

EFR summary

History of Economic Thought,
2024-2025



Lectures week 1 to 2

Deloitte.

DeNederlandscheBank
EUROSYSTEEM

Details

Subject: History of Economic Thought 2024-2025

Teacher: Anne Gielen

Date of publication: 18.01.2025

© This summary is intellectual property of the Economic Faculty association Rotterdam (EFR). All rights reserved. The content of this summary is not in any way a substitute for the lectures or any other study material. We cannot be held liable for any missing or wrong information. Erasmus School of Economics is not involved nor affiliated with the publication of this summary. For questions or comments contact summaries@efr.nl

History of Economic Thought – IBEB

– Lecture 1 (part 1), week 1

Introduction

Definition

The essence of economics as a scientific discipline is defined by Robbins (1932) as “the study of human behavior as a relationship between given ends and scarce means that have alternative uses.” Furthermore, Marshall sees economics as the study of men in “the ordinary business of life”.

Ultimately, economics is the study of the functioning of economic life in society. Before the 1500’s, there was little trade and money had existed but was not widely used. However, once the 1500s struck, the “Age of Political Economy” succeeded the “Age of Moral Philosophy” and Economic ideas developed into systematic theories.

Focus

Over time, the focus of economics research has changed:

- List of topics has expanded
- Economics has been sharply delimited towards other fields of science
- Relative importance of subfields changed

Pre-Adam Smith

The pre-Adam Smith period includes:

1. Aristotle
2. Scholastics
3. Mercantilism
4. Pre-classicist: David Hume
5. Quesnay and Physiocrats

Aristotle (384–322 BC)

Aristotle, though primarily a philosopher, addressed fundamental economic questions in his works. He explored the nature of exchange, emphasizing fairness and balance in transactions. Aristotle also recognized the idea of diminishing marginal returns, noting that wealth should have practical, not limitless, uses. However, his analyses lacked a comprehensive view of how economies operate as systems.

Scholastics

They are represented by priests and teachers at medieval universities from the 13th century onwards. In this period, protection was exchanged for labor (i.e. poor were protected by noblemen in exchange for labor, all the way to the king). Everything was land-based and economics was studied from an ethical point of view, thereby seeking to ensure that there exists a just price that does not exploit the “natural price”.

They believed that the "natural price" was the one that would arise from effective and free competition, free from monopolies, resource waste, or dishonest behaviour.

The natural price is comprised of 2 elements:

- Production Costs
- Consumers' perception of utility of good

While these were incomplete theories, they represented an effort to develop a systematic framework grounded in economic principles.

The Scholastics stood out because their concept of the natural price took into account the consumer's perception of a good's utility—a perspective rarely seen in other early economic thought.

Mercantilism

The emphasis was placed on achieving a trade surplus:

- **Restricted Imports:** Imports were minimized, allowing only raw materials that could not be produced domestically. As a result, the majority of goods were produced within the country.

- **Encouraged Exports:** Exporting was strongly incentivized, with merchants receiving payments in gold for their goods sold abroad.

Mercantilism aimed to enhance a nation's economic and military strength in comparison to rival countries. A favorable balance of trade, characterized by a surplus rather than a deficit, was regarded as a key indicator of national prosperity. The strategy centered on maximizing domestic production and exporting goods to accumulate wealth in the form of silver and gold.

Quesnay (1694-1774) and Physiocrats

The Physiocrats were a French school of economic thought, led by François Quesnay. This school of thought came to an end in 1776, coinciding with the publication of Adam Smith's *Wealth of Nations* and the demotion of Turgot, a prominent physicist, from his high-ranking position in the French government.

One of Quesnay's most notable contributions was the *Tableau Économique* (1759), which was the first systematic attempt to analyze the flow of wealth on a macroeconomic scale. The *Tableau* demonstrated how the net product of an economy circulates annually among three distinct classes—tenant farmers, landowners, and manufacturers & merchants—and is reproduced each year. This work provided foundational insights into the concept of national accounting and offered empirical knowledge about key model parameters.

Pre-Classicist: David Hume (1711-1776)

Hume's contribution was the **price specie-flow mechanism**, a Monetary theory for open economy:

- In the long run, money stock has no impact on real economy → **Contrary to mercantilists**
 - More species available = increase in prices & increase in imports
 - To pay for imports, money would be shipped abroad and poverty and bankruptcy may emerge in the country. therefore, the believed that the government must prevent an excess supply of money
- International trade will always have a positive payoff, as opposed to the Ero-sum of mercantilists, who believed that gains are at the expense of a neighbour → **Contrary to mercantilists**

- Hume opposed tax on workers getting passed to landowners in the form of higher wages and reduced rent → **contrary to Physiocrats**
 - when taxed on workers, workers consume less or work more, and therefore tax is not simply passed to landowners.
- Game theory: Hume recognized that cooperation may be good when future interactions among parties are likely,
- Long-run theory
 - price-level adjustments are not instantaneous
 - An increase in money will initially boost production but eventually will be fully absorbed in price level.
 - Decrease in money supply will first suppress output before lowering price level.
 - Of course, now this is not applicable because CB controls the supply of money and is independent from the balance of trade.
- International adjustment/ equilibrium following domestic money shock. When exchange rates fluctuate, the imbalance of trade can correct itself.
 - Is a contour for the later developed quantity theory of money ($MV = PT$, which means that quantity of money x Money velocity = price level x output).

