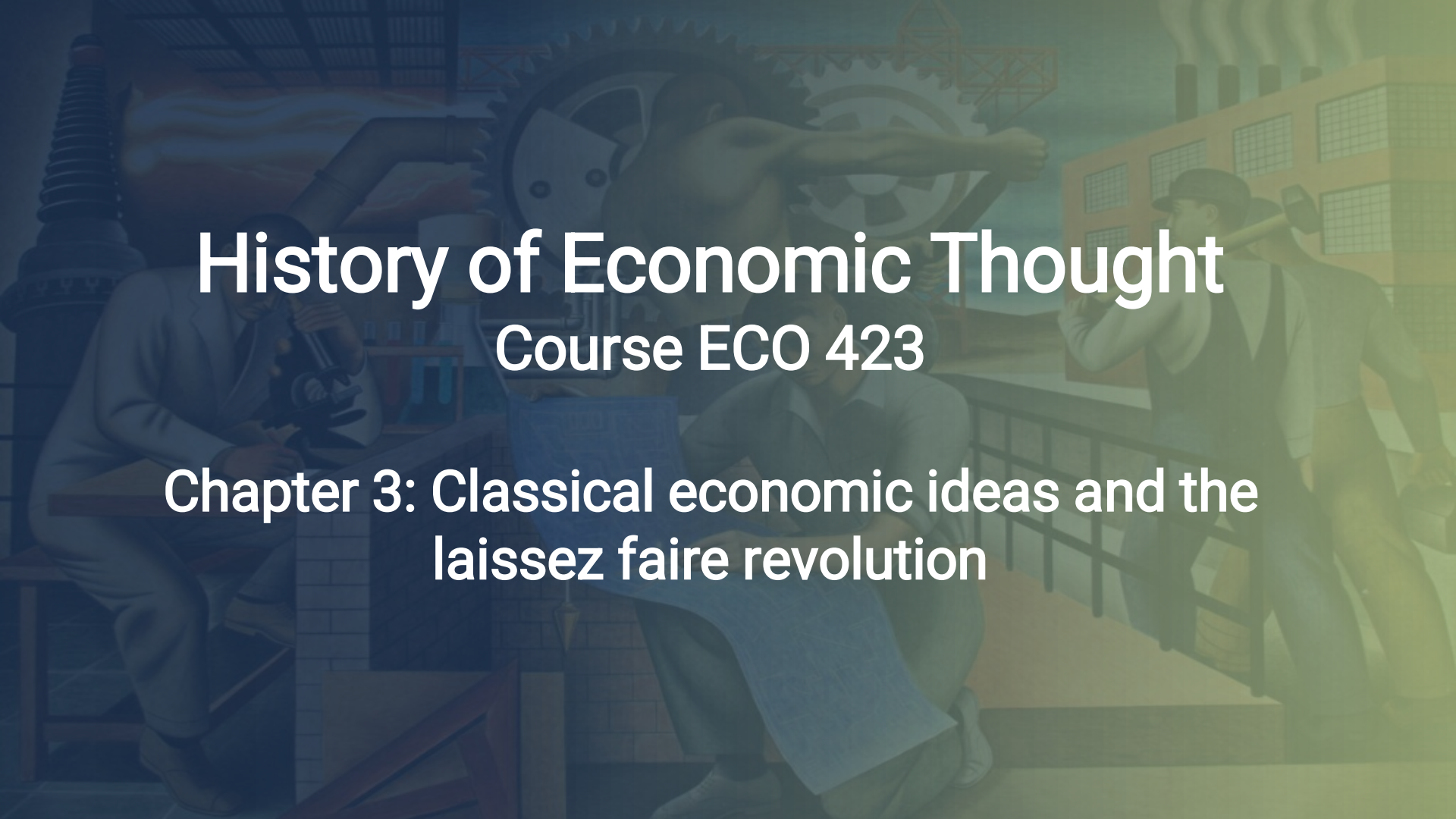


History of Economic Thought

Course ECO 423

Chapter 3: Classical economic ideas and the laissez faire revolution

Classical economic ideas

Adam Smith

Thomas Malthus

David Ricardo

Nassau W Senior

John Stuart Mill

Adam Smith

Adam Smith (1723–1790), the kindly, brilliant founder of the classical school, was born in the seaport and manufacturing town of Kirkcaldy, Scotland. Young Smith attended Glasgow College at fourteen years of age; he later studied moral and political science and languages at Balliol College, Oxford. He was elected professor of logic at Glasgow College in 1751. In 1759, he published ***The Theory of Moral Sentiments****, in 1776, Smith published* ***An Inquiry into the Nature and Causes of the Wealth of Nations****. Shortly before he died in 1790, most of his unpublished manuscripts were destroyed according to his wish and without explanation.*

Adam Smith: important influence on him

First, Enlightenment: This intellectual movement was built upon two pillars: people's reasoning ability and the concept of the natural order. Through systematic reasoning, people could discover not only these physical laws but also those that govern the society. Enlightenment thinkers therefore were optimists; they generally believed that human thought and energy could produce virtually unlimited progress.

Second, Smith was influenced by the physiocrats, particularly Quesnay and Turgot. From these thinkers he drew the theme of wealth as "the consumable goods annually reproduced by the labour of society," the desirability of minimal government interference in the economy, and the concept of the circular process of production and distribution.

Francis Hutcheson, Smith's instructor at Glasgow College, was a third significant influence on Smith. Hutcheson felt that people themselves could discover what is ethically good—the will of God—by discovering the actions that serve the good of humankind.

Finally, Smith was influenced by his friend David Hume, who through his letters and personal conversations contributed to Smith's intellectual development and economic ideas.

Adam Smith: economic ideas

The Division of Labor

The first chapter of Wealth of Nations is titled “Of the Division of Labour”. “The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is any where directed or applied, seem to have been the effects of the division of labour.”

The division of labor increases output for three main reasons:

Increased Dexterity: Each worker becomes more skilled and efficient by repeatedly performing a single task.

Time Efficiency: Time is saved as workers do not switch between different types of tasks, reducing downtime.

Use of Machinery: Once tasks are simplified and standardized, machinery can be invented and applied to further boost productivity.

Emphasis: Smith's analysis focuses on manufacturing production and highlights the productivity of labor as central to economic efficiency.

Adam Smith: economic ideas

The Harmony of Interests and Limited Government

Self-Interest and the Invisible Hand

- People act in their own self-interest (e.g., workers want high wages, businesses want profit).
- “It’s not from the kindness of the butcher, brewer, or baker that we get dinner, but from their self-interest.”
- Despite everyone acting selfishly, a **natural order** emerges that benefits society — this is the **“invisible hand.”**

Role of Competition

- **Competition** prevents any one seller or buyer from dominating.
- High profits attract new competitors, which brings prices down and balances supply and demand.
- Workers compete for good jobs, and employers compete for good workers.
- Result: **resources are used efficiently**, and the economy grows.

Adam Smith: economic ideas

The Harmony of Interests and Limited Government

Economic Growth Through Self-Interest

- Businesspeople **invest and save**, helping the economy grow — all driven by self-interest.
- When competition is present, this leads to **maximum output** and **economic efficiency**.

Government Intervention: Limited Role

- Smith believed **government interference is mostly harmful** (corrupt, wasteful, inefficient).
- He was critical of **monopoly privileges** and **mercantilism**.

Free Trade and Specialization

- Nations, like individuals, should **specialize** in goods where they have an advantage and trade for the rest.
- **Foreign trade** expands markets and increases division of labor.
- **Export subsidies (bounties)** are harmful and should be avoided.

Adam Smith: economic ideas

The Harmony of Interests and Limited Government

When Government *Should* Intervene

Smith saw **three main roles for government**:

1. **Defense** – protect society from foreign threats.
2. **Justice** – enforce laws and contracts.
3. **Public Works** – build infrastructure (roads, canals, schools) that private firms can't profit from.

Other **acceptable interventions**:

- Control over paper money by the state.
- Regulation of **interest rates** (to avoid risky investments).
- **Tenant protections** to encourage land improvement.
- **Patents and copyrights** (for a limited time).
- **Tariffs** only:
  - To protect industries vital for national defense.
  - To level the tax burden between domestic and imported goods.
  - Gradual reduction of tariffs is preferred to avoid economic shocks.

Adam Smith: economic ideas

The Harmony of Interests and Limited Government

Taxation Principles (4 Maxims)

1. **Fairness** – taxes should be based on one's income/benefits from the state.
2. **Certainty** – tax rules should be clear and predictable.
3. **Convenience** – pay taxes in a way that suits the taxpayer's situation.
4. **Efficiency** – collect taxes at a low cost.

Adam Smith: economic ideas

Theory of Value: types of value (Water-Diamond Paradox)

Type	Definition	Example
💧 **Value in Use**	How useful or essential something is	Water – essential for life
💎 **Value in Exchange**	How much you can trade it for	Diamond – high market price

Water
Very useful (drinking, cleaning, survival)
Very low exchange value (cheap to buy/trade)

Diamond
Little practical use
Very high exchange value (expensive)

Smith's Insight:

"Things with **greatest value in use** often have **little value in exchange**, and vice versa."

Adam Smith: economic ideas

Theory of Value: Labor theory of value in a primitive society

In a simple society where **labor is the only resource**, the **value of a good** is determined by the **amount of labor needed to produce it**.

The **exchange value** of a good is based on the amount of **labor it can command** (i.e., how much labor it can "buy"). This is called the **"Labor Commanded Theory of Value."** “Labour…is the real measure of the exchangeable value of all commodities.”

