THE AUSTRIAN SCHOOL OF ECONOMICS – AN INTRODUCTION

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Preliminary version. Please do not quote.

1. Introduction

The purpose of this handout is to provide an elementary introduction to the theories of the *Austrian School of Economics*.

The issues and their practical applications presented therein draw heavily on the work of many brilliant 'Austrian' scholars.

I hope that studying this handout will be rewarding and eye-opening, especially so at a time when *mainstream economics* is increasingly embracing *anti-free-market*– and *anti-freedom–minded* methodologies and teachings.

Thorsten Polleit
Königstein i. T., June 2015

Content

"Nun weiss ich sehr wohl, dass die Beseitigung wissenschaftlicher Irrthümer, welche sich in den Geistern der Gelehrtenwelt festgesetzt haben, selbst wenn sie offen liegenden Thatsachen widersprechen, zu den mühevollsten Aufgaben wissenschaftlicher Kritik gehört, zumal wenn die zur Herrschaft gelangten Irrthümer durch die Interessen einflussreicher Bevölkerungsgruppen gestützt werden."

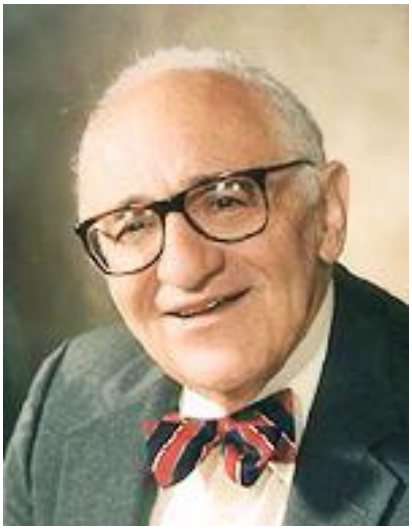
Carl Menger
1840 – 1921

—Carl Menger (1891), Die Social-Theorien der classischen National-Oekonomie und die moderne Wirthschaftspolitik, p. 222.

Ludwig von Mises
1881 – 1973

"Economics must not be relegated to classrooms and statistical offices and must not be left to esoteric circles. It is the philosophy of human life and action and concerns everybody and everything. It is the pith of civilization and of man's human existence."

—Mises (1996), Human Action, p. 878.



Murray N. Rothbard
1926 – 1995

"[S]ince the early origins of the State, its rulers have always turned, as a necessary bolster to their rule, to an alliance with society's class of intellectuals. The masses do not create their own abstract ideas, or indeed think through these ideas independently; they follow passively the ideas adopted and promulgated by the body of intellectuals, who become the effective "opinion moulders" in society. And since it is precisely a moulding of opinion on behalf of the rulers that the State almost desperately needs, this forms a firm basis for the age-old alliance of the intellectuals and the ruling classes of the State. The alliance is based on a *quid pro quo:* on the one hand, the intellectuals spread among the masses the idea that the State and its rulers are wise, good, sometimes divine, and at the very least inevitable and better than any conceivable alternatives. In return for this panoply of ideology, the State incorporates the intellectuals as part of the ruling elite, granting them power, status, prestige, and material security. Furthermore, intellectuals are needed to staff the bureaucracy and to "plan" the economy and society."

—Rothbard (2002), For a New Liberty, p. 55.

2. The 'Austrians' - an overview

SUGGESTED READINGS: Hoppe, H.-H. (2006), Democracy, The God That Failed, The Economics and Politics of Monarchy, Democracy, and Natural Order, Transaction Publisher, New Brunswick, Ney Jersey, pp. ix – xxiv, esp. footnote 5.

HISTORICAL SETTING

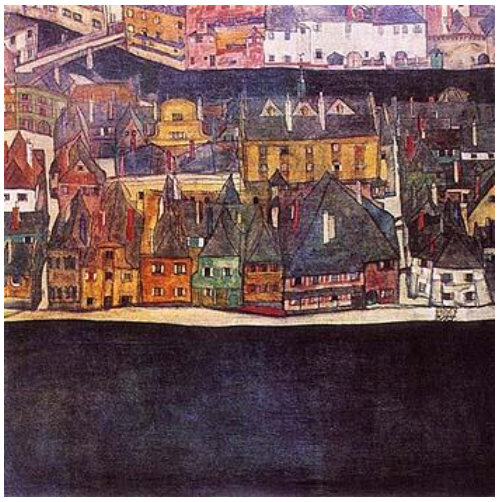
Vienna
End of the 19th century

The list of great names associated with the late 19th/early 20th century in Vienna of the Habsburg monarchy – that is the pre-democratic Austro-Hungarian Empire – is seemingly endless:

—*Philosophers*: Ludwig Boltzmann, Franz Brentano, Rudolph Carnap, Edmund Husserl, Ernst Mach, Alexius Meinong, Karl R. Popper, Moritz Schlick, Ludwig Wittgenstein.

