Summary

-History of Economics-

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Chapter 2: The Mercantilist School *(1500-1776)*

The economic doctrine known as mercantilism appeared between the Middle Ages and the period of the triumph of laissez-faire. Mercantilism can be dated roughly from 1500 to 1776. These dates vary, however, in different countries and regions.

Overview of mercantilism:

The historical background of the Mercantilist School:

The self-sufficiency of the feudal community slowly gave way to the new system of merchant capitalism. Cities, which had been growing gradually during the Middle Ages, became increasingly important. Trade flourished both within each country and between countries, and the use of money expanded. The discovery of gold started the growing volume of commerce and stimulated theorizing about previous metals.

Major Tenets of the Mercantilist School:

- The wealth and power of a country is measured in gold and silver and increasing this wealth is the ultimate goals of a country. A surplus of exports from a country was therefore necessary to generate payments in hard money.
- Nationalism: all countries could not simultaneously export more than they imported. Therefore, one's own country should promote exports and accumulate wealth at the expense of its neighbors. Only a powerful nation could keep its colonies, win wars and compete in international trade. Mercantilist nationalism quite naturally led to militarism. Strong navies and fleets were a requirement.
- Duty free importation of raw materials that could not be produced domestically, protection for manufactured food and raw materials that could be produced domestically, and export restrictions on raw materials. This is called 'the fear of goods'.
- Colonization and monopolization of colonial trade. Merchant capitalists favored colonization and wanted to keep the colonies eternally dependent upon and subservient to the mother country.
- Opposition to internal tolls, taxes and other restrictions on the movement of goods. Mercantilist writers and practitioners recognized that tolls and taxes could throttle business enterprise and drive up the price of a country's exports.
- Strong central government, this was needed to promote mercantilist goals. The government granted monopoly privileges to companies engaged in foreign trade. It restricted free entry into business at home to limit competition. Agriculture, mining and industry were promoted with subsidies from the government and protected from imports via tariffs. Furthermore, the government closely regulated the methods of production and the quality of goods so that a country would not gain a bad reputation for its products in foreign markets, thereby hampering exports.
- Importance of a large, hard-working population. Not only would a sizable, industrious population provide an abundance of soldiers and sailors ready to fight for the glory and the wealth of the nation, but also it would keep labor supply high and wages therefore low. The advantage:
    1. These low wages would enable lower prices on exports, thereby increasing the inflow of gold, and
    2. Reduce idleness and promote greater participation in the labor force

Whom did the Mercantilist school benefit of seek to benefit?

Some historians of economic thought suggest that mercantilism can be best understood as an extreme example of rent seeking behavior. As applicable here, economic rent is defined as profits beyond those that would be just necessary to keep the merchant capitalists engaged in their present activities, that is, just sufficient to compensate them for their opportunity costs. Rent seeking activities are simply attempts by private parties to increase their profits by securing favorable laws and regulations from government.

Lasting contributions to modern economics:

The mercantilists made a lasting contribution to economics by emphasizing the importance of international trade. In that context, they also developed the economic and accounting notion of what today is termed the balance of payments between a nation and the remainder of the world. But beyond these contributions, the mercantilists contributed little to economic theory as we know it today. Most of them failed to grasp that a country could become richer not only by impoverishing its neighbors by also by discovering a greater quantity of natural resources, producing more capital goods and using labor more efficiently.

- They permanently influenced attitudes toward the merchant
- Mercantilism made an indirect impact on economics by promoting nationalism.
- The privileged chartered trading companies, ancestors of the modern corporation, helped transform the economic organization of Europe by bringing in new products, providing outlets for manufactured goods, and furnishing incentives for the growth of capital investment.
- Mercantilism made a permanent contribution to economic development by expanding the internal market, promoting the free movement of goods unhampered by tolls, establishing uniform laws and taxes, and protecting people and goods in transit within and between countries.

Chapter 3: The physiocratic school *(1756-1776)*

The physiocrats appeared in France toward the end of the mercantilist epoch. They led the world in economic thinking between 1756 and 1776. Physiocracy was a reaction to mercantilism and to the feudal characteristics of the old regime in France.

Major tenets of the physiocrats school:

- Natural order. They introduced the idea of natural order to economic thinking. The term physiocrat itself mean ‘rule of nature’. According to this idea, laws of nature govern human societies just as those discovered by Newton govern the physical world. All human activities should be brought into harmony with these natural laws.
- Laissez-faire, laissez-passer. Let people do as they please without government interference.
- Emphasis on agriculture. They thought that industry, trade and the professions were useful but sterile, simply reproducing the value consumed in the form of raw materials and subsistence for the workers. Only agriculture was productive, because it produced a surplus, a net product above the value of the resources used in production.

- Taxation on landowner. Physiocrats thought that because only agriculture produced a surplus, which the landowner received in the form of rent, only the landowner should be taxed. A direct tax was preferable to indirect taxes, which increased as they were passed along to others.
- Interrelatedness of the economy. They analyzed the circular flow of goods and money within the economy.

The peasants ultimately would gain from the ideas of the physiocrats because onerous obligations to the landowners would end. The physiocrats especially favored capitalistic farms employing wage labor and advanced techniques. Big producers having surpluses for sale would be helped by the physiocratic emphasis on agriculture and free internal trade in grain. The tax on the surplus produced in agriculture would have lowered land values and hurt the landowning nobility instead of the current or prospective farm entrepreneurs who paid rent.

Several of the ideas of the physiocrats clearly were incorrect. The school was wrong to consider industry and trade are sterile; the more industry and trade developed in France, the more inaccurate the physiocratic analysis became. This led to the error that only landowners should be taxed because only land could yield a surplus.

They also were wrong because they thought that agriculture was the most important in the economy, but that became industry. Second, the small peasant farmer rather than the large farm entrepreneur became typical in France.

They also made some contributions to society:

- They examine society as a whole and analyzed laws that governed the circulation of wealth and goods.
- They founded economics as a social science.
- The law of diminishing returns was stated by a physiocrat.
- The physiocrats originated the analysis of tax shifting and incidence that today is an important part of microeconomics.
- By advocating laissez-faire, the physiocrats turned the attention of economists to the question of the proper role of government in the economy.
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Chapter 4: The Classical School – David Hume *(1711-1776)*

David Hume came close to the ideas of Smith. Hume's greatest contribution as an economist was in presenting what has since been called the price specie-flow mechanism. The mercantilists wanted to promote a surplus of exports in order the accumulate specie. This tactic was self-defeating because if more specie were available, prices would go up and imports would increase. But to pay for the imports, money would be shipped abroad, leaving poverty and bankruptcy behind; therefore, the government should prevent an excess of money. The physiocrats were basically unconcerned with foreign trade, except that they wished to permit the free flow of grain abroad. But Hume, who accepted John Locke's quantity theory of money (the price level is determined by the quantity of money available, given the velocity and quantity of output), analyzed the mechanism of international equilibrium that would operate without government intervention.

He stated that price-level changes initially would lag behind the changes in money. For a time, an increase in money would boost spending, production, and employment. But eventually the influx of

money would be fully absorbed as an increase in the price level. Likewise, a decrease in the supply of money would first depress spending, output and employment before it lowered the price level.

Hume also stated that once the economy moves away from the equilibrium, events automatically occur to restore it. This no longer works well in the international economy, because the quantity of money no longer depends on the flow of gold (The full gold standard has been abandoned).

Hume is saying that international trade is a positive sum game, one in which the payoffs sum to a positive number. This is to be contrasted to the zero-sum of the mercantilists, where the gain to one party is exactly offset by a loss to the other.

Chapter 5: The Classical School – Adam Smith *(1723-1790)*

Adam Smith and his important influences:

- The Enlightenment, this was an intellectual movement that was built upon two pillars: people's reasoning ability and the concept of the natural order.
- Smith was influenced by the physiocrats, particularly Quesnay and Turgot. From these thinkers he drew the theme of wealth as the consumable goods annually produced by the labor of society, the desirability of minimal government interference in the economy, and the concept of the circular process of production and distribution.
- Smith was influenced by David Hume.

The theory of moral sentiments

The Theory of Moral Sentiments discussed the moral forces that restrain selfishness and bind people together in a workable society. Moral Sentiments starts with a chapter about sympathy. According to Smith, sympathy is the feeling we create when we place ourselves in another person's position. We can be aware of their situation.

Wealth of Nations

The division of labor:

Smith stated that the division of labor increases the quantity of output produced for three reasons:

1. Each worker develops increased dexterity in performing one single task repeatedly.
2. Time is saved if the worker need not go from one kind of work to another.
3. Machinery can be invented to increase productivity once tasks have been simplified and made routine through the division of labor. *(Notice the emphasis on manufacturing production and the productivity of labor, where physiocrats focused on agricultural output and mercantilists were concerned mainly with how the exchange of goods, once produced, could add to the nation's well-being.)*

Smith pointed out that participant in the economy tend to pursue their own personal interests. But hidden within the apparent chaos of economic activity is natural order. There is an invisible hand that channels self-interested behavior in such a way that the social good emerges.

The harmony of interests and limited government:

The invisible hand states that everybody should act to their self-interest, this will lead to a "good market" according to the invisible hand. The invisible hand means that through competition the prices of goods will decrease, and therefore also reduces the profit of each seller. The normative significance is that everybody should act to their self-interest.

The key to understanding Smith's invisible hand is the concept of competition. The action of each producer or merchant who is attempting to garner profit is restrained by the other producers or merchants who are likewise attempting to make money. Competition drives down the prices of goods and in so doing reduces the profit received by each seller. When there is only one seller who gains extraordinary profit, new competitors will join the market. This increases supply and therefore decreases profit.

In a direct attack on mercantilism, Smith argued that government should not interfere in international trade. Nations, like individuals and private families, should specialize in producing goods for which they have an advantage and trade for goods for which other nations have an advantage.

Smith saw three major functions for the government:

1. To protect society from foreign attack
2. To establish the administration of justice
3. To erect and maintain the public works and institutions that private entrepreneurs cannot undertake profitably.

To finance government activities, Smith recommended taxation. His four maxims for good taxes are as follows:

1. Taxes should be proportional to the revenue enjoyed under the protection of the state
2. Taxes should be predictable from the regressive taxes prevalent at the time, the manner of payment and the amount to be paid
3. Taxes should be levied at the time and in the manner most convenient to the contributor
4. Taxes should be collected at minimum cost to the government

The economic laws of a competitive economy: value

Smith stated that there are two kinds of value:

- Sometimes expresses the utility of some particular object (value in use)
- Sometimes expresses the power of purchasing other goods which the possession of that object conveys (value in exchange).

The things which have the greatest value in use have frequently little or no value in exchange; those which have the greatest value in exchange have frequently little or no use value. This is called *the water-diamond paradox*.

The costs of production determine a good's exchange value or relative price.

Labor theory of value in a primitive society:

Smith argued that in a society in which labor was the only resource, the relative value of a good would be determined by the amount of labor necessary to produce it. The value of any commodity to a person who possesses it, if he wishes to exchange it for other commodities, is equal to the quantity

of labor which it enables him to purchase or command. Labor, therefore, is the real measure of the exchangeable value of all commodities.

Value theory in an advanced economy:

Smith realized that the growth of capital would invalidate a simple labor cost theory of value. In a society where capital investments and land resources become important, goods will normally be exchanged for other goods, for money, or for labor at a figure high enough to cover wages, rent and profits. Moreover, profits will depend on the whole value of the capital advanced by the employer. The real value of commodities can no longer be measured by the labor contained in them. Demand does not influence the value of commodities; the cost of production - wages, rent and profits – are the only determinants of value in the long run.

Market price and natural price:

When a commodity is sold for its *natural price*, there will be exactly enough revenue to pay these natural rates of wages, rent and profit. The natural price is the long-run price below which the entrepreneurs no longer would continue to sell their goods. In a desperate situation they would sell goods more cheaply, but this would not continue.

The actual price at which any commodity is sold is called its *market price*. It depends on the aberrations of short-run supply and demand, and it will tend to fluctuate around the natural price.

Wages:

Smith addressed three facets of wages:

1. The aggregate level of wages
2. The growth of wages over time
3. The wage structure.

With respect to the first two, he employed the wages fund theory. This implies that there is a stock of circulating capital out of which present wages are paid. This consists of the savings of the capitalists and is dependent on the revenue from previous production and sales. This is fixed in the short run, but it can be increased from one year to the next.

$$Average\ annual\ wage = \frac{Wages\ fund}{Number\ of\ laborers}$$

The minimum rate of wages must be that which will enable a worker with a family to survive and perpetuate the labor supply. But when the demand for labor rises, wages will rise above this minimum. This causes the labor supply to increase, because more children will be born. This causes the wages to fall.

Smith said that high wages increase the health and strength of the workers, animating them to do their best work because high wages give hope for an improved life. In contemporary terms, this concept is known as economies of high wages, or *efficiency wages*.

Determining of wages:

- Agreeableness of the occupation. The harder, the dirtier, the more disagreeable, and the more dangerous the work, the higher the wages paid, all else being equal.

- Cost of acquiring the necessary skills and knowledge. Is must pay for their education and training a still provide a rate of return on that investment. This embryonic theory of human capital is yet another of Smith's contributions to contemporary economic thought.
- Regularity of employment, the less regular the employment, the higher the wage. Because most workers prefer regular to irregular work, employers must pau a compensating wage premium to workers who face substantial unemployment and employment risk.
- Level of trust and responsibility. Those individuals in whom much trust is given will receive higher pay than persons who have jobs that entail little responsibility and accountability to others.
- Probability or improbability of success. Those who are successful in occupations in which there is great risk of failure will receive higher wages than persons who are employed in occupations with low failure rates.

Profit:

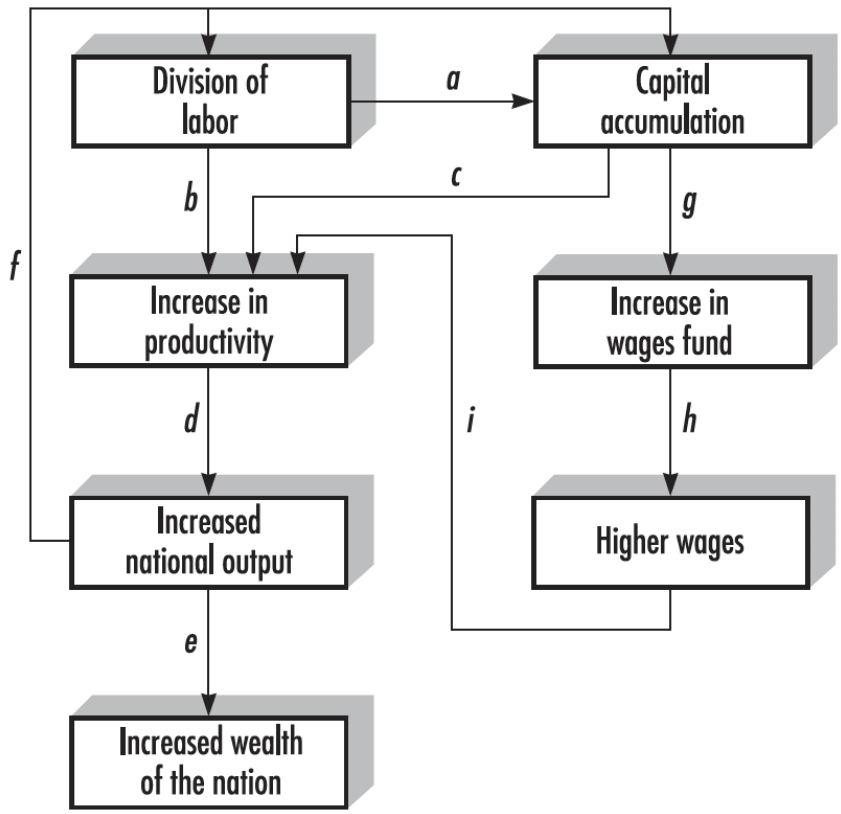
Because every investment is exposed to the risk of loss, the lowest rate of profit must be high enough to compensate for such losses and still leave a surplus for the entrepreneur. The gross profit includes compensation for any loss and the surplus. Net or clear profit is the surplus alone or, in other words, the net revenue of the business.

