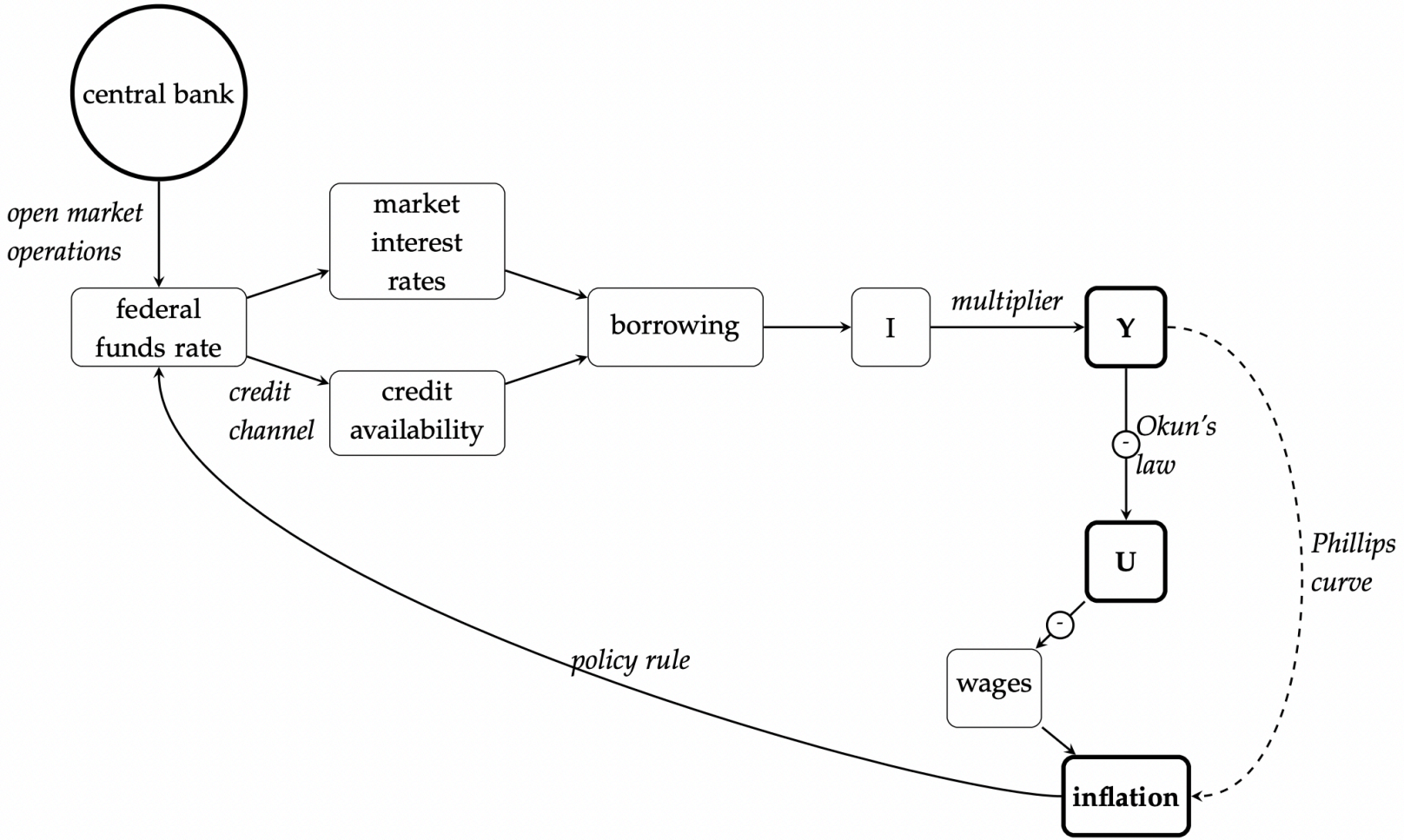
Monetary policy

- As predicted by **Okun's law**, higher (lower) production of goods and services (i.e, higher GDP) decreases (increases) unemployment;
- With lower unemployment, **wages** tend to go up, allowing workers to have a higher bargaining power relative to employers.
    - This tends to create a **wage-price spiral**, as predicted by the **Phillips curve**.

This pipeline is **not** assumed to happen in the very short-run.

Instead, the FED engages in monetary policy expecting results in a **one- to two-year window**.

Monetary policy



The current scenario

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`Board of Governors of the Federal Reserve System`

`The US Federal Funds Rate`

Next time: International trade