—*Mathematicians*: Kurt Gödel, Hans Hahn, Karl Menger, Richard von Mises.

—*Economists*: Eugen von Böhm-Bawerk, Gottfried von Haberler, Friedrich August von Hayek, Carl Menger, Fritz Machlup, Ludwig von Mises, Oskar Morgenstern, Joseph Schumpeter, Friedrich von Wieser.



—*Psychologists*: Alfred Adler, Joseph Breuer, Karl Bühler, Siegmund Freud.

—*Historians* and *sociologists*: Max Adler, Otto Bauer, Egon Friedell, Heinrich Friedjung, Paul Lazarfeld, Gustav Ratzendorfer, Alfred Schütz.

—*Writers* and *literary critics*: Hermann Broch, Franz Grillparzer, Hugo von Hofmannsthal, Karl Kraus, Fritz Mauthner, Robert Musil, Arthur Schnitzler, Georg Trakl, Otto Weininger, Stefan Zweig.

—*Artists* and *architects*: Gustav Klimt, Oskar Kokoschka, Adolf Loos Egon Schiele.

—*Composers*: Alban Berg, Johannes Brahms, Anton Bruckner, Franz Lehar, Gustav Mahler, Arnold Schönberg, Johann Strauss, Anton von Webern, Hugo Wolf.

MAIN REPRESENTATIVES

Carl Menger

IMPORTANT WORKS:
Principles of Economics (1871), *Investigations into the Method of the Social Sciences with Special Reference to Economics* (1883), *The Errors of Historicism in German Economics* (1884).

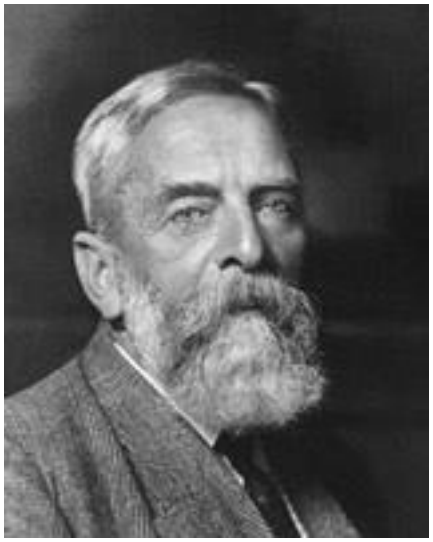
- Born 28 February 1840, died 26 February 1921.
- Menger published his pathbreaking *Grundzüge der Volkswirthschaftslehre* (*Principles of Economics*) in 1871.
- Together with the Léon Walras (1834 – 1919) and William Stanley Jevons (1835 – 1882), Menger spelled out the *theory of marginal utility*.
- In his *Grundzüge*, Menger outlined a theory of the origin of money – which, according to Menger, emerged spontaneously from free market activities, and out of a commodity.
- In 1872, Menger enrolled into the law faculty of the University of Vienna, and in 1873 he received the university's chair of economic theory at the age of 33.
- In 1876, Menger became a tutor for economics to Rudolf von Habsburg (1858 – 1889), the Crown Prince of Austria.
- With his *Investigations* (1883), Menger battled the *German Historical School*, which considered historicism as the appropriate method of economics and rejected any notion of *economic laws*.
- In 1884 Menger published *The Errors of Historicism in German Economics*, thereby kicking off the infamous *Methodenstreit*, which basically established the *Austrian School of Economics*.

Eugen von Böhm-Bawerk

IMPORTANT WORKS:
History and Critique of Interest Theories (1884), *Karl Marx and the Close of His System* (1896), *Positive Theory of Capital* (1889) (second volume of *Capital and Interest)*, *Value and Price* (part of the second volume), *Further Essays on Capital and Interest* (1921) (third volume).