Labor is both: The **source** of a good’s value (labor cost theory) and The **measure** of a good’s value (labor commanded theory)

Example: Suppose it takes two hours to trap a beaver and one hour to hunt a deer. According to Smith’s "labor commanded" theory of value, the value of the beaver in exchange would be equivalent to two deer or two hours of labor. **The beaver can either command two hours of labor or two units of a good that each requires one hour to produce.**

Adam Smith: economic ideas

Theory of Value: Value theory in an advanced economy

Smith recognized that the **labor cost theory** does **not hold** in economies with **capital investment**.

Example:

- **Commodity A (Potatoes)**: Requires **2 hours of labor**, minimal capital.
- **Commodity B (Cotton Yarn)**: Also takes **2 hours of labor**, but requires **expensive machinery** (capital).

If both exchange at equal value (2 hours of labor), people will prefer producing **potatoes**, avoiding capital costs—this creates an imbalance.

- In an advanced economy, **value must cover**:
    - **Wages** (labor cost)
    - **Rent** (land use)
    - **Profits** (return on capital)
- Employers must earn profits **based on total capital invested**.
- Therefore, the **real value** of goods is **not just the labor embodied** in them.

Adam Smith: economic ideas

Theory of Value: Value theory in an advanced economy

Value can still be measured by the **labor a commodity can command** in exchange. But this **includes profits and rents**, so it **exceeds the labor used in production**.

Smith claimed demand does not affect value in the long run. Instead, **cost of production** (wages + rent + profits) determines long-run value. Based on the assumption of **constant cost per unit** as output changes.

If costs **increase** as output rises (increasing returns to scale):

- Higher demand = **higher long-run price**.

If costs **decrease** as output rises (economies of scale):

- Higher demand = **lower long-run price**.

So, **Smith's principle only holds** under **constant returns to scale**.

Adam Smith: economic ideas

Market Price: natural vs. market price

- **Natural Price**:
  - Covers the **natural rates** of **wages**, **rent**, and **profit** in a society.
  - It is the **long-run equilibrium price** — the minimum sustainable price for producers.
  - If goods sell below this price, producers will eventually **exit the market** or **change industries**.

- **Market Price**:
  - The **actual price** a commodity is sold for in the short run.
  - May be **above, below, or equal** to the natural price.
  - Determined by **short-run fluctuations** in **supply and demand**.
  - Tends to **gravitate toward the natural price** over time.

Adjustments in Market Price:

- If **market price > natural price**: More goods enter the market → **supply increases** → **price falls**.
- If **market price < natural price**: Some producers withdraw → **supply decreases** → **price rises**.
- Conclusion: **Short-run demand and supply cause fluctuations**, but **do not determine long-term value**.

Adam Smith: economic ideas

Market Price: real vs. nominal price

Nominal Price:

- The price of a good **in money terms**.
- Affected by **changes in the money supply** (inflation or deflation).

Real Price:

- The good's **command over labor** (how much labor it can buy).
- Not affected by money supply changes.
- **True measure of value**, according to Smith.

Example: If all prices and wages **double**, a good's **money price** increases, but its **real price remains the same** (no gain in labor command).

Adam Smith: economic ideas

Wages

Three Facets of Wages (According to Smith)

1. **Aggregate Level of Wages**
2. **Growth of Wages Over Time**
3. **Wage Structure**

Wages Fund Theory

- Wages are paid from a **"wages fund"**, which is a portion of **circulating capital** (savings of capitalists).
- This fund comes from **past production and sales revenue**.
- In the **short run**, the wages fund is **fixed**.
- Over time, it can **grow** through **capital accumulation and economic growth**.

Wage Calculation Formula: Average Annual Wage = Wages Fund / Number of Laborers

Minimum Wage Level: Wages must at least cover the **basic survival needs** of a worker and their family. This ensures the **continuity of the labor force**.

Adam Smith: economic ideas

Wages

When Do Wages Rise?: Wages **rise above the minimum** when **demand for labor increases**. This demand grows as **national wealth and capital accumulate**.

Stagnant Wealth Scenario: If wealth is **large but not growing**, population will eventually **exceed job opportunities**. Result: **Wages fall** due to **labor oversupply**.

- **Economic growth** and **capital accumulation** are key to maintaining **rising wages**.
- He **opposed mercantilist policies** that favored keeping wages low.

Benefits of High Wages

- High wages improve **worker health, strength, and motivation**.
- Workers are inspired to **work harder** for the promise of a **better life**.
- This idea is now known as **efficiency wages** or **economies of high wages** in contemporary terms.

Adam Smith: economic ideas

Wages

Adam Smith's theory of **equalizing differences** (also known today as **compensating wage differentials**): Wages differ across jobs to **compensate for advantages and disadvantages**. Over time, **advantages and disadvantages tend to balance out** across occupations. This explains why different jobs offer different wage levels even when skill levels may seem similar.

Five Factors Affecting Wage Differences:

1. **Agreeableness (or Disagreeableness) of the Occupation**
    - Jobs that are **harder, dirtier, more dangerous, or unpleasant** pay **higher wages** to compensate for the hardship.
    - Example: A coal miner is likely to earn more than a shop clerk, all else equal.
2. **Cost of Acquiring Skills and Knowledge**
    - Jobs requiring **expensive or lengthy education/training** must offer **higher wages** to justify the investment.
    - Early version of the **human capital theory**.
    - Example: Doctors and engineers earn more due to high training costs.

Adam Smith: economic ideas

Wages

3. Regularity of Employment

- Jobs with **less job security or irregular hours** pay more to compensate for income uncertainty.
- Example: Seasonal workers or freelance laborers may receive a premium.

4. Level of Trust and Responsibility

- Jobs involving **high levels of trust or responsibility** pay higher wages.
- Example: Jewelers, goldsmiths, lawyers, and physicians earn more because they manage **valuable assets** or **critical decisions**.

5. Probability of Success

- Occupations with **high risk of failure** (e.g., entrepreneurship, acting, invention) reward **successful individuals** with **higher earnings**.
- The high wage compensates for the **low probability of success**.

Adam Smith: economic ideas

Profits

Profit According to Smith: Every investment carries **risk of loss**, so, The **lowest acceptable rate of profit** must **compensate for potential losses and** provide a **surplus**.

- **Gross Profit** = Compensation for risk + Surplus
- **Net (Clear) Profit** = Surplus only (true earnings of the entrepreneur)

Effect of Competition on Profits: In **rapidly growing economies**, **competition increases** as more capital enters the market. This **greater competition among businesses** tends to **reduce profit rates** over time. “When the stocks of many rich merchants are turned into the same trade, their mutual competition... lowers its profit.”

High Wages vs. Low Profits: Even with **high wages**, a thriving country can still **sell goods at low prices** due to **low profit margins**. Hence, **wealthy, fast-growing nations** can be as price-competitive as **poorer countries with low wages**.

Adam Smith: economic ideas

Profits

Interest as Part of Profit: Classical economists (including Smith) did **not treat interest as a separate income** category. **Interest = a portion of profit** (deduction from gross profit).

Interest and Risk

- The **minimum rate of interest** must be **slightly above the expected losses** from bad loans.
- The **maximum interest a borrower can pay** is tied to their **net profit**.
- Typically, the **rate of interest is lower than the rate of profit** to make borrowing attractive.

Interest Rate Trends

- When **profits rise**, **borrowing increases**, and **interest rates go up**.
- When **profits fall**, **demand for loans drops**, and **interest rates decline**.

Adam Smith: economic ideas

Rent

Smith offered **several partial theories** of rent. However, he **did not produce a complete or unified rent theory** like Ricardo later did. Like Ricardo, Smith saw rent as a **residual**, but he did **not use the law of diminishing returns**, a key part of Ricardo's **differential rent theory**.
General View on Rent: Rent is the **price paid for the use of land**. It is what the **tenant can afford to pay** after covering: **Wages, Wear and tear of capital, Average profits, Other production expenses.**

Rent as a Surplus: Rent is a residual—what remains **after other costs are paid**.

- **High product prices → high rents**
- **Low product prices → low rents**
- In this view, **price determines rent**, not the other way around.

Smith also attempted other explanations for rent:

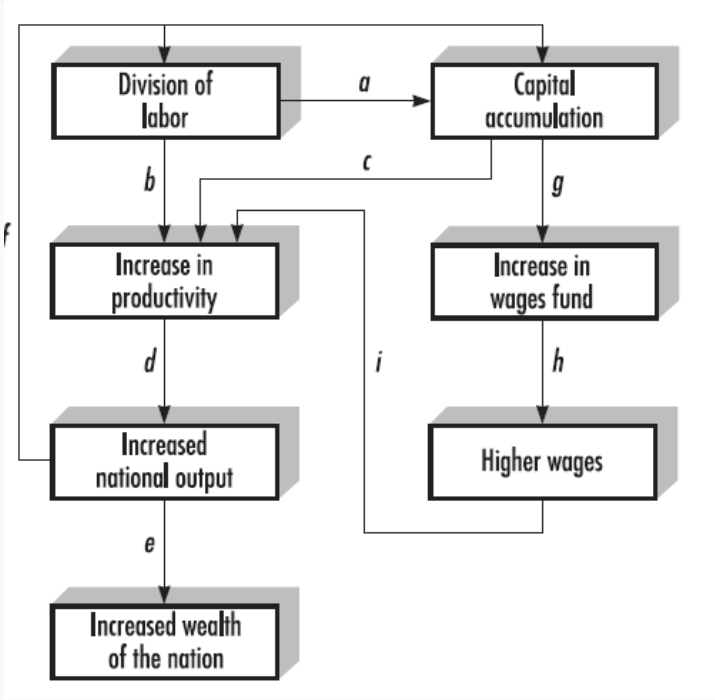
1. **Rent as a monopoly return:** Landowners charge for exclusive control over a scarce resource.
2. **Rent as an opportunity cost:** Payment for using land in one way instead of another.