History of Economic Thought – IBEB

– Lecture 1 (part 2), week 1

The classical school

Historical background

Two major revolutions paved the way for the emergence of classical thought:

1. **Scientific Revolution**
The discovery of natural laws, which gave rise to the idea of laissez-faire, which resulted in the enlightenment.
2. **Enlightenment Period (Industrial Revolution)**
The Industrial Revolution led to significant industrial growth, with land

becoming more privately owned (through fencing), and most labor shifting to factories or specific land-based tasks.

As a result, competition increased and there was less reliance on governments to keep wages low. Workers, however, unsuccessfully advocated for minimum wages from the government.

This led to lower prices, a low-paid labor force, and an impoverished population characterized by high birth rates and low death rates

Major tenets of the classical school

The Classical School: Economic Liberalism

- **Limited Government Intervention:** Government's role is to enforce property rights, provide public education, and ensure national defense.
- **Self-Interested Economic Behavior:** Individuals pursue profits and wages based on personal interest.
- **Harmony of Interests:** Society's best interest is served when individuals pursue their own private interests.
- **Importance of Economic Resources and Activities:** Key resources include land, labor, capital, and entrepreneurial ability. Crucial activities encompass agriculture, commerce, production, and international exchange.
- **Economic Laws:** Important principles include the law of comparative advantage, the law of diminishing returns, the labor theory of value, and Say's Law, among others.

Adam Smith (1723 – 1790)

- **Attended the University of Glasgow.**
- **Served as a professor at the University of Edinburgh (1748) and the University of Glasgow (1751).**
- **Acted as the private tutor to the young Duke of Buccleuch during his journey through France in 1764, where he met François Quesnay.**

Key Works:

- *Theory of Moral Sentiments* (1759)
- *The Wealth of Nations* (1776)

Influenced by:

- Physiocrats
- David Hume

His contributions span across five key areas:

1. Price Theory
 - a. Which focused on The Division of Labor, Price Formation, and Determination
2. Capital Accumulation and the Financial System
3. The Historical Development of Agriculture in Europe
4. International Trade (including criticism of Mercantilism)
5. The Role of the Public Sector

Price theory

Price theory = theory of value

represented by the:

- value in use (ex: water has a high value in use)
- value in exchange

Labour theory of value

If it takes 2x longer to kill a bear than a beaver, the bear is 2x more expensive

Labour theory of value: relative prices are determined by the relative production costs (seemingly no role for demand in formation of prices). This was the first to put focus on LABOR PRODUCTIVITY and where demand had seemingly no role in prices.

Examples: hunting society – labour costs (division of labour increases productivity)

Smith: Wages/rents/profits all tend towards the “natural price” (inheritance of **scholastics**)

→ The **natural price** corresponds to the normal levels of costs

- ◆ “neither more nor less than what is sufficient to pay the rent of the land, the wages of the labor, and the profits of the stock employed in raising,

preparing, and bringing it to market, according to their natural rates" (l. vii. 4, Wealth of Nations)

- The **market price** is the price that prevails in the market, which is the interaction between supply and effectual demand:
 - Excess supply when natural price $>$ market price
 - ◆ When this happens, some productive factors will be withdrawn, the quantity supplied will fall, and the market price will rise toward the natural price.
 - Little supply when natural price $<$ market price
 - ◆ when this happens. more goods will come to market, lowering the price
 - In the long term, market price $>$ natural price

Normally, market price cannot remain lower than the natural price. However, some governments can give monopoly rights to firms and cause market prices $>$ natural prices.

Hence, Short-run supply and demand are not determinants of prices in terms of exchange-value, but instead cause fluctuations around the natural prices of the goods

Returns to production factors

Wages:

- Employment Contracts
- At a minimum, employment contracts must ensure a subsistence-level wage.

Wages may vary based on non-economic factors that influence the conditions of work:

- The difficulty or danger of the job (e.g., miners are paid more due to hazardous conditions).
- The level of trust and responsibility associated with the role.
- The stability and regularity of employment.
- The educational or financial investment required to acquire the necessary skills for the job (e.g., lawyers incur significant costs for education).
- The likelihood of success in the occupation.

These factors form the basis for the theory of compensating wage differentials.

Profits

Profits differ due to:

- Variations in risk.
- Compensation for the management and oversight of business operations.

A nation with a low profit rate may counterbalance this with higher wages.

Conversely, prosperous countries are able to offer goods at competitive prices, even in comparison to less fortunate countries with lower wage rates.

Rents

Rents are defined as the tenant's income minus natural costs, such as wages and profits, with the residual considered as rent. Therefore, while wages and profits contribute to higher prices, rents are a consequence of these high prices. This is valid only under the assumption of a free and unregulated market.