- Born 12 February, 1851, died 27 August 1914.
- In his *History and Critique of Interest Theories* (1884), Böhm-Bawerk revealed the fallacies in the history of thought concerning the interest rate. He gave a firm defense of the idea that the interest rate is not an artificial construct but an inherent part of the market. It reflects the universal fact of "time preference".
- In *Positive Theory of Capital*, he demonstrated that the normal rate of business profit is the interest rate: Capitalists save money, pay labor, and wait until the final product is sold to receive profit.
- Böhm-Bawerk demonstrated that capital is not homogeneous but an intricate and diverse structure that has a time dimension. A growing economy is not just a consequence of increased capital investment, but also of longer processes of production (*roundaboutness*).
- He engaged in an intellectual battle with the Marxists over the exploitation theory of capital, refuting the socialist doctrine of capital and wages (long before the communists came to power in Russia).
- Böhm-Bawerk held a regular seminar that would later become the model for Mises's Vienna *Privatseminar*.
- He was Austrian Minister of Finance in 1895, 1897-1898 and 1900-1904.

Friedrich von Wieser



IMPORTANT WORKS:
Natural Value (1889), *Social Economics* (1914).

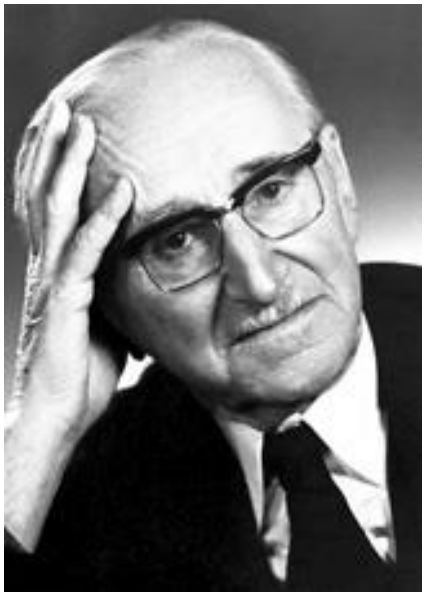
- Born 10 July, 1851, died 22 July 22, 1926.
- Friedrich von Wieser became professor of economics at the German University of Prague (1884), and in 1903 he succeeded Carl Menger's position at the University in Vienna.
- Wieser became Minister of Commerce in 1917 and, after the collapse of the Austro-Hungarian Empire at the end of World War I, returned to teaching.
- Wieser made the following major contributions: First, he established the theory of *imputation*, saying that factor prices are determined by output prices (rather than the other way around, as the Classicals had it).
  Second, Wieser developed the theory of *opportunity cost* as the foundation of value theory. Both achievements have become fundamental "subjectivist" pillars in economic theory.
  And third, Wieser actually invented the term *marginal utility* (Grenznutzen).

Ludwig von Mises

IMPORTANT WORKS:
The Theory of Money and Credit (1912), *Socialism* (1922), *Liberalism* (1927), *Interventionism* (1940), *Omnipotent Government* (1944), *Bureaucracy* (1944), *Human Action* (1949), *Anti-Capitalistic Mentality* (1956), *Theory of History* (1957), *Ultimate Foundation of Economic Science* (1962).

- Born 29 September 1881, died 10 October 1973.
- In *The Theory of Money and Credit* (1912), Mises extended Austrian marginal utility theory to money, and he developed the *regression theorem*, showing that money must have emerged from a commodity.
- In 1920, Mises proofed, based on economic science, that socialism was impossible and doomed to fail.
- In his magnum opus *Human Action* (originally published as *Nationalökonomie* in 1940), Mises reconstructed the science of economics along the line of the *axiom of action*, logically deducing economic truths from a self-evident *axiom*.
- From 1913 to 1934, he was an unpaid professor at the University of Vienna, working as an economist for the Vienna Chamber of Commerce, in which capacity he served as the principal economic adviser to the Austrian government.
- Fleeing the German National Socialism regime, Mises left for Geneva in 1934, where he was a professor at the Graduate Institute of International Studies until he emigrated to New York City in 1940. He was a visiting professor at New York University from 1945 until he retired in 1969.

Friedrich August von Hayek



IMPORTANT WORKS:
Monetary Theory and the Trade Cycle (1929), *Prices and Production* (1931), *Pure Theory of Capital* (1941), *The Road to Serfdom* (1944), *The Constitution of Liberty* (1960), *Denationalisation of Money* (1976).

- Born 8 May 1899, died 23 March 23 1992.
- Hayek was a central figure in 20th century economics and prominent representative of the Austrian School of Economics.
- He received the 1974 *Nobel Memorial Price in Economics* (together with Gunnar Myrdal).
- At the University of Vienna, Hayek attended the lectures of Friedrich von Wieser and Othmar Spann and joined Mises's *Privatseminar*.
- In the late 1930s and early 1940s, his research focused on the role of *knowledge and discovery in market processes*, and on the methodological underpinnings of the Austrian tradition, particularly *subjectivism* and *methodological individualism*.
- The *Hayekian triangles* (*Prices and Production* (1935)) provided a highly stylized way of describing (interest rate induced) changes in the intertemporal pattern of the capital structure. He identified the trade cycle as an intertemporal *discoordination*.
- He provided a sharp and devastating critique of J. M. Keynes' *The Theory of Employment, Interest and Money* (1936).
- Hayek became famous with his book *The Road To Serfdom* (1944), in which he warned against the *tyranny* that inevitably results from government control of the economy.
- He argued for a *denationalisation of money* (1976), making a case for free market money.

