# THE ECONOMY AS A SYSTEM

# OVERVIEW

## THE ECONOMY AS A SYSTEM

- CH1: CIRCULAR FLOW DIAGRAM: RELATIONS BETWEEN ECONOMIC ACTORS
- CH2: CALCULATION GROSS DOMESTIC PRODUCT (GDP): PRODUCTION, INCOME AND EXPENDITURE APPROACH

# CHAPTER 1 (LPD 1): CIRCULAR FLOW DIAGRAM: RELATIONS BETWEEN ECONOMIC ACTORS

1. BASIS: WHO ARE THE ECONOMIC ACTORS?
2. CIRCULAR FLOW DIAGRAM PART 1
3. CIRCULAR FLOW DIAGRAM PART 2
4. CIRCULAR FLOW DIAGRAM PART 3
5. CIRCULAR FLOW DIAGRAM PART 4
6. EXERCISE

# CHAPTER 1 (LPD 1): CIRCULAR FLOW DIAGRAM: RELATIONS BETWEEN ECONOMIC ACTORS

## 7. STATISTICS: MATHEMATICAL APPROACH

# 1. BASIS: WHO ARE THE ECONOMIC ACTORS?

## 1.1 CASE-STUDY

Read the following news headlines

**6 OUT OF 10 SINGLES HAVE FINANCIAL PROBLEMS**

**BRISTOL RETAIL CHAIN FILES FOR BANKRUPTCY**

## BNP PARIBAS FORTIS LAUNCHES SAVINGS ACCOUNT WITH HIGH INTEREST RATE

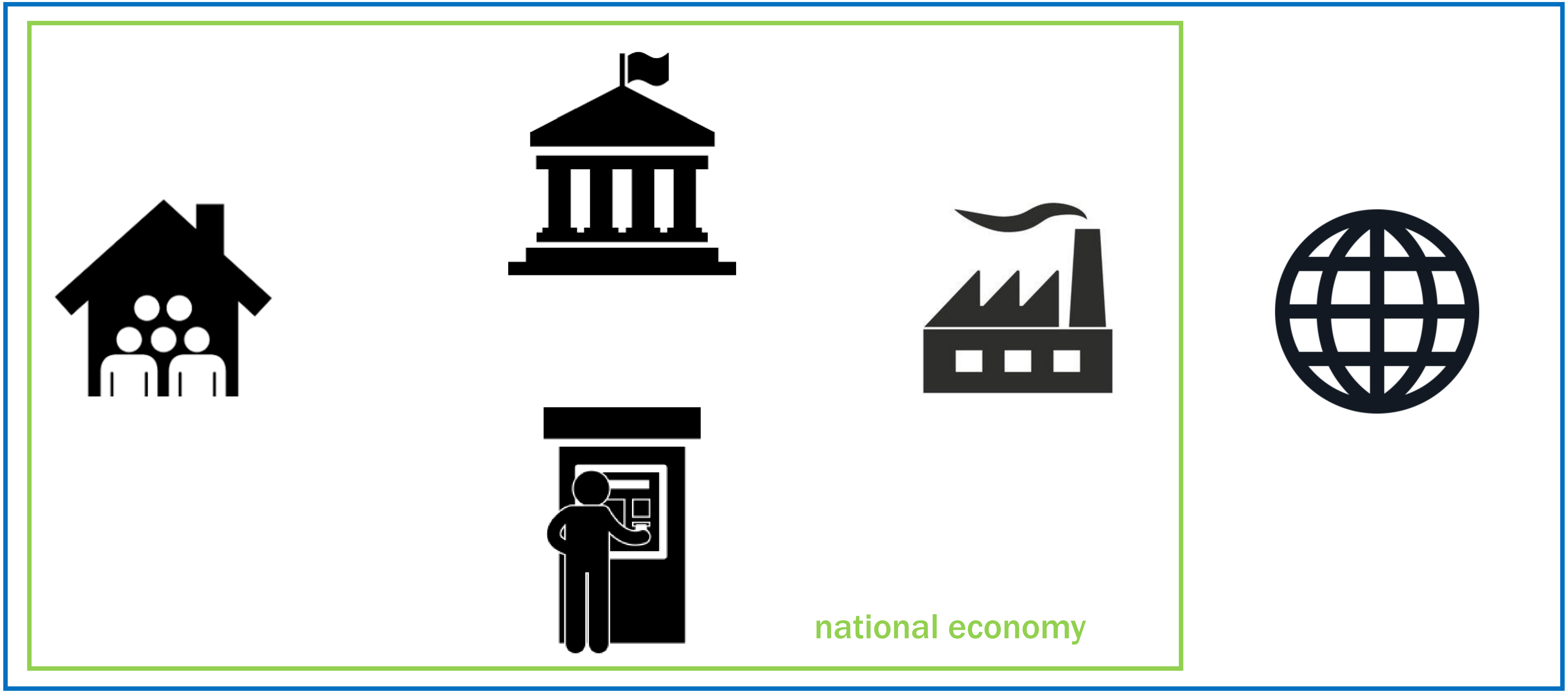

## MORE AND MORE CITIES AND MUNICIPALITIES INTRODUCE TAXES ON WIND TURBINES

## CHINA FLOODS THE EUROPEAN MARKET WITH CHEAP EV

Question: Who are the economic actors playing a role in the news headlines?

| ECONOMIC ACTOR MENTIONED IN THE NEWS HEADLINE | NAME IN THE CIRCULAR FLOW DIAGRAM |
|---|---|
| | |
| | |
| | |
| | |
| | |

**Households, businesses, financial institutions, the government and the world market are the most important economic actors.**




international economy

Different types of households:

Single persons, single-parent families, two-parent families, etc.

Seghers family

Different types of businesses:

Shops, horeca outlets,
SME’s, MNO’s, ...

Different sectors:

Primary sector, secondary sector, tertiary sector, quaternary sector

Lotus Bakeries




tertiary sector (profit)

quaternary sector (non-profit)

Different types of financial institutions:

Commercial banks, stock markets, central banks, …


Belfius

Different types of government:

Local government, provincial government, regional government, federal government, European government, …

federal government


central bank (ECB)





……

commercial banks

customers

Different types of trade partners
on the world market:

Countries, trading blocks, ...

EU


All these economic actors maintain economic relations with each other.