Rent:

Rent, said Smith, is the price paid for the use of land. It is the highest price the tenant can afford to pay after deducting wages, the wear and tear of capital, average profits and other expenses of production. Rent therefore is a surplus or a residual.

Economic development:

A market where the invisible hand can operate is necessary for economic development. Smith viewed the economy as a whole and emphasized growth and economic development. He viewed the division of labor and the accumulation of capital as the primary factors that promote a growing stock of the nation's wealth. Increased specialization of labor acts together with an enlargement of the capital stock to increase productivity, which in turn increases national output. This higher output enables higher levels of consumption which constitutes a rise in the true wealth of the nation. Increase



national output also permits the greater accumulation of capital, because not all the output consists of consumer goods.

The common worker also benefits, because capital accumulation enlarges the wage fund from which labor is paid. When this fund exceeds the increase in the number of laborers, average wages rise. Higher wages may result in more healthy and vital workers, which will increase productivity.

Chapter 6: The Classical School – Thomas Robert Malthus *(1766-1834)*

Thomas Robert Malthus is an important, although controversial figure in classic economic thought. Several of his conclusions were at variance with those of other members of the classical school.

Historical and intellectual setting

To major controversies in England attracted Malthus's attention during the period in which he wrote. The first was an increase in poverty and the controversy over what to do about it. This was a negative effect of the Industrial revolution (1798). Growing urbanization were beginning to appear as well. This caused unemployment and poverty, creating calls for remedial treatment.

The second controversy of note was over the so-called corn laws. These laws placed tariffs on imported grain and effectively placed a minimum price on grain imported to England from abroad. The landlords favored these tariffs but were under attack as people who, as Smith had phrased it, loved to reap where they had not sown. Their political power was under challenge by the rising merchant class, industrial capitalists, and followers of each group.

Intellectual setting:

Malthus's father subscribed to the optimistic belief of the perfectibility of people and society. This faith in progress was based in part on the works of Godwin and Condorcet. These thinkers were key influencers on the younger Malthus in that he purposely set about to challenge their theories.

William Godwin was a minister, novelist, and political philosopher whose doctrines resembled those of the French revolutionaries. He was an extreme individualist who opposed not only all coercive action by the state but also collective action by the citizenry. He relied entirely on the voluntary goodwill and sense of justice of the individual guided by the ultimate rule of reason. According to Godwin, the human race is perfectible through a continuous advance toward higher rationality and increased well-being. Because a person's character depends on the social environment, a perfect society will produce perfect people. The major obstacles are private property, economic and political inequality, and the coercive state. Population growth won't be a problem, because humanity will refuse to propagate itself further when the limit is reached.

The Marquis de Condorcet was also an influence French thinker. he favored universal suffrage for men and women. In spite of his persecution by the French Revolution he had welcomed so ardently, his theme was the idea of social progress based on three fundamental principles:

1. Equality among nations
2. Equality of individuals within nations
3. The perfectibility of humanity

The equality of nations would abolish war 'as the greatest of plagues and as the greatest of crimes'. A permanent league of nations would maintain peace and the independence of every nation. The equality of individuals would be won when differences in wealth, inheritance and education were eliminated. The only inequalities that should be permitted are those that derive from natural abilities.

Malthus's population theory

The young Malthus rebelled against the ideas of Godwin and Condorcet. The vices and misery that plague society are due not to evil human institutions but rather to the prolific fertility of the human race, according to Malthus.

Malthus' s law of population is stated as: Population, when unchecked, increases geometrically; subsistence increases at best only arithmetically. He stated that the subsistence would fall short compared with natural increases of population.

Malthus identified two types of checks to population growth: those he called preventive checks and those he called positive checks.

Preventive checks to population:

Preventive checks are those that reduce the birth rate. The preventive check of which Malthus approved was termed moral restraint. People who could not afford children should either postpone marriage or never marry; conduct before marriage should be strictly moral. The preventive check of which Malthus disapproved he called vice. This included prostitution and birth control, both of which reduced the birth rate.

Positive checks to population:

Positive checks are those that increase the death rate. These were famine, misery, plague, and war. Malthus elevated these to the position of natural phenomena or laws; they were unfortunate evils required to limit the population. These positive checks represented punishments for people who had not practiced moral restraint. If the positive checks could somehow be overcome, people would face starvation because a rapidly growing population would press upon a food supply that at best would grow slowly.

Policy implication: the poor laws

According to Malthus poverty and misery are the natural punishment for the failure by the lower class to restrain their reproduction. From this view followed a highly significant policy conclusion: there must be no government relief for the poor. To give them aid would cause more children to survive, thereby ultimately worsening the problem of hunger. Therefore, it's better not to have poor laws. He came up with the idea of workhouses in which the conditions were so terrible that people would rather die than end up in a workhouse.

The theory of market gluts

Malthus also developed his theory of the potential insufficiency of effective demand. He assumed that workers receive a subsistence wage. Employers hire the workers because they produce a value greater than that which they receive as wages. So, workers create a profit. Who will purchase this output? Capitalists will buy some of it in the form of capital goods. Spending on capital goods stimulates production and employment, as does spending on consumption goods. Investment is undertaken in the final analysis only to provide consumption, and if the final products cannot be sold, no investment will be forthcoming. To be sure, capitalists have the power to consumer their profit, but it is not their habit to do so. The central object of their lives is to amass a fortune.

The need for unproductive consumption:

Spending by landlords is essential to avoid a glut of goods on the market that in turn would produce economic stagnation. Rent is a surplus based on the difference between the price of agricultural produce and the costs of production (wages, interest and profits). Its expenditure therefore adds to effective demand without adding to the cost of production. The other forms of income increase

purchasing power but also raise production costs, and costs must be kept down if a nation is to maintain its competitive position in world markets.

Policy implications:

Malthus' theories had several policy implications. The most important one was that the corn laws must be retained. These tariffs on imported grain enrich the landlords and consequently promote unproductive consumption. The latter is necessary to avoid economic stagnation. He favored unproductive consumption, but not when it was financed by the government.

Assessment of Malthus's contributions

Malthus did overrate the significance of rents and spending by the landlords. His distinction between productive and unproductive consumptions is inaccurate. Spending by all groups in the economy is productive in the sense that it creates demand for goods and services and therefore causes them to be produced. Nevertheless, the theory of gluts did show an awareness of the potential problem of unemployment resulting from a lack of aggregate demand. In the respect it was a significant insight into what history has shown to be an occasional problem of a capitalistic economy.

Malthus also overrated the rate of growth of population relative to that of subsistence.

Chapter 7: David Ricardo (1772-1823)

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. Rent is the surplus created by the land, which is paid to the landlord for the use of the original and indestructible powers of the soil. Every surplus above the coverage of expenses as capital and labor, are rent, the higher the surplus, the more rent. The more effective land is, the higher the rent. Rent is price determined, not price determining.

Rent at the extensive margin of cultivation: this creates a specific amount of output, but it depends on the land how much you pay as rent.

Rent at the intensive margin of cultivation: every extra input will add less output. Earlier units yield a surplus return, which is rent. Every increase in the price of wheat raises rent. Every fall in the price lowers rent.

Rent arises at both the extensive and intensive margins of cultivation:
Rent at the extensive margin: More land (different land) is used for one cultivation. Once more is needed, you move to the next piece of land
Rent at the intensive margin of cultivation*: The s*ame piece of land is used, but more is invested into it. Every extra input will add less output (diminishing returns). Earlier units yield a surplus return, which is rent. Every increase in the price of wheat raises rent. Every fall in the price lowers rent.

The theory of exchange value and relative prices

This theory stated a primitive society in which neither capital nor land resources were used. According to Ricardo, the exchange value depends on the amount of labor necessary to produce the

commodities directly or indirectly. This also includes the work embodied in the raw materials and capital goods used up in the process of production.

This only applies to reproducible commodities (which concerns most commodities). For scarce items (like a Van Gogh painting), demand will be the primary value in determining exchange value.

A commodity will sell at more than its labor-time value if more-than-average capital is invested in its production; conversely, a commodity will sell at less than its labor-time value if less-than-average capital is invested in its production. Wages have no consequence for exchange value, because skilled labor actually represents more labor than does the unskilled labor. Nor do profits and rents.

Short-run prices depend on supply and demand, but long-run values depend on the real costs of production, and the relative real costs of production of two commodities are nearly proportional to the quantity of labor required for the entire production process.

Ricardo's labor theory of value differs from Smith's, because

- There was no distinction between primitive and advanced economy
- There was no labor commanded theory of value
- It's a more consistent use of labor (embodied) as the ultimate factor of value

The distribution of income

Ricardian distribution theory shows how income is divided among the society. Wages, profit and rent. Wages to working class, profit to capitalists, and rent to landowners.

Labor has its natural price and its market price. The *natural price of labor* is that price that, given the habits and customs of people, enables workers to subsist and to perpetuate themselves without a change in their numbers. The natural price labor depends on the price of the necessities of life required by the laborers and their families.

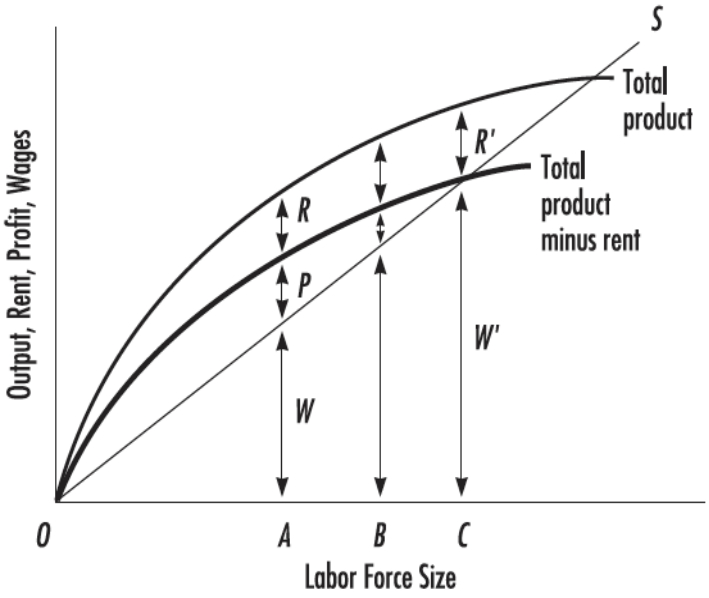
The *market price of labor* depends on supply and demand, but as with commodities, the market price fluctuates around the natural price. In the long run, both the natural price of labor and nominal wages tends to rise, because of the increased difficulty and cost of producing food for growing numbers of people. Ricardo's idea that in the long run the worker gets only a minimum wage came to be known as the iron law of wages.

Rent grows when the labor force increases, because it gets harder to produce enough food and land will get scarcer.

Profit decreases when wages increase. So, in the long-run, profits fall.

Policy implications:

- Wages should not be regulated, nor should relief be given to the indigent.
- A tax on rent would affect only rent. It would only fall on landlords and could not be shifted to anyone else. They cannot raise their rents.
- Abolish protectionist corn laws to decrease the price of grain an postpone the 'stationary state'.



The theory of comparative costs

Ricardo made a contribution to economic thought by showing that even if one country is more efficient than another in producing all commodities, trade between the two nevertheless can be of mutual benefit. His theory of comparative costs is now known as the law of comparative advantage.

He explicitly assumed in his theoretical proof of gains from trade that capital and labor did not flow between countries. He implicitly assumed that cost remained constant as output increased. Otherwise, specialization would not be carried on to its fullest extent. All costs were measured in terms of labor hours, an approach consistent with the labor value of time.

The idea of specialization as a factor of economic progress in the theories of Adam Smith and David Ricardo:

- Adam Smith believed that specialization, brought about by division of labor, increased productivity. This, in combination with technical progress, caused lower costs per product made, and this caused/is economic progress. This is the story about absolute advantage since costs are expressed in money.

- David Ricardo expressed the economic progress through comparative advantage. With comparative advantage you don't look at costs in the form of money, but in the form of other products. Specialization meant that products could be produced for a lower cost (expressed in other products).

Chapter 8: The Classical School – Jean-Baptiste Say *(1767-1832)*

Jean-Baptiste Say a Frenchman who popularized Adam Smith's ideas on the Continent. His career was temporarily blocked because Napoleon was displeased with his extreme laissez-faire views.

Value theory, costs of monopoly and entrepreneurship

Say opposed the labor theory of value of the classical school, replacing it with supply and demand, which in turn are regulated by costs of production and utility. His analysis was more advanced than that of Ricardo. Say contributed to the modern theory of the costs of monopoly by pointing out that monopolists not only create what today we call efficiency losses (or deadweight losses) but also use scarce resources in their competition to obtain and protect their monopoly positions. Finally, Say contributed to economic thought by emphasizing entrepreneurship as a fourth factor of production along with the more traditional ones of land, labor and capital.

Say's Law of Markets

Supply creates (its own) demand. Say's law of markets focuses on aggregate supply. When there is excess demand for one good, there must be an unmet demand for another good. So general overproduction is impossible. Money is neutral, people trade commodities for other commodities.

Chapter 8: The Classical School – Jeremy Bentham *(1748-1832)*

Not only was Bentham an enthusiastic adherent of the classical school, but he also made some original contributions to its philosophy and economics.

Utilitarianism:

The central theme of Bentham's thought has been called utilitarianism, or the principle of the greatest happiness. The major principle is that people pursue things that provide pleasure and avoid things that produce pain; all individuals seek to maximize their total pleasure. Thus, by recognizing a positive role for society, utilitarianism tempered the extremely individualistic outlook of hedonism.

By the principle of utility is meant that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question.

Wealth is a measure of happiness, but wealth has diminishing marginal utility as it increases. So, a normative implication of this: the poor have higher marginal utility of money than the rich. By dividing the money, the poor gain more happiness than the rich lose. But, he didn´t like the idea of distribution of income. This would create no incentive for the rich to work, although it would create more happiness than before. When security and equality are in opposition, equality should give way.