Murray N. Rothbard

IMPORTANT WORKS:
Man, Economy, and State (1962), *Americas Great Depression* (1963), *What Has Government Done to Our Money?* (1963), *Power and Market* (1970), *For a New Liberty* (1973), *The Ethics of Liberty* (1982), *The Mystery of Banking* (1983), *An Austrian Perspective on the History of Economic Thought* (1995).

- Born 2 March 1926, died 7 January 1995.
- Murray N. Rothbard is an exponent of the *rationalist branch of the Austrian School of Economics*.
- He developed and extended the Austrian economics of Ludwig von Mises, in whose seminar he was a main participant for many years.
- In his textbook *Man, Economy, and State* (1962) he explains Mises's *Human Action* in a fashion suitable for college students; the book has become a central work of Austrian economics.
- In *The Ethics of Liberty* (1982), Rothbard (re)integrated economics and ethics. Therein, he establishes non-hypothetically or absolutely true ethical rules, providing the basis for *rationalist ethics*.
- Rothbard is the latest and most comprehensive system-builder within Austrian economics: His unique contribution is the rediscovery of property and property rights as the common foundation of both economics and political philosophy, and the systematic reconstruction and conceptual integration of modern, marginalist economics and natural-law political philosophy into a unified moral science: *libertarianism*.

The origin of the Austrian School of Economics

SUGGESTED READINGS: Rockwell, L. H. Jr. (2009), The World of Salamanca, Daily Article, Ludwig von Mises Institute, October 27 (http://mises.org/daily/3787); Rothbard, M. N. (1995), Economic Thought Before Adam Smith, An Austrian Perspective on the History of Economic Thought, Volume I, Ludwig von Mises Institute, Auburn, US Alabama, pp. 99 – 133.

- "Ideas are like capital in the following sense: we take them for granted, but in fact they are the work of many generations. In the case of economic logic, it was the work of hundreds of years. Once understood, economics becomes part of the way we think about the world. If we don't understand it, many aspects of the way the world works continue to elude our vision and grasp. It is striking how much of the knowledge of the Late Scholastics was lost over the centuries." (Rockwell, 2010.)

- The popular wisdom traces the origins of pro-market thinking to *Adam Smith* (1723–1790). However, the real founders of economic science actually wrote hundreds of years before Smith. They were not economists, but moral theologians, trained in the tradition of *St. Thomas Aquinas* (1225–1274). They became known as the *Late Scholastics*. These men, most of whom taught in Spain, were at least as pro–free market as the much-later Scottish tradition. In fact, their theoretical foundation was even more solid: they anticipated the *theories of value* and price of the *marginalists* of late 19th-century Austria.

- Let us take a very brief look at six of the most important among more than a dozen extraordinary thinkers who had solved difficult economic problems long before the classical period of economics.

  (1) The first of the moral theologians to research, write, and teach at the University of Salamanca was *Francisco de Vitoria* (1485–1546). He argued that the *just price* is the price that has been arrived at by common agreement among producers and consumers: When a price is set by the interplay of supply and demand, it is a just price. This insight also applies to foreign trade: Governments should not interfere with the prices and relations established between traders across borders. Vitoria also argued for liberalizing the business of charging and paying interest. This discussion helped sowing a great deal of confusion among theologians of precisely what constituted *usury* – thereby making a case in favor of entrepreneurship.

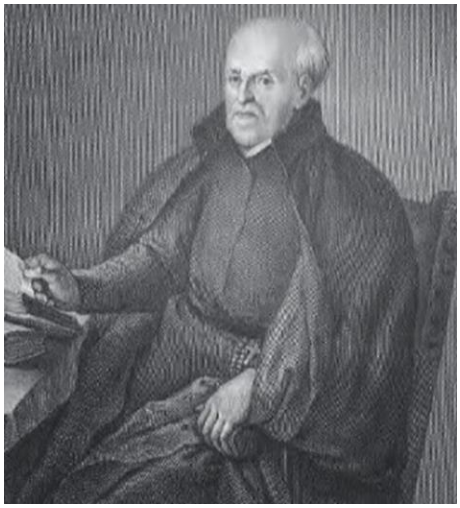
(1) *Domingo de Soto* (1494–1560) was a Dominican priest who became a professor of philosophy at Salamanca. He was the intellectual architect of the purchasing power of money, and was in favour of currency trading and arbitrage.