# 1.2 ECONOMIC INTERACTIONS

## Analyze the following economic interactions:

**Activity:** ……………………………………………………………

**Economic interaction between which economic actors?**

**……………………………  and ……………………………**

**Write-down the physical and monetary character of this economic interaction:**

**……………………………………………………………**

**……………………………………………………………**

Activity: ……………………………………………………………

Economic interaction between which economic actors?

…………………………… and ……………………………

Write-down the physical and monetary character of this economic interaction:

……………………………………………………………

……………………………………………………………

These are examples of basic economic interactions in an economic system. Each interaction consists of two flows: a physical flow and a monetary flow.

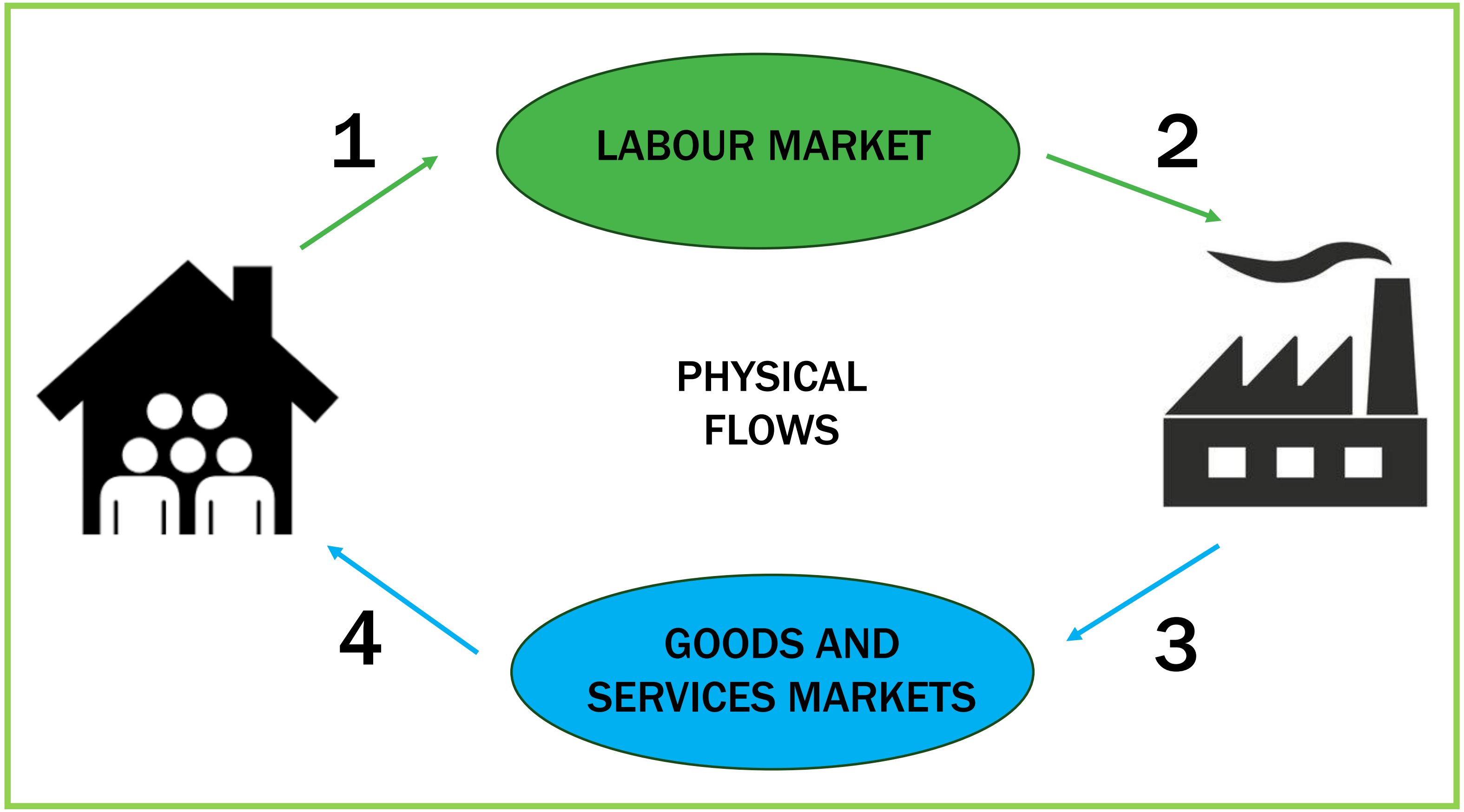
All these flows can be visualized through a diagram.

# 2. CIRCULAR FLOW DIAGRAM PART 1

Imagine an economy consisting solely of households and businesses. The schematic model below illustrates the economic interactions between the economic actors. Look at the physical flows.