Adam Smith: economic ideas

Economic Development: economic growth, division of labor, capital accumulation, and productivity

Productive vs. Unproductive Labor

- **Productive labor**: Adds value; results in **tangible marketable goods** (e.g., manufacturers, artisans, merchants).
- **Unproductive labor**: Provides **services**, not stored in goods (e.g., kings, lawyers, doctors, musicians, dancers, etc.).
- Smith favored **shifting labor** toward **productive employment** to support **growth**.



Thomas Malthus

Thomas Robert Malthus (1766–1834) is an important, although controversial, figure in classical economic thought. Malthus was born the son of Daniel Malthus, a distinguished country gentleman and a close friend of such leading intellects as Jean-Jacques Rousseau and David Hume. The younger Malthus graduated from Jesus College, Cambridge, in 1788 and was ordained a minister of the Church of England. His ***An Essay on the Principle of Population*** *appeared in 1798, and an expanded version followed in 1803. His most significant other volume was* ***Principles of Political Economy****, which was published in 1820.*

Thomas Malthus: historical setting

First controversy: Poverty and Poor Laws

- Industrial Revolution and urbanization increased poverty and unemployment.
- The 1795 **Speenhamland Law** guaranteed a minimum income for the poor based on bread prices.
- The wealthy opposed redistributive laws, despite growing revolutionary sentiments among the poor.

Second controversy: Corn Laws

- **Corn Laws** imposed tariffs on imported grain, keeping domestic grain prices high.
- Favored by landlords who benefited from high rents and prices.
- Opposed by the rising merchant and industrial class who wanted cheaper food and labor.
- Post-1813, landlords feared a drop in grain prices after Napoleon's fall and pushed for higher tariffs.
- The growing population and earlier food imports highlighted pressure on food supply.

Thomas Malthus: intellectual setting

- **Malthus's father, Daniel**, believed in human and societal perfectibility, influenced by **Godwin** (anarchist, rationalism, opposed private property, state coercion, self-regulated population growth) and **Condorcet** (supported democracy, free education, population control, wealth equality)—thinkers whom **Malthus later challenged**.

Thomas Malthus was generally considered pessimistic.

- Argued that poverty and suffering are caused by unchecked **population growth**, not flawed institutions.
- Opposed idealist visions of a perfect society as unrealistic and dangerous.
- Believed that war and hunger are **natural checks** on overpopulation.
- His views supported conservative resistance to revolutionary change.

Thomas Malthus: economic ideas

Population theory

Law of population: Population, when unchecked, increases geometrically; subsistence increases at best only arithmetically.

Starting from a moderately populated country (like **England, France, Italy, or Germany**), Malthus suggests:

- Even with **major improvements in agriculture**, if food production increased every 25 years by the amount it currently produces,
- That would represent **arithmetical (linear) growth**.

Such agricultural growth is already highly optimistic, yet it still **cannot match the faster pace** of population growth. Therefore, **population growth will inevitably outstrip food supply** if left unchecked.

Malthus identified two types of checks to population growth: “**preventive checks**” and “**positive checks**.”

Thomas Malthus: economic ideas

Population theory: preventive checks

- **Preventive checks** reduce the **birth rate** and are one way to control population growth.
- **Malthus approved** of **moral restraint**:
  - People who couldn't afford children should **delay or avoid marriage**.
  - **Premarital chastity** was essential.
- **Malthus disapproved** of **"vice"** as a preventive check:
  - This included **prostitution** and **birth control**.
  - He saw these methods as **immoral** and **unnatural**.
- In 1817, Malthus argued that:
  - Artificial population controls could reduce **motivation to work**.
  - If people could limit births easily, human **laziness** might increase.
  - This could prevent nations and the world from reaching their **"natural and proper" population size**.

- Some scholars suggest Malthus may have been more focused on **maintaining a large, industrious, and low-paid labor force** than on **genuinely limiting population growth**.

Thomas Malthus: economic ideas

Population theory: positive checks

Positive checks to population are those that **increase the death rate**, including: **famine**, **misery**, **plague**, and **war**.

Malthus viewed these checks as **natural laws** necessary to limit population growth.

Positive checks act as **punishments** for failing to practice **moral restraint**.

If these checks were removed, population would outpace the **slow-growing food supply**, leading to **mass starvation**.

- **Population is ultimately limited by food supply**—once everyone is down to bare survival, any excess births must result in deaths.
- He sarcastically suggested that, to be consistent, we should **encourage** death-causing conditions:
  - Promote **uncleanliness** among the poor.
  - Make **urban areas more crowded**.
  - **Welcome the return of plague**.
  - Build homes near **swamps** and **stagnant water**.
  - **Oppose medical efforts** to eliminate diseases.

Malthus concluded that only with **higher mortality** could everyone marry young **without universal starvation**.

Thomas Malthus: economic ideas

THE THEORY OF MARKET GLUTS

- **Malthus identified a potential problem of insufficient effective demand** in a capitalist economy.
- **Workers earn only a subsistence wage**, meaning they **cannot afford to buy the full output** they produce.
- **Employers profit** because workers produce more value than they are paid in wages.
- But this creates a dilemma:
    - If profits were **fully returned as higher wages**, profits would vanish, **halting production and employment**.
    - So, **who will buy the remaining output**?
- **Capitalists** buy some output as **capital goods**, and **investment** stimulates production and employment.
- However, **investment is only undertaken if final products can be sold**—without enough consumption, investment slows.
- **Workers alone cannot sustain demand** needed for continued capital accumulation.
- While capitalists could consume their profits, they generally **prefer to save and accumulate wealth**, not spend it.
- Therefore, **another class is needed**—one that **consumes more than it produces** to sustain demand:
    - This includes **landlords** and those engaged in **personal services** whom they support.
- Without this **non-productive consuming class**, prices would fall, and **capitalist saving and investment would shrink**.

Thomas Malthus: economic ideas

The Need for Unproductive Consumption

Spending by landlords is crucial to prevent a **glut (oversupply) of goods**, which could lead to **economic stagnation**.
Rent, according to Malthus, is a **surplus income**:

- It arises from the **difference between the price of agricultural produce and its production costs** (wages, interest, and profits).
- Rent **does not increase production costs**, making its spending especially beneficial to **effective demand**.

Other forms of income—**wages, interest, and profit**:

- Also boost purchasing power.
- **But they raise production costs**, which can harm a nation's **competitiveness in global markets**.

Therefore, **landlord spending supports demand without increasing costs**, helping maintain **economic balance and international competitiveness**.

Thomas Malthus: assessment

Impact on Policy:

- **Poor Law Amendment of 1834** adopted some of Malthus's harsh ideas:
  - Ended relief for able-bodied people outside of **workhouses**.
  - Applicants had to **give up possessions** and enter workhouses for aid.
  - **Families were separated**, and workhouses were made deliberately **inhumane** to discourage reliance on public aid.
  - Malthus likely viewed this as a **vindication** of his theory that not everyone can be accommodated at "nature's feast."

Thomas Malthus: assessment

Support for Corn Laws and Landlords:

- Malthus supported the **Corn Laws**:
  - Tariffs on imported grain enriched **landlords**, promoting **unproductive consumption**, which he saw as essential to **prevent gluts** and **economic stagnation**.
- His theories **aligned with landlord interests**:
  - Justified inequality by blaming **poverty on the poor**.
  - Opposed **poor laws**, which reduced **property taxes** for the wealthy.
- Though Malthus himself was not a rent receiver, he strongly emphasized the importance of **landlord spending**.

Thomas Malthus: assessment

Criticism of Malthus's Theories:

- Malthus **overrated the importance of rents** and **landlord consumption**.
- His **productive vs. unproductive consumption** distinction was flawed:
  - **All spending** (by any group) creates **demand** and stimulates production.
- However, his **theory of market gluts** showed early insight into **aggregate demand issues** and **unemployment**, later expanded by **Keynes** in the 1930s.

Population Growth and Agricultural Critiques:

- Malthus **overestimated population growth** and **underestimated agricultural progress**:
  - Predicted a 25-year population doubling, but actual growth was **slower**.
  - World output has **outpaced population growth**, leading to higher **per-capita income**.
- His **diminishing returns theory** assumed a fixed land supply would limit food growth:
  - Ignored the impact of **technological innovation** and **capital investment** in boosting productivity.
  - **Wages rose**, not fell, as economies industrialized.

Thomas Malthus: assessment

Moral Views and Birth Control:

- Malthus **rejected birth control** as immoral (“vice”), limiting the realism of his population model.
- He **moralized** rather than **analyzed** population behavior.
- Did not foresee the **widespread use of contraception** or the **economic factors** (e.g. rising opportunity costs) that lead people to have **fewer children** in wealthier societies.

Continued Relevance:

- Despite flaws, Malthus’s theory remains **relevant today**:
  - Most growth is in **developing countries**, where poverty remains severe.
  - **2008 food crisis** and ongoing **malnutrition** reflect Malthusian concerns.
- However, modern thinkers treat these as **problems of production and distribution**, **not unchangeable natural laws**.
- Emphasized **both supply and demand**, not just **cost of production**.
- Though incomplete, it was an early step toward **modern value theory**.

