International Economics

Lectures and book summary by Emma Riksen

Introduction

Economy Deals with what we produce, consume, buy, sell, with people, the government, wealth, money, work, scarcity etc..

Law of supply & demand
The price of product is determined by supply and demand:
If demand is high, price is high as well. If supply is high, price is low.

Law of supply and demand
Demand ↑⇒ Price ↑
Supply ↑⇒ Price ↓

Example
Messi *(rich guy): supply is low, demand is extremely high, price is high*
Teacher *(poor guy): supply is high (many people can be a teacher), demand is just a few hundred, price is low*

Two main issues
1. Size: what determines our total prosperity?
2. Distribution: how is the total prosperity divided?

No distribution

10% is really rich
90% is poor

Yes distribution

World is more equal

Chapter 1. The Business Environment

Internal environment: Inside the business, can be controlled
External environment: Some influence, but cannot be controlled.

External developments influent the business **positively** and **negatively**

Chapter 2. The Market

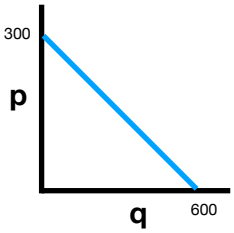
Two opposites:
1. Free Market
   Government does nothing, bad society
2. Market with much governmental influences
   Dictatorship: former Sovjet, China, Cuba → too much, bad society as well.

Most countries have an 'in between market'

Demand Curve The relationship between price and the quantity demanded
For instance: q = -2p + 600
With: q = the quantity demanded
p = the price

→ If q = 600, p = 0
→ If q = 0, p = 300

q = *a*p + b



Price elasticity (of demand) The change in quantity demanded in response to a 1% change in price.
E_{pq} = *% change q / % change p* = *Δq / Δp* [%]

E_{pq} = *%Δq / %Δp*

When E_{pq} is…		
	0	Perfectly inelastic
	<1	Inelastic
	1	Unit elastic
	>1	Elastic
	∞	Perfectly elastic

Inelastic: Price ↑, revenue ↑
Elastic: Price ↑, revenue ↓

Chapter 4. Macro Economics: Producing

Macro Economics Studies the performance, structure, behavior and decision making of an economy as a whole, instead of individual markets.

Prosperity The availability of goods and services *[in GDP, wealth]* (must be measurable)
Growth of prosperity ⇒ Growth of the economy *(because people always want more)*

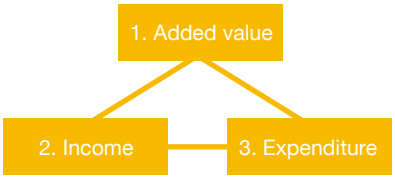
Welfare How content and satisfied we are with our lives (in general the same as prosperity, but not measurable)

Popular concept "Zero Growth Economy" or "The Economy of enough"
Where people state that any national economy in the world would sooner or later devolve into a final state of "stationarity".

The Human Development Index (HDI) = per capita income (GDP, prosperity) + health + education.

Measuring GDP

To measure national production (GDP), there are three approaches:



1. **Production / Added value**
   Adding the added value of businesses and governments in one country. The added value of the government = the sum of all wages paid. Our GDP is created by private companies: we pay taxes and by some time it's 'given back' by the government.

2. **Income**
   Adding toggery her all the rewards of the production factors in one country.

   Looking at income, there are 3 things to 'do with your salary':
   - Taxes (pay taxes)
   - Consume it (spend it)
   - Save it
   Which leads to: GDP (income approach) = T + C + S

GDP(income approach) = T + C + S

3. **Expenditure**
   The total spending on goods and services

In the long run, the only thing that determines our prosperity is **Labour Productivity**.
Formula for GDP, when using Labour Productivity and Labour Demand: GDP = Lp × Ld

Labour Productivity → Measures the amount of goods and services produced in one hour (or day/year) of labour.
Labour Demand → The number of people working (employment)

GDP(labour productivity) = Lp × Ld

Important elements for **Lp ↑**
- Innovation, technological development
- Education
- Health
- Insfrastructure
- Automisation, robots
- Anything that helps us to produce more per person

Over time, the Lp has increased significantly. The biggest ↑ appeared after the steam-engines in 1815, electricity in 1900 and internet around 1980

FIGURE 4.2 Demand and supply on the labour market

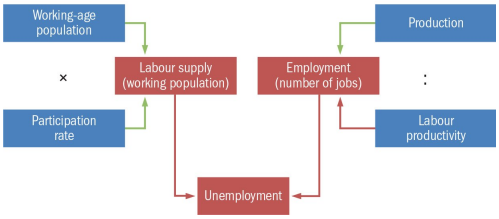
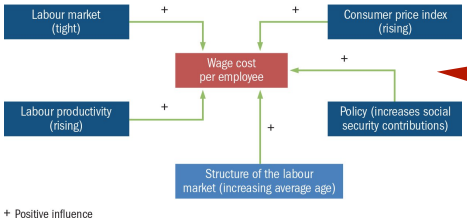


FIGURE 4.3 Causes of changes in wage cost per employee



Causes of changes in wage cost: tight labour market, rising Lp, rising consumer price index, policies and structure of labour market.