1: Households offer labour on the labour market

2: Businesses ask for labour on the labour market




3: Businesses offer goods and services on the goods and services markets

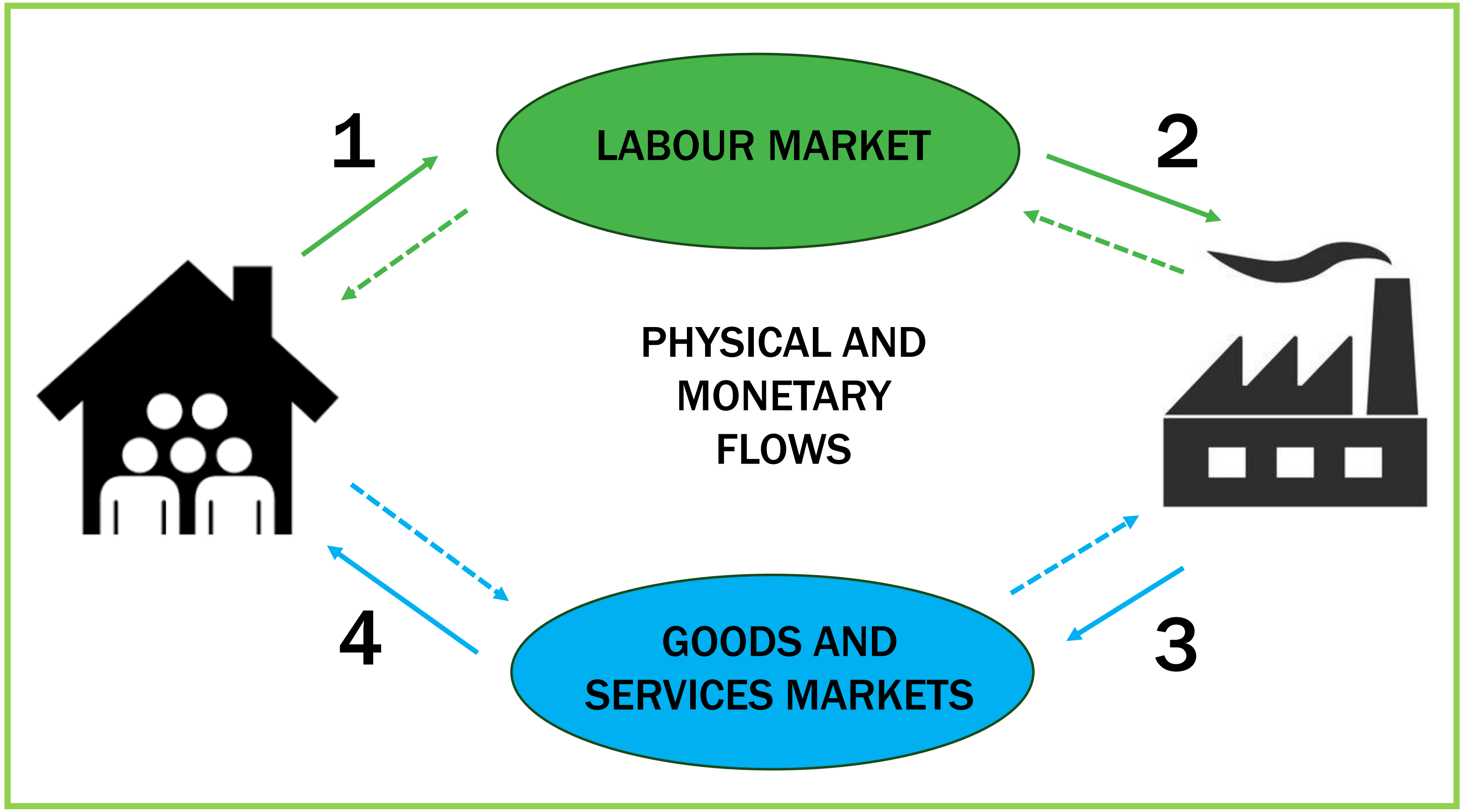
4: Households buy goods and services on the goods and services markets

The circular flow diagram is a schematic model of the economy as a system that represents all economic interactions between economic actors.

The diagram shows both physical and monetary flows. In order to measure economic transactions, we only look at monetary flows.

1: Households receive wages and salaries

2: Businesses pay wages and salaries




3: Businesses receive payments for goods and services sold

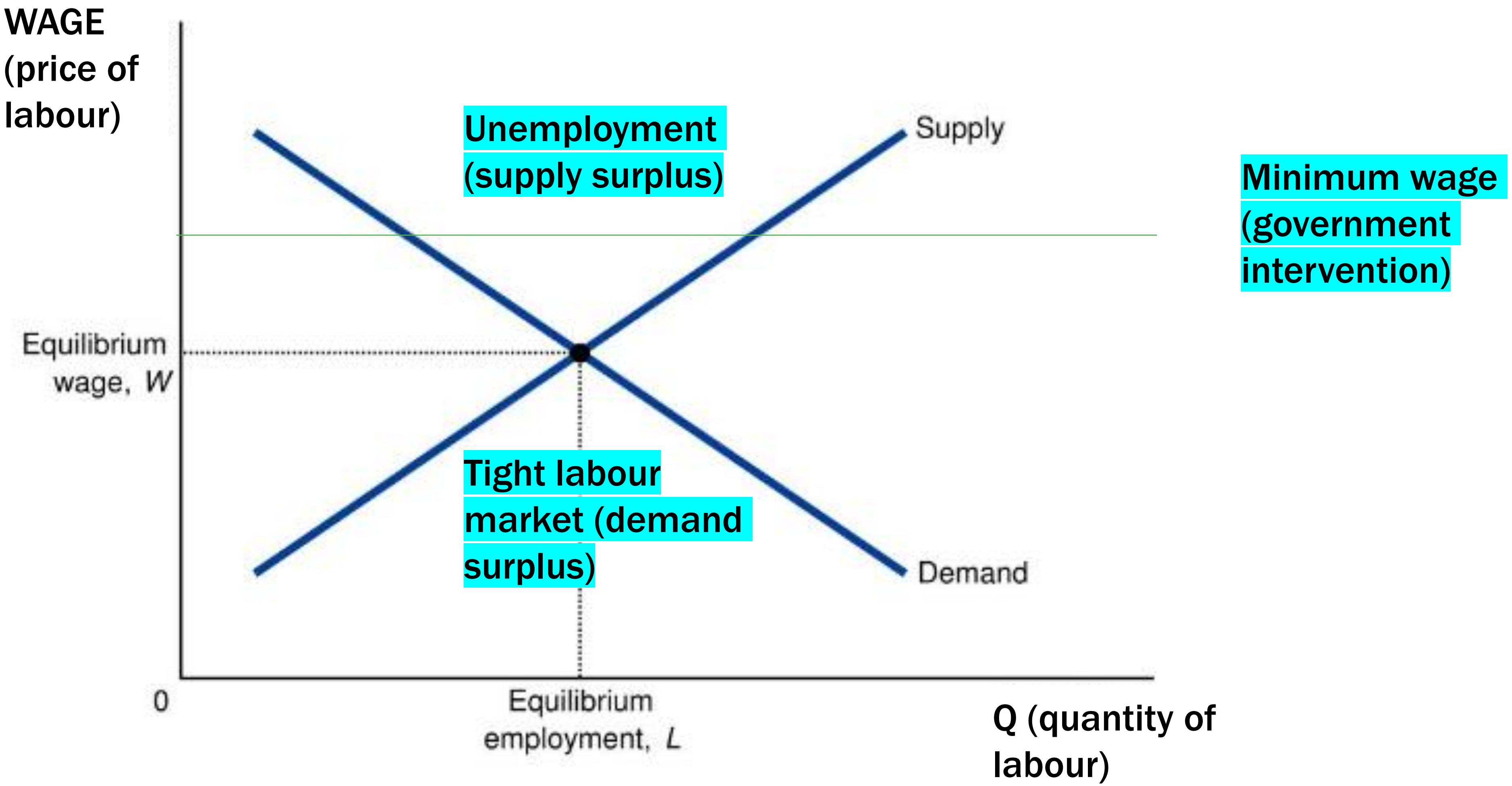
4: Households pay for the goods and services they buy

Labour market:

- An example of a (production)”factor market”
- Demand side: businesses
- Supply side: households
- “Production factor” = labour
- “Price” = wage/salary

Market of temporary labour

# Labour market



## Something about production factors:

| Production factor | Explanation | Examples |
| --- | --- | --- |
| | | |
| | | |
| | | |

What about "entrepreneurship" as 4th production factor?