Bentham stated, instead of people serving the state, the state should serve the people. Individuals themselves, not government, are generally the best judge of what most effectively promotes their

own well-being. Bentham concluded that money is the instrument that measures the quantity of pleasure or pain.

Criticism on Bentham´s utilitarianism:
There are some limitations pertaining to Utilitarianism. First, the question could be raised if happiness should be the ultimate goal. There might also be contradictions between short-term and long-term happiness. It is also not apparent that people act like they want to maximize happiness, regardless of whether they say so. Second, there are problems with interpersonal comparisons of utility. Happiness is hard to quantify, and it is even harder to compare the happiness of individuals, this makes the moral calculus difficult or even impossible. For example, a 'poor' man would be much happier with € 1000- than a millionaire would be.

Bentham's legacy to economics:
Bentham's concept of human nature – although not his utilitarianism – became the foundation for the economic systems of Ricardo, Mill, and the early marginalists, especially William Stanley Jevons. The concepts of utility maximization, which assumed that each person would compare the intensity of satisfactions received from a great variety of goods, and diminishing marginal utility are at the heart of the marginalist theory of demand. People were assumed to be perfectly rational and carefully calculating. Labor was believed to be painful and required compensation.

Chapter 12: The Marginalist School – Forerunners

The beginning of the marginalist school is dated in 1871, the year Jevons and Menger published their influential books on marginal utility theory.

***Historical background*:**
Serious economic and social problems remained unsolved even a hundred years after the beginning of the industrial revolution. Poverty was widespread, although productivity was increasing dramatically. The extremely uneven distribution of wealth and income created much dissatisfaction even though the general standard of living was rising. All the problems caused people to seek solutions beyond the narrow confines of classical economic thinking.

The trend of the nineteenth century in Europe was to develop three approaches of attack on pressing social problems, and all three flouted classical economic precepts. These approaches were to promote socialism; to bolster trade unionism; or to demand government action to ameliorate conditions by regulating the economy, eliminating abuses, and redistributing income. The marginalists opposed all three solutions. The marginalists defended market allocation and distribution, deplored government intervention, denounced socialism, and sought to discourage labor unionism as either ineffective of pernicious.

Major tenets of the marginalists school:

- Focus on the margin: it focused its attention on the point of change where decisions are made, in other words, on the margin.
- Rational economic behavior: they assumed that people act rationally in balancing pleasures and pains, in measuring marginal utilities of different goods, and in balancing present against future needs. They also assumed purposeful behavior is normal and typical and that random abnormalities will cancel each other out.

- Microeconomic emphasis: they focus on individual decision making, market conditions for a single type of good, the output of specific firms, and so forth.
- The use of the abstract, deductive method.
- The pure competition emphasis: they normally based their analysis on the assumption of pure competition. No one person or firm has enough economic power to influence market prices perceptibly. Individuals can adapt their own actions to demand, supply and price as worked out in the market through the interactions of thousands of people.
- Demand-oriented price theory: demand became the primary force in price determination. The classical economist emphasized cost of production (supply) as the significant determinant of exchange value.
- Emphasis on subjective utility: demand depends on marginal utility, which is a subjective, psychological phenomenon. Costs of production include the sacrifices of working, managing a business, and saving money to form the capital fund.
- Equilibrium approach: they believed that economic forces generally tend toward equilibrium.
- Merger of and with capital goods: they spoke of interest, rent and profits as being the return to property resources. This had its advantages analytically and also combated the conclusion drawn by some that land rent is unearned income and an unnecessary payment in order to ensure the use of land. Marginalists coupled the reward to landowners with interest theory.
- Minimal government involvement: they continued the classical school's defense of laisser-faire in the economy as the most desirable policy. In most cases, no interference with natural economic laws was in order if maximum social benefits were to be realized.

The marginalists sought to advance the interest of all of humankind through promoting a better understanding of how a market system efficiently allocates resources and promotes economic liberty. To a great extent, the marginalists succeeded in this goal. They showed that under competitive circumstances, the wages would be equal to their contribution to the value of the output. They also benefited those whose interest were simply in maintaining the status quo; that is, those who resisted change.

Chapter 13: The Marginalist School – William Stanley Jevons *(1835-1882)*

Jevons on Value Theory

Jevons stated that value entirely depends upon utility. Unlike Ricardo, who might say that pearls have value because people need to dive for them, Jevons is saying that pearls have value because buyers get utility from them and that people dive for pearls because pearls have such value. The specific level of utility associated with the pearls depends on the number of pearls people presently possess.

Theory of diminishing marginal utility:

Jevons stated that utility cannot be measured directly. This subjective pleasure or satisfaction can be estimated only by observing human behavior and nothing human preferences. But a single individual can compare utilities of successive units of a single good and can compare the marginal utilities of several goods.

Jevons's law solved the paradox of water and diamonds. Adam Smith believed that utility has nothing to do with the magnitude of exchange value because water is more useful than diamonds whereas diamonds are more valuable than water. The principle of diminishing marginal utility reveals that whereas the total utility of water is greater than the total utility of diamonds, the final degree of utility or marginal utility of diamonds is far greater than the marginal utility of water. We would rather have all the water in the world and not diamonds than the other way around; but we would rather have an additional diamond than an additional unit of water, given our abundant stock of the latter. So, a diamond has a higher marginal utility, while water has higher total utility!

Rational choice: the equimarginal rule: In this case, the prices of two commodities is the same regardless of use. The consumer wishing to maximize utility will allocate money income in such a way that the marginal utility of the last dollar spent on all commodities is equal.

Theory of exchange: trade will go on until the point where there are no further possibilities of utility gains from exchange. Exchange will cease when the ratio of marginal utilities of the two goods as seen by each trading party matches the ratio of prices.

Jevons on labor: recall that Jevons held utility to be the determinant of exchange value. He stated: cost of production determines supply. Supply determines final degree of utility. Final degree of utility determines value. He argued that labor cannot determine value because labor itself has unequal value. Labor itself is a subjective, psychological cost.

Jevons believed that marginal utility is the determinant of exchange value. A change in exchange value may result from such factors as a change in people's relative preferences for commodities. When exchange value changes, the value of the labor used to produce the commodities also changes. Change in the value of labor (wage rates) in turn causes changes in the optimal amount of work as viewed by workers.

Chapter 13: The Marginalist School – Carl Menger *(1840-1921)*

Like Jevons, Menger based his value theory on the concepts of utility. Contrary to Jevons, he deliberately made no use of mathematics in formulating his theory, and he avoided constructing it upon a Benthamite base.

With his model of marginal utility, you can express it in ordinal terms and in cardinal terms. With ordinal terms you can rank consumption, this is a relative statement indicating that one item is more or less highly ranked in terms of value than others. With cardinal values, one must say that the 1st dollar spent on a good give twice as much utility than another good.

Menger stated that when you can afford 7 items of one good, the utility you get is not 7+6+5 etc., but **7x1**, the last marginal utility counts for all. This is because all units are alike thus each has the same utility as the marginal unit. Menger thereby equated exchange value with total utility, unlike Jevons, who equated exchange value with marginal utility.

Menger originated the idea of imputation in pricing factors of production. The marginalists emphasized the importance of consumer demand, especially in its subjective psychological aspects, in determining price. He says that products used in the production of final goods also have satisfaction to consumers, though only indirectly, by helping to produce things that do satisfy consumer wants directly. The present value of the means of production is equal to the prospective value (based on marginal utility) of the consumer goods they will produce, with two deductions: a margin subtracted "for the value of the services of capital" (interest) and a reward for entrepreneurial activity (profit). The doctrine of imputation was an attack on the labor and real-cost theories of value.

Chapter 18: Mathematical Economics – Léon Walras *(1834-1910)*

Together with Jevons and Menger, Walras is considered to be one of the three originators of marginalism. In his Elements of Pure Economics published in 1874, Walras independently arrived at the basic marginalist principles.

He developed and advocated ***general equilibrium*** analysis, which considers the interrelationships among many variables in the economy. This stood in contrast to the partial equilibrium analysis used by Jevons, Menger and Marshall. He stated that there are feedback effects of initial changes occurring in single markets in the economy. This process of reverberation continues throughout the entire system until equilibrium is achieved simultaneously in all markets.

Walras's general equilibrium theory presents a framework consisting of the basic price and output interrelationships for the economy as a whole, including both commodities and factors of production. Its purpose is to demonstrate mathematically that all prices and quantities produced can adjust to mutually consistent levels. Its approach is static because it assumes that certain basic determinants remain unchanged.

The function for the quantity demanded of a good depends on the price. That is, price is the independent variable, and the quantity demanded is the dependent variable. The quantity demanded of any one good includes as variables the prices of all other commodities.

Chapter 20: Welfare Economics – Vilfredo Pareto *(1848-1923)*

Pareto is the originator of the 'new' welfare economics, which is rooted in Walras's principles of general equilibrium. Of particular relevance to the topic at hand, Pareto refined Walras's analysis of general equilibrium and set forth the conditions for what we now call ***Pareto optimality***, or maximum welfare. This occurs where there are no longer any changes that will make someone better off while making no one worse off. This implies that society cannot rearrange the allocation of resources or the distribution of goods and services in such a way that it benefits someone without harming someone else. The Pareto optimum thus implies:'

1. An optimal distribution of goods among consumers
2. An optimal technical allocation of resources
3. Optimal quantities of outputs.

The optimal distribution of goods, the distribution that will maximize consumer welfare, occurs where two goods have identical marginal rates of substitution between the two goods.

In our two-goods, two-resources example, the optimum allocation of resources to productive uses will occur where the marginal rates of technical substitution between labor and capital in the production of the two goods are equal.

If production and distribution meet the conditions of Pareto optimality, then optimum levels of output will be achieved where the marginal rate of substitution of good 1 for good 2 – the rate at which each of the two consumers is willing to give up 2 to get 1 – equals the marginal rate of transformation (MRT). This is the rate at which it is technically possible to transform good 2 into good 1.

There are also some critics on Pareto standards:

1. Some economists argue that it fails to address the important issue of distributive justice, or the fair distribution of income in society. Instead, it simply establishes the efficiency conditions for any existing distribution.
2. Many public conditions that increase national output and overall welfare also redistribute income as a by-product of the policy. So, it's practically unrealistic since most policies involve at least some losses, despite the increase of total welfare.
3. It is based on a static view of efficiency. Short-run movements away from Pareto optimality conceivably could increase long-run or dynamic efficiency.
4. The moral judgments that the Pareto criteria purposely exclude are often legitimate and dominant factors in policy formulation. Some private transactions, like prostitutions or the sale of babies, that may be Pareto optimal may also conflict with society's moral values.

Chapter 15: The Neoclassical School – Alfred Marshall *(1842-1924)*

The neoclassical economists were marginalists in the crucial sense that they emphasized decision making and price determination at the margin. There were three differences between the earlier marginalists and later neoclassical economists:

1. Neoclassical thought stressed both demand a supply in determining the market prices of goods, services and resources. The earlier marginalists tented to stress demand alone.

2. Several of the neoclassical economists (for example Wicksell and Fisher) took a far greater interest in the role of money in the economy than did the earlier marginalists
3. Neoclassical economists extended marginal analysis to market structure other than pure competition, pure monopoly and duopoly.

Marshall was skeptical of the overall value of mathematics in economics analysis: Use mathematics as a shorthand language, rather than as an engine of inquiry.

Economy is not a body of concrete truth, but rather an engine for the discovery of concrete truth. We seek to discover economic laws. Any law is a general proposition, or statement of tendencies, more or less certain, more or less definite. Social laws are statements of social tendencies. Economic laws, or statements of economic tendencies, are those social laws that relate to human conduct in which the strength of the major motives can be measured by financial price. Economics is less exact than the natural sciences, but progress is being made toward greater precision.

According to Marshall, demand is based on the law of diminishing marginal utility. The marginal utility of a commodity to anyone diminishes with every increase in the amount of it he already has. Marshall introduced two important qualifications at this point:

1. He pointed out that he was concerned with a moment in time, which is too short an interval to consider any changes in character and tastes of a person.
2. Goods are indivisible. A small quantity of a commodity may be insufficient to meet a certain special want; and then there will be a more than proportionate increase of pleasure when the consumer gets enough of it to enable to attain the desired end.

The utility approach of the Marshallian system dealt with pleasures and pains. With money we can measure this. We cannot directly compare the amounts of pleasure that two people derive from eating a hamburger. We have to measure utility at the margin, the point at which decisions are made.

Marshall's law of demand follows directly from his notions of diminishing marginal utility and rational consumer choice. The lower the price, the more you buy of that product.

Unlike the Austrians, Marshall asserted that the total utility of a good is the sum of the successive marginal utilities of each added unit. Therefore, the price a person pays for a good never exceeds, and seldom equals, that which he or she would be willing to pay rather than go without the desired object. Only at the margin will price generally match a person's willingness to pay.

Elasticity of demand tells us whether the diminution of desire (marginal utility) is slow or rapid as the quantity increases. It relates the percentage drop in price to the percentage increase in quantity demanded. E= percentage change in q / percentage change in p.

- Demand is elastic when the percentage change in q exceeds the percentage change in p, E>1
- Demand is inelastic when the percentage change in q is less than the percentage change in p, E<1
- Demand is unit elastic when the percentage changes are equal, E=1

Elasticity of a market demand tends to be great when a good has a high price relative to the size of the buyer's incomes. When you lower the price, many more people will buy the good.

Marshall also noted that the demand for a product will tend to be more elastic the more it can serve as a substitute for other goods.

Supply is governed by cost of production. Supply is a whole series of quantities that would be forthcoming at a whole series of prices. Some things relate to others on different timescales. For purposes of exposition, Marshall divided time into three periods:

1. The immediate present
2. The short run
3. The long run.

Marshall tried to deal with the time aspect by fixing all factors and let only change one of them (ceteris paribus).

The immediate present: Market prices refer to the present, with no time allowed for adaptation of the quantity supplied to changes in demand. If a good is perishable (beperkt houdbaar), and if we assume that the seller is trying to maximize profits or minimize losses, the market supply curve is perfectly inelastic (a vertical straight line). They would rather sell it for 1 cent than let it spoil. *So, only demand drives the (market)price.*

If it is not perishable, sellers have a reservation price below which they will not sell. The market supply curve slopes upward, because some actually sell under that price (bills to pay). When is encompasses the total quantity on the market, it becomes vertical, because no matter how high the market price, by definition no greater quantity can be supplied during the market period.

The short run: In this period, Marshall divided costs into two types, the supplementary costs and prime costs. Supplementary costs are fixed costs, prime costs are variable costs. We can, for example, increase the variable cost by hiring another employee to increase supply. However, it requires time to build a new plant or machine, so the maximum capacity of long-term investments cannot be increased in the short-run. So, in the short run, variable costs could change, but fixed costs can't. Which indicates that *both supply and demand determine value in the short-run*.

The long run: All costs are flexible in the long-run, and they must all be covered if the firm is to continue in business. If the price rises such that total revenue exceeds total cost of production, capital will enter the industry, typically through new firms, and market supply will increase. The entire supply curve will shift rightward. *So, supply solely determines value.*

Internal economies of scale are the efficiencies or cost savings introduced by the growth in size of the individual firm. As the firm grows larger, it can enjoy more specialization and mass production, using more and better machines to lower the cost of production.