(2) *Martin de Azpilcueta Navarrus* (1493–1586) was a Dominican friar. He showed that government price-fixing would be a mistake: When goods are plentiful, there is no need for a set maximum price; when they are not, price control does more harm than good. Navarrus was also the first to fully state that the quantity of money is a main influence in determining its purchasing power. He also was in favour of currency trading and arbitrage.

(3)*Diego de Covarrubias y Leiva* (1512–1577) was the greatest student of Navarrus. His book *Variarum* (1554) was then the clearest explanation concerning the source of economic value. "The value of an article," he said, "does not depend on its essential nature but on the estimation of men, even if that estimation is foolish." As a result, the justness of a price is not determined on how much the item costs or how much labor went into acquiring it. All that matters is what the common market value is in the place and at the time it is sold. Like all of the Spanish theorists, Covarrubias believed that individual owners of property had inviolable rights to that property.

(4) *Luis de Molina* (1535–1601), who stood in the Vitoria line of thinkers, was among the first of the Jesuits to think about theoretical economic topics. Though devoted to the Salamancan School and its achievement, Molina taught in Portugal at the University of Coimbra. He authored a five-volume treatise *De Justitia et Jure* (1593 and following). Molina actually solved the “value paradox” and defended private property by saying that it is secured in the commandment "thou shalt not steal”. Molina’s most sophisticated writings were on money and credit. Like Navarrus before him, he understood the relationship of money to prices, and knew that inflation resulted from a higher money supply.

(6) *Juan de Mariana* (1536–1624) was Jesuit, not a Salamancan, and was considered an “extremist”. In his book *De monetae mutatione* (1605), he questioned whether the king was the owner of the private property of his citizens – and came to the conclusion that he wasn’t. Mariana argued that the “tyrant is he who tramples everything underfoot and believes everything to belong to him; the king restricts his covetousness within the terms of reason and justice.”



The defining dispute: *Methodenstreit*

SUGGESTED READINGS: Mises, L. v. (1969), The Historical Settings of the Austrian School of Economics, Ludwig von Mises Institute, Auburn, US Alabama; Hülsmann, J. G. (2008), The Last Knight of Liberalism, pp. 117 – 136.

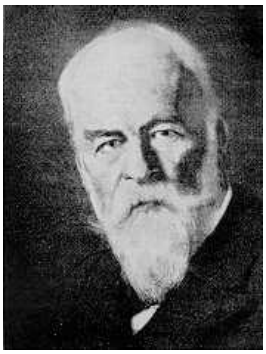
- The publication of Carl Menger's *Grundsätze der Volkswirtschaftslehre* (1871) laid the foundations of the *Austrian School of Economics*. The book had an important role in the development of economic thought.

- However, Menger's work had little immediate impact. Dominant in Germany was the (younger) *Historical School* under Gustav Schmoller (1838 – 1917) and his followers (such as Adolf Wagner and Karl Knies). Their teachings basically tried to justify the belief in and the adoration of omnipotent government.

- The representatives of the Historical School were basically concerned with the practical questions of *administration* and with *economic history*. Because of heavy anti-market and pro-government orientation, they were called (nicknamed) *Kathedersozialisten*, or *Socialists of the Chair*.

  On August 3, 1870, Emil du Bois-Reymond, the rector of the Frederick-William University of Berlin (and a pioneer of electro-physiology), said in a public lecture that his university was the "intellectual bodyguard of the House of Hohenzollern."

  —Hülsmann (2007), Last Night of Liberty, p. 116.



Gustav Schmoller
1838 – 1917

- Schmoller's rejected the teachings of classical economists (such as Adam Smith, Jean-Baptiste Say and David Ricardo). He and his followers denied that there would be any universal social (economic) laws. In fact, they dismissed the possibility of a theory of economics altogether.

- The *scientific method* of the German Historical School was *historicism*. Historical accounts were the source of knowledge. The interpretation of the historical material was upon the social scientist: He had to approach the historical records without "prepossession" and "preconceived ideas" and interpret them subjectively. (This (pseudo-)scientific approach will be critically reviewed in chapter 4)

- Schmoller had a far-reaching, a dominant influence on German economics through his personal friendship with Friedrich Althoff, a high-ranking civil servant in Prussia's Ministry of Education, who from 1882–1907 controlled the nominations to the chairs of political economy in Prussian universities.