In the context of rents: All income received by tenants is treated as rent, which arises as a result of high prices, provided the market operates freely.

Invisible Hand

The concept of the "invisible hand" reflects the idea that individual self-interest in a competitive market results in unintended social benefits.

Influence of Physiocrats

The physiocrats' ideas on economic theories, particularly regarding land and agricultural production, significantly shaped economic thought and the theory of Invisible Hand.

Market mechanism and competition

Perfect competition embodies the concept of a "system of perfect liberty," characterized by:

- The absence of monopolies.
- Unrestricted entry and exit into the market.
- Producers striving for profit maximization.
- The extent of competition within the market.

Public interest

- Competition, a central element in understanding Smith's concept of the invisible hand, enhances economic efficiency by directing resources toward their most efficient uses, thereby maximizing output.
- However, the market alone cannot ensure an equitable distribution of resources. As a result, inequalities may emerge.

International trade

1. International trade is the main criticism of **Mercantilism**. In opinion of Adam Smith, laissez-faire principle also applied to international trade
2. Trade policies prevent the market from functioning efficiently:
 - Import restrictions create monopoly for domestic producers
 - Export subsidies direct money to less productive use

The role of the government

The state has 3 functions and the role of the government must be minimal and limited to these functions:

1. Protect society against violence and foreign invasion.
2. Protect individuals against injustice and oppression by other members.
3. Erect and maintain public works and institutions, which an individual would never find profitable to erect/maintain (First mentioning of public goods).

The role of money

Money is considered a "dead stock" because it does not, in itself, produce anything. When the supply of money increases, the nominal prices of goods and services also rise, but the real prices remain unchanged. This notion is rooted in the ideas inherited from David Hume.

In this view, money is not a productive resource. Contrary to the beliefs of the Mercantilists, who argued that wealth is based on the accumulation of precious metals like gold and silver, this perspective holds that money merely serves as a medium of exchange rather than a source of wealth creation.

Economic growth

Capital accumulation is a key driver of economic growth. The wage fund theory suggests that employers must pay wages from their stock of capital, indicating that sufficient capital is necessary for supporting labor.

Smith argued that the introduction of capital into the economy stems from labor decisions, but he overlooked the fact that technological advancements could also lead to the division of labor.

In his work *The Wealth of Nations*, Smith outlined how the division of labor increases the quantity of output for three primary reasons:

1. **Increased Dexterity:** Each worker becomes more skilled and efficient by focusing on a single, repetitive task.
2. **Time Efficiency:** Time is saved when workers are not required to transition between tasks.
3. **Productivity through Machinery:** Once tasks are routine through division of labor, machinery can be developed to further boost productivity.

Smith also distinguished between productive and unproductive labor, recognizing that certain forms of labor contribute to the generation of wealth, while others, such as services or unproductive work, do not contribute in the same way.

Conclusions Adam Smith

- The classical school begins with Adam Smith.
- Smith is the point of departure for later economists: Thomas Malthus & David Ricardo.

Thomas Malthus (1766–1834)

- He attended Cambridge and was a Professor at the East India College (1805)
- His works include: *An Essay on the Principle of Population* (1798) and *Principles of Political Economy* (1820)

Population growth theory

- The theory of population growth was proposed in the context of historical unemployment, poverty, and the Corn Laws. This theory highlights a tension between population growth and food production, as population increases according to a geometric progression (1, 2, 4, 8, 16, 32), while food production grows at an arithmetic rate (1, 2, 3, 4, 5, 6), implicitly reflecting the concept of diminishing returns.
- As a result, the population's natural growth rate must be constrained to match the growth rate of food production.
- The mechanism described in this theory is as follows: economic growth leads to population growth, which subsequently causes food shortages. This results in more people living in poverty, leading to starvation and fewer births, ultimately restoring balance between population and food supply. This represents a rather pessimistic view of the future.

Mechanisms to keep population growth down include

1. **Preventive checks** reduce the birth rate through "moral restraint" rather than "vice." According to this view, poverty results from a lack of restraint in reproduction among the lower classes, with the belief that the government should not intervene to assist the poor.
2. **Positive checks** increase the death rate through factors such as famine, disease, and war. These positive checks are seen as consequences or punishments for those who failed to practice moral restraint.

Theory of market gluts

The theory of market gluts suggests that the retention of the Corn Laws was justified because such tariffs benefited landlords and promoted unproductive consumption, which was seen as essential to prevent economic stagnation.

There is a potential insufficiency in effective demand, as workers receive only a subsistence wage. This means the value generated by the worker's productivity exceeds the wage paid to the worker, resulting in profit (profit = productivity - wage). Rent is the surplus derived from the difference between the price of agricultural produce and the cost of production, which includes wages, interest, and profits.

Although production costs may rise, they help to increase purchasing power. Therefore, rent contributes to effective demand without adding to production costs. Workers cannot purchase the full output of goods, and profits do not return to workers through higher wages. Capitalists focus solely on accumulating wealth and assist in purchasing additional units through the investment in capital goods, though they do not necessarily consume all their profits on such goods.