External economies of scale come from outside the firm; they depend on the general development of the industry. As the industry grows, suppliers of materials build plants nearby to serve the expanding industry; these supplies become cheaper both because transport costs are reduced and because they are mass produced in firms that are growing. Besides labor pooling and knowledge spillovers benefit the firm.

Marshall thought that an increased volume of production in an industry will *usually* increase the size and therefore the internal economies possessed by a representative firm; it will *always* increase the external economies to which the firm has access. Therefore, the cost of production in terms of labor and sacrifice will fall if the volume of output expands.

Chapter 11: The German Historical School

The historical school emerged in Germany because of the relative economic backwardness of the country in comparison to big economies like France and Great Britain in the mid-late 1800's. Moreover, nationalism, militarism and paternalism did also contribute to the emergence of the historical school.

Major tenets:

- Evolutionary approach to economics: they applied a dynamic, evolutionary perspective in its study of society. It concentrated on cumulative development and growth. Society is constantly changing. Therefore, what is relevant economic doctrine for one country at a particular time may be irrelevant for another country or another age. This relativistic approach was especially useful in attacking classical economics as being unsuitable for Germany.
- Emphasis on the positive role of government. They were nationalistic, whereas classical economics was individualistic and cosmopolitan. In Germany, it was the state that fostered industry, transportation, and economic growth. In the process of defending a unified economy, it was easy to develop an ardent nationalistic glorification of the state.
- Inductive/historical approach. They emphasized the importance of studying the economy historically, as part of an integrated whole. The historical school criticized the abstract, deductive, static, unrealistic, unhistorical qualities of classical and marginalist methodology. They denied that there are any valid economic laws, with one exception: they believed that patterns of development are discernible in history and can be generalized into laws of development.
- Advocacy of conservative reform. Political economy must not merely analyze motives that prompt economic activity but must weigh and compare the moral merit of these actions and their outcomes.

Whom did the historical school benefit or seek to benefit?

First, the members of the German historical school benefited themselves. They enjoyed close and friendly relations with government officials and rose to dominant positions in academic life. They also benefited the German imperial government by defending its role in a nationalistic state.

The historical economists served the dominant business, financial and landowning groups by promoting moderate reforms that frustrated the drive for a more radical democratization of society. This promoted the nationalism.

The historical school was correct in its perspective that economists needed to familiarize themselves with changing history and changing environments, with economic and social evolution, in order to understand the present world. Inductive factual studies were required.

The task of the German historical school was completed when economists of various persuasions agreed that historical empirical studies are required to explain the present, to test old theories, and to develop new ones. This is accepted nowadays.

Another lasting contribution was its attack on laissez-faire. This theme was the trend of the future. But they saw that this does not necessarily produce the best possible results for society as a whole.

Chapter 11: The German Historical School – Friedrich List *(1789-1846)*

List was a forerunner of the historical school.

- He advocated free trade within Germany while championing a high tariff against imports of manufacturing goods to protect newly emerging domestic industries. This position is now called the infant industry defense of tariffs.
- He opposed protection for agriculture because this was an old, mature industry and because manufacturing required cheap food for labor and cheap raw materials. Besides, the development of large-scale industry trough protection would enlarge the home market for agriculture.
- He denied Smith's notion of the harmony of interest between the individual and society, arguing that the immediate private interests of certain members of the community do not necessarily lead to the highest good of the whole.
- List thought that manufacturing would develop only in the temperate zone, because only this climate would foster the necessary intellectual and physical effort. The tropics should remain on a free trade basis and continue to supply tropical product in exchange for manufactured goods. He saw this as the true foundation for the international division of labor and world trade.
- Military preparations, wars and war debts may in certain cases immensely increase the productive powers of a country.

Chapter 11: The German Historical School – Gustav Schmoller *(1838-1917)*

He was the leading figure of the 'younger historical school'. He was a professor of political science. The task of accumulating historical and descriptive factual materials is one that, Schmoller contended, should come prior to, and is far more important than, deductive theorizing. He and his followers castigated the separate study of small segments of economic phenomena and the assumption that everything else remained unchanged. They held that the essences of economic processes are lost once they are isolated and fragmented. He wanted to develop economic exclusively on the basis of historical monographs.

The Methodenstreit:

Schmoller engaged in a famous controversy with Carl Menger, founder of the abstract Austrian marginalist school, as to which is more fruitful, inductive or deductive analysis. This was named the Battle of Methods or Methodenstreit. It solved itself into the belief that both inductive and deductive methods are important and that they normally supplement each other.

	German historical school	***Austrian school***
Economics is…	*A descriptive inquiry into the **historically specific institutions and practices***	*An analysis of the **pure logic of rational economic behaviour***
Role of history	*Primary*	*Secondary*
Role of context and culture	*Primary*	*Secondary*

Appropriate method	***Induction**: from the concrete to the abstract*	***Deduction**: from the abstract to the concrete*
Result of economic research?	*A set of analyses of **particular economic conditions specific to time and place***	*An abstract deductive **theory of economic rationality**, its principles and implications*

Chapter 11: The German Historical School – Max Weber *(1864-1920)*

He was a political economist and sociologist. He considered himself an intellectual descendant of Schmoller. Weber aroused a lively controversy that has persisted through the years over the relationship between ***Protestantism and the rise of capitalism***. He rejected the Marxian idea that religious doctrines are merely ideological manifestations of particular material economic conditions. Capitalism was a result of Calvinism (Protestantism) according to Weber. The religious valuation of restless, continuous systematic work and the accumulation of capital through ascetic compulsion to save, were important factors for the expansion of capitalism. People worked hard and saved an important part of their income because of the Calvinistic valuation. This hard work ethic and limited consumption resulted in accumulation of capital, which led to more investment and therefore even more accumulation of capital.

Criticisms of Weber's thesis:

- Religion, of course, has influenced people's outlook on society, but economic and social changes also have acted powerfully on religion.

Today, there is a lot of evidence to support the views of Weber. However, some may have found a correlation, causality is difficult to establish. Moreover, other cultures have shown to thrive despite not sharing Protestantism specific traits.

Chapter 19: The Institutional School

This was the American contribution to economic thought, and it began around 1900 and continues to the present. By 1900, its founder, Thorstein Veblen, had published his first book as well as many articles and book reviews. Veblen critically dissected orthodox thinking and provided the theoretical approach of institutionalist economics.

After the Civil War and World War I, the achievements of American capitalists were impressive. Rapid growth made the US the biggest and most powerful industrial system in the world. But the living conditions were bad.

At the time two major methods of achieving social change were recognized:

1. Reorganize society along socialist lines
2. Undertake social reform, that is, ameliorate conditions through government intervention in the economy.

The object of this second approach was to save capitalism by improving the conditions of the masses. Veblen was critical of social movements and favored a radical reconstruction of society. Nevertheless, the institutional school he founded reflected the reformist approach.

The influence of the German historical school on American institutionalism is quite visible. Inductive method > deductive method. But they were not nationalistic, but more liberal and democratic.

Major tenets of the institutionalist school:

- *Holistic, broad perspective*: economy must be examined as a whole, rather than small parts. In economic activity there are patters if collective action that are greater than the sum of the parts.
- *Focus on institutions*: this is not merely an organization or establishment for the promotion of a particular objective, like a school or a prison. It is also an organized pattern of group behavior. The believe in laissez-faire is also an institution. Economic laws are regulated by economic institutions and not by economic laws.
- *Darwinian, evolutionary approach*: society and its institutions are constantly changing. The institutionalists disagreed with the static viewpoint (classical or marginalists/neoclassical) that sought to discover eternal economic truths without regard for differences of time and place, without concern for changes that were occurring constantly. The evolution and functioning of economic institutions should be the central theme in economics. This requires knowledge not only of economics, but also of history and political science etc.
- Rejection of the idea of normal equilibrium (of classical or marginalists/neoclassical, it is not static!): the emphasized the principle of circular causation, it is all a circle. They are convinced that collective controls through governments are necessary to continually correct and overcome deficiencies and maladjustments in economic life.
- *Clashes of interest*: people are cooperative and collective creatures. They organize themselves into groups for the members' mutual self-interest, which becomes the common interest of the group. There can be clashes between groups, here a representative and impartial government must reconcile or override clashing interests for the common good and for the efficient working of the economic system.
- *Liberal, democratic reform*: they espoused reforms in order to bring about the more equitable distribution of wealth and income. They denied that market prices are adequate indices of individual and social welfare and that unregulated markets lead to the efficient allocation of resources and a just distribution of income. The institutionalists invariably condemned laissez-faire and favored a larger role for government in economic and social affairs.
- *Rejection of pleasure-pain psychology*: They repudiated the Bethamite theory of the greatest pleasure. Reached out instead for a better psychology, and some of them incorporated Freudian and behaviorist ideas into their thinking.

Whom did institutionalism benefit or seek to benefit?

The school embodied the middle-class desire for reform in an era of growing big business and banker capitalism. It represented the needs and interests of agrarian, small business, and labor groups. Government workers, reformers, humanitarians, leaders of consumer's organizations, and union members were attracted to the institutionalist ideas, which they hoped might alter the orientation of private business enterprise in favor of their own interests. Many academicians in field other than economics praised the institutionalists' interdisciplinary focus and their advocacy of social change.

The institutionalists challenged the development of rigid orthodoxy in economic thinking. Many of their criticisms of orthodox theory were valid and helped to revise that type of theory to make it more enable.

The broader perspective that institutionalists advocated became a reality within the economic mainstream with the appearance and widespread acceptance of Keynesian macroeconomics. In fact,

with their aggregate approach, their prescriptions for stabilizing the economy, and their attraction to political liberals, Keynesianism and post-Keynesianism tented to co-opt and supersede institutionalism.

Chapter 19: The Institutional School – Thorstein Bunde Veblen *(1857-1929)*

Veblen's first and most popular book was the Theory of the Leisure Class, published in 1899. The leisure class is characterized by conspicuous consumption, a propensity to avoid useful work, and conservatism.

Conspicuous consumption: the leisure class are rich people, who are engaged in the predatory seizure of goods without working for them. They wish to consume in a way that displays their wealth, (instead of covering their real needs) because a show of wealth indicates power, prestige, honor and success in our (monetary) culture. Examples are fancy Rolex watches or an expensive Rolls Royce.

Propensity to avoid useful work: they must indulge in wasteful or useless tasks if they are remaining reputable. This means that they don't work in like agriculture and fabrics.

Conservatism: the evolution of social structure has been a process of natural selection of institutions. Progress can be attributed to the survival of the fittest habits of thought and the enforced adaption of individuals to a changing environment. Institutions must change with changing circumstances. The development of these institutions represents the development of society.

Critics on Neoclassical economics:

Veblen's theory of the leisure class constituted an attack on neoclassical economics, which assumed that consumers are sovereign. Their dollar votes and conspicuous consumption resulted in wasteful and non-welfare achieving consumption.

The traditional institutionalism associated with Veblen is generally critical of neoclassical economics and supportive of government intervention. Veblen declared the standard Neoclassical system too static and therefore useless.

Veblen also thinks that the hedonistic man does not exist, and he also attacked the notion of perfect competition, which then dominated standard economic theory. He also attacks the Neoclassical school by accusing the neoclassicists of supporting the present scheme of the distribution of wealth and income.

Instinct for workmanship:

People have a proclivity for achievement instead of effort. Therefore, people don't want to avoid work inherently, but they want to feel some agency over what they do in the workplace. They want to see that their effort contributes to some nice end product. The problem here, of course, is that as large businesses grow, the chiefs of the industry decouple the interests of the workmen more and more, striving themselves only for maximizing profits. This is where laissez-faire works against the benefit of the people.

Chapter 9: The rise of socialist thought

There were different types of socialism:

- Utopian socialism: dates from about 1800. They developed their ideas at a time when the industrial workers were still weak and unorganized, demoralized by the rapid changes of the industrial revolution and not aware of their power. The utopian socialists regarded the competitive market economy as unjust and irrational. They preach universal togetherness rather than class struggle and looked to the capitalists to cooperate and even to finance their schemes. This wasn't that successful.
- State socialism: involves government ownership and operation of all or specific sectors of the economy for purposes of achieving overall social objectives rather than profit.
- Christian socialism: this developed in England and Germany after 1848. It arose after the defeat of radical movements in both countries. The Bible was to form the manual of the government leader, the employer and the worker. Property owned by the rich was to be held in trust for the benefit of everybody.
- Anarchism: all forms of government are coercive and should be abolished. Society's order arises out of self-governing groups through voluntary or associate effort. Human nature is essentially good if not corrupted by the state and its institutions. Private property should be replaced by collective ownership of capital by cooperating groups.
- Marxian socialism: paid tribute to the great increase in productivity and production that it unleashed. But capitalism faced class struggles and contradictions that inevitably would lead to its being overthrown and replaced by socialism. Everything is planned in the economy.
- Communism: according to Marx, this is the stage of society that eventually supersedes socialism.
- Revisionism: abjured the class struggle; denied that the state is necessarily an instrument of the wealthy class; and pinned its hopes on education, electioneering and gaining control of government through the ballot.
- Syndicalism: they were antiparliamentarian and antimilitarist. They believed that socialism deteriorates into bourgeois beliefs when it engages in political and parliamentary activity. Workers require one big union that doesn't play the bourgeois game of seeking social reform. Eventually the general strike of the big union will overthrow capitalism; each industry will then be organized as an autonomous unit managed by the workers; and these units will be combined in a federation that will become the administrative center.

Several features in common:

1. They all repudiated the classicist notion of the harmony of interest. Instead, they viewed society as being composed of distinct classes whose interest were often opposed to one another.
2. The socialists all opposed the concept of laissez-faire.
3. They rejected Say's law of markets, claiming instead that capitalism is given either to periodic crisis or to general stagnation.
4. They denied the concept of humanity upon which classical thought was erected, instead believing in the perfectibility of people.
5. Each of the various socialists advocated the masses. This ownership could be undertaken by the central government, local governments, or cooperative enterprises.

They claimed to represent everybody's interests, with primary emphasis on the needs and interests of workers. The more extreme socialist groups (Marxist, anarchist, and syndicalist) proclaimed class warfare against the rich. Their sole aim was to promote the interests of the working class.