The saying ‘data is the new gold’ means that, in our digital economy, data has become the most valuable and sought-after resource, and that the current technological revolution in the economy is driven by information.

That is why more and more economists regard data as a new factor of production.

Read the following news headlines:

**UNEMPLOYMENT RISES DUE TO RECORD NUMBER OF BANKRUPTCIES**


**TIGHT LABOUR MARKET SOURCE OF CONCERN FOR ENTREPRENEURS**


What is the difference between both news headlines? ..................................................................

..........................................................................................................................................

Goods and services markets:

- Demand side: households
- Supply side: businesses

- Consumption = C

Helmet =
good

Telecom =
service

Step =
good (step itself) &
service (rental service)

## Read the following news headlines:

### ORGANIC FOOD IS BECOMING INCREASINGLY POPULAR


### VOLVO CARS INVESTS IN NEW ROBOTS

What is the difference between both news headlines? ..............................................................

..........................................................................................................................................

# LINKS TO OTHER PARTS OF THE CURRICULUM

GOODS AND SERVICES MARKETS

In LPD 3, we will learn about non-competitive markets.

LABOUR MARKET

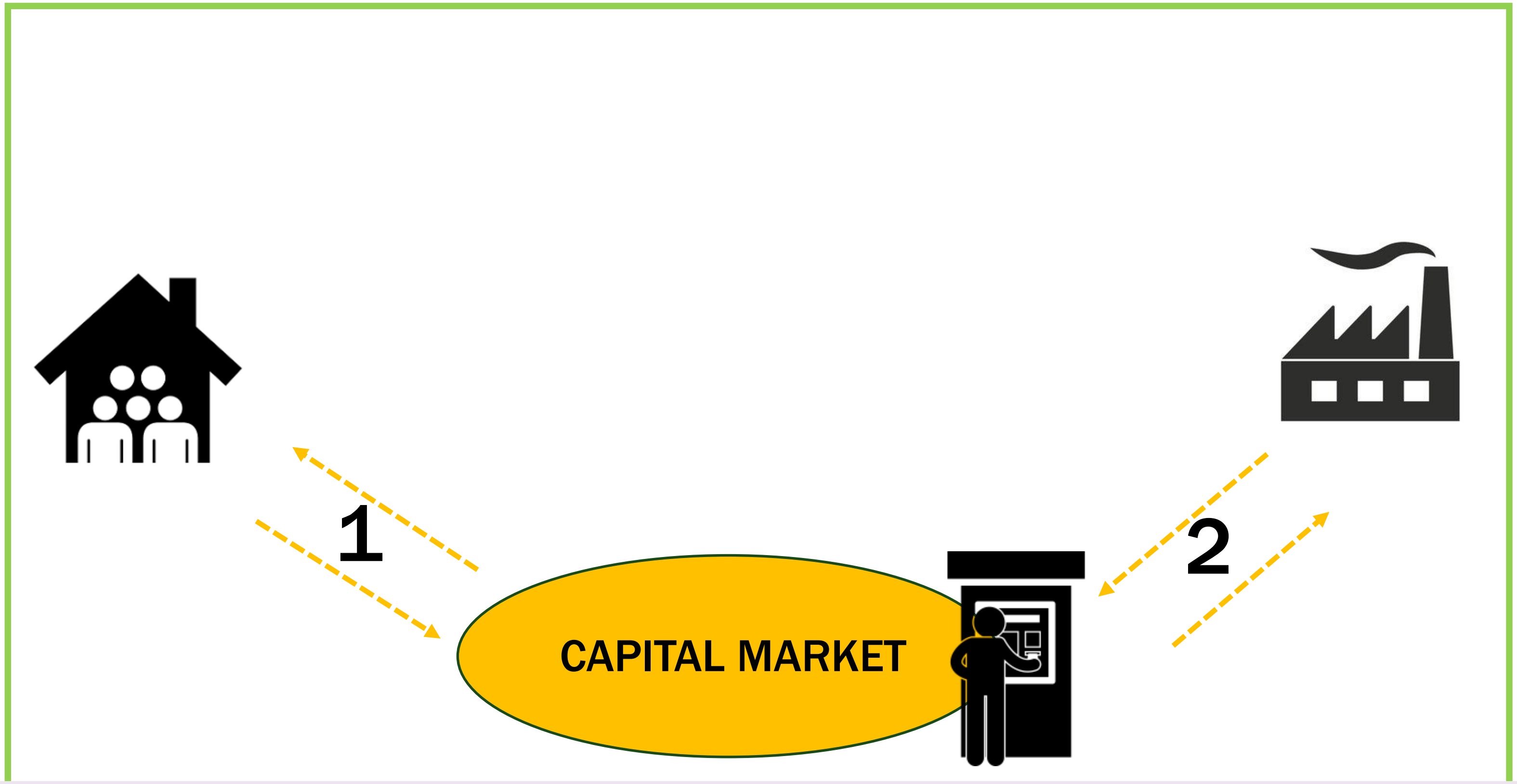
In LPD 13, we discover how the government promotes employment and stimulates competitiveness.

# 3. CIRCULAR FLOW DIAGRAM PART 2

We will now add the financial institutions to the circular flow diagram part 1.
The schematic model below illustrates the economic interactions between the economic actors. As you know, we focus solely on monetary flows.

1: Households save part of their wage/salary

They save at the bank and receive compensation in the form of interest




2: Businesses borrow money to invest

They borrow from the bank and pay a fee in the form of interest

Banks use savings to grant loans. The difference between the interest received and the interest paid is their profit.