Thus, landlords are urged to consume more to prevent a glut of goods in the market, which would lead to stagnation and unemployment. In this way, spending contributes to effective demand, stimulates production, and encourages employment without increasing production costs.

Economic policy

- **Population theory:** There is no government relief for the poor (Poor laws, 1834)-> Make people have fewer children
- **Theory of market gluts:** Prevent abolishment of Corn Laws (no free trade), which means to enrich land owners, avoid stagnation

Discussion Thomas Malthus today

The theory of market gluts demonstrated an awareness of the issue that a lack of demand could lead to unemployment, a concept later expanded upon by Keynes in the 1930s. Keynes's value theory, like earlier theories, was grounded in supply and demand rather than solely focusing on production costs. He acknowledged the importance of demand in determining the value of goods that are perfectly inelastic, recognizing that these goods have a long-term cost of production that ultimately sets their value.

Population Theory

A significant number of people worldwide continue to live in poverty. The idea of population growth matching the subsistence level growth rate was overstated. In reality, population growth occurred more slowly than anticipated, while food production increased at a faster pace, rendering the theory somewhat inaccurate.

Diminishing returns to food production were expected, but technological innovation and capital accumulation resulted in greater food production with fewer workers, mitigating the effects of diminishing returns.

David Ricardo (1772 – 1823)

- No academic training
- Stockbroker. Retired at age 43
- Self-taught in economic issues
- Part of the House of Commons (1819)
- His works include: Principles of Political Economy and taxation (1817) and Notes on Malthus (1828)

Relative price theory

The basic factors of production are labor, capital, and land.

- **Determination of Prices**

The inputs in production go beyond just labor. Relative prices are not solely determined by labor costs. Capital costs should be considered in terms of labor costs, and the production process may vary in length of time. Consequently, time costs should be incorporated into price formation.
- **Implications**

The labor theory of value does not hold in its simplest form. Variations in relative prices are typically no greater than 6-7%, leading to the notion of a "93% labor theory of value" (George Stigler, 1958; 1965). Additionally, the level of wages remains significant in determining relative prices.

Ricardo's extended labor theory of value

By dissolving capital into labor units and using the 93% approximation, both labor and capital could be incorporated, and this helped fix for complications raised by use of capital in the simple labor theory of value.

Theory of rent

Ricardo is the first economist to introduce a marginalist principle in economic analysis.

Land differs in quality and productivity, with the least productive land used characterized by sales equal to production costs, meaning rent equals zero. Therefore, rents should not be considered part of the labor theory of price formation. Rents arise from both extensive and intensive margins. Prices are determined by marginal farmers, and rents do not factor into production costs.

As Ricardo stated in 1817, "Corn is not high because rent is paid, but rent is paid because corn is high" (1951; p.74). This implies that rent is a price determined by the market, but it does not determine the price itself.

Theory of international trade

While Adam Smith argued that trade is based on absolute cost differences, Ricardo posited that each country should specialize in producing certain goods and use part of its output for exports, which would then finance imports. This concept of specialization is known as **Comparative Advantage**.

Ricardo believed that trade brings mutual benefits and made the following assumptions:

- **Explicitly:** Capital and labor do not move between countries.
- **Implicitly:** Costs remain constant as output increases, with costs measured in labor hours.

Ricardo opposed the Corn Laws.

However, there is a tension between Ricardo's labor theory of value and his theory of comparative advantage, as seen in slide 33. He did not address how the gains from trade are divided among trading nations.

Ricardo argued that, "The principle that determines relative prices in a single country does not apply in the context of international exchange," a problem later addressed by John Stuart Mill.

Ricardo on theory of market gluts

A temporary glut can occur, but typically, full production and employment prevail, a concept now recognized as Say's Law of Markets.

Supply generates its own demand because:

- Resource allocation adjusts between the production processes of different commodities.
- Overproduction is self-correcting, as it leads to sales at a loss and a shift of resources toward producing other commodities.
- Capitalists' savings translate into investment expenditures, thereby creating demand for goods.

The long-run effect of machinery is more beneficial than its short-run effect, ensuring that effective demand is always sufficient.

Ricardo on economic policy

Wages should not be regulated, and no assistance should be provided to the poor. Similar to the physiocrats, taxes on rent affect only the rent itself and are fully absorbed by landlords.

In contrast to Malthus, it is argued that the Corn Laws should be abolished because:

- Population growth does not hinder economic growth.
- Population growth leads to increased food production (subject to diminishing returns), which raises costs, drives up food prices, and results in higher wages. However, this also reduces profits, slowing capital accumulation and ultimately leading to lower economic growth.
- The Corn Laws limit the benefits of international trade.

Discussion David Ricardo today

Strengths

- Theory of comparative advantage
- Marginal analysis
- Law of diminishing returns
- distribution of income

Weaknesses

An excessive emphasis on the law of diminishing returns overlooks the fact that technological innovations can increase output.