David Ricardo

David Ricardo *(1772–1823), a contemporary of Malthus, was the leading figure in further developing the ideas of the school. Ricardo, the third of seventeen children, was born of Jewish immigrants who had migrated to England from Holland. He was trained for his father's stock brokerage business, which he entered at the age of fourteen. At twenty-one he married a Quaker woman and left the Jewish faith to become a Unitarian. As a result of this act, his father disowned him, although they later reconciled. Using funds advanced by bankers who knew and trusted him, young Ricardo entered the stock market on his own. In a few years he had accumulated more wealth than his father, and at forty-three he retired from business. Ricardo died when he was fifty-one from an ear infection, leaving a large fortune, two-thirds of it in landed estates and mortgages. He had completed his major works, including his* ***Principles of Political Economy and Taxation*** *(1817).*

David Ricardo: economic ideas

The currency question

1797 Financial Panic: People got scared in 1797 because **England was at war with France**, and there was a lot of **uncertainty and fear** about the country's future. Wars are expensive, and people worried that the government might **run out of money** or that the value of paper money would fall. The bank didn't have enough gold to give everyone, so its gold supply ran very low. To stop this, the government decided the bank would **no longer give out gold in exchange for paper money**.

Gold Price Inflation: The price of gold rose from **£3.17 to £5.10 per ounce by 1813**, accompanied by **general price inflation**.
Public Concern: Citizens were alarmed by rising gold prices and questioned the cause and potential solutions.

Ricardo’s Involvement: David Ricardo, with significant financial dealings with the Bank of England, began analyzing the currency issue.

Quantity Theory of Money: Ricardo reaffirmed the **quantity theory of money** (earlier developed by Locke, Hume, Smith), blaming **overissuance of paper currency** for inflation.

Lack of Gold Convertibility: Without the requirement to redeem paper for gold, the Bank of England printed and lent money excessively to **finance government spending**, fueling inflation.

David Ricardo: economic ideas

The currency question

Ricardo's Diagnosis: The issue was not the rising price of gold, but the **declining value of the pound sterling**—it took more pounds to buy the same gold.

Call to Return to Gold Standard: Ricardo advocated for restoring the gold standard to ensure automatic limits on note issuance and curb inflation. **Bank of England's Opposition**: Bank directors argued that gold had become **scarcer**, not that paper had lost value.

Ricardo's Rebuttal: He maintained that **gold retained its purchasing power**, but inflated paper money could buy less.

Proposal of Bullion Standard: Ricardo suggested a **gold bullion standard**—the Bank should trade gold bullion (bars or large pieces not coins) on demand, with a **minimum transaction of 20 ounces**.

Implementation of Ricardo's Plan:

- **1819**: Parliament agreed to Ricardo's idea that the Bank of England should **start giving out gold again**, but instead of giving gold coins, the bank would only give **large gold bars** (called **ingots**) that weighed **60 ounces** each.
- **1821**: A law required payment in **gold coin**, fully restoring the **gold standard**.

Legacy: The gold standard remained in effect for over a century, with interruptions only during **major wars and financial crises**.

David Ricardo: economic ideas

THE THEORY OF DIMINISHING RETURNS AND RENT

Ricardo's law of diminishing returns and theory of rent developed in response to the debate over the corn laws. Ricardo became the first economist to formulate a marginal principle in economic analysis. His theory of rent, therefore, is seminal to the later rise of the marginalist school.

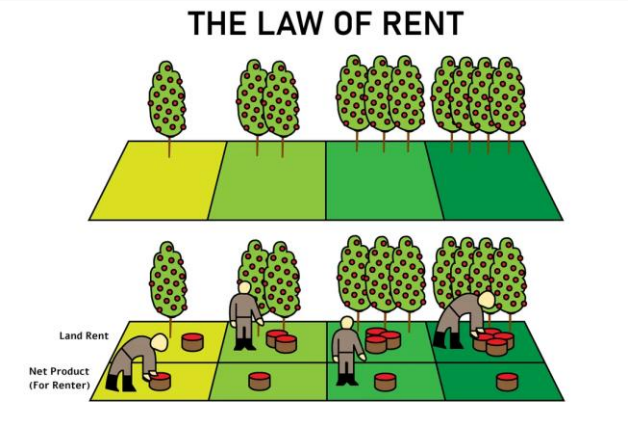
What is Rent?

Ricardo said **rent is the part of the crop (or income)** paid to a **landowner** for using the **natural power of the land** (like fertility). **Rent also includes** the value of **long-term improvements** made to the land that make it more productive (like irrigation systems).

How Rent Arises:

Rent at the Extensive Margin of Cultivation

Rent at the Intensive Margin of Cultivation



David Ricardo: economic ideas

Rent at the Extensive Margin of Cultivation

- Rent appears when **less fertile land** is brought into use.
  - When **second-quality land** is used, the **first-quality land** starts earning rent.
  - When **third-quality land** is used, rent begins on the second-quality land and **rent on the first-quality land increases**.
- Rent is based on the **difference in productivity** between different land types.
- As **population grows** and more food is needed, **poorer land is used**, and rent on **better land increases**.
- **Marginal land** = the **least productive land** currently being used.
- It brings in **just enough revenue** to cover:
  - Production costs (labor + capital)
  - Plus **normal profit**
- **Better land** produces **more than the minimum** needed → this **extra is rent**, received by the landlord.

David Ricardo: economic ideas

Rent at the Extensive Margin of Cultivation

Basic Setup:

- **Investment cost** = $10 per acre
- **Land grades** from best to worst: A, B, C, D, E
- Yields per acre:
  - A: 20 bushels
  - B: 15 bushels
  - C: 10 bushels
  - D: 5 bushels
  - E: 4 bushels

Rent Measured from the Extensive Margin of Cultivation

PRICE OF WHEAT PER BUSHEL		RENT DERIVED FROM EACH GRADE OF LAND				
		A	B	C	D	E
	Input:	$10	$10	$10	$10	$10
	Yield: (bushel/acre)	20	15	10	5	4
$.50		0*				
.66⅔		$3.33	0*			
1.00		10.00	$5.00	0*		
2.00		30.00	20.00	$10.00	0*	
2.50		40.00	27.50	15.00	$2.50	0*

Wheat Price Scenarios: At $0.50 per bushel:

- Only **land A** is used.
- Revenue = 20 × $0.50 = $10 → covers cost only.
- **Rent = $0**

David Ricardo: economic ideas

Rent at the Extensive Margin of Cultivation

At $0.6667 per bushel:

- Land A: 20 × $0.6667 = $13.33 → Revenue
- Land B: 15 × $0.6667 = $10 → Revenue
- Land B earns **no rent** (just covers cost).
- Land A earns **$3.33 rent** ($13.33 - $10).

At $1.00 per bushel:

- Land C becomes marginal land:
  - 10 × $1 = $10 → zero rent
- Land B: 15 × $1 = $15 → Rent = $5
- Land A: 20 × $1 = $20 → Rent = $10

Rent Measured from the Extensive Margin of Cultivation

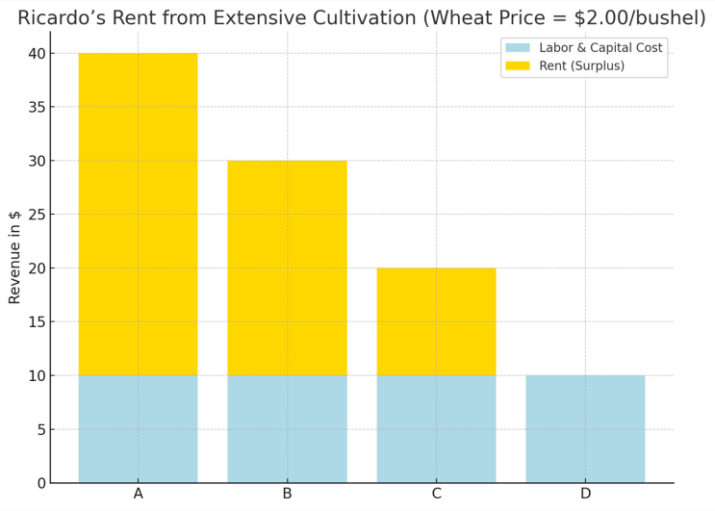
PRICE OF WHEAT PER BUSHEL		RENT DERIVED FROM EACH GRADE OF LAND				
		A	B	C	D	E
	Input:	$10	$10	$10	$10	$10
	Yield: (bushel/acre)	20	15	10	5	4
$.50		0*				
.66⅔		$3.33	0*			
1.00		10.00	$5.00	0*		
2.00		30.00	20.00	$10.00	0*	
2.50		40.00	27.50	15.00	$2.50	0*

David Ricardo: economic ideas

Rent at the Extensive Margin of Cultivation

At $2.00 per bushel:

- Land D becomes marginal:
  - 5 × $2 = $10 → zero rent land
- Land C: 10 × $2 = $20 → Rent = $10
- Land B: 15 × $2 = $30 → Rent = $20
- Land A: 20 × $2 = $40 → Rent = $30



Key Takeaways:

- **Marginal land** earns **no rent**.
- **Rent = extra revenue** from more productive land compared to marginal land.
- **Higher crop prices** or **worse land being used** → **higher rents** on better land.
- **Tenant competition** raises rent: they bid for more fertile land, and landlords gain from this.

David Ricardo: economic ideas

Rent at the Intensive Margin of Cultivation

Intensive cultivation means using **more labor and capital** on the **same piece of land**.

Because of the **law of diminishing returns**, each added $10 of input produces **less additional output** than the previous $10.

- Example: If this weren't true, we could grow all the world's food in a flower pot!

The **last (marginal) unit** of labor and capital must:

- **Pay for itself**
- Provide a **normal profit**

Earlier units produce **more output** → this **extra return is rent**, which goes to the landlord.