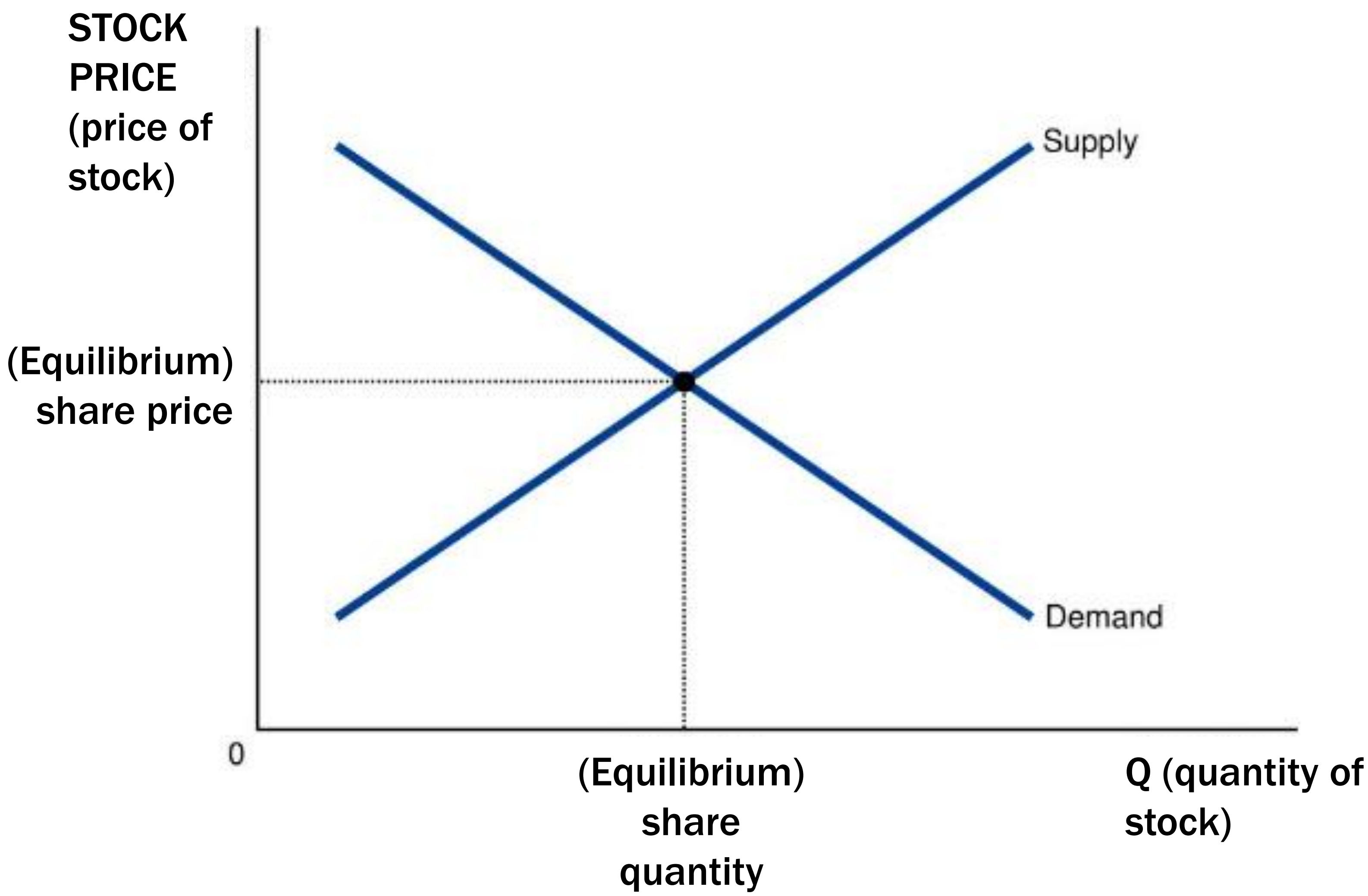
Capital market:

- An example of a (production)”factor market”
- Demand side: businesses
- Supply side: households

- Saving (households) = S
- Investing (businesses) = I

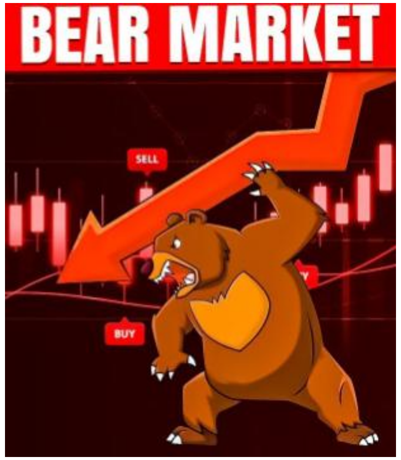
- “Production factor” = capital
- “Price” = interest
- Financial institutions are the intermediaries in this market (banks, pension funds, investment funds, etc.)
- Other player on the market = stock market

## Stock market
## (example: shares)





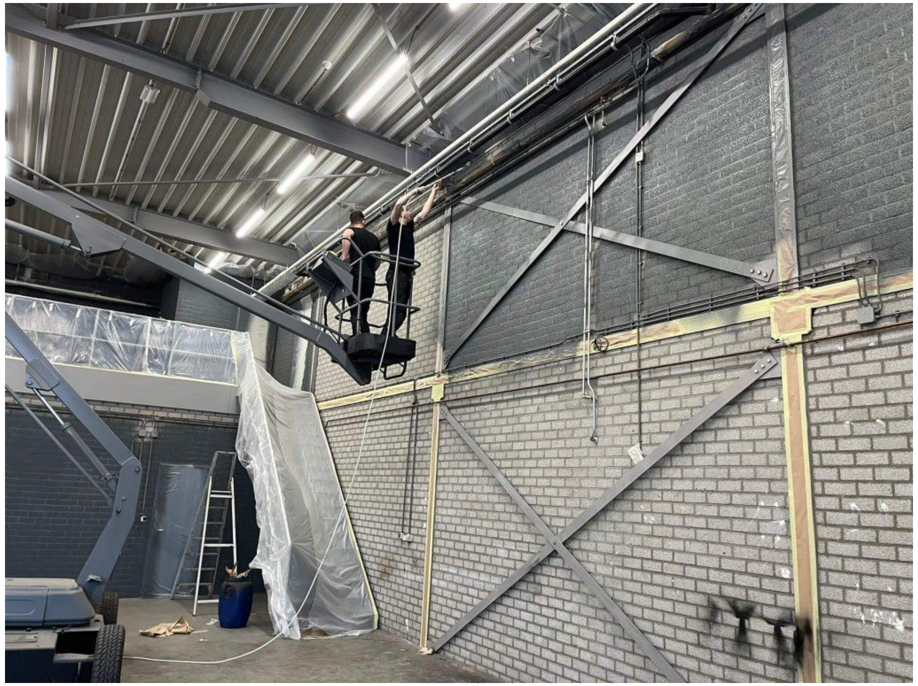
Share prices are rising




Share prices are falling

## Read the following news headlines:

**FACTORY HALL RENOVATION ON SCHEDULE**



**GLASS COMPANY GROWS AND BUILDS SECOND FACTORY**

What is the difference between both news headlines? ..........................................................................