- Menger published in 1883 his second book, *Untersuchungen über die Methode der Socialwissenschaften und der politischen Oekonomie insbesondere* (English translation: *Problems of Economics and Sociology*).

- This work was to be the opening blast in the *Methodenstreit*, the "battle over methods", between the *Austrian School of Economics* (as it was later called) and the German Historical School.

„Wenn auf einem Wissensgebiete aus irgend welchen Gründen die richtige Empfindung für die aus der Natur der Sache sich ergebenden Ziele der Forschung verloren gegangen ist, wenn nebensächlichen Aufgaben der Wissenschaft eine übertriebene oder gar die entscheidende Bedeutung beigelegt wird, wenn von mächtigen Schulden getragene irrthümliche methodische Grundsätze zur vorherrschenden Geltung gelangen und die Einseitigkeit über alle Bestrebungen auf dem Wissensgebiete zu Gerichte sitzt, wenn, mit einem Worte, der Fortschritt der Wissenschaft in der Herrschaft irrthümlicher methodischer Grundsätze sein Hemmnis findet: dann allerdings ist die Klarstellung der methodischen Probleme die Bedingung jedes weiteren Fortschrittes und damit der Zeitpunkt gekommen, wo selbst jene in den Streit über die Methoden einzutreten verpflichtet sind, welche ihre Kraft sonst lieber an die Lösung der eigentlichen Aufgaben ihrer Wissenschaft zu setzen geneigt sind.“

—Carl Menger (1883), Untersuchungen über die Methode der Sozialwissenschaften und der Politischen Oekonomie insbesondere, p. XII – XIII.

- Menger held the view that there are economic laws, completely unaffected by time and place, and that these economic laws were “exact” laws of reality; and that the method of the historical school was wrong in denying this, and that it was entirely unable to discover such economic laws.

3. The scientific starting point: *Epistemology*

EMPIRICISM VERSUS RATIONALISM

Nicolas Copernicus
1473 – 1543

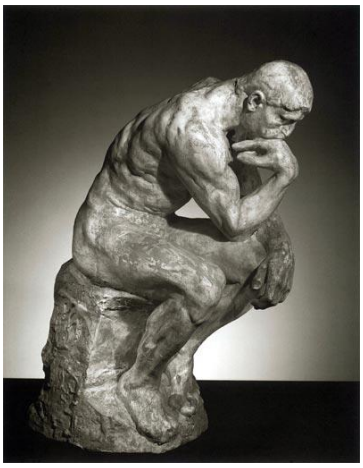
- Does the sun move around the earth (as your eyes would tell you)? Or is it the other way round: Does the earth move around the sun (which goes against what your eyes are telling you)?
- In 1543, Nicolas Copernicus published his epochal book *De revolutionibus orbium coelestium* (*On the Revolutions of the Celestial Spheres*), starting the scientific revolution.
- Copernicus formulated the *heliocentric model*: The observed motions of celestial objects can be explained *without* putting the Earth at rest in the center of the universe (as was implied by the *geocentric model*).
- Copernicus' work stimulated further scientific investigations, becoming a landmark in the history of science that is often referred to as the *Copernican Revolution*.
- If in *philosophy* we ask what something is, we enter the field of *metaphysics* (from Greek: *meta* = beyond, *physics* = nature).
- *Epistemology*, as a branch of philosophy, is the *theory of knowledge*, dealing with the sources, scope and limits of *human knowledge* and its validation. It deals with the question such as: *How do we know things*? *What can we know*?
- *Rationalism* grounds all our knowledge in *reason*, while *empiricism* traces all our knowledge back to *sensual experience*.
- *Empiricism* rose in the 18th century, basically in *opposition to rationalism*. It not only claims experience as the principle source of knowledge, it also claims that experience is the basis for *verifying knowledge claims*.

René Descartes
(1596 – 1650)

- To empiricists, basic experience (through the senses) provides us with all means that are necessary to recognize objects and occurrences outside us. As a result, there is no need to assume any *overarching principles* of reason (which would contain our highest knowledge).

- *Rationalism* (which begun with René Descartes (1596–1650) also expressed by Baruch Spinoza (1632–1677), Gottfried Wilhelm Leibniz (1646–1716) and, most importantly, Immanuel Kant (1724 – 1804)) was a process of *emancipation* from dogma, basically from medieval theology:

  ⟶ Everyone's *rational faculty* should be the sole authority and criterion of truth. Nothing in the explanation of (the unchanging principles of) the natural universe is to count as truth that can be doubted and is not clearly and distinctly perceived by *reason*.