Rent Measured from the Intensive Margin of Cultivation

	LAND GRADE A				LAND GRADE B				LAND GRADE C			
Price of Wheat per Bushel	Input	Output	Marginal Output	Rent	Input	Output	Marginal Output	Rent	Input	Output	Marginal Output	Rent
$.50	$10	20		0								
.66⅔	20	35	15	$3.33	$10	15		0				
1.00	30	45	10	15.00	20	25	10	$5.00	$10	10		0
2.00	40	50	5	60.00	30	30	5	30.00	20	15	5	$10.00
2.50	50	54	4	85.00	40	34	4	45.00	30	19	4	17.50

David Ricardo: economic ideas

Rent at the Intensive Margin of Cultivation

Land Grade A:

- Assume wheat price is **$0.50 per bushel**:
  - First $10 investment produces 20 bushels
  - Revenue = 20 × $0.50 = $10 → **no rent**
- If wheat price rises to **$1.00 per bushel**:
  - Land A yields 45 bushels → Revenue = $45
  - Cost of labor and capital = $30
  - **Rent = $15** ($45 - $30)
- If wheat price rises to **$2.50 per bushel**:
  - Land A gives 54 bushels → Revenue = 54 × $2.50 = $135
  - Labor and capital = $50
  - **Rent = $85**
- **Higher prices** make it worth adding **more inputs**, even if they produce **smaller gains** in output.

Rent Measured from the Intensive Margin of Cultivation

Price of Wheat per Bushel	LAND GRADE A Input	Output	Marginal Output	Rent
$.50	$10	20		0
.66⅔	20	35	15	$3.33
1.00	30	45	10	15.00
2.00	40	50	5	60.00
2.50	50	54	4	85.00

	LAND GRADE B				LAND GRADE C			
	Input	Output	Marginal Output	Rent	Input	Output	Marginal Output	Rent
.66⅔	$10	15		0				
1.00	20	25	10	$5.00	$10	10		0
2.00	30	30	5	30.00	20	15	5	$10.00
2.50	40	34	4	45.00	30	19	4	17.50

David Ricardo: economic ideas

Rent at the Intensive Margin of Cultivation

At **$2.50 wheat price**, it pays to invest:

- **$50 on land A** (yield = 54 bushels)
- **$40 on land B** (yield = 34 bushels)
- **$30 on land C** (yield = 19 bushels)

Total input costs = $120

Total output = 107 bushels

Total revenue = 107 × $2.50 = **$267.50**

Total rent = $267.50 - $120 = **$147.50 (A grade rent 85 + B grade rent 45 + C grade rent 17.50)**

Rent Measured from the Intensive Margin of Cultivation

Price of Wheat per Bushel	LAND GRADE A Input	Output	Marginal Output	Rent	LAND GRADE B Input	Output	Marginal Output	Rent	LAND GRADE C Input	Output	Marginal Output	Rent
$.50	$10	20		0								
.66⅔	20	35	15	$3.33	$10	15		0				
1.00	30	45	10	15.00	20	25	10	$5.00	$10	10		0
2.00	40	50	5	60.00	30	30	5	30.00	20	15	5	$10.00
2.50	50	54	4	85.00	40	34	4	45.00	30	19	4	17.50

David Ricardo: economic ideas

Rent at the Intensive Margin of Cultivation

Key Insights from Ricardo's Theory

- **Higher wheat prices** (due to tariffs or more population) → **Higher rents**
  Lower wheat prices (from free trade, tech improvements, or less demand) → **Lower rents**
- **Rent = surplus** over labor and capital costs (not part of production cost).
- Rent is: A **differential return**
  - **Price-determined**, not **price-determining**
  - High **grain prices** cause **high rents**, not the other way around.

Ricardo emphasized that rent arises **naturally** from land differences and diminishing returns. Rent reflects the **extra value from better land** or more efficient use—not a cost that affects crop prices.

David Ricardo: economic ideas

THE THEORY OF EXCHANGE VALUE AND RELATIVE PRICES

Ricardo's Focus:
Concerned with relative values (ratios of exchange between commodities), not absolute values.
Aimed to identify causes of changes in relative values over time.
Use Value vs. Exchange Value:
A commodity must have use value (utility) to have exchange value.
However, utility is not the measure of exchange value — it is essential but not sufficient.
Sources of Exchange Value:
Scarcity: Determines value for non-reproducible goods (e.g., rare art, antique books, old coins).
Labor required: Determines value for reproducible goods under competitive conditions.
Non-reproducible Commodities:

Value is determined by scarcity and demand.

Labor required to originally produce them is irrelevant.

Reproducible Commodities (Most goods):

Produced without restriction in competitive markets.

Value determined by quantity of labor required to produce them.

David Ricardo: economic ideas

THE THEORY OF EXCHANGE VALUE AND RELATIVE PRICES

Labor as the Foundation of Value:
Labor determines the natural value (or long-run price) of commodities.
However, market prices often deviate from these values due to temporary factors.

Short-Run Price Fluctuations:
Caused by accidental or temporary changes in supply and demand.
If market price > natural price, profits increase → capital flows into the industry.
If market price < natural price, profits fall → capital flows out of the industry.

Market Adjustment Mechanism:
Individuals act to maximize profit, moving capital where returns are higher.
This process tends to equalize profit rates across industries over time.
Market prices tend to move back toward natural prices in the long run.

David Ricardo: economic ideas

THE THEORY OF EXCHANGE VALUE AND RELATIVE PRICES

Long-Run Determinants of Value:
Determined by real costs of production.
These costs are nearly proportional to the total quantity of labor required throughout the production process (including capital goods and inputs).

Limits of Demand in Price Determination:
No matter how abundant demand is, it cannot permanently raise the price above the cost of production (including normal profit).
Permanent changes in price must come from changes in production costs.

To understand changes in permanent (natural) prices, one must look at changes in the expenses of production.
If production costs decrease, price will eventually fall.
If production costs increase, price will certainly rise.

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME: Wages

Labor, like commodities, has both a natural price and a market price.

Natural Price of Labor:
The wage level that allows workers to subsist and reproduce themselves without changing the labor force size.
Determined by the cost of necessities (e.g., food, housing, clothing) required by workers and their families.
If the cost of living rises, nominal wages (money wages) must rise to maintain real wages.
If the cost of living falls, nominal wages fall as well.

Market Price of Labor:
Determined by supply and demand in the labor market.
It fluctuates around the natural price, just like the market price of commodities fluctuates around their value.

Long-Run Wage Dynamics:
In the long run, both natural wages and nominal wages tend to rise:
Due to the increasing difficulty and cost of producing food for a growing population.
However, agricultural improvements and food imports can moderate this tendency by lowering living costs.

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME: Wages

Iron Law of Wages:

Ricardo’s wage theory became known as the "iron law of wages":
When market wages rise above the natural level, workers can raise larger, healthier families.
This leads to population growth, which increases labor supply and causes wages to fall.
If wages fall below the natural level, misery and hardship reduce the labor force, causing wages to rise again.
Long-run tendency: wages gravitate toward a subsistence minimum.

Ricardo’s View of Subsistence:

- Unlike Malthus, Ricardo did **not define subsistence biologically** (bare minimum to survive).
- Instead, he viewed subsistence as **socially defined**, depending on the **habits and customs** of the people (i.e., a culturally accepted standard of living).

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME: Profits

Equalization of Profit Rates:

- **Profit rates tend to equalize** across different sectors in a competitive economy.
- Entrepreneurs **seek maximum profit**, adjusting for differences between industries.
- **Price changes** affect profit rates, which then **guide capital flows**.
- The **moneyed class** (investors) can **quickly reallocate funds** to more profitable areas.
- In a **free, competitive market**, individual choices drive **profit rates toward equality or equal advantage** across businesses.

Marginal Land and Profit Rate:

- The **rate of profit on marginal land** (land with **zero rent**) determines the **economy-wide profit rate**.
- If **industry profits > agriculture profits**:
  - Capital shifts **from agriculture to industry**.
  - A **better grade of land** becomes marginal (earning no rent).
- If **agriculture profits > industry profits**:
  - Capital shifts **toward agriculture**.
  - A **worse grade of land** becomes the new marginal land (still cultivated but now setting the base return).

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME: Profits

Inverse Relationship Between Wages and Profits:

- **Wages and profits vary inversely**: when **wages rise**, **profits fall**, and vice versa.
- Higher wages **cannot be passed on** through higher prices due to:
  - The **equation of exchange** (relationship between money supply, velocity, prices, and output).
  - The **international balance of payments**.
- If **domestic prices rise**:
  - **Gold outflows** occur (due to cheaper foreign prices).
  - **Money supply contracts**, preventing sustained price increases.
  - Therefore, **employers must absorb wage increases**, leading to **reduced profits**.
- If **wages fall**:
  - Prices might fall, attracting **gold inflows**, increasing the **money supply**.
  - Prices would rise again, so the **real effect** of falling wages is **higher profits**, not lower prices.

Ricardo's view:

- Profit rates fall due to the **increasing cost of food production** for a **growing population**.
- Saw this as a **problem**, not a benefit.

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME: Profits

The Stationary State:

- A **long-run outcome** where:
    - **Profit rates fall** so low that **capital accumulation halts**.
    - **Population growth stops** because **food supply cannot increase further**.
    - All **surplus value is absorbed as rent** on land.
- Ricardo viewed the stationary state as a **theoretical possibility**, **not an imminent threat**.