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Read the following news headlines:

BNP PARIBAS FORTIS
LAUNCHES SAVINGS ACCOUNT
WITH HIGH INTEREST RATE


NATIONAL BANK OF BELGIUM MOVES
TO NEW OFFICES


What is the difference between both news headlines? ………………………………………………………………

……………………………………………………………………………………………………………………………

## LINKS TO OTHER PARTS OF THE CURRICULUM

CAPITAL MARKET

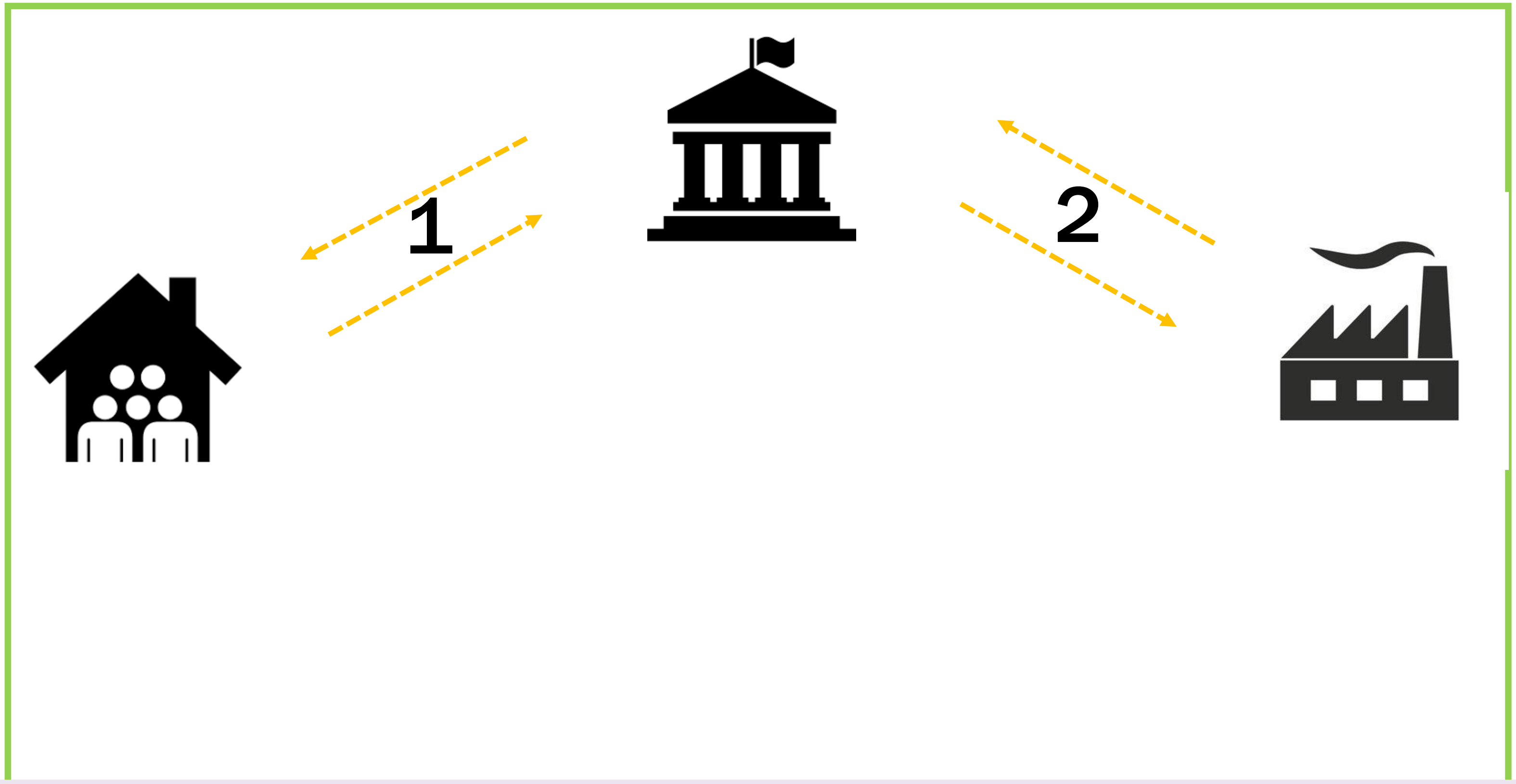
In LPD 11, we zoom in on supply and demand in the capital market and discover the difference between the money market and the capital market.

# 4. CIRCULAR FLOW DIAGRAM PART 3

We will now add the government to the circular flow diagram part 2.
The schematic model below illustrates the economic interactions between the economic actors. As you know, we focus solely on monetary flows.

1: Households pay taxes and social contributions

They receive social benefits




2: Businesses pay taxes and social contributions

They receive subsidies

The government redistributes income and provides public goods and services. These are financed by taxes and social contributions.