- According to rationalism, our mental constitution itself yields knowledge: knowledge that does not come to us through experience but *derives solely from principles that we possess prior to experience*.

- By intuiting *self-evident propositions* and subsequently *deducing* additional information, reason – and not experience – provides us with our *highest knowledge*.

- Note that *rationalists* would not maintain that we cannot gain any knowledge from experience. But whenever one becomes *scientific* – that is whenever rules and laws are to be formulated that *apply universally* –, a rationalist would say that experience simply does not have the same validity as *deductive reasoning*.

ON THE IMPORTANCE OF THEORY

- A *scientific theory* is an attempt to achieve some form of systematic understanding of an aspect of the world of *experience* – typically expressed in the form of an explanatory power and predictive fertility.

  "Der Zweck der theoretischen Wissenschaften ist das Verständniss, die über die unmittelbare Erfahrung hinausreichende Erkenntniss und die Beherrschung der realen Welt. Wir verstehen die Erscheinungen durch Theorien, indem dieselben in jedem concreten Falle lediglich als Exemplificationen einer allgemeinen Regelmässigkeit vor unser Bewusstsein treten … ."

  —Menger (1883), Untersuchungen, p. 33.

  "Thinking and acting are inseparable. Every action is always based on a definite idea about causal relations. He who thinks a causal relation thinks a theorem. Action without thinking, practice without theory are unimaginable. The reasoning may be faulty and the theory incorrect; but thinking and theorizing are not lacking in any action."

—Mises (1996), Human Action, p. 177.

"[T]hinking is always thinking of a potential action. Even he who thinks of a pure theory assumes that the theory is correct, i.e., that action complying with its content would result in an effect to be expected from its teachings. It is of no relevance for logic whether such action is feasible or not."

—Mises (1996), Human Action, p. 177.

"There is no such thing as a mere recording of unadulterated facts apart from any reference to theories. As soon as two events are recorded together or integrated into a class of events, a theory is operative."

—Mises (1996), Human Action, p. 647.

- Employing a *theory* (an idea of putting together in a systematic fashion the knowledge one has of aspects of reality) is indispensable for observing "facts", as there is no 'presuppositionless observation of facts'. The notion of "letting the facts speak for themselves" (suggesting that one wouldn't use any theory for interpreting facts) is *nonsensical*.

- Take, for instance, the following two observations:

  1. In the 20 years, the fiat money supply rose 200 percent, while real GDP increased 50 percent.
  2. In the last decades, government tax revenues rose from 10 percent to 50 percent of GDP, while per capita income increased 40 percent.

  ⟶ To know what money, real GDP, government, taxes and per capita income are, we have to take recourse to a theory in the first place.

  ⟶ Questions: Did real GDP increase *because* of a rise in the fiat-money supply, or did real GDP go up *despite* a rise in the fiat-money supply? Likewise: Did real GDP increase because *or* despite a rise in taxes? Note that data is logically compatible with any of these rival interpretations, one has no way of deciding in favour of one or the other.

- Or take the following theory:

  War and imperialism are the result of the capitalist free-enterprise system, or capitalism. The entrepreneurs' search for profit makes the working class to receive less for its contribution to production than its due. The working class is unable to buy all the goods it has helped to produce. The result is either a decline in production in the domestic market; or, as domestic consumption and investment opportunities stagnate, a search for and violate

opening up of new markets elsewhere. The outcome of capitalism is therefore either domestic recession and unemployment or imperialism and war.

If this (Marxist) theory is correct, and if unemployment and war shall be avoided, capitalism has to be eliminated (and socialism established). But *how do we know that this theory is correct?* Or: *Can we know that this theory is correct or false without putting it to a test (that is making a social experiment)?*

- "If one is to make a rational choice among such rival and incompatible interpretations, this is only possible if one has a *theory* at one's disposal, or at least a *theoretical proposition*, whose validity does not depend on historical experience but can be established *a priori*, i.e., one and or all by means of the *intellectual apprehension or comprehension of the nature of things*."

  —Hoppe (2006), Introduction to: Democracy – The God that failed, p. xv.

- *A priori theory* means that there are propositions (knowledge) about reality which can be validated independent of experience. Consider the following examples:
  —No two objects can occupy the same place.
  —Whatever is green all over cannot be red all over.
  —Objects are extended.
  —If *A* is part of *B*, and *B* is part of *C*, then *A* is part of *C*
  —The laws of thought:
  (1) *The principle of identity*: If anything is *A*, it is *A*; nothing can be *A* and not *A*.
  (2) *The principle of contradiction* says that if any proposition is true, it is true; it says that no proposition can be true and not true (false).
  (3) *The principle of the excluded middle*: Any proposition must be either true or false.