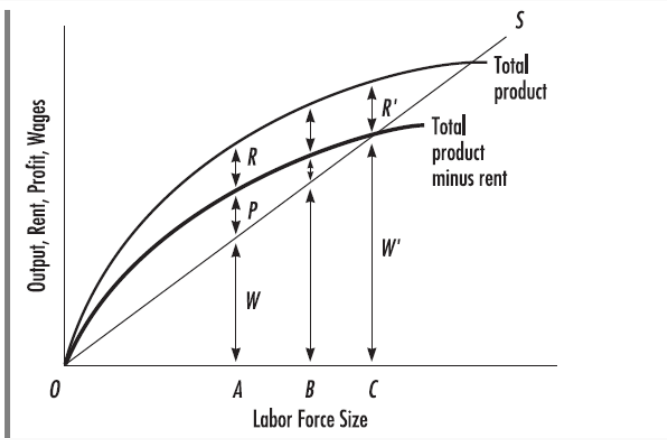
David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME

Horizontal axis: Size of the **labor force** (population), **Vertical axis**: Level of **total output**, **wages**, **profits**, and **rent**.

Total Product Curve: Rises with labor force but at a **diminishing rate** due to **diminishing marginal returns in agriculture**.

"Total product minus rent" curve: Flattens even faster than the total product curve, leading to: A **growing gap** between total product and product minus rent → representing **increasing total rent**.



Wages (Line OS):

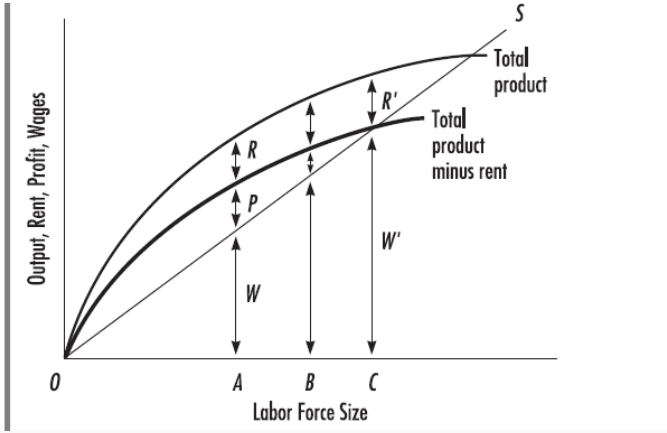
- Represented by a **straight line** with constant slope.
- Indicates **total wages**, which increase as labor force grows.
- Slope reflects a **constant real wage** (subsistence level) – real wage **does not increase** in the long run.
- Though **total wages rise**, **wages per worker** remain **constant at subsistence**.

David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME

Stage A (Initial Labor Force Size):

- Labor force = **A**.
- Vertical distances show:
    - **W** = Total wages
    - **P** = Total profits
    - **R** = Total rents
- At A, **profits are relatively high**, which:
    - Increases the **wages fund**
    - Leads to a **temporary rise in real wages**
    - Encourages **population growth**, expanding labor force to B



David Ricardo: economic ideas

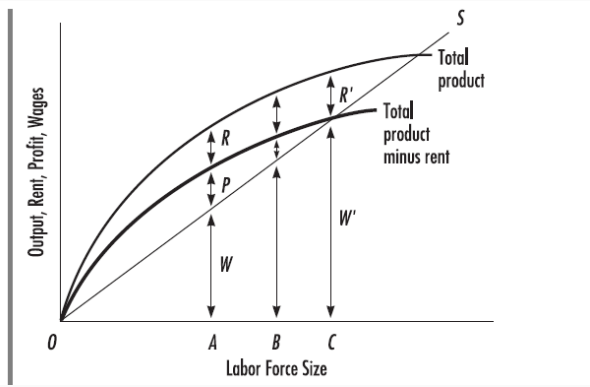
THE DISTRIBUTION OF INCOME

Stage B (Larger Labor Force):

- Labor force increases to **B**.
- Real wage returns to **subsistence level** due to larger population.
- **Rent share increases**
- **Profit share decreases**, but profits are still **positive**
- The process **repeats**, since profits allow further capital accumulation and population growth.

Stage C (Stationary State):

- Labor force = **C**.
- **Profits = 0**
- **Total wages = W_0** (still at subsistence level)
- **Total rent = R_0** (maximum)
- **No further investment or population growth** → economy reaches the **stationary state**

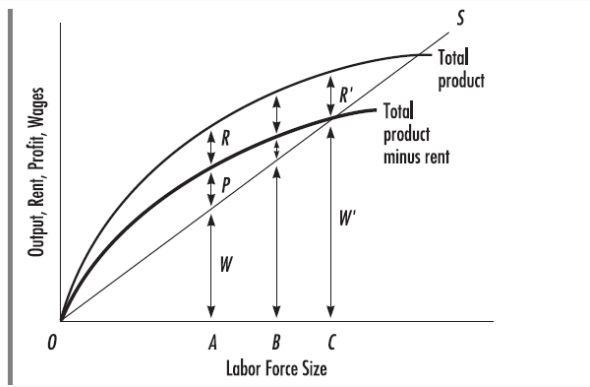


David Ricardo: economic ideas

THE DISTRIBUTION OF INCOME

Implications of the Stationary State:

- **Wages remain constant** at subsistence; workers do not benefit from economic growth.
- **Profits disappear**, halting capital accumulation and investment.
- **Landlords are the only long-run beneficiaries**:
    - Their **rents grow continuously** as population expands.
      Their **numbers remain fixed**, so income becomes increasingly concentrated.
- The system shows a **pessimistic outcome**: growth ultimately benefits **landowners alone**, not capitalists or laborers.



David Ricardo: economic ideas

The Theory of Comparative Costs

Ricardo's Argument for Free Trade:

- **Free trade increases efficiency** by directing each country's **capital and labor** to the **most beneficial use**.
- Individual pursuit of **self-interest** leads to **universal benefit**:
  - Stimulates **industry**.
  - Rewards **ingenuity**.
  - Uses **natural advantages** effectively.
  - **Distributes labor economically**, increasing total production.
- Free trade **binds nations** through a **common interest**, promoting global cooperation and prosperity.
- Example: **Wine** should be produced in **France/Portugal**; **Corn** in **America/Poland**; **Hardware** in **England**.

David Ricardo:

- Showed that **mutual gains** from trade are possible **even if one country is more efficient** in producing all goods.
- Introduced the **Law of Comparative Advantage**.

David Ricardo: economic ideas

The Theory of Comparative Costs

Assumptions in Ricardo's Model:

- **No international flow** of capital or labor.
- **Constant costs** of production (no increasing opportunity costs).
- All costs measured in **labor hours** (consistent with the **labor theory of value**).

Illustration Using Portugal and England:

- Portugal has an **absolute advantage** in both wine and cloth.
- Labor productivity:
  - **Portugal**: 1 unit of labor produces **3 wine** or **6 cloth**.
  - **England**: 1 unit of labor produces **1 wine** or **5 cloth**.

(Hypothetical Output per Unit of Labor Employed)

	WINE	CLOTH
Portugal	3	6
England	1	5
Total	4	11

David Ricardo: economic ideas

The Theory of Comparative Costs

Opportunity Cost Comparison:

- **Portugal**:
  - 1 unit of wine = 2 cloth (6/3)
  - 1 unit of cloth = 0.5 wine (3/6)
- **England**:
  - 1 unit of wine = 5 cloth (5/1)
  - 1 unit of cloth = 0.2 wine (1/5)
- **Conclusion**:
  - Portugal has a comparative advantage in **wine**.
  - England has a comparative advantage in **cloth**.
  - **Both nations gain** by specializing in what they produce at a **lower opportunity cost**.

(Hypothetical Output per Unit of Labor Employed)

	WINE	CLOTH
Portugal	3	6
England	1	5
Total	4	11

David Ricardo: economic ideas

The Theory of Comparative Costs

Gains from Specialization:

- **Portugal** shifts 1 labor unit to wine:
  - Gains **+3 wine**
  - Loses **–6 cloth**
- **England** shifts 2 labor units to cloth:
  - Gains **+10 cloth**
  - Loses **–2 wine**
- **Net Global Gain**:
  - **+1 wine**
  - **+4 cloth**
  - Trade leads to a **higher combined output** of both goods.

	WINE	CLOTH
Portugal	+3	−6
England	−2	+10
Total Gain	+1	+4

David Ricardo: economic ideas

The Theory of Comparative Costs

Impact of Technological Change and Trade Imbalance:

- If **England improves wine production**, **Portugal may stop exporting wine**.
- Portugal still **imports cloth** from England, needing **British currency**.
- Lacking export revenue, Portugal must pay in **gold/silver**, causing:
  - **Gold outflow** from Portugal → falling prices.
  - **Gold inflow** to England → rising prices.
- **Price-specie flow mechanism** (from David Hume) restores trade equilibrium.

Limitations of Ricardo's Model:

- **Does not explain** how the **gains from trade are shared** between countries.
- **Defines limits** within which **terms of trade (exchange ratios)** may fall.
- **Does not predict** the actual **terms of trade**.

David Ricardo: assessments

Ricardo’s Lasting Contributions:

- **Abstract reasoning** in economic analysis.
- Developed the **theory of comparative advantage** (basis of modern trade theory).
- Used **marginal analysis** (e.g., diminishing returns).
- Formulated the **law of diminishing returns in agriculture**.
- Expanded focus to include **income distribution** (wages, profits, rent).