Chapter 5. Expenditure

Follow up on the third approach of measuring GDP (see chapter 4, previous page).
Formula for GDP, when using the expenditure approach: **GDP** = **C** + **I** + **G** + (**X** - **M**)

C. Consumption

The amount of consumer spending. Determined by:

+ Increase of income
+ Income leveling (difference in income)
+ Capital increase
+ Consumer confidence

! **-** Real interest rate increase

GDP(exp.) = C + I + G + (X - M)

C = Consumption of private households
I = Investments of private households
G = Government (the money they spend)
X = Export
M = Import
} *X-M is also known as 'current account'*

I. Investments

The amount of investments of private households, determined by:

+ Sales expectations
+ High profits
+ Capacity utilization, full capacity means much efficiency

! **-** Interest, more taxes

G. Government

Three tasks of the government:

1. Regulation (do things private companies can't do by themselves: education, military etc.)
2. Allocation (rules, laws)
3. Redistribution (money regulation, dividing of rich/poor)

Main categories of government revenue
- Social security contributions
- Current taxes on income and wealth
- Indirect taxation
- Other income

"Each and every Euro the governments spends comes from private households and -companies"

The government gets its money by taxes paid by the citizens.
People working for the governments do pay taxes as well.
Taxes that need to by paid: salary, when someone dies, gifts from mom, buyings at the Albert Heijn, dogs. Everything.

Budget deficit

When the government plans to spend more than their income.
Three possibilities:

1. Increase income → raise taxes
   Not good, the C and the I will ↓ because of less spendings.
2. Reduce other expenses on the budget (Expenditure)
   (in Dutch 'bezuinigingen')
   Not easy, will dissatisfy many people.
3. Borrow money
   No good: debts, they have to pay back more than they borrowed.

Budget deficit for a longer period of time? Yes, but:
- Ever increasing government debt
- Reduces government's spending power (interest)
- Ultimately the debt might become 'unrepayable' → country can go bankrupt

X. Export

Country produces and then sells to foreign countries, positive for GDP.

M. Import

Foreign countries produce and sell to 'us', negative for GDP.

Circular Flow of Money

GDP(income approach) = T + C + S = **GDP(exp.) = C + I + G + (X - M)**

Savings balance private sector — *Savings balance government*

↓

(S - I) + (T - G) = (X - M)

Export Balance

Chapter 6. Business cycle and policy

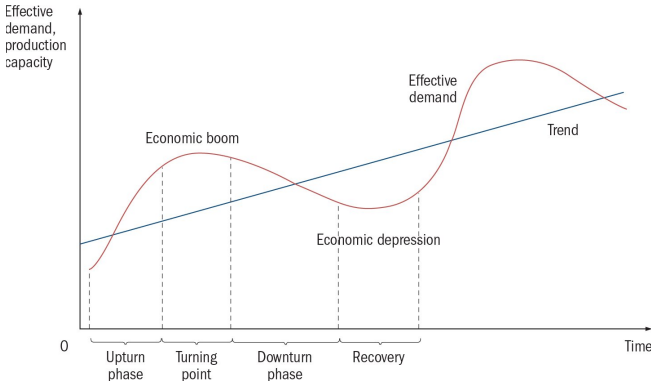
'Alternating periods of higher and lower growth'

- Upturn / Boom phase
  "Basically everything is going up"
  Start: Demand ↑, Production ↑, Prices ↑
  ⇒ Creating confidence, optimism

- Turning phase
  Confidence turns into overconfidence ⇒ pessimism
  Prices and wages ↑, profits ↓, investments ↓

- Downturn / Depression phase
  "Everything the opposite as in the upturn phase"
  Expenditure ↓, inflation ↓, production ↓, investments ↓
  Recession ⇒ 2 quarters of negative growth in a row.

FIGURE 6.1 The business cycle



Confidence overview through the years:
Notable is the confidence drop in 2009 → global financial crisis.
From 2010 there's a difference between confidence in building manufacturing (low) and the general industry (high).