The view that land has only a single use is incorrect, as it can be employed for multiple competing purposes. This introduces opportunity costs, meaning that in reality, rent is part of production costs. Unlike Ricardo's belief that rent is merely the residual after wages and profits, land demands payment that reflects its opportunity cost and can be allocated to alternative uses, such as labor or capital.

The impact of machinery on employment was misunderstood, as the introduction of capital can also boost the demand for labor, not just for machines. Furthermore, there was insufficient focus on the critical role of demand in economic processes.

John Stuart Mill (1806 – 1873)

- Contributions to philosophy and theoretical economics;
- No formal education;
- Employed at East India Company.
- His works include: A System of Logic (1843), Principles of Political Economy (1848); Essays on Some Unsettled Questions of Political Economy (1844).

Price theory

Adam Smith's and Ricardo's theories of price formation were primarily driven by the supply side of the economy.

John Stuart Mill introduced the concept of the **demand schedule**, which illustrates that the quantity demanded varies with changes in price. Thus, demand and supply together determine prices, with prices being based on production costs.

However, complexities arose from the lack of consideration of demand in Ricardo's model. In his extended price model, which incorporates decreasing returns, demand should play a more active role in price determination, yet Ricardo was unable to address this in his theory.

Ricardo's theory of comparative advantage did not explain how the surplus from trade was distributed between countries, meaning it was unclear how international prices related to national prices.

John Stuart Mill's introduction of the demand side marked a major shift in economic theory, resulting in three significant innovations in price theory:

1. **Price formation in international trade:** Prices adjust to a level where the value of exports equals the value of imports.
2. **General price adjustment:** Prices adjust so that the supply of a commodity matches its demand.
3. **General equilibrium concept:** Aggregate demand for all commodities equals aggregate supply (reciprocal demand), incorporating the concept of price elasticity.

The fundamental principle of price formation, according to Mill, is the market mechanism's tendency to equalize supply and demand.

Theory of the wage fund

Initially, Mill accepted the concept of a wage fund. However, in 1869, he allegedly rejected this theory because its implications did not align with the actual workings of the economy: for instance, trade unions were believed to have no influence on wages, yet evidence showed they could impact wage levels.

Mill made a significant contribution to the development of a new theory of wage formation, which would later be expanded upon by the marginalists.

Mill argued that wages are primarily determined by the forces of labor demand and supply. He assumed the existence of unitary elasticity of labor demand, meaning that no matter the wage rate, the same total sum is spent on labor. As a result:

- The government cannot set a minimum wage above the equilibrium level.
- Any higher wages for workers will be offset by the lack of wages for the unemployed.

Regarding income distribution, Mill believed that profits could be divided into three components: abstinence, risk, and the effort involved in managing capital.

Additionally, investments in human capital, such as expenditures on education and training, represent current investments that are justified by future wage returns.

Conclusions

Mill made some important adjustments to the existing view of the classical school. With the death of Mill, classical school ended and the marginalist revolution became visible.

History of Economic Thought – IBEB

– Lecture 2, week 2

Marxism

Karl Marx (1818 – 1883)

- **Education:** Graduated from the Universities of Bonn, Berlin, and Jena.
- **Career:** He did not pursue an academic career.
- **Exile:** Due to his left-wing ideology, Marx was exiled from Germany to Paris and later to England by right-wing governments.
- **Major Works:**
 - *The Communist Manifesto* (1848)
 - *Das Kapital* (Volume 1: 1867; Volumes 2–3 were published posthumously)
- **Influences:**
 - **Ricardian Economics:** Fascinated by Ricardo's labor theory of value.
 - **Socialist Ideals:** While he shared socialists' moral critique of capitalism, he believed socialism would only emerge when the working class reached a breaking point.
 - **Darwinian Inspiration:** Advocated for a dynamic approach to analyzing the economy.

History of Marxism

Marx argued that capitalism contained inherent contradictions that would ultimately lead to its collapse.

- **Forces of Production:** These are dynamic and include technology, types of capital, and the skill level of labor (e.g., influenced by migration).
- **Relations of Production:** These are static and encompass rules, social relations, and property ownership.
- **Superstructure:** This refers to the social context, including art, philosophy, religion, literature, and music. It serves to uphold and reinforce the existing system.

The tension between dynamic forces of production and static relations of production creates conflict, ultimately culminating in a revolution. This leads to the formation of new relations of production and a redefined superstructure.