Chapter 10: Marxian Socialism *(Karl Marx 1818-1883)*

Besides Friedrich Engels, several others influenced Marx:

- The Ricardian influence. Marx studied the works of both Smith and Ricardo and was intrigued in particular by Ricardo's labor theory of value. He proceeded this to sketch his own labor theory.
- ***The role of the (French) socialists.*** He shared their moral outrage against contemporary capitalism, their sharp criticism of classical political economy, and their socialist vision of future society. Marx also believed in public ownership instead of private ownership and laissez faire.
- ***The Darwinian connection***. Darwin stated that while reading Malthus on population, it suddenly occurred to him that in the struggle for existence that he had observed everywhere, favorable variations tended to be preserved and unfavorable ones destroyed. Marx says parallels in it with his own thinking on political economy. Marx was now known that dynamic analysis is the route to true understanding.
- ***The Hegelian influence.*** Georg Hegel stated that historical knowledge and progress occur through a process of conflict of opposing ideas. An existing idea, a thesis, gets confronted by an opposing idea, or antithesis. The ensuing struggle between the ideas transforms each into a new idea, or synthesis, which then becomes the new thesis. The process then begins again. Marx used this to formulate his own theory of historical materialism. *You cannot understand a part of capitalism without understanding the system in its entirety.*
- ***Feuerbach's materialism***. Materialism refers to the tendency of a person or society to overemphasize the pursuit of consumer goods. Marx didn't use this, instead, philosophical materialism refers to an emphasis on matter, real thins, or the world of reality.

Marx's theory of history:

For Marx, history is a process through which the static relations of production (the thesis) come into eventual conflict with the dynamic forces of production (the antithesis). Conflict revolutionizes the system so that new relations of production (synthesis and new thesis) permit the higher development of the forces of production. The mechanism for overthrowing old societies the class struggle.

The law of motion of capitalist society:

Marx sought to analyze the changing forces of production within a capitalist society. He wanted to determine the process through which the forces of production within capitalism would produces their antithesis and inevitable demise, just as had slavery and feudalism earlier. He used six interrelated concepts to construct his theory of capitalism.

1. ***Labor theory of value***

He starting point was the analysis of commodities in capitalist society. This is something produced for profit and capable of satisfying human wants. Socially necessary labor time embodied in the commodity determines the value of a commodity. This includes the direct labor in production, the labor embodied in the machinery and raw materials that are used up, and the value transferred to the commodity during the process.

2. ***The theory of exploitation***

➔ *Labor power versus labor time*

Labor power refers to a person's ability to work and produce commodities
labor time is the actual process and duration of work.

Labor power itself is a commodity that is bought and sold in the market, it is what the capitalist needs to make profits.

- ➔ *Surplus value:* Exploitation of labor arises only when workers can produce more in a day than they must consume in order to maintain themselves.
- ➔ *The rate of surplus value*

S' = S/V, rate of surplus value = surplus value / variable capital

Since the value of goods produced by workers exceeds the value of their labor power, the capitalists generate a surplus value (the workers are exploited). For the workers to be exploited (for the wage to be driven down to subsistence level) two institutional conditions must be met; (1) there is a reserve army of the unemployed, meaning that the labor supply systematically exceeds labor demand and (2) workers do not own any other means of production and are thus unable to compete with capitalists/to start their own businesses. This system forces laborers to work for the capitalist at under poor conditions and for the low subsistence wage.

- ➔ *The rate of profit*

P' = S / (C=V), rate of profit = surplus value / total capital invested.

- ➔ *The transformation problem*

3. **Capital accumulation and the falling rate of profit:**

For Marx (like Smith and Ricardo stated before but for different reasons) profits received by capitalists will tend to fall over the long run. The reason, according to Marx, is the drive toward increasing efficiency through mechanization and labor-saving inventions. This raises what Marxists call the organic composition of capital. Q = c / (c+v). (Smith stated that profit will fall in the long run because of increasing competition and Ricardo stated that the increasing part of wages at the cost of profit will lead to the fall of profit in the long run).

The drive toward the use of more capital reduces the rate of profit. Laborers are the source of all value, including surplus value, and as relatively fewer workers are used, the profit rate falls. (You cannot exploit a machine!!)

4. **Capital accumulation and crises:**

Marx attacked Say's law, at best it applied only to simple commodity production. C→M→C. For large scale capitalist production, the process of exchange become M→C→M, people buy in order to sell. This is the process of expanding investment.

5. **The centralization of capital and concentration of wealth.**
6. **Class conflict**

The concentration of wealth in the hands of fever and fewer capitalists and the absolute and relative impoverishment of the workers together set the stage for class conflict.

The strengths and weaknesses of Marx's doctrine:

- Problems associated with labor theory of value. He created this theory, and this created an incentive for economists to explore other routes for understanding exchange values.
- Marx was one of the first to know business cycles are normal occurrence in capitalist economies. Besides Marx showed in various ways that laissez-faire in a capitalist economy can lead to adverse outcomes, such as monopolization and fluctuations in output.
- Marx accurately was the first to predict big companies will take over the market. Monopoly power.
- Marx highlighted the substitution effect as it applies to labor saving capital.
- Marx contributed to economics due his dynamic instead of static analysis. Marx also combined several sciences into one framework, paving the way for more heterodox schools of economics and much of modern economics.
- Weakness: labor theory of value wasn't right, because other production factors have inherent value too.
- Capital accumulation → decrease of profit. BUT because of technical development capital accumulation CAN lead to creating surplus.

Chapter 18: Mathematica Economics – John von Neumann *(1903-1957)* and Oskar Morgenstern *(1902-1977)*

Together John von Neumann and Oskar Morgenstern wrote *Theory of games and economic behavior*, a book that contained several important contributions to economic theory, one of which was game theory. Game theory is applicable to situations analogous to games of strategy. Duopolists are like chess players. Some decisions are secret and are analogous to poker; one party does not know what cards the other party is holding until they are played out.

There is an implication in game theory that economic relations are based on a type of economic warfare, that one person's gain is another person's loss. But game theory also has been used to show that under many circumstances the best strategy is to cooperate with a rival as long as he cooperates with you.

A Nash equilibrium, named after John Nash, happens when neither party can increase its expected payoff by changing its current strategy. In some games one or both parties have a dominant strategy. Such a strategy produces the best result irrespective of the strategy chosen by the other party. But, in most cases the best strategy for each depends on the strategy used by the other.

Chapter 18: Mathematica Economics – John R. Hicks *(1904-1989)*

Hicks reevaluated and clarified Marshall's law of derived demand for inputs; that is, he specified the determinants of the elasticity of the demand for labor and capital (IS-LM model)

Demand theory:

➔ Indifference curves:

Items could be assigned cardinal values, or utils, which could then be directly compared. Such precise measurement of the magnitude of utility seemed unrealistic and, therefore, was heavily criticized as a weak link in the overall theory of demand. Hick's indifference curve approach avoids the assumption that marginal utility can be cardinally measured. All that is required is that a consumer can rank preferences ordinally. With this, you can determine the various combinations of 2 goods you can make that would yield the same total satisfaction.

The slope of the indifference curve is the marginal rate of substitution.

➔ Budget lines

The highest indifference curve this consumer can attain depends on her income and the prices of units of the goods.

➔ Utility maximization

Where the indifference curve and the budget line hit, is maximal utility. At the point of tangency, the rate at which the consumer is willing to give up good A to obtain good B equals the rate at which the market would require her to give of good A to obtain good B.

➔ A change in relative prices

When the price rises, the budget line changes, you can buy less of a particular good.

➔ Income and substitution effect

Hicks pointed out that the change in quantity that accompanies a price change is the result of two effects:

1. A substitution effect, or relative price effect. That part of the total change in quantity demanded that owes solely to the change in price, holding utility constant.
2. An income effect. That part of the change in quantity that results solely from the change in real income resulting from the change in price.

- For normal goods, the substitution and income effect work in the same direction (both acts to increase quantity when price falls)
- For inferior goods, the income effect tends to reduce purchases when product price falls.
- A Giffen good is one for which this unusual income effect is so large that is swamps the normal substitution effect, causing purchases of the product to move in the same direction as the price changes.

Chapter 22: Contributions of the Keynesian school

Samuelson developed some additional ideas of importance to economics

- Comparative statics: economic theory is based on the idea of equilibrium. A state will be achieved from which there is no tendency to move away. This is a static position. As soon as we allow the forces to change, we have a dynamic situation. This creates a new equilibrium.
- Revealed preference theory: Hicks postulated that a consumer must state preferences between all possible combinations of two commodities. Samuelson substituted an alternative approach that does not require preferences. The approach permits the theoretician to reconstruct indifference curves solely by observing the consumer's actual purchasing behavior at different prices.
- Efficient markets theory: properly anticipated prices fluctuate randomly. An efficient financial market is one in which all new information is readily understood and therefore quickly incorporated into the market price.
- Factor-price equalization theory: product mobility is a substitute for factor mobility in diminishing differences in wages and other factor prices.

- Public expenditures theory: a public good has consumption externalities. Consumers benefit without having to pay for it. Consequently, market demand will be insufficient to provide produces with adequate revenue to cover their costs.

Chapter 24: The Chicago School – Gary S. Becker *(1930-2014)*

Becker extended the economic approach with his combined assumptions of maximizing behavior, stable preferences and market equilibrium, into the traditional domains of sociology, political science, law, social biology and anthropology. He was an intellectual imperialist, because he used economic methods on non-economic, mostly social, domains.

Discrimination:
Becker views discrimination as a preference or taste for which the discriminator is willing to pay. If discrimination coefficients are positive in the overall economy, then the demand for preferred workers will be greater than it would be without the taste for discrimination. Their wage will rise.

In the long run, the competitive market system will impose costs on discriminators, which will reduce the amount of discrimination, whether it be by gender, race or religious preference. So, people who discriminate become uncompetitive in the long-run (they price themselves out of the market).

Investment in Human Capital:
He was the first to distinguish between general and specific training. General training increases the marginal productivity of workers not only in their present employment but also in any other employment in which they might engage. Specific training increases marginal productivity only within the firm providing it.

Theory of the Allocation of Time:
Becker argued that consumption takes time and that time is scarce and has value. The time used to consume a good is not available for an alternative use. The full price of a good consists of its market price plus the value of the time needed for its consumption.

Theory of marriage:
Marriage allows for a division of labor that enables partners to maximize their joint production and consumption of commodities which provide economic well-being. Reproducing and raising children are central commodities that marriage facilitates. Partners form a household out of economic self-interest.

Fertility: Kids costs money. Fertility will depend on the price of children, parental income, and the tradeoff that parents perceive between the quantity of children and their quality. So parents will get children when the marginal benefit of having them outweighs the marginal costs.

Altruism: A person is altruistic when his or her utility increases because someone else's utility rises. This adds to the potential gains from marriage.

Divorce: People marry because the expected benefit of marriage outweighs the expected benefit of another partner net of search coasts. But, there is uncertainty in marriage. So when you find out after you married that the expected benefits of your husband/wife were overestimated; it has now become profitable for you to search for a new partner and incur those search costs.

Chapter 20: Welfare economics – Ludwig von Mises *(1881-1973)*

Ludwig von Mises was an important member of the Austrian school of economic thought. Several ideas in welfare economics emerged from a long-running debate over whether economic welfare in both the Paretian and a broader sense of the term can be maximized under a system of socialism.

Von Mises contented that the same types of economic calculations that guide resources to their highest valued use under capitalism must be made by the socialist planner who desires to maximize consumer welfare. Without the private ownership of resources, free markets, and entrepreneurs, such calculations are impossible to make. He pointed out that contrary to the hopes of some socialists, markets and prices for consumer goods were inevitable under socialism so long as these goods were privately owned. The problem arises with capital goods, whose relative prices in a market economy reflect relative scarcities and productive values. Prices of capital change quick, because of consumer tastes, new technology etc. But under socialism, where all capital is owned by the state, no such pricing mechanism exists. So, you cannot accurately evaluate the relative scarcities and productive values of capital.

The problem of economic calculation is dynamic, not one of economic statics. Because the conditions under which the economy activity takes place are subject to perpetual alterations which it is beyond the human capacity to limit.

Entrepreneurship is a central aspect in achieving dynamic economic welfare. They attempt to anticipate the future.

Profits and losses perform two important functions that cannot be duplicated under socialism:

1. They select out those who can best fulfill wants
2. They provide the incentive for entrepreneurs to avoid careless, audacious, and unreasonably optimistic decisions.

Socialism cannot duplicate the functions of capital allocation and entrepreneurship required to channel resources efficiently in a dynamic setting.

Chapter 20: Welfare economics – Oscar Lange *(1904-1965)*

A second major contributor to the debate on socialism. Lange set forth a model of market socialism. If administered according to a fixed set of rules this form of socialism would result in economic efficiency and maximum social welfare. Market socialism is characterized by:

1. Private ownership of consumer goods and free choice of consumption from available goods
2. Free choice of occupation
3. State ownership of the means of production

A price can take a form other than a market one, it also can be a shadow price or an index of the terms of exchange between two items. Through trial and error, a central planning board, can set the prices of capital goods.

The idea of market socialism and the critiques of this concept by Ludwig von Mises and Friedrich Hayek:

Market socialism is characterized by:

1. Private ownership of consumer goods and free choice of consumption from available goods.

2. Free choice of occupation
3. State ownership of the means of production

The first economic critique on (market) socialism came from Ludwig van Mises in this book 'economic calculation in the socialist commonwealth' (1920). *How could you define the monetary value of goods if they are not subjects to exchange?* When there are no independent owners of production factors there are no factors markets, so there are no prices. Therefore, in socialism goods and services have no prices! In order to make rational economic decisions, you need prices to compute. So, when there is no free market – and therefore no pricing mechanism – you don't have an economic concept according to Von Mises.

Oscar Lange and Fred Taylor did have counter critique on Von Mises. They stated that central planning is possible (1936, 1929). The function of the free market – computing equilibrium prices – could be done by a government 'central planning board' by means of trial and error.

Friedrich Hayek reacted to the idea of central planning in 1945 in his article 'the use of knowledge in society'. He stated that optimal allocation of resources under socialism might be possible in theory, but in practice it would be impossible, because knowledge is dispersed and often also tacit.

**Dispersed knowledge is tacit knowledge that is not easily transferable and thus cannot be known by all. It's impossible for a consumer to have all the information, so it is impossible for the market to set a perfect price.*

Chapter 23: Theories of Economic Growth and Development – Joseph Alois Schumpeter *(1883-1950)*

The decay of capitalism:

Schumpeter rejected the Ricardian emphasis on the role of diminishing returns and the Malthusian population principle.

The economic and social foundations of capitalism are beginning to crumble, said Schumpeter, because of:

1. The obsolescence of the entrepreneurial function

The economic and social foundations of capitalism are crumbling. Innovation is reduced to routine. Economic progress is becoming depersonalized and automatized. Entrepreneurs no longer have the opportunity to fling themselves into the fray; they are becoming just managers, people not always difficult to replace. So, since capitalist enterprise, by its very achievements, tends to automize progress, we conclude that it tends to make itself superfluous – to break to pieces under the pressure of its own success.

2. The destruction of protective political strata

He agreed with Marx that big business destroys small and medium sized firms. This process weakens the political position of the industrial bourgeoisie, because numerous owners of small business are more powerful than a few executives and large stakeholders.

3. The destruction of the institutional framework of capitalist society

Chapter 22: The Keynesian School – Developments since Keynes

The Philips curve and the new Keynesians:

- Philips curve: It shows the relationship between the unemployment rate and the inflation. High inflation → low unemployment. High unemployment → low inflation.
  Milton Friedman **augmented** the Philips curve by considering the role of **expectations**

The new Keynesians:

Most modern Keynesians reject the neo-Ricardian value theory of the post Keynesians. They also reject the post-Keynesians call for incomes policies, citing the resource of misallocations resulting from these policies and the poor historical success of wage and price controls in reducing inflation.