Global Financial Crisis 2008 - 2014

Causes:
- Very low interest rates
- Everybody bought their own house
- Interest rate went ↑, people could not pay their mortgage
- Collapsing crisis → banks further in trouble
- Banks were hit hard, serious losses → domino effect
- Confident crises
- Less credit → household consumption and investments ↓ (really bad for the C and the I)
- Collapse housing market world-wide

Government reaction:
- Nationalized banks (tax payer pais)
- Central banks 'printed money' so the money was cheaper and investments could go ↑
- All the government money going to the banks, nothing left for other purposes. Cut back in government spendings.

Some governments really got into serious trouble (take Greece as an example).

Inflation

Money loses value → everything gets more expensive.

Causes:
1. Demand pull: Demand > Supply
2. Costs push: Costs, wages and raw material costs ↑
3. Government: Taxes ↑

Effects:
- With a fixed income → loss of buying power
- Uncertainty → bad for confidence, no spendings, bad for the economy
- *If you owe money (debts), inflation is your friend.*

Deflation

When goods become cheaper.
Bad, because: People will wait with buying in hope goods will become any more cheaper, postponing of buyings.

! Nightmare scenario !

Government and the business cycle

Negative consequences of taxes: Higher wage costs, higher prices, lower GDP.
Positive consequences of taxes: Necessary source of income for the government.

Government Expenditure > Government Income ⇒ Government Budget Deficit

Example
if: *Income = 10*
Expendit. = 12
then: *Deficit = 2*

Keynesian Economics

According to Keynesian theory, changes in aggregate demand, whether anticipated or unanticipated, have their greatest short-run effect on real output and employment, not on prices.

Industry and the Business Cycle

Some industries are more affected by economic cycles than others, it depends on:

- Nature of the market (type of product, income elasticity)
- Stage in the production chain
- Capital intensity (fixed costs)

Chapter 7. Money

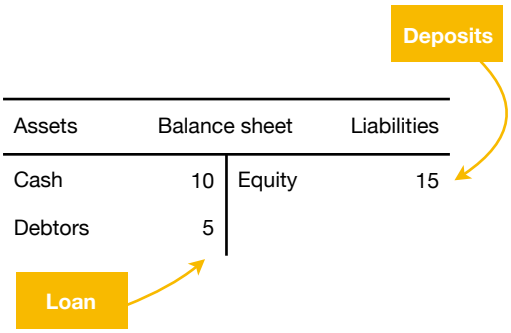
Money is not increasing the GDP, but M ↑ will cause inflation.

Functions of money

1. To facilitate exchange of goods
2. To put a value on goods
3. To store wealth

Types of money

1. Coins
2. Bank Notes
3. Demand deposits (digital money in bank)



Money supply

M1: Coins, bills, digital money, you're able to use it all the time
M2: You cannot reach this directly → savings
M3: M2 + any other money source. Most important for determining growth.

Banks

Make money out of interest
Should NOT go bankrupt → major problems in society.

European Banking Union → Agreed on a wide range of measures to ensure that banks stay healthy.
With several ways of safe guarding:

1. SSM (Single Supervisory Meganism)
   One boss, one supervisor: The European Central Bank (ECB)
2. SRM (Single Resolutino Meganism)
   A set of rules and regulations
3. SRF (Single Resolution Fund)
   All banks but money in one fund, if a bank's about to go bankrupt they get money out of the fund. (€55 billion at the moment)
4. Guaranteed deposit amount
   An assurance the banks customers will not lose all their money.

Quantitive theory of money

Examples

A). 200 × V = 10 × 100
⇔ 200 × V = 1000

If ↑ by 2%

This ↑ by 2% as well

B). M × V = P × Q

M will ↑ **4%**

If P 2%↑ and Q 2%↑

Theory of Money = **M** × **V** = **P** × **Q**

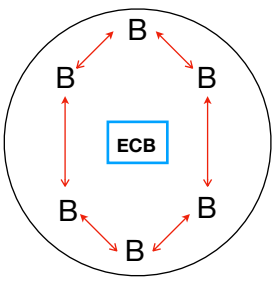
Consider V as stable

M = Amount of money
V = Velocity of circulation
P = Price level
Q = Quantity of goods

Monetary policy: European Central Bank

Main objective = price stability (inflation control) and stable economic growth.

All banks in EU borrow money from each other and they have to pay interest: Euribor.
If they borrow from the ECB, the interest is called '*Refinancing rate*'.



Banks stimulate the economy by lower the interest rates, by this it'll be more appealing and easier to borrow money from the bank. Two ways:

- Quantitive instruments → reserved requirements
  → buy/sell bonds ("you owe me" papers)
- Direct → interest rate

In the Economic Crisis just lowering the interest rates (Refinancing Interest Rate → Euribor) was not enough.
⇒ Large scale money creation by the ECB and the FRB (USA).