Under Capitalism:

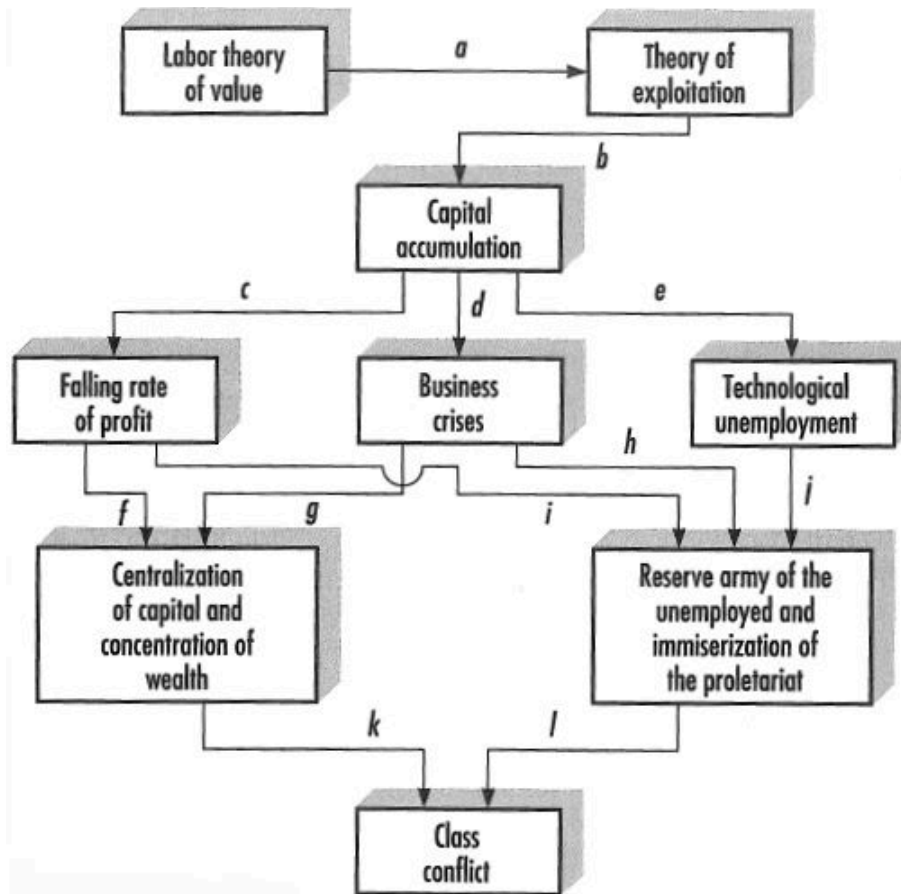
- Techniques of production become increasingly concentrated and centralized.
- Rising unemployment and poverty fuel worker revolts.
- The working class triumphs, establishing the dictatorship of the proletariat.

Under Socialism:

- Private property exists, but capital and land are publicly owned.
- Production and investment rates are centrally planned, removing the profit motive and free-market mechanisms as drivers of the economy.

This dialectical progression continues until the state dissolves, giving way to a state of pure communism.

Law of motion of capitalist society



Source: Law of motion of capitalist society (Anne Gielen, 2025)

Labour theory of value

- **Use Value vs. Exchange Value:**
 - The use value of labor refers to its utility or usefulness.
 - The exchange value of labor is defined by the socially necessary labor time required for production.
- **Labor as a Commodity:**
 - Labor power itself is considered a commodity, with its value determined by the labor time necessary to produce it.
 - Workers are exploited when capitalists extract surplus value from their labor.
- **Determining Value:**
 - For example, if the average labor time to produce a vase is 5 hours, its value (or price) is based on those 5 hours, regardless of whether a specific firm produces it in only 3 hours. What matters is the societal average labor time.
- **Key Points:**
 - Value is determined by absolute labor time.
 - Capital and landowners do not contribute to value creation.
 - This idea of a single productive factor is rooted in earlier economic thought:
 - Physiocrats believed nature (agriculture) was the sole source of value.
 - Marx argued labor is the singular productive factor.

Theory of Exploitation

- **Wages and Bargaining Power:**

Workers are typically paid a wage equivalent to the minimum subsistence level due to their limited bargaining power. This low wage is sustained by capitalism's creation of a substantial "reserve army of unemployed," which exerts downward pressure on wages. Over time, this surplus of labor ensures that average wages remain close to the cultural level of subsistence. Additionally, employers can compel workers to work longer hours.
- **Surplus Value:**

While workers generate all value, they do not receive the full value of their labor.

 - Surplus value is calculated as:

Surplus Value = Productivity – Subsistence Wage.

Capital Accumulation

- **Economic Models:**
 - In a traditional economy, the cycle is **C-M-C** (commodity to money to commodity).
 - In a capitalist economy, the cycle shifts to **M-C-M'**, where profit equals the difference between M' (the money gained) and M (the money invested).
- **Process of Accumulation:**

Capitalists begin with an initial sum of money (M), which they use to produce goods (C). These goods are then sold to generate a greater amount of money (M').

 - This profit arises because workers are not paid the full value of what they produce.
- **Critique of Capitalism:**

Marx rejects Adam Smith's notion that society benefits when individuals act in their own self-interest. In Marx's view, the system is exploitative, as capitalists prioritize profit over equitable distribution.
- **Use of Profits:**

Rather than investing in additional workers or addressing societal needs, capitalists reinvest their profits to further accumulate wealth and expand capital.

Falling Rate of Profit

- **Causes:**
 - Driven by the pursuit of efficiency through mechanization and labor-saving technologies.
 - **Organic Composition of Capital:** An increasing proportion of constant capital (machinery) is invested relative to variable capital (wages).
 - Since labor is the only source of value, this shift reduces the profit rate, calculated as:
Profit Rate = Surplus / (Labor + Capital).
 - Greater investment in capital leads to higher unemployment, which strengthens firms' bargaining power over workers.