New Keynesians say that recessions occur because declines in aggregate demand produce declines in real output and corresponding increases in unemployment, because the price level and nominal wages are inflexible downward.

- ***Menu costs***: some firms can lower their prices, but then have to make a new menu. This can result in not lowering their prices, because they have to make extra costs. There are costs associated with installing lower prices, such as printing new menus in restaurants
- ***Formal and implicit contracts***: Unions bargain set nominal wage increases for the future, and wage cuts are generally avoided in favor of lay-offs
- ***Efficiency wages***: an above-market clearing wage that minimized an employer's wage cost per effective unit of labor service employed.
- ***Insider-outsider theory***: insiders are employed workers who possess some market power, outsiders are the unemployed who are unable or unwilling to underbid existing wage rates to gain employment. Replacing "insider" workers with outsiders may create unnecessary workplace friction

Chapter 24: The Chicago School – Milton Friedman *(1912-2006)*

Monetary theory:

Friedman is best known for his ideas on the role of money in the economy. He discussed several topics:

- The demand for money:

Friedman viewed the demand for money as the demand for cash balances. People demand cash balances because they provide utility to the holder. He made no distinction between types of money (Keynes did). There are three major determinants of the amount of money households and enterprises will desire to hold:

1. Total wealth
2. Cost of holding money, like the interest rate, the expected inflation rate and the price level.
3. Preferences

- The modern quantity theory of money:

The demand for money is relatively stable in the short run. The FED controls the supply of money. When prices rise, the demand for money also rises. Eventually, equilibrium between the quantity of money supplied and demanded is restored, but at a higher price level.

- The cause of the Great depression:

Monetary policy was largely responsible for causing the Great Depression of the 1930s.

- The long-run vertical Philips curve:

He differentiated between the actual and the natural interest rate, just like it is with unemployment. Natural rate of unemployment is the one that will occur when the actual and the normal rate of interest are equal.

- The monetary rule:

Increase the money supply annually at a steady rate roughly corresponding to the long run rate of growth of capacity. There are 4 reasons such a rule is needed:

1. The past performance of the FED
2. Limitations of economic knowledge
3. Confidence
4. Neutralization of the FED

Rational expectations

Friedman's theory of the inflation-unemployment relationship is based on the assumption of adaptive expectations (looking at the past and future and only change when new events unfold). Lucas goes beyond this with rational expectations. We use past errors and process all available information in predicting.

Friedman said that the economy is self-correcting, just as the classical economists thought. Therefore, his theory is known as new classical macroeconomics.

Chapter 21: The Keynesian school – John Maynard Keynes *(1883-1946)*

The Keynesian school arose out of the neoclassical school, Keynes himself being steeped in the Marshallian tradition. Although Keynes sharply criticized certain aspects of neoclassical economics, which he lumped together with Ricardian doctrines under the heading of classical economics, he used many of its postulates and methods. His system was based on a subjective psychological approach, and it was permeated with marginalists concepts, including static equilibrium economics.

Keynes's ideas were given added impetus by the Great Depression of the 1930s. Yet his ideas can be traced back to before then.

Keynes overall approach:

- Macroeconomic emphasis. Keynes explicitly looked at a macroeconomic perspective. He focused mainly on aggregate demand and he looked at aggregate parameters of the economy (not individual). Economy as a whole behaves differently than just the sum of its parts: while saving, an individual may not loose, but the economy as a whole does! Both saving and investment depend on aggregate income, not on the interest rate, as was thought previously.
- The idea of fundamental uncertainty.
- Demand orientation. They stressed the importance of effective demand (now called aggregate expenditures) as the immediate determinant of national income, output, and employment. Aggregate expenditures consist of the sum of consumption, investment, government and net export spending. Effective demand establishes the economy's actual

output, which in some cases is less than the level of output that would exist if there were full employment (potential output).

- Instability in the economy. The economy is given to recurring booms and busts because the level of planned investment spending is erratic. Investment spending is determined jointly by the rate of interest and the marginal efficiency of capital, or the expected rate of return above the cost on new investments.
- Wage and price rigidity. They pointed out that wages tend to be inflexible downward because of such institutional factors as union contracts, minimum wage laws and implicit contracts. Prices are also sticky downward; declines in effective demand initially cause reductions in output and employment rather than declines in the price level. Deflation occurs only under conditions of extremely severe depression.

Policies:

According to Keynes, the government should fight unemployment. Markets do not work perfectly and automatically (so he was against laissez-faire): prices are rigid and investment dynamics leads to instability. The government should often intervene in the financial market, since it is very unstable, but it strongly affects the level of investment.

- Active fiscal and monetary policies. They advocated that the government should intervene actively through appropriate fiscal and monetary policies to promote full employment, price stability, and economic growth.
- The government should increase spending or reduce taxes (because it will increase private consumption, and therefore stimulate aggregate demand) to combat recessions or depressions.
- The government should increase the money supply in the hope that this bolster investment spending when the government wants to drive the interest rate down.
- To counter inflation, cause by excessive aggregate expenditures, the government should reduce its own spending and increases taxes. This will reduce private consumption. This can also be accomplished by a reduction of the money supply, because it will raise interest rates, which will decrease investment spending.

The success of this school came because it addressed a pressing problem of its day; depression and unemployment. Society gains from full employment.

Fundamental uncertainty and behavior of investors on the financial markets;

Economy is not quantifiable, unlike risk. The idea of fundamental uncertainty often refers to the distant future. This uncertainty could be made certain only after we get knowledge which does not yet exist and will emerge only in the future.

Investors behavior: they follow the crowd, don't look at fundamentals (real profitability etc.) but at others' opinion on them: if others think p will rise then p will rise. They also speculate.

Economic agents:

- Ignore the future and rely on the present
- Follow the majority of the others ('conventional behavior')

How investors behave:

- Follow the crowd ('animal spirits')

- Look not at fundamentals (real profitability/productivity prospects of certain business/industries), but at the average opinion on them!
- And, of course they speculate!
    - Buy and sell financial assets (investment) often independently of their real value

Behavioral economics

The Allais paradox:

The Allais paradox is a choice problem designed by Maurice Allais (1953) to show an inconsistency of actual observed choices with the predictions of expected utility theory. Paradox: no consistent preferences towards risk.

Gamble A: 100% chance of receiving 100 million

- Gamble B: 10% chance of receiving 500 million,

- 89% chance of receiving 100 million,

- 1% chance of receiving nothing

- And another amongst the following:

- Gamble C: 11% chance of receiving 100 million,

- 89% chance of receiving nothing

- Gamble D: 10% chance of receiving 500 million,

- 90% chance of receiving nothing

First lottery: less risky > gamble most expected utility

Second lottery Less risky < gamble with most expected utility

This paradox shows that in a real world people do not always act the same.

Sometimes people are more risk averse and sometimes not.

Other example of irrational behavior:

Coffee mug example -> You put additional value to a product you have already bought. In standard economics the value you give your coffee mug should be the same as the buying price. But most of the time in reality you put more value to the coffee mug than the selling price. (Loss aversion)

Another example is prospect theory -> which asserts that people will choose a guaranteed gain over a probable gain, even when the probable gain carries greater expected value. Conversely, people will opt for an uncertain loss over a certain loss, even when the expected value of the uncertain loss is greater -> example: saving people's life (reference matters)

Appendix: Lectures

What is history?

- Something that has happened in the past. We have to follow the chronology to understand it.
- Schools (of thought, intellectual history) are important, as well as traditions. They change the way we think nowadays.
- History of economics means learning about important debates
- Telling a story! They're fundamental in human history and thinking.

How to write the history of economics?

Joseph Schumpeter:

1. History of thought:
   - History as important for its own sake
   - Historical context
   - Schools/individuals
2. History for analysis
   - Whig history: important as anticipating today's knowledge
   - Logic
   - Concepts/problems

The first school (term to name a particular set of works or literature) : Mercantilism

- The name: from Latin mercator: merchant
- The context: Europe between 1500 and 1800
  ➔ Growth of trade
  ➔ Increasing importance of the nation states and struggles between them

What were the questions?

- What is the source of wealth for the state?
  ➔ Gold and silver
- What should the state do to become wealthier → and stronger?
  ➔ Imposing taxes on export
  ➔ Supporting imports
  ➔ Preference for exporting manufactured goods over raw materials.
  ➔ Promoting the existence of large and hard-working population → increasing competitiveness of domestic goods. They have to earn less to lower the costs. This all should create a active/positive balance of trade.

Contributions of Mercantilism:

- Importance of money for the growing economy
- Importance of trade
- Reconsidering the social status of merchants! (new ideology supporting business
- Economics as a part of a political project
- But: from the beginning contested as economic theory
- Still alive and well in many protectionist policies.

Lecture 2

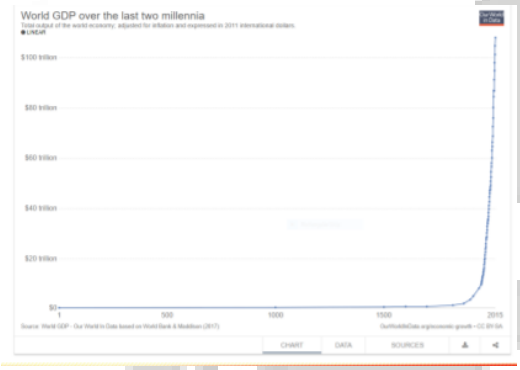
The dynamics of capitalism:

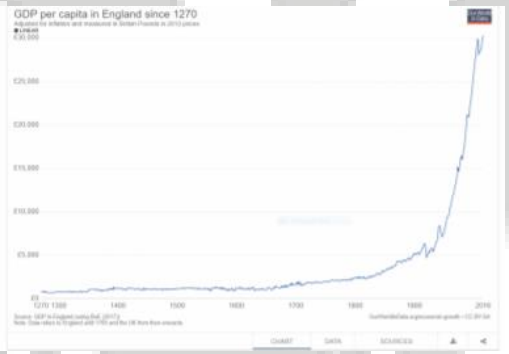
- Capital accumulation
- Technical progress, Smith called it the division of labor
- Population growth
- Fighting poverty, it was not a societal challenge during the Middle Ages, but it was during the industrial revolution.
- Distribution of income among social classes, this can lead to revolution. It matters how you distribute the income and product.
- Trade policy.

How did it differ from the previous writers?

- Unlike mercantilist: the limited role of the state! The autonomy of market forces. They relied on the natural force of the market, not on the governmental regulation.
- Unlike physiocrats: the focus on industrial economy, rather than agriculture.

During the industrial revolution, the world GDP increase extremely.





Key intuitions of the classical school:

- The basic point on departure, the total annual product as a source of wealth. This is macroeconomics! This is the sum of goods
- Power of self-interest – similar to the natural law of gravity! Newton created the new physics, he based in on new rules. One of its new insights was gravity, it was universal. He also thought that everybody must make its own choices whereby they gained more self-interest.
- Harmony of the market forces: the invisible hand (Smith). When everybody follows their own self-interest, the world doesn't fall apart. This is caused by the invisible hand. We all contribute to the world economy. It linked the individual outcome to the total social outcome.
  Ones you let everybody do what they want, they can create more. If people do not care about others, the society can fall apart.
  Social cohesion: what makes the society to survive. What holds us all together?
- The role of specialization in fostering economic growth

➔ Division of labor and endogenous technical progress (Smith)
➔ Comparative advantage (Ricardo)

Key intuitions of the classical school

- Power of self interest
- Harmony of the market forces: the invisible hand
- The role of specialization in fostering economic growth
- Dynamic view of capitalism
  - ➔ Tendency of the profit rate to fall. This was caused by competition (Smith). Ricardo believed in diminishing partial returns.
  - ➔ Divergent views on the dynamics of productive efficiency (increasing or decreasing returns)
- Long-term perspective
  - ➔ Value theory instead of price theory
  - ➔ Emphasis on natural prices rather than market prices
- Focus on supply, not demand. The supply is constant (it is horizontal), the price doesn't matter. Aggregate supply creates aggregate demand. This causes no overproduction. This is Say's law.
  - ➔ Objectivity (diamond water paradox)
  - ➔ Say's law

Conceptual core: labor theory of value

- Explaining the relative prices of reproducible commodities.
- This is a simple, straightforward and universal explanation of prices
- Money (gold) as one of commodities
- Special role of labor that would later become crucial for the economic doctrine of Karl Marx.

Labor is not just a factor of production, it has a whole social class behind it: the workers. They are getting wage. Because you always need it, you can always measure the amount you need to produce a commodity. So: Labor → commodity → Labor (this has to be more, because in the process capital is also necessary). Ricardo said this isn't convincing. You have to use labor everywhere. He said:

Labor + (labor → capital) → commodity → labor

Theory of money:

- General price level is linked to the quantity of money is circulation (quantitative theory of money – not so easily consistent with the labor theory of value)
- Money is a veil: does not influence real parameters of the economy (neutrality of money)
- This is directed against mercantilism!
- Banking: the necessity to sustain a simple balance between gold and paper money, gold as one of commodities, demand driven theory of money (real bills doctrine)

Normative and policy implications:

- Commercial society- fostering both wealth and virtue, economic growth and civic liberty.
- Accepting current evil, but hoping for the improvement in the future

- No additional intervention!

Lecture 5

Macroeconomics and Keynes:

Some historical background:

- In the 20th century the economy was increasingly complex.
- In the beginning it became clear that the financial market plays a huge role in the economy, it gives liquidity, they issue stocks or bonds.
- But, it is also a source of instability. This became clear during the Great Depression of 1929. It created huge unemployment of 20%. This was the biggest challenge to recover.
- The economy was getting richer, more complex and cetera, but it couldn't guarantee the jobs.

John Maynard Keynes (1883-1946):

- He was an economist, politician, journalist and public intellectual. He was a speculator on a financial market.
- Wrote a book: the general theory of employment, interest and money. It is vague and difficult to understand.

His overall approach:

- Explicitly macroeconomic perspective, he was the first
  - ➔ Focus on the aggregate, not individual, parameters of the economy.
  - ➔ We need to look at GDP, consumption, saving, government spending, (un)employment etc.
  - ➔ Most important: aggregate demand.
- The idea of fundamental uncertainty. Economic agents act in the form of fundamental uncertainty.
- Psychological foundations of economic behavior and the role of expectations. Public sentiment can change economic expectations.
- Short-run perspective! (in the long run we are all dead)
- Analysis of crisis and instability. He wanted to cure capitalism (because it was unstable, it could destroy itself), but he wasn't a socialist.
  - ➔ The logic of disequilibrium (wage rigidity)
- One of the most coherent doctrines to defend government regulation of the market economy.
- He is against laissez faire.