Government:

- Organized at various levels (local, provincial, regional, federal, European)
- Government consumption: current expenditure incurred by the government to provide public goods, such as teachers' salaries, energy costs for government buildings and maintenance of roads and infrastructure
- Government investment: capital expenditure on public infrastructure such as the construction of roads, bridges, railways, ports and airports
- Government expenditure is denoted by the letter G (Government)

## Government budget:

- The government budget comprises all government revenue and expenditures.
- Three situations may occur:

| | |
|---|---|
| GOVERNMENT REVENUE > GOVERNMENT EXPENDITURES | BUDGET SURPLUS |
| GOVERNMENT REVENUE = GOVERNMENT EXPENDITURES | BUDGET EQUILIBRIUM |
| GOVERNMENT REVENUE < GOVERNMENT EXPENDITURES | BUDGET DEFICIT |

# Examples of news headlines

Tekort Vlaamse begroting voor 2026 bedraagt 2,18 miljard euro

The Flemish budget deficit for 2026 stands at 2,18 billion euros

Anderlecht legt voor het eerst in jaren begroting in evenwicht voor

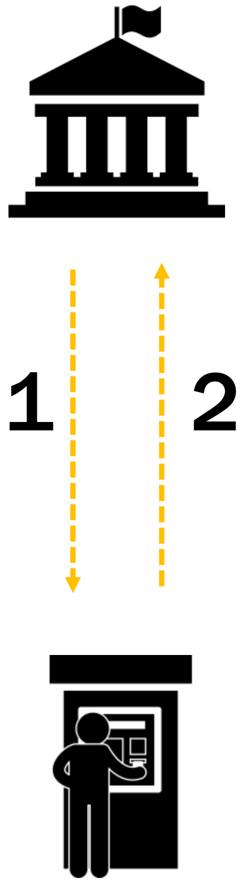
For the first time in years, Anderlecht has presented a budget equilibrium

Portugal boekt begrotingsoverschot in eerste kwartaal ondanks krimp economie

Portugal posts a budget surplus in the first quarter despite the economic downturn

## Translated into our circular flow diagram part 2:

**1**
In the event of a budget surplus, the government can reduce its debt; public debt falls




**2**
In the event of a budget deficit, the government will have to seek additional financing, which will increase public debt

Read the following news headlines:

**BELGIAN GOVERNMENT INCREASES DEFENCE BUDGET**

………………………………………………………………

**FLEMISH GOVERNMENT CONFIRMS THAT NEW RING ROAD AROUND ANTWERP WILL BE COMPLETED IN 2030**

………………………………………………………………

What is the similarity between the two headlines? ………………………………………………………………

………………………………………………………………………………………………………………………………………………………………

# LINKS TO OTHER PARTS OF THE CURRICULUM

GOVERNMENT

In LPD 5, we learn why the government provides public goods

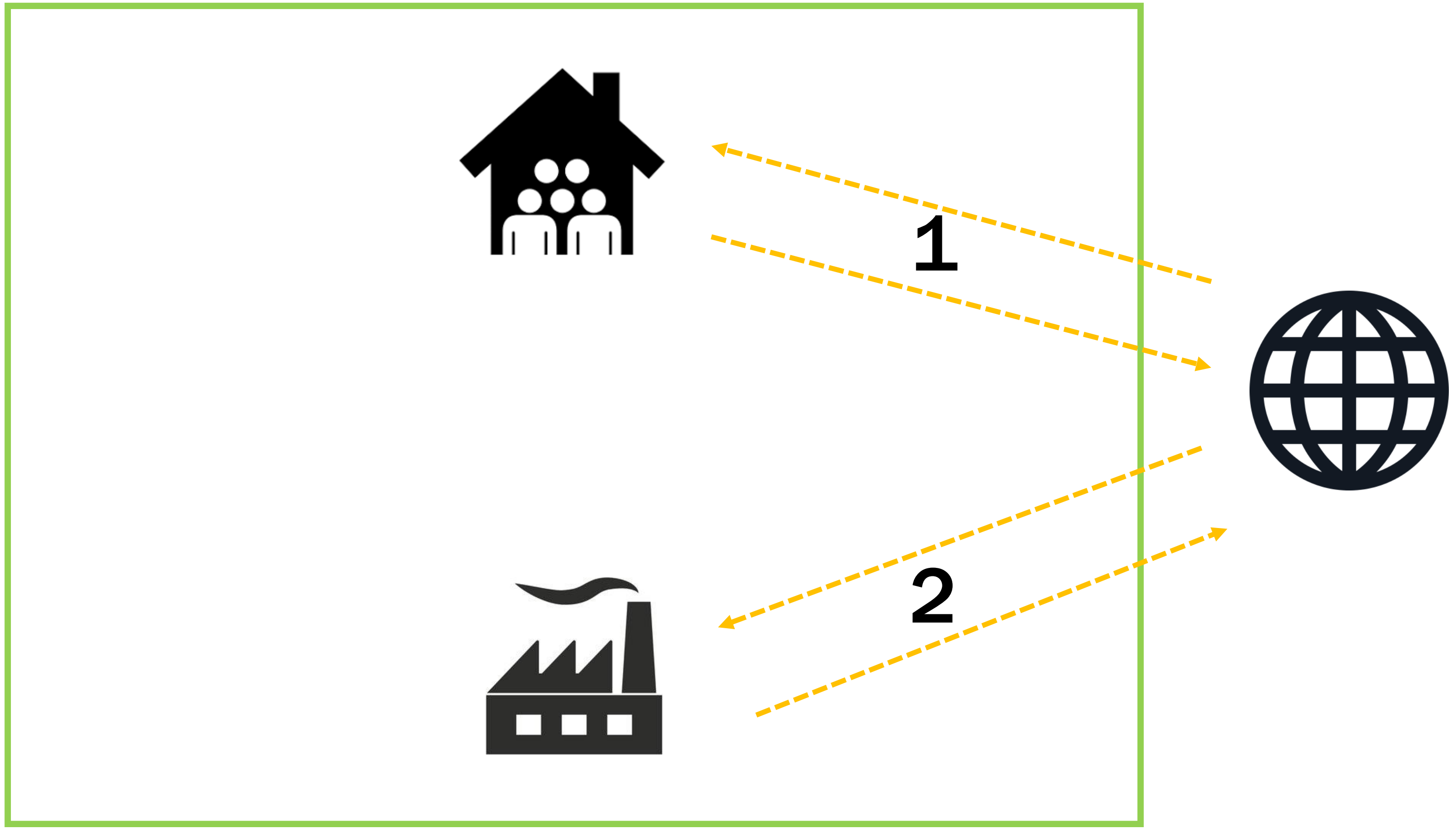
In LPD 7, we discover how the government attempts to reduce inequality in society through social and fiscal measures

# 5. CIRCULAR FLOW DIAGRAM PART 4

We will now add the world market (foreign countries) to the circular flow diagram part 3. We are in an open economy. The schematic model below illustrates the economic interactions between the economic actors. As you know, we focus solely on monetary flows.