Chapter 8. Capital Markets

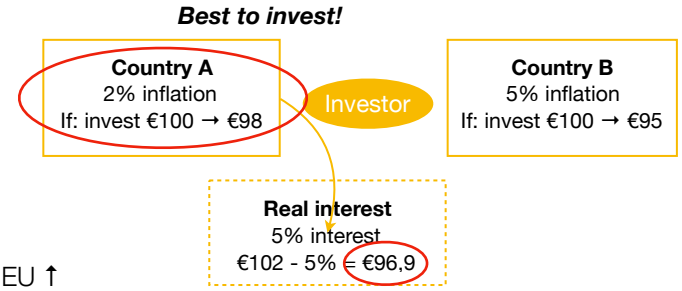
Money market < 2 years → short-term interest rate, influenced by monetary policies
Capital market > 2 years → long-term interest rate, depends on economic fundamentals and law of supply and demand

Long-term Interest Rate

What plays a role in IR developments?

1. Business Cycle
   Economic boom (C + I) ↑ ⇒ demand for money ↑ ⇒ interest rate ↑
   Economic recession (C + I) ↓ ⇒ demand for money ↓ ⇒ interest rate ↓

2. Expected Inflation
   Countries with high inflation have a high-long term IR.
   Real Interest = nominal interest - inflation



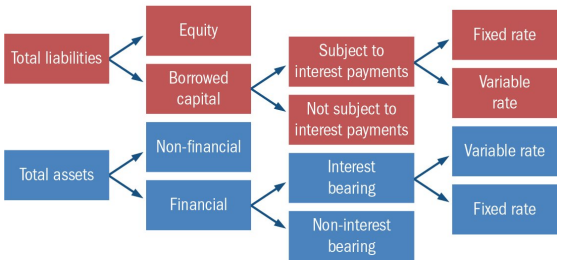
3. International Capital Flows
   A. Real Interest US > Real Interest EU
      If the IR in the US is higher, people will invest in the US.
      Money flows from EU to US ⇒ less money in EU ⇒ IR in EU ↑
   B. Currency risk
      If investors expect the Euro to depreciate, they will want a higher return on there Euro investment, in order to compensate ⇒ IR ↑

Business Interest Rate Risk

IR ↑ ⇒ Impact on profit ↓, three risks:

1. Businesses
   Cost of borrowing money ↑ ⇒ profit ↓, investments ↓
2. Households
   Will borrow less ⇒ spend less ⇒ business sales ↓ ⇒ profit ↓
3. Capital Structure (see figure)

FIGURE 8.9 Sensitivity of the capital stucture to the interest rate



Chapter 9. International Economic Relations

Globalization World-wide integration of economies caused by rapid increase in trade and cross-border investments.
A lot of people think it's a bad thing, a lot think it's a good thing: opinions divided.

Reasons for Globalization
- Technological innovations
- Deregulations and liberalisation

Trade is now growing much faster compared to the level of producing compared to the 1970's.
This is what makes the world economy profitable.

Globalization in debate

In favor	Most successful developing countries follow a trade oriented economic policy.
Against	Loss of national sovereignty and cultural identity
	Inequality in the world ↑

The theory of comparative advantages

Some countries can better produce something than another:

→ *one DVD costs 5 wheats in South-Africa*
→ *one DVD costs 2 wheats in Japan*
⇔ *Japan should produce the DVD's*

or

TABLE 9.3 Absolute costs of dairy products and textiles (expressed in the same currency)

	Dairy products	Textiles
Netherlands	100	140
Thailand	140	100

⇔ *Netherlands should produce the dairy products, Thailand the textiles.*

The next step is to put the absolute costs into relative costs (as shown in table 9.4):

TABLE 9.4 Absolute and relative costs of cheese and grain

	Absolute costs		Relative costs	
	Cheese	Grain	Cheese	Grain
Poland	40	50	1C=0.8G	**1G=1.25C**
France	50	100	**1C=0.5G**	1G=2C

With these relative costs the trade quantity and the possible consumptions can be calculated (as shown in table 9.5):

TABLE 9.5 Consumption possibilities at an international price of 1 unit of cheese = 0.6 units of grain (budget = 3000)

	Before trade	After trade
France	60 Cheese or 30 Grain	60 Cheese or 36 Grain
Poland	75 Cheese or 60 Grain	100 Cheese or 60 Grain

There can be differences in comparative costs, caused by:
- Price of production factors: Labour costs
- Labour Productivity

(The difference can increase prosperity and international trade, which is in favor of the Free Trade. Otherwise the drawback of free market trading can cause temporary unemployment, that's not what you want.)