Business Crises

- A declining profit rate discourages business expansion.
- Economic depressions reduce the monetary value of fixed capital.
- Factory closures and falling prices exacerbate the downturn.
-

Technological unemployment

- The substitution of labor with capital results in job losses as businesses close and workers are displaced.

Centralization of capital and concentration of wealth

- The dynamics of capital accumulation and recurrent business crises lead to:
 - Centralization of capital, as surviving capitalists acquire the assets of smaller competitors and failed businesses.
 - Concentration of wealth in the hands of a few.
 - Over time, ownership becomes increasingly consolidated, with all wealth controlled by a small, elite group.

Reserve army of unemployed and immiseration of proletariat

- Economic crises and the substitution of labor with capital lead to increased unemployment.
- A growing pool of unemployed workers further drives down wages, deepening the hardships faced by the working class.

Class conflict

- As conditions worsen, workers unite and organize to challenge the system.
- This culminates in a revolution, replacing private ownership with state ownership of the means of production.
- The exploitation of workers ends, paving the way for a more equitable society.

Major tenets of Marxism

- Rejects the classicist notion of a harmony of interests between classes.
- Opposes the concept of laissez-faire economics.
- Argues that the power of capitalists grows at the expense of workers.
- Refutes Say's law of markets.
- Advocates for collective action and public ownership of enterprises.

Lasting tenets of Marxism

- Influenced the development of the theory of value in economics.
- Was among the first to identify the phenomenon of business cycles.
- Accurately predicted the rise of large-scale enterprises and monopolistic power.
- Highlighted the substitution effect between capital and labor.
- Introduced a dynamic approach to economic analysis.

Discussion of Marxism nowadays

Marx's prediction of widespread impoverishment of the working class did not materialize. However, Marxism has had significant positive influences, including:

- Emphasizing state ownership of essential services and infrastructure (e.g., postal services, railways).
- Advocating for social welfare programs.
- Analyzing the growth of monopolistic power, issues in income distribution, and the reality of business cycles.

History of Economic Thought – IBEB

– Lecture 3, week 2

Marginalist school

Forerunners of Marginalism

Key figures who laid the groundwork for marginalist thought include:

- Johann Heinrich von Thünen (1783–1850)
- Antoine Augustine Cournot (1801–1877)
- Jules Dupuit (1804–1866)

Although these early thinkers contributed to the development of marginalist ideas, the Marginalist Revolution is generally recognized as beginning in the 1870s. During this period, marginalist theorists synthesized these concepts into a cohesive framework.

Pioneers of the Marginalist Revolution

- William Stanley Jevons (1835–1882)
- Carl Menger (1840–1921)
- Léon Walras (1834–1910)

Major tenets Marginalist school

- Greater emphasis on the behavior of individual economic agents, with a focus on microeconomics.
- Increased attention to the demand side, particularly through the marginal principle.
- A stronger reliance on mathematics in economic analysis.
- Assumption of rational economic behavior by individuals.
- Use of the equilibrium approach, where economic forces tend to drive the system towards a balanced state.
- Limited role for government intervention in the economy.

Famous marginalists

Antoine Cournot (1801-1877)

Considered one of the forerunners of the marginalist school, Cournot focused on the rates of change of total cost (TC) and total revenue (TR) functions, and their relevant derivatives. Unlike many others, he began his analysis by examining pure monopoly and then incorporated competition.

Main Contributions:

- Applied mathematics to economic analysis (1838)
- Developed the law of demand: as prices increase, demand decreases (though the concept of marginal utility had not yet been introduced).
- Formulated theories on price formation in markets with few suppliers: monopoly and duopoly theories.
- All of his work centered on the marginal concept.

Jules Dupuit (1804-1866)

Main Contributions:

- Developed the concept of the marginal utility curve, where utility derived from an additional unit of a good depends on the quantity already possessed.

Johann von Thünen (1783-1850)

Location Theory:

Thünen aimed to determine the pattern of cultivation by creating a diagram of concentric circles, each representing a region with rings around them. This diagram illustrated that the more intensive the production, the closer it is to the city, especially for perishable and expensive-to-transport goods. Location is thus dependent on transportation costs and the intensity of production.

Jevons, Menger, and Walras:

Though not the first to introduce marginalist thinking, the marginalist revolution is recognized as beginning in the 1870s with their major contributions.

William Stanley Jevons (1835–1882)

- Studied at University College London and later became a professor there in 1876.
- Major Work: *The Theory of Political Economy* (1871).

Theory of Utility:

- Jevons distinguished between total utility and marginal utility, which resolved the classical water–diamond paradox. In his view, prices are determined by marginal utility, explaining why people would choose a diamond over an additional unit of water despite the abundance of water.
- He argued that pearls have value because they provide utility, in contrast to Ricardo's belief that their value lies in the effort needed to find them.
- Jevons asserted that the value of pearls depends on how many people already own pearls, thus enabling comparisons of utilities.
- Introduced the principle of utility maximization to various domains, such as international trade and labor markets.
- Developed ideas on fair games, insurance, and gambling (noting diminishing marginal utility), as well as the impact of the sunspot cycle on weather and crops.
- Pioneered a method for creating price indexes to measure inflation or deflation over time.