Macroeconomy and the aggregate demand

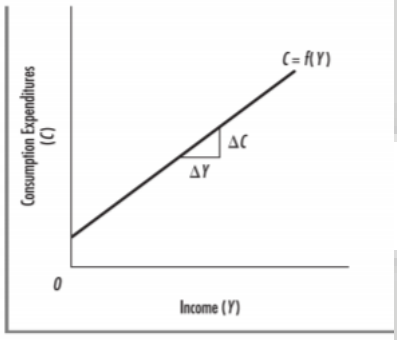
- Paradox of thrift: more individual savings is not equal to (!) more aggregate savings.
- When you consume, you create income for others. So when you don't consume, other earn less so the economy loses savings.
- Economy as a whole behaves differently than just the sum of its parts: while saving, an individual may not loose, but the economy as a whole does!

- What mostly matters on the macro-level is aggregate demand (and not aggregate supply, as classical school would have it)
- Both saving and investment depend on aggregate income, not on the interest rate, as was thought previously.

- Classical school said that the AS curve is important (supply creates its own demand), Say's law
- Keynes said that AD was important. (Spend enough money for the income of others)

The fundamental psychological law:

- Men are disposed, as a rule and on the average, to increase their consumption as their income increases, but not by as much as the increase in their income
- C = f(Y), where C – aggregate consumption; Y – aggregate income
- MPC = ΔC/ΔY – marginal propensity to consume, 0<MPC<1



What defines the level of investment?

money supply

marginal efficiency of capital – **expected** rate of profit of a new investment
- compared to the interest rate (investment is undertaken as long as *mec*>*i*)
- very variable!

interest rate (*i*)

Liquidity preference (demand for money):
3 major motives for holding money
- transaction (making purchases)
- precautionary (to keep cash for unforeseen emergencies)
- speculative (to use cash in order to play on the financial markets)

The level of investment

- The mechanism of depression: bad expectations - decreasing marginal efficiency of capital – less investment spending – less employment and production – less aggregate income
- Due to the price stickiness, declines in effective demand initially cause reductions in output and employment rather than declines in the price level
- Multiplier effect:
  ➔ Suppose Y decreased, it means less consumption and less saving

➔ A decrease in consumption means further reduction of someone‘s income and, hence, the decline in someone else‘s consumption etc.

- Result: depression, unemployment

Uncertainty: Keynes (1937):

By "uncertain" knowledge [...] I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty [...]. the expectation of life is only slightly uncertain. Even the weather is only moderately uncertain. The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention, or the position of private wealth-owners in the social system in 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know. Nevertheless, the necessity for action and for decision compels us as practical men to do our best to overlook this awkward fact and to behave exactly as we should if we had behind us a good Benthamite (calculations of pain and pleasure) calculation of a series of prospective advantages and disadvantages, each multiplied by its appropriate probability, waiting to be summed.

Expected utility:

Probability x utility → p1 x u1 + p2 x u2 etc.

So, Keynesian (fundamental) uncertainty:

- Often refers to the distant future
- Characterizes the crucial features of the economy (such as the state of technology)
- Is not quantifiable (unlike risk)
  ➔ Cannot be reduced to probability calculation!
- Could be made certain only after we get knowledge which does not exist yet and will emerge only in future

What do economic agents do then?

- Ignore the future and rely on the present
- Follow the majority of the others (‘conventional behavior’)

And what do investors do?

Professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. This is the beauty case metaphor. Investments need to be made in what you think everybody else thinks what is going to rise in price.

So how do investors behave?

- follow the crowd (‘animal spirits‘)

- Look not at fundamentals (real profitability/productivity prospects of certain businesses/industries), but at the average opinion on them!
- And, of course... speculate!
  ➔ buy and sell financial assets (investment!) often independently of their real value

It is not a case of choosing those which, to the best of one's judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practice the fourth, fifth and higher degrees. Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done.

What should be done? Keynesian policies:

- Fighting unemployment:
  ➔ Lowering the interest rate by monetary policy
  Limitation: 'the liquidity trap'
  ➔ Fiscal policy
  – increasing government spending!
  – public works!
  ➔ Regulating the financial market

On public works:

If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coal-mines which are then filled up to surface with town rubbish, and leave it to private enterprise on well-tiered principles of laissez-faire to dig the notes up again [...], there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing.

Supporting long term investment and restraining speculation:

The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils. For this would force the investor to direct his mind to the long-term prospects and to those only

Limitation of this solution: the need for liquidity! But some regulation is needed anyway

Summing up: Keynes's lessons

- Markets do not work perfectly and automatically (against laissez-faire): prices are rigid, investment dynamics leads to instability
- Macroeconomic analysis suggests that government should stimulate aggregate demand
- In the face of fundamental uncertainty, economic agents do not behave with full rationality

- Since the crucial parameter of the macroeconomy – the level of investment – is dependent on the inherently unstable financial market, more regulation of this market is needed

Exam questions:

- Name and explain the main elements of Keynes' approach to economics and economic policy
- How is the level of investment defined, according to Keynes? Why could it be insufficient?
- What is fundamental uncertainty, according to Keynes? How do investors on the financial markets behave faced with uncertainty?
- What were Keynes' major macroeconomic policy recommendations?

Lecture 6

Historical episodes, history of now:

John Stuart Mill, still relevant for our discussion right now. He was a great political economist and philosopher. We also mention him in the experimental economics. He claimed that experimental economics is impossible, because economies are too complex to do experiments in. There are infinitely numerous and various circumstances which either directly or indirectly do or may influence the amount of the national wealth. You have to compare 2 identical (except 1 variable) countries to do experiments, but there aren't, so experiments are impossible.

The major precursors:

- We could do it on macro scale. John von Neumann and Oskar Morgenstern: creation of game theory (1944) and expected utility theory (1947).
- 'Gaming' as testing theoretical intuitions, this looks like experimenting.
- The study of bargaining behavior (psychologist Sidney Siegel and his team). They were looking at economic behavior after the second World War. They looked at bargaining.
  ➔ Varying monetary incentives and information available to the subjects.
  ➔ Anonymity (to focus on self-regarding, not other-regarding preferences)
- You have to use real money for your experiments, this gives an incentive to participate in the experiment. They care more about the case.
- Testing expected utility theory (Ward Edwards at Michigan); measurement of subjective probabilities and utilities (Stanford group)
- Herbert Simon; bounded rationality and satisficing behavior. This became very important. Try to reach a certain level rather than an optimum (the certain level is the level that would satisfy).

Allais paradox:

- Maurice Allais, (1911-2010), Nobel prize winner in economics (1988)
- Became famous after a personal debate, the debate between him and Leonard J. Savage.

- It debated the expected utility theory to characterize rational behavior. Implies that agents weigh their utilities by the probabilities of future events and compare the expected utility. You have to invest more and more money to get a little extra utility.

A. 100% 100m
B. – 89% 100m
   - 1% nothing
   - 10% 500M

Savage would choose a here, because of expected utility: P1xU1 + etc.

C. - 89% nothing
   - 11% 100 million
D. - 90% nothing
   - 10% 500 million

Savage would choose d here.

What happened:

- In reality, decision makers change their attitude towards risk when the amounts at stake are important.
- Choosing a over b demonstrates strong risk aversion (preference for certainty)
- When choosing d over c, such a strong aversion does not come into play.
- More general lesson: attitudes towards risk change not only from an individual to another, but also or a given individuals between different patterns/situations of risk
- This was not a part of the standard EY theory, which only allowed different risk attitudes for different individuals (different forms of the utility curve)
- Response of Savage: I behaved irrationally
- Response of Allais: your axioms are false
- Two visions of the theory of economic behavior: descriptive (how agents behave in real) and normative (how agents should behave)

Behavioral economics:

- Daniel Kahneman (1934), and Amos Tversky started collaborating in the end of the 1960s.
- 1970-1980s, creation of prospect theory as an idea in economic psychology.
- 2000s, new applications, nudges.

Biases in decision making:

- Loss aversion:
  ➔ Richard Thaler's economics professor and his collection of wines. He didn't sell his wine, doesn't matter which price. The value for him became way higher once he bought it.
  ➔ Thaler and Kahnemann: experimenting with coffee mugs.

1. One group is asked how much they'd pay for the mug
2. Another group is asked, given the mug, for how much they'd sell it.
3. The second group valued the mug higher, that is called loss aversion.

- Carole story:
  - ➔ Imagine Carole likes music and arts very much and spent her student years going to musical parties:
  - ➔ Which of the 2 statements is more likely
    1. Carole is a bank clerk
    2. Carole is a bank clerk and plays saxophone in a local band.
  - ➔ The first one is more likely, this change is higher.
- Robert Shiller and the birth of behavioral finance
- Similar misperception of probability happens when people rush to buy shares on the stock market
- Herding: people see the stock prices are rising. They buy more, the prices rise even more as a response to this additional demand
- The herd might actually also run in another direction.

Experimentalists:

- Vernon Smith: experiments at Purdue, starting in 1956 and following the classroom experiments of Chamberlin in 1948.
- Collaborating with Charles Plott at Calteck in the 1970s.
- Monetary incentives, focus on institutions and market mechanisms, and not on irrationality of human behavior.
- Close to mechanism design, the game theoretic discipline aimed at creating institutions with certain qualities. How can we create rules responding to which the agents interacting achieve a desirable equilibrium. This is an auction.

More biases: Ultimatum game (Güth et al. 1982)

- 2 players and a resource (sum of money)
- The first player, the proposer, gets the sum and should share it with the second player, the responder.
- Proposer defines the share herself and communication the decision
- Responder may accept it and get it or reject it and then both get nothing.
- Nash equilibrium in this game: Responder shares a minimum sum of money, and proposer accepts the offer.
- Experimental evidence suggest otherwise:
  - ➔ On average they offer around 40/50 % and the responders accept this
  - ➔ Offers around or under 20%, get rejected most of the time.

Summing up:

- Experimental testing began after the creation of full – fledged decision/rational choice theory.
- The major tendency was to rethink the standard model of rational choice by discovering paradoxes and biases in real human decision making. Theory of behavior could be seen as either normative or descriptive.
- This process was supported by a close interaction between economics and psychology, one of the best interactions.

- The major programs that emerged in economics were behavioral economics (Kahneman, Tversky, Thaler) and experimental economics (Smith, Plott)
- Economic research change dramatically

Lecture 7

The structure of modern economics: new developments and approaches.

General pattern of development: between **orthodoxy** (mainstream view in economics) and **heterodoxy**.

The right opinions are viewed as orthodoxy, the wrong as heterodoxy. From the 20th century, the mainstream became visible and there are a lot of heterodox schools. Almost no field has a mainstream, except economics.

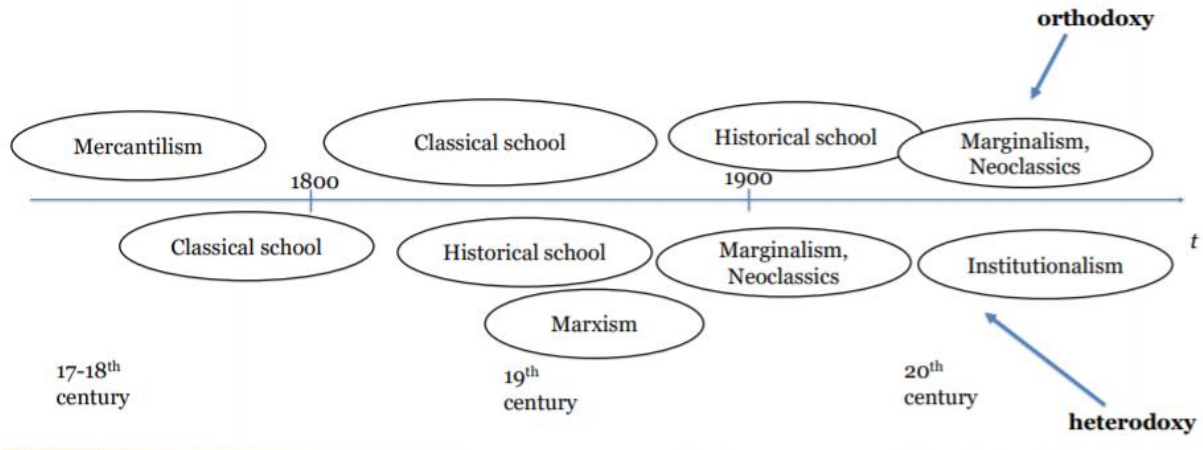
Heterodoxy often disagrees with mainstream on **fundamentals.**

Why is economics special?

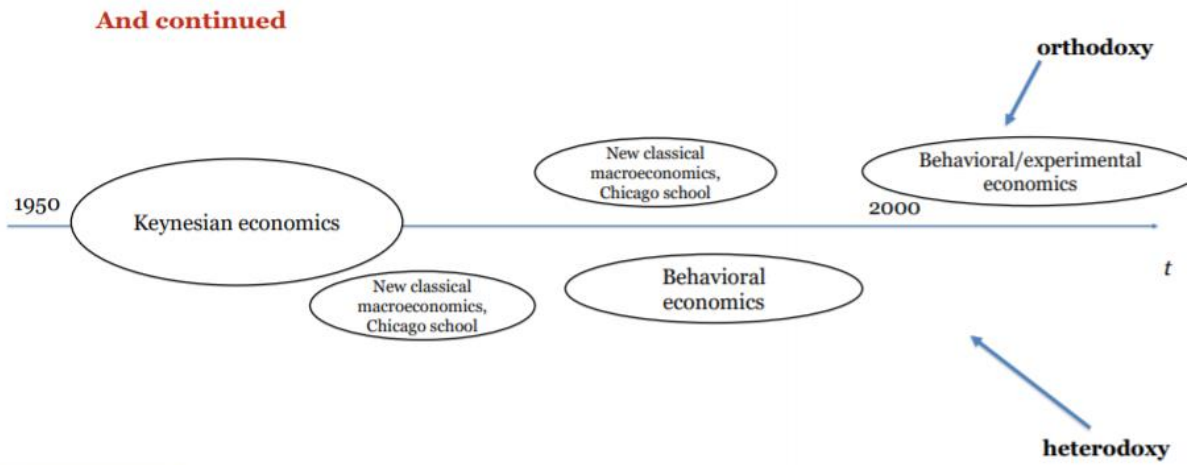
- In the natural sciences, heterodoxy is clearly placed outside legitimate knowledge. Talking about UFO's, is not a legitimate science.
- In the social sciences other than economics, much more pluralism is allowed. In these fields, there is no heterodoxy. But, they are science legitimate scientists.

The mainstream always the same?

No!



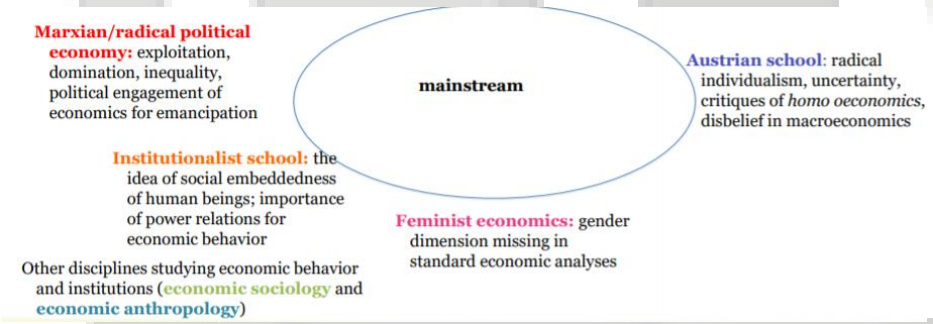
- Mercantilism was orthodoxy, and classical school as heterodoxy.
- After some time, in the beginning of the 19th century things started to change, and classical school became orthodoxy. So, when more and more people become serious about a discipline, they can go from heterodoxy to orthodoxy.