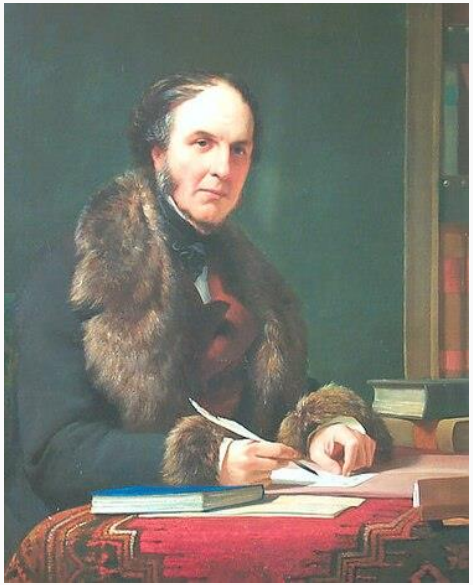
David Ricardo: assessments

Criticisms and Weaknesses:

- **Overemphasized diminishing returns** in agriculture, ignoring the impact of **technological progress**.
- Incorrectly claimed that **landlords had no interest** in increasing agricultural productivity.
- Assumed **land had a single use**, leading to the idea that **rent is not a cost of production**.
- **Misjudged the impact of machinery** on employment — capital can also **complement** labor.
- **Neglected demand** in his **labor theory of value**, diverging from what became modern value theory.
- However, some scholars in the 1980s **reinterpreted Ricardo** as more aligned with **neoclassical value theory**.

Nassau W. Senior

Nassau William Senior *(1790–1864) was the oldest son of a country clergyman who had ten children. In 1825, Senior became the first professor of political economy at Oxford. The government appointed him a member of several royal commissions that investigated important social problems. In his economic thinking he departed significantly from classical economics and moved toward the neoclassical position that triumphed after 1870.*



Nassau W. Senior: economic ideas

Positive Economics

Objective of Political Economy: Senior aimed to **separate economics from value judgments and policy advocacy**.
Positive vs. Normative Economics:

- He promoted what we now call **positive economics** – analyzing facts and relationships without prescribing solutions.
- He opposed **normative economics**, which deals with what *ought to be* and supports specific policies.

Focus of Economic Analysis: Economists should focus on **production and distribution of wealth**, not on maximizing happiness or welfare.
Economist's Role:

- The economist's job is to **state general principles**, not give advice.
- **Advice and policy recommendations** should come from **statesmen or policymakers**, who consider broader factors affecting general welfare.
- Even if economic conclusions are true and general, **they do not justify giving advice**.
- **Policy decisions require a broader view** than what economic theory alone can provide.

Nassau W. Senior: economic ideas

Four Propositions

Senior stated four principles of economics that he felt are empirically verifiable and from which an integrated theory of economics could be deduced.

(1) That man desires to obtain additional wealth with as little sacrifice as possible. **[Principle of income or utility maximization.]**

(2) That the Population of the world, in other words, the number of persons inhabiting it, is limited only by moral or physical evil, or by fear of a deficiency of those articles of wealth which the habits of each class of its inhabitants lead them to require. **[Principle of population.]**

(3) That the powers of Labour and of the other instruments which produce wealth, may be indefinitely increased by using their Products as means of further production. **[Principle of capital accumulation.]**

(4) That agricultural skill remaining the same, additional Labour employed on the land within a given district produces in general a less proportionate return, or, in other words, that though, with every increase of the labour bestowed, the aggregate return is increased, the increase of the return is not in proportion to the increase of the labour. **[Principle of diminishing returns.]**

Nassau W. Senior: economic ideas

Theory of Value, Cost and Saving

Senior's Theory of Exchange Value:

- **Exchange value** of goods is determined by **demand and supply**.
  - **Demand** is influenced by the **diminishing marginal utility** of goods.
  - **Supply** depends on **costs of production**.

Subjective Nature of Cost:

- **Cost** is defined as the **sum of sacrifices** to produce goods using nature's resources.
- Senior identified **two components of production cost**:
  - **Labor** of workers.
  - **Abstinence** of capitalists (foregoing immediate consumption to fund production).

Abstinence as a Productive Principle:

- Senior introduced **"abstinence"** as a **third productive agent**, alongside labor and nature.
- Abstinence means **deliberately postponing or foregoing consumption** for future production.
- Senior viewed **abstinence** as the capitalist's counterpart to labor: Just as **labor earns wages**, **abstinence earns profit**.

Nassau W. Senior: economic ideas

Theory of Value, Cost and Saving

Saving, Investment, and Interest Rates:

- **Saving (S)** increases with a higher **interest rate (i)**: → **S = f(i)** (positive relationship).
- **Investment (I)** decreases with a higher **interest rate (i)**: → **I = g(i)** (negative relationship).
- **Equilibrium interest rate** ensures that all saving is matched by investment.
- If saving increases (less consumption), interest rates fall.
- Lower interest rates **stimulate investment**, offsetting the drop in consumption.
- **Total demand remains unchanged**; thus, **no general demand deficiency** arises.

Disagreement with Adam Smith:

- Smith classified **services** (e.g., lawyers, doctors, teachers) as **unproductive labor**.
- Senior **disagreed**, arguing that such services are **productive** if they **increase wealth**.

Productive Services:

- **Lawyers, doctors, teachers**, and **security workers** contribute to the **protection and enhancement of production**.
- Example: If **100 security workers** can do the job of **1,000 lock-makers**, this **increases efficiency** and does **not reduce wealth**.

Nassau W. Senior: economic ideas

Theory of Value, Cost and Saving

Key Distinction – Consumption, Not Labor:

- The **real distinction** is between:
  - **Productive consumption**: enhances the capacity to produce.
  - **Unproductive consumption**: reduces wealth without adding to productive capacity.

Examples of Unproductive Consumption:

- Items like **lace, embroidery, jewelry, tobacco, gin, and beer**.
- Such goods **consume resources** but **don't improve worker productivity**.

Conclusion:

- **All labor that supports or enhances production is productive**.
- **Consumption** should be judged based on whether it contributes to **future production** or merely **diminishes the stock of wealth**.

Nassau W. Senior: contributions

Policies

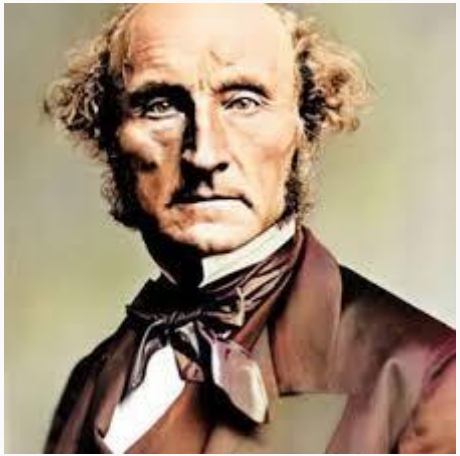
Poor Laws: Senior was a key member of the **Poor Law Commission (1832)**. He authored much of the **Poor Law Amendment Act of 1834**. The Act aimed to **discourage relief applications** from those **able to work**. It established the principle that **welfare recipients must live in worse conditions** than the **lowest-paid laborers**. These harsh laws remained in effect for **70 years**.

Trade Unions: Senior strongly supported **limited government**, **economic freedom**, and **labor mobility**. He was **firmly opposed to trade unions** and proposed extreme anti-union measures: **Ban on all conspiracies** and **restraints of trade** by workers. **Severe punishment** for efforts to form unions or engage in **picketing**. **Confiscation of union funds**. **State compensation** for those harmed while resisting unions.

Factory Acts: In **1837**, Senior published a pamphlet **opposing Factory Acts** that limited child labor to **12 hours/day**. He **supported child labor regulation**, but **opposed limiting adult work hours**. He argued, mistakenly, that **all profit came from the last hour of work**. Therefore, reducing the working day by more than one hour would eliminate profit. Claimed it would **destroy England's competitiveness**. His primary motive was to **resist the movement for a 10-hour workday**.

John Stuart Mill

John Stuart Mill *(1806–1873) was the last great economist of the classical school, undoubtedly the greatest since Ricardo's death in 1823. Mill made some significant original contributions, and he systematized and popularized the whole body of economic thought of his predecessors. The classical school was already in decline during Mill's mature years, and he departed from some of the key concepts built into the classical structure by Smith and Ricardo. Mill's great* ***Principles of Political Economy****, first published in 1848 and reprinted in the United States as late as 1920, was the leading textbook in the field.*



John Stuart Mill: economic ideas

Production

Productive Factors:

- Mill identified **three productive factors**: **land, labor, and capital**.
- **Wealth** includes all **useful, material things with exchange value** (only material goods can be accumulated).
- Mill's differentiation between **Short-run diminishing returns** (mainly in agriculture) and **Long-run returns to scale** (important in industry). This became foundational in the **neoclassical theory of the firm**.

Productive vs. Unproductive Labor:

- **Productive labor**: Produces **utilities embodied in material goods**. Includes **direct** and **indirect contributors** to material output (e.g., **educators**, **government officials**).
- **Unproductive labor**: Does **not result in material wealth**. Examples:
    - Labor ending in **immediate enjoyment** (e.g., entertainment).
    - **Saving a life** (unless the person contributes more than they consume).
    - **Missionaries/clergymen**, unless they also teach useful skills.
- **Unproductive labor can still be useful**, but not wealth-producing.

John Stuart Mill: economic ideas

Production

Capital and Employment:

- **Capital**: The **accumulated result of saving**; limits the extent of industry.
- All **capital is assumed to be invested**, not hoarded.
- **More capital = more employment** or **higher wages**.
- **Rich need not spend on luxuries** to create jobs — investment does that more effectively.

Wages and Consumption:

- Increased capital raises the **wages fund** and **labor demand**.
- If population rises, **workers' consumption of necessities** replaces **capitalists' luxury consumption**.
- If population doesn't rise proportionally, **wages increase**, and **workers adopt luxury consumption**.
- Mill described an **optimistic world of full employment** where the **real limit to wealth** is **productive capacity**, not consumer demand.

John Stuart Mill: economic ideas

Production

Obstacles to Increasing Production:

- **Lack of labor is not an obstacle**: Population can increase geometrically.
  - Growth is limited by **prudence**, not just biological capacity.
- **Barriers to capital accumulation**:
  - **Surplus product** beyond necessities.
  - **Disposition to save**, which varies by person and culture.
  - **Higher profits** encourage saving and capital growth.