Public Policy Views:

- Supported public goods and trade unions but argued that unions should allow wage rates to follow natural laws, with wage increases leading to higher prices. He advocated for profit sharing instead of wage controls and opposed regulations on labor hours.

Carl Menger (1840–1921)

- PhD in Law from the University of Krakow; became a professor at the University of Vienna in 1879.
- Major Work: *Principles of Economics* (1871).

Theory of Value:

- Menger based value on utility, but unlike Jevons, he did not use mathematics to describe marginal utility.

- He argued that price was determined by total utility rather than marginal utility. Production factors are valued according to the utility derived from the consumer goods they produce (e.g., the utility from iron depends on the usefulness of items made from it).

Leon Walras (1834-1910)

- While Jevons and Menger focused on partial equilibria, Walras studied the general equilibrium framework and integrated the marginalist perspective mathematically.
- He argued that prices are determined first, and that consumers optimize their consumption choices based on these prices to maximize utility.

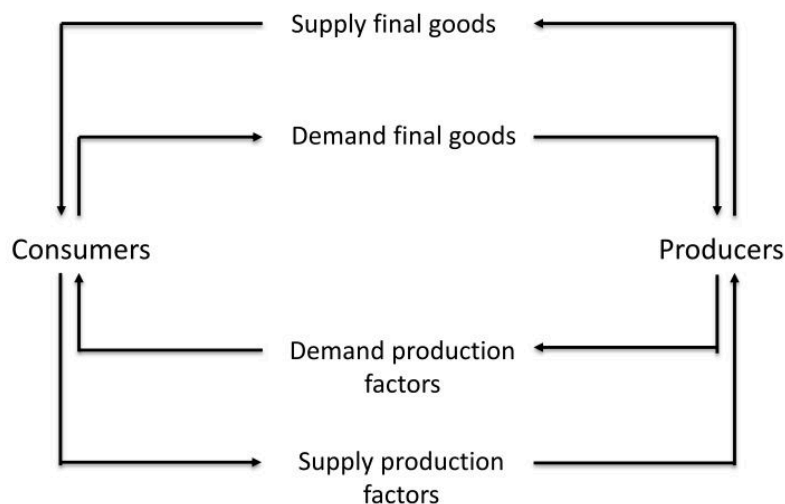
Mathematical General Equilibrium Model

Exchange Analysis:

- Determination of Relative Prices: Walras assigned the price of one good as the numeraire (set to 1), making the relative prices of other goods determined by the remaining $m-1$ goods.
- Optimization of Utility: For consumers to maximize utility, the marginal utility divided by price must be equal for all goods.

Therefore, prices are determined first. With the prices set, consumers optimize their consumption choices to maximize utility.

General Equilibrium:



Source: Walras – mathematical general equilibrium model (Anne Gielen, 2025)

- Consumers seek to maximize utility, while producers aim to maximize profits.
- Consumer demand equals firm supply for all goods.
- Firm demand equals consumer supply for all factors of production.

Model extended to economy with production:

- Conditions for cost minimization
- Free competition brings production costs to minimum

Money is neutral

- Doubling of money leads to doubling of prices (inheritance Hume and Adam Smith)
- Model was major step forward, but only few contemporary colleagues were able to understand it in detail

Was there a marginal revolution?

Positive Aspects:

The marginalist approach introduced a transformative shift in economic theory, emphasizing demand conditions, incorporating the theory of marginal utility, and increasing the use of mathematical methods in analysis.

Negative Aspects:

However, marginalism was more of an ongoing process than a distinct historical event. Many of the ideas central to the marginalist approach had already been developed decades earlier, with the real breakthrough occurring when these concepts coalesced into the marginalist framework.

Conclusions

Many foundational contributions from this period continue to influence modern economics, such as the monopoly and duopoly models, the theory of diminishing marginal utility, the rational consumer choice theory, the law of demand, the law of diminishing returns, and the concept of returns to scale.

Subsequent influential economists built on the microeconomic theories established by the marginalists.

Reference list

- Gielen, A. (2025). Lecture 1: Introduction [Powerpoint slides]. Retrieved from: <https://canvas.eur.nl/courses/47701/modules/items/1307501>
- Gielen, A. (2025). Lecture 1: Classical School [Powerpoint slides]. Retrieved from: <https://canvas.eur.nl/courses/47701/modules/items/1307502>
- Gielen, A. (2025). Lecture 2: Marxism [Powerpoint slides]. Retrieved from: <https://canvas.eur.nl/courses/47701/modules/items/1307503>
- Gielen, A. (2025). Lecture 2: Marginalism [Powerpoint slides]. Retrieved from: <https://canvas.eur.nl/courses/47701/modules/items/1307504>