1: Households receive income from a job abroad (X)

They purchase goods and services abroad (M)




2: Businesses sell goods and services abroad (X)

They purchase goods and services abroad (M)

The government also interacts with the world market, for example by providing development aid or borrowing abroad.

International trade:

- Goods, services, labour and capital can be traded (X and M)
- Trade surplus: X>M
- Trade deficit: X<M

- Balance of payments: overview of all financial flows between a country and foreign countries
- Trade balance: monetary value of all import and export of goods
- Trade balance is part of balance of payments (see overview)

## OVERVIEW OF THE MOST IMPORTANT COMPONENTS OF THE BALANCE OF PAYMENTS

TRADE BALANCE

SERVICES BALANCE

INCOME BALANCE

TRANSFERS

FDI INVESTMENTS

CURRENT ACCOUNT

CAPITAL ACCOUNT

FINANCIAL ACCOUNT

BALANCE OF PAYMENTS

# Examples of news headlines

Overschot handelsbalans stijgt spectaculair door sterke daling invoer

Trade surplus rises dramatically due to a sharp fall in imports

Suriname krijgt lening van het Internationaal Monetair Fonds: betalingsbalanstekort zal zich herstellen

Suriname is to receive a loan from the International Monetary Fund: the balance of payments deficit is set to recover

Duits handelstekort met China groeit, Peking steeds minder afhankelijk van Europese industrie

Germany’s trade deficit with China is growing, whilst Beijing is becoming less reliant on European industry

## LINKS TO OTHER PARTS OF THE CURRICULUM

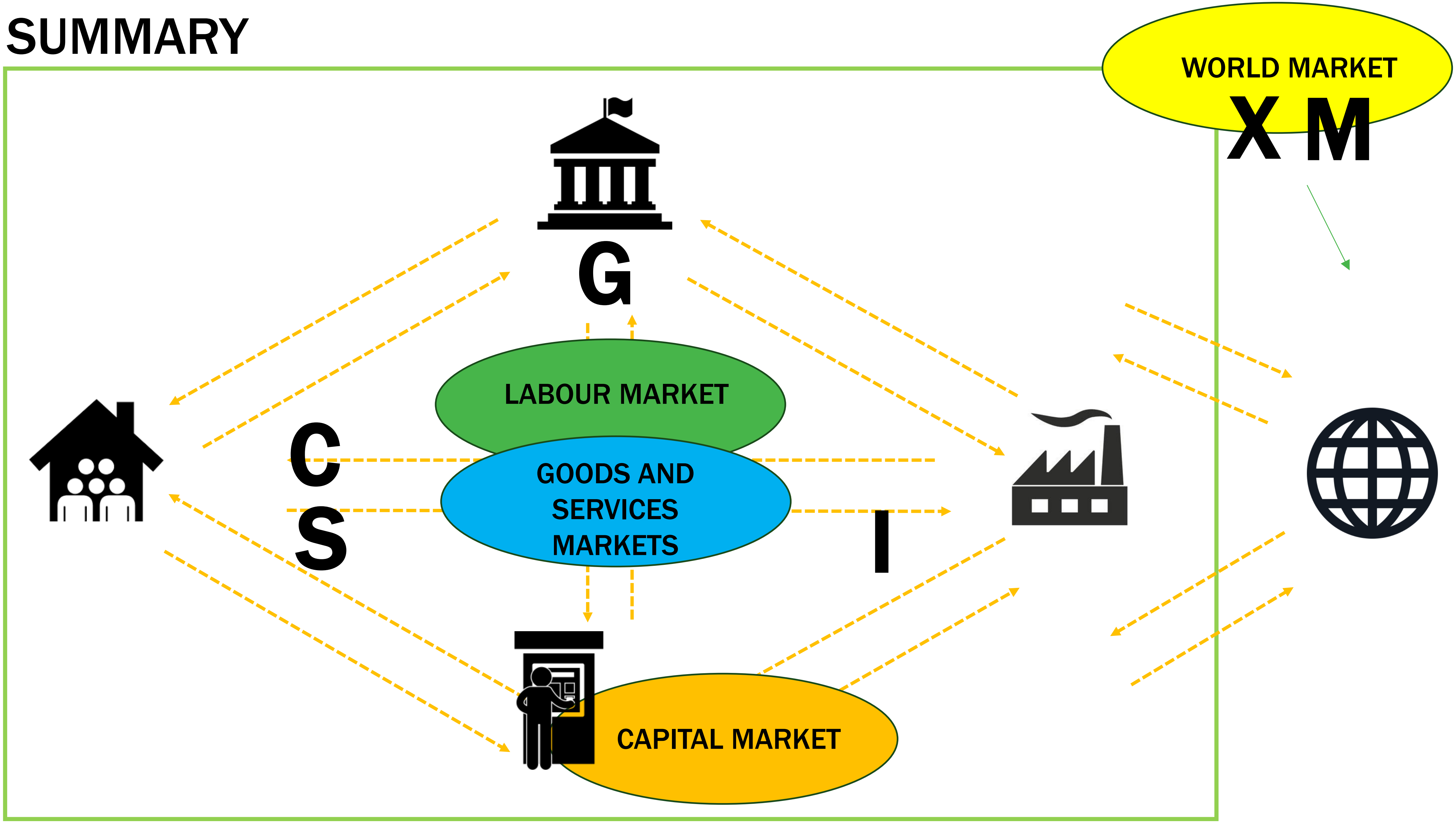
WORLD MARKET

In LPD 9, we will analyze international payments, including the foreign exchange market and floating and fixed exchange rate systems

## Fill-in the table
## (from a Belgian viewpoint)

| Transaction | X | M | Explanation |
|---|---|---|---|
| 1. Japanese tourists spend money in Bruges | | | |
| 2. The SEGHERS family buys a smartphone at amazon.com | | | |
| 3. Lotus Bakeries sees sales increase in the American market | | | |
| 4. Belgian students go to a night club in Barcelona | | | |
| 5. Guylian ships a container full of chocolate to Taiwan | | | |
| 6. Hendrik Seghers works in Hulst (NL) as a bank employee | | | |
| 7. The NMBS buys new Spanish train sets | | | |

# SUMMARY



WORLD MARKET
X M
G
LABOUR MARKET
C
S
GOODS AND SERVICES MARKETS
I
CAPITAL MARKET