Protectionism

Two types
1. Tariff barriers (works on price)
   A tax, to be paid by a foreign supplier to the government that will raise the price in the importing country and thereby make it easier for domestic suppliers.
2. Non-tariff barriers (works on quantity)
   Import quotas (the maximum quantity to be imported)
   Product Regulation (safety, health)

Consequences Higher prices, less freedom of choice, lowered consumption, preservation of production.

Arguments in favor of Protectionism compared to a free market:
- Unfair competition
- Independence
- Protection of Industries
- Protection of domestic employment

International Cooperation

In order of increasing cooperations, 4 formats:
1. Free trade Zone
2. Customs Union
3. Common Market
4. Economic and Political Union

European Union

Subsidiary principle = only cross-border issues

European Council	Prime ministers of the member states
Council fo the EU	All ministers of the member states
European Commission	Preparing and legislation and monitoring implementation
European Parliament	Represents the voters of the member states; directly elected

International Organizations

- World Trade Organization	Free trade promotion, GATT/GATS non-discriminatory, reciprocity and transparant
- International Monetary Fund	(IMF) The goal is to help countries in trouble
- G7, G8, G20	International ec. policy coordination

Chapter 10. The Foreign Exchange Markets

Law of supply and demand
Demand ↑⇒ Price ↑
Supply ↑⇒ Price ↓

Exchange Rate The price of a currency expressed in an other currency.
For instance: €1 = $1,5 or $1 = €0,667

The Exchange Rate can be regarded as 'the price' of a currency. Currencies are traded on the foreign exchange market.

Again, the law of supply and demand is highly important when it comes to Exchange Rates.

Exchange Rates ↑ and ↓:

1. E.R. ↑ Revaluation
2. E.R. ↓ Devaluation
3. E.R. ↑ Appreciation
4. E.R. ↓ Depreciation

← Fixed — Government/monetary has influence on the market

← Variable — Depends on supply and demand

Advantages variable ER:
- Automatic adjustment of balance of payment (X-M)
  X ↑ → demand ↑ → ER ↑, so more expensive → less competitive and therefore the X ↓
- No import of inflation
- Independent fiscal and monetary policy
- DISADVANTAGE: constant change.

Putting together all the C.A.'s in the world = ∑ 0

'Forward' Exchange Rate → Make a deal now, do the transaction later
'Spot' Exchange Rate → Transaction now, E.R. determined by Supply and Demand

Current Account Export - Import of goods & services → **(X - M)**
The impact of X and M on the E. Rate

Most important one

The ability to export determines on the level of competition the country has.
The level of competitivity depends on knowledge, data, education, competitive advantages etc.

Costs ⇒ Wages ↓ ⇒ Keep your wages low, it increases the export. *But:*
At the same time reduces the "C", because people have less to spend. There's always + and -

Example
Country A is exporting (Let's say Europe to the US). EU puts € in the money market and gets $, so they can pay the US. There's a supply of € and a demand of $ ⇒ The $ will increase in value and the € will decrease.

if (X > M) ⇒ C.A. Surplus ⇒ E.Rate ↑
if (X < M) ⇒ C.A. Deficit ⇒ E. Rate ↓

Purchasing Power Parity (PPP) Exchange Rates ensures that prices of internationally traded goods are the same everywhere in the world.
If a good costs €100 in Europe, and $125 in the US ⇒ the PPP: €1 = $1,25
Restrictions: Non tradable products, VAT, Trade restrictions and transport costs.

Financial Account X & M Direct investments ↑ ⇒ ER ↑
Portfolio investments ↑ ⇒ ER ↑ *(investments in assets, Facebook/Google for example)*

Interest rate and investments "Put your money where you get the highest interest rate: *IR* ↑ ⇒ *ER* ↑

Investment climate Investment climate of a country is how likely an investor is to invest in a country determining on "what is really happening in the country": is the government supportive, are there any wars, what is the GDP/wealth?

Market Sentiment The overall attitude of investors towards a country/financial market. The feeling or one of a market.

ER policy in the European Union

The goal is to create a single European market. This was not possible with Marks, Franks and Crowns → € in 1999.

Safeguarding the Euro is key, three ways:

1. Convergence Criteria
2. Growth & Stability Pact
3. Independence of the European Central Bank

Advantages ER policy in the EU:	Lower transaction costs, transparency, economies of scale, one invoicing currency.
Disadvantages ER policy in the EU:	ER is no longer an economic tool, loss of national sovereignty and limited democratic control.

Reducing ER-Risk Forward contracts, Currency options, Currency swaps