- Keynesian economics was somewhere in the middle, you cannot place it to one type. Because, there were more Keynesian ideas. Some were orthodox, some were heterodox.

So, mainstream is changing!

But, there are schools that are still opposing the mainstream. They are outside the mainstream, we cannot say if they ever will be the mainstream. Often, they are neglected.



- We can see that the (new) Austrian school is much more right than the mainstream: free market, less government and kind of conservative in the American meaning, lower taxes, lower investment in the social system.

- You cannot talk about homo economicus, without taking the whole system around it into account.

Importantly, mainstream is often defined by methods used, and not by content of theories!

- 1950s-1980s: rigorous mathematical (equilibrium) modeling and economic testing
- Since 1980s: the same + experiments.

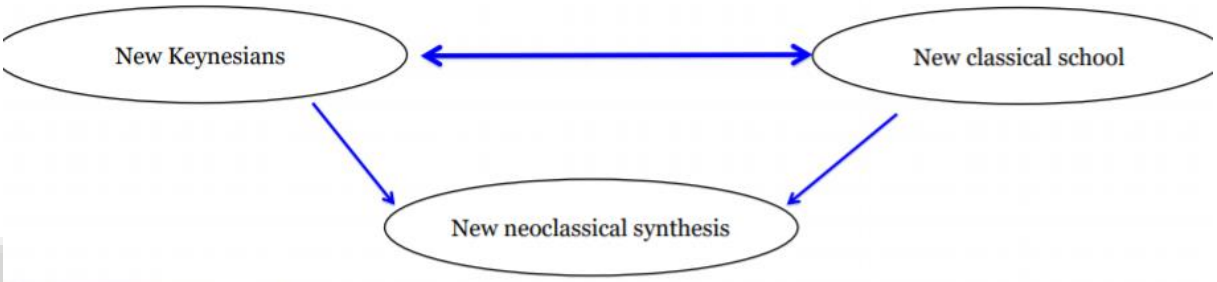
Recent history:

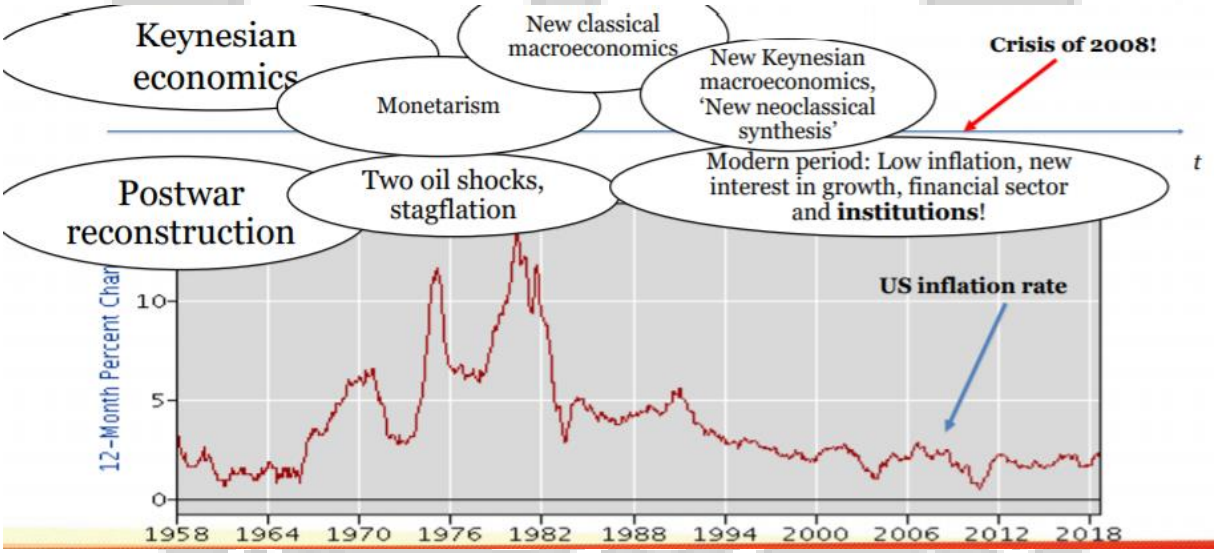
- Many participants still alive: Robert Solow, Robert Aumann, Robert Lucas
- Recent history is controversial
- Too complex to get a clear picture

- That's why here: no names, only main ideas.

Macroeconomics after Keynes – at a glance

- Battles over Keynes and Keynesian economics
- The rise of monetarism, Milton Friedman.
- Keynes focused on aggregate demand, but he said we had to focus on aggregate supply and money, so the monetary model, inflation was the problem
- Two schools emerged: new Keynesians and new classical schools. They merged into new neoclassical synthesis.





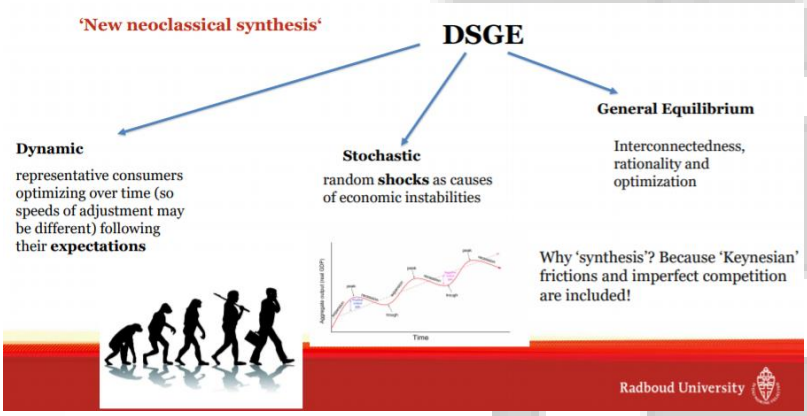
Some more detail:

- Monetarism:
  - ➔ Dealt with the problem of stagflation: very low level of GDP growth / or even decrease, but with an inflation. What to do? Expand demand (to stop the rise of unemployment)?, or reduce demand (to halt inflation)?
  - ➔ The solution: the money supply matters.
  - ➔ It should be controlled (the idea of inflation targeting)
- New classical school
  - ➔ Rational expectations, Lucas critique (model equations change at different policies)
  - ➔ Rational expectations, using all available information to form expectations.
  - ➔ Lucas had critique on macroeconomic models. Can we base our policy on these models? He said no, if you change the policy, the equations describing the economy change as well. So, the models don't describe the economy anymore
  - ➔ The impossibility of monetary policy (neutrality of money)

➔ the impossibility of fiscal policy ('Ricardian equivalence'): government increases spending financed by borrowing → households anticipate future taxes → reduce their consumption → effects of spending = 0

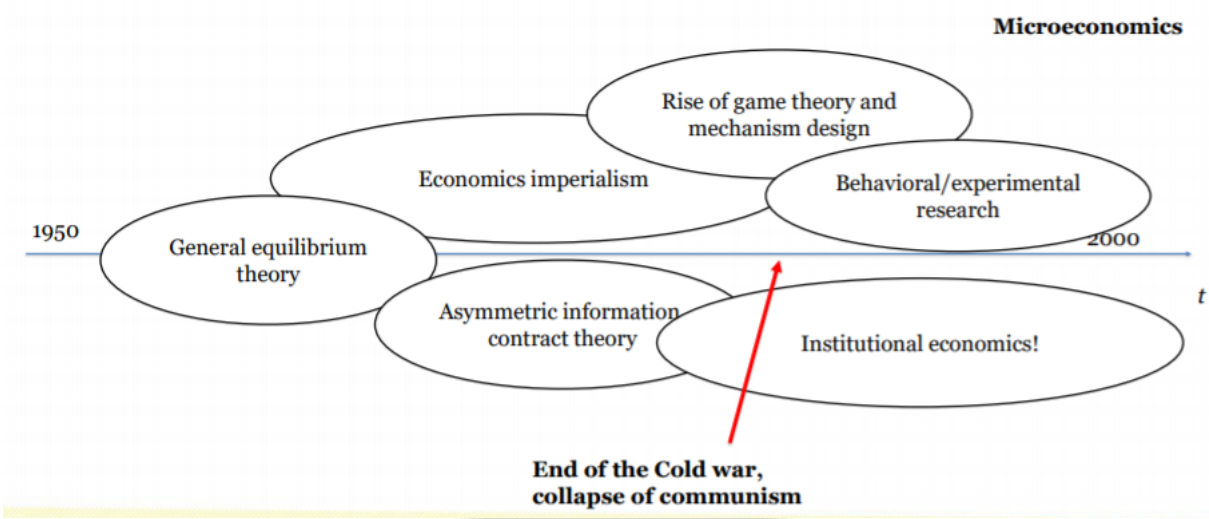
- New Keynesians
  - ➔ There are still frictions and disequilibria due to
  - ➔ Asymmetric information
  - ➔ Imperfect competition
  - ➔ Inflexible labor market → adjustment to shocks takes time!

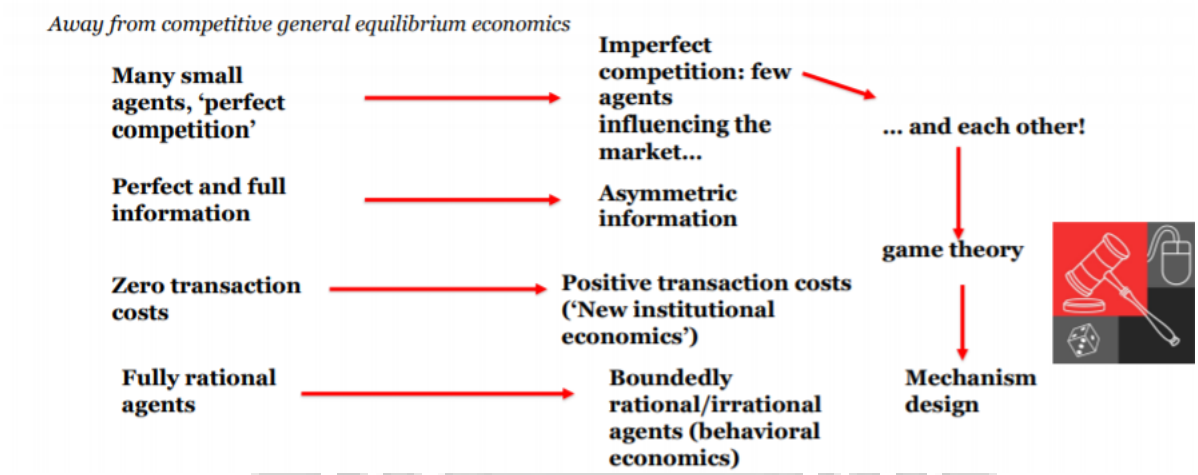
New neoclassical synthesis:



- The shocks are external, and you cannot prevent them.

Microeconomics:

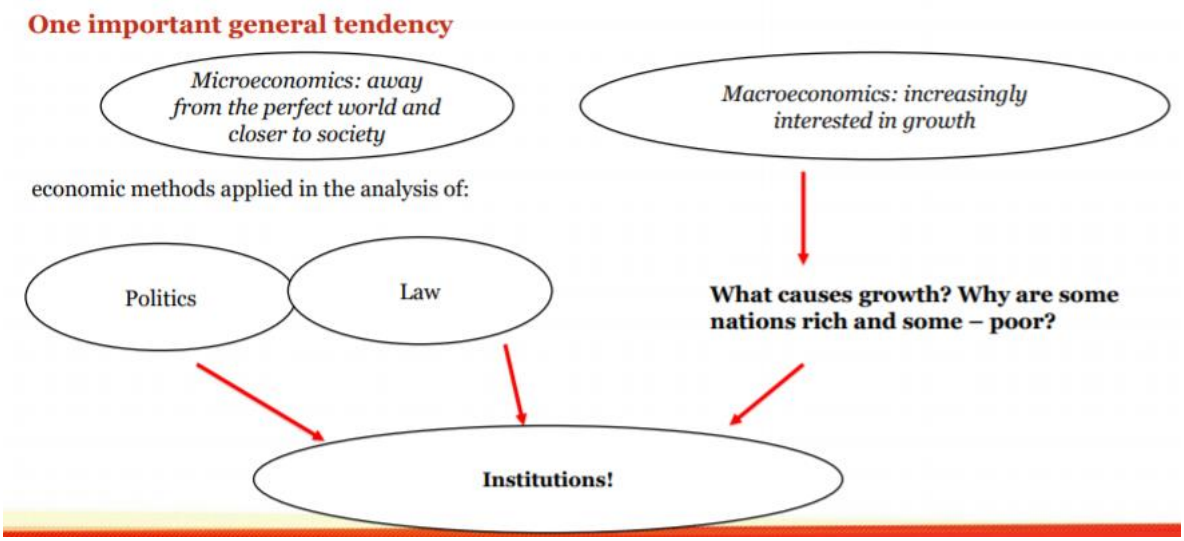




Microeconomists started to reconsider existing assumptions.

Empirical work:

- A rise of empirical economics
- Key factor: computing power
- New methods
  → calibration
  ➔ Choosing the model parameters (taken mostly from microeconomic studies)
  ➔ Simulate the model with these parameters
  ➔ Change the model to mimic the key characteristics of the real data.
  →vector autoregression modeling (VAR): looking for patters in the data, minimum theory
  →2000s: credibility revolution: an era of randomized control trials and field experiments.



So, what have we learned?

- In economics, there is an asymmetric relationship between mainstream (orthodoxy) and heterodox schools
- But mainstream is changing: what is heterodox today, can become orthodox tomorrow!
- Very often, mainstream is defined by methods: when they change, the mainstream will change as well
- In the last decades, economics has been trying to move away from simplistic abstract models by
  - becoming more empirical
  - trying to modify assumptions in view of the real experiences
  - incorporating imperfections (DSGE and beyond)
  - using experiments
  - extending to other domains (economics imperialism)
  - venturing into the older 'big' questions and agreeing that institutions (social contexts, culture...) matter!

Exam questions:

- Explain why the notions of 'orthodox' and 'heterodox' are historically relative (what is 'orthodox' now, might have been 'heterodox' before). Use examples from the history of economics
- How did monetarists and the New classical school criticize Keynesian economics? What were the implications of this critique?
- What is the 'New neoclassical synthesis' and why is it called so?
- Describe the key developments in modern microeconomics as examples of moving away from the assumptions of perfectly competitive general equilibrium economics. Which new fields emerged as a result of this?

Students are expected to

• get acquainted with the major schools of economic thought and the work of the greatest economists of the past

• be able to critically assess and compare various economic theories

• be able to analyze economic theories in their broader intellectual contexts

• understand the diversity and complexity of economic thinking as it developed through time, as well as the major factors of this development

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