Limits of Land and Returns to Scale:

- **Land is limited**, making it a **true constraint** on production.
- Mill distinguished:
  - **Increasing returns to scale** in **manufacturing**: Larger firms can be more efficient.
  - **Decreasing returns in agriculture**: More land and labor do not proportionally increase output.
- Applied the **short-run law of diminishing returns** to **agriculture only**.
  - Because **land is fixed**, more labor yields less additional output.
  - In contrast, **capital can be increased**, so diminishing returns were not applied to industry.

John Stuart Mill: economic ideas

Distribution

Mill’s View on Production vs. Distribution:

- **Production laws** are like **physical laws**: fixed, objective, and **not subject to human will**.
- **Distribution of wealth**, in contrast, is **entirely a human construct** and **can be changed** through policy and institutions.
- His claims about production being fixed and distribution being flexible were **overstated**.
- Still, these ideas **opened the door** for **political decisions** to shape income distribution.

Criticism of Mill’s Separation:

- Mill **failed to see** that **production and distribution are interrelated**:
  - **Income distribution affects production incentives**.
  - An **unfavorable distribution** may **disrupt the production process**.
- Goods are not already produced and sitting idle—they are part of a **continuous flow**, driven by **factor payments**.

John Stuart Mill: economic ideas

Distribution

Break from Classical Economics:

- Mill **rejected Ricardo's deterministic "laws of distribution"**, which portrayed humanity as **helpless** under natural economic laws.
- He **challenged the classical school's faith** in **permanent natural laws**, advocating for **reform**.

Support for Wealth Redistribution:

- Supported **limitations on inheritance**, especially for **distant relatives**.
- Advocated for a **broader diffusion of wealth ownership**.

Support for Alternative Economic Models:

- Though supportive of a **private enterprise, profit-based system**, Mill also endorsed:
  - **Profit sharing** between capitalists and workers.
  - **Producer cooperatives** as a way for workers to **build wealth** and **gain ownership**.

John Stuart Mill: economic ideas

Wage Fund

- Mill, like **Senior, Ricardo, James Mill, and Smith**, accepted the **wages fund theory**.
- **Wages depend on**:
  - **Labor demand**: Tied to the **portion of capital** set aside for wages.
  - **Labor supply**: Determined by the **number of workers** seeking employment.
- **Wage rates** can:
  - **Increase** only if the **wages fund increases** or **the labor force decreases**.
  - **Decrease** if the **fund shrinks** or **labor supply rises**.
- Assumes **unitary elasticity**: total wage expenditure remains constant regardless of wage rate.

Minimum Wage & Government Role:

- Mill argued **minimum wage laws can't increase total wage income**: Higher wages for some mean **unemployment for others**, given a fixed fund.
- **Government remedy**: Use **taxation (forced saving)** to increase the wages fund and **offset unemployment**.
- He warned this could **weaken population control**, leading to **overpopulation**.

John Stuart Mill: economic ideas

Wage Fund

Trade Unions & Collective Action:

- The wages fund theory **discouraged unionism** (raising one group's wages lowers another's).
- Mill, however, **defended workers' rights** to unionize on **liberty grounds**.
  - Thought unions were **rarely effective**, and when they were, **not always desirable**.
- He **allegedly repudiated** the wages fund theory in 1869, though this is debated:
  - Some say he rejected the **fund concept**.
  - Others say he rejected only the idea that unions **can't raise wages**.
- Mill suggested unions might:
  - Raise wages among the **morally restrained**, who have **fewer children**.
  - Increase **mortality among poorer workers**, reducing population.
  - Ultimately **raise the overall wage level** if population decreases relative to the wages fund.

Limits on Wage Increases: Final limit to rising wages: **financial ruin or business closure** by employers.

John Stuart Mill: economic ideas

Wage Fund

Mill’s Theory of Profit:

- Profit consists of three components:
  1. **Interest** – reward for **abstinence** (saving).
  2. **Insurance** – reward for **risk-taking**.
  3. **Wages of superintendence** – reward for **management and effort**.
- Despite differences in risk and conditions, **profit rates tend toward equality** across sectors.

Education and Human Capital:

- Like Smith, Mill saw **education and training** as **investment in human capital**.
- These investments are justified by **future wage returns**.

John Stuart Mill: economic ideas

Exchange

Mill on the Theory of Value:

- Mill confidently declared the **theory of value complete**, needing only clearer explanation.
- **Price** = value of a good **in relation to money**.
- **Value** = a good's **general power to purchase** other goods.
- A **general rise in prices** can occur, but **not a general rise in values**, since value is **relative**.

Determinants of Value:

- Value **cannot exceed** a good's **use value to the buyer**.
- **Effectual demand** = **desire + purchasing power**.
- Mill noted the apparent **circularity**: demand depends on value, and value depends on demand.
    - Resolved by introducing the **demand schedule** (quantity demanded varies with price).
    - Market value is set by **supply and demand interaction**, then **quantity demanded is determined**.

John Stuart Mill: economic ideas

Exchange

Supply and Demand Concepts:

- Mill understood: **Supply and demand schedules**, **Elasticity of supply and demand**, Their impact on **price formation**.
- These insights influenced later economists like **Alfred Marshall**.

Mill's Three Categories of Supply Elasticity:

1. **Perfectly inelastic supply**: Example: **Ancient art** (fixed quantity).
    - **Demand** primarily determines value.
2. **Perfectly elastic supply**: Example: most **mass-produced goods**.
    - Production can expand **at constant cost**.
    - Value determined by **cost of production**.
3. **Relatively elastic supply**: Example: **agriculture, minerals**.
    - Costs **rise with greater output**.
    - Value determined by **marginal cost** (cost of producing the last, most expensive unit).

John Stuart Mill: economic ideas

Exchange

Equilibrium Price & Elasticity:

- When **demand exceeds supply**, **buyers compete**, and **price rises**.
- The price increase is **not proportional** to the shortage:
  - For **necessities**, a small shortage can cause **huge price spikes**.
  - For other goods, demand may drop sharply even with **small price rises**.
- **Equilibrium is reached** when **demand = supply**, stopping further price changes.

Mill and Comparative Costs:

- Mill **endorsed Ricardo's** law of **comparative costs** as the basis for **free international trade**.
- He added a key advancement: the **law of international values**.

Mill's Original Contribution – International Values:

- Mill showed that **terms of trade** depend not just on production costs but also on: **Demand patterns** and **Elasticity of demand** for each good in trading countries.

John Stuart Mill: economic ideas

Exchange

Reciprocal Demand:

- Mill introduced the concept of **reciprocal demand**:
  - The **goods a nation exports** are the **means to buy imports**.
  - Therefore, a country's **supply of exports** equals its **demand for imports**.

Terms of Trade:

- The **actual barter terms of trade** are set between the **domestic cost ratios** of the two countries.
- Example:
  - In **England**: 10 yards of cloth = 15 yards of linen.
  - In **Germany**: 10 yards of cloth = 20 yards of linen.
  - So, the **terms of trade** will lie between **15 and 20 yards of linen per 10 yards of cloth**, depending on **demand elasticities** in each country.

John Stuart Mill: economic ideas

Exchange

Assumptions:

- Mill assumed **constant returns to scale**:
  - Output can be increased **without changing unit costs**.
- He ignored **transportation costs** for simplification.

Key Insight:

- The **division of gains from trade** depends on:
  - **Relative demand strengths** in both countries.
  - The country with **more elastic demand** may obtain **more favorable terms of trade**.

John Stuart Mill: economic ideas

Dynamics of the Economy

Trends in Economic Progress:

- Predicted:
  - **Rising production and population**.
  - **Greater mastery over nature**.
  - **More security** of person and property.
  - **Growth of corporations**.
- Warned of:
  - **Diminishing returns** in agriculture and mining due to population growth.
  - **Falling profit rates**, like Ricardo.

Class Dynamics and Profit Trends:

- Mill believed progress would:
  - **Enrich landlords**, as population growth raised land values.
  - **Increase costs for laborers' subsistence**.
  - **Lower profits for capitalists**.
- Agricultural improvements could **offset rising costs**, but mainly benefit **landlords**.

John Stuart Mill: economic ideas

Dynamics of the Economy

Optimism About Falling Profits:

- Mill was **more hopeful** than Ricardo:
  Even a **low rate of profit** could sustain accumulation.
  1. There exists a **minimum profit rate** sufficient to motivate savings and investment.
- This minimum depends on:
  1. **Desire to accumulate** (valuing future over present).
  2. **Security of capital** (reduced risk promotes investment).

Factors That Lower the Minimum Acceptable Profit Rate:

- **Greater security**, **less war**, **justice**, **education**, and **social stability**.
- These factors encourage **saving** and **capital accumulation**, even with **lower returns**.

John Stuart Mill: economic ideas

Dynamics of the Economy

Say's Law and Capital Accumulation:

- Mill upheld **Say's Law**: no general glut if goods are properly matched to demand.
- **Profit rates decline**, but the economy maintains **full employment**.
- This decline is **partially offset** by:
  - **Crises** (which destroy capital).
  - **Productivity gains**.
  - **Cheap imports**.
  - **Capital exports** to colonies/foreign markets.

The Stationary State:

- Mill predicted that progress would ultimately lead to a **stationary state** (no net capital growth).
- He **welcomed** the stationary state as a **moral and social improvement**:
  - Opposed to the endless **"struggle to get on"**.
  - Favored **better wealth distribution** over constant expansion.
  - Argued it suits **advanced countries** more than developing ones.

John Stuart Mill: economic ideas

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