  "By the very laws of thought, again, no thing or class of things can be thought of but by separating them from other existing things from which they differ. I cannot use the term mortal without at once separating all existing or conceivable things into the two groups mortal and immortal; metal, element, organic sub-stance, and every other term that could be mentioned, would necessarily imply the existence of a correlative negative term, non-metallic, compound, inorganic substance, and in this respect therefore every term is undoubtedly relative."

  —Jevons (1888), Elementary Lessons in Logic, p. 26.

- *A priori theory* (*apriorism*) provides us with *universally valid knowledge* about reality, knowledge that can be validated independent of experience. The key question for us is therefore: Is *a priori* theory possible in the *social science*, that is in *economics*?

4. Positivism, empiricism and historicism – a critique

SUGGESTED READINGS: Hayek, F. A. v. (1972 [1952]), The Counter-Revolution of Science, Studies On The Abuse of Reason, Liberty Fund, pp. 213 – 262; Hoppe, H.-H. (2006), On Praxeology and the Praxeological Foundation of Epistemology, in: The Economics and Ethics of Private Property, Ludwig von Mises Institute, Auburn, US Alabama, pp. 265 – 278.

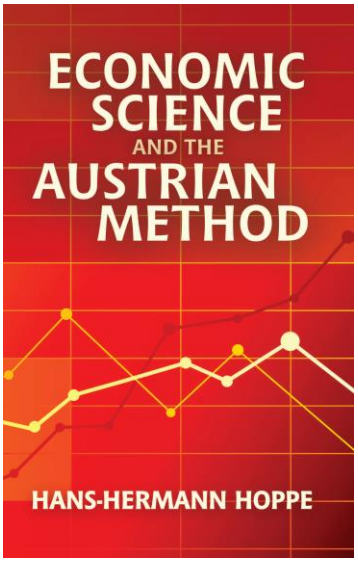
POSITIVISM

- *Positivism* is closely associated with *Auguste Comte* (1798–1857), who was, at least initially, a follower of Count *Henri de Saint-Simon* (1760–1825).

  As Hayek (1972) noted: In 1803, Saint-Simon published the *Lettres d'un habitant de Genève à ses contemporains*. In it, he proposed a subscription should be opened before the tomb of Isaac Newton to finance the project of a great "Council of Newton". Each subscriber should have the right of nominating three mathematicians, three physicists, three chemists, three physiologists, three *littérateures*, three painters, and three musicians. This group of 21 should become the representatives of God on earth. The council, which was to basically rule the world along the lines of scientific methods, would be presided over by the mathematician who received the largest number of votes. Saint-Simon's instruction culminates in the following sentence: "All men will work; they will regard themselves as labourers attached to one workshop whose efforts will be directed to guide human intelligence according to my divine foresight. The supreme Council of Newton will direct their works." His "new social organization" was, so to speak, a precursor of modern day's socialism.

- Positivism is a *philosophy of science*. It holds that (1) sense experience is the only (and measurable) source of human knowledge; (2) that knowledge can come only from affirmation of theories through the *scientific method*; and that (3) the validity of metaphysical speculation must be rejected.

- In the early 20th century, *logical positivism* sprang up in Vienna and grew to become one of the dominant movements in American and British philosophy. It is an absolutist way of looking at statements and labeling them as either *true*, *false* or *meaningless*. A central element of logical positivism is that it rejected statements about *ethics* and *aesthetics* as being unverifiable, and therefore not a part of serious philosophical thinking.



- The positivist view is sometimes referred to as a *scientistic ideology*, and is often shared by *technocrats* who believe in the *necessity of progress through scientific progress*, and by naturalists, who argue that any method for gaining knowledge should be limited to natural, physical, and material approaches.

EMPIRICISM

- *Empiricism* (as applied in the field of *social sciences*) considers *natural sciences* to be its model and, when applied to economics, can be characterised as follows:

  — Empiricism maintains that economic propositions have the same logical status as *laws of nature*, and it states *hypothetical relationships* between two or more events, essentially in the form of *if-then statements*.

  — It maintains that economic propositions require continual testing vis-à-vis experience. They can never be validated once and for all with certainty, as the economic hypothesis is forever subject to the outcome of contingent, future experience.

  ⟶ If data testing *confirms* the hypothesis, empiricism would say that it is *not validated* (once and for all), as there remains the possibility that the relationship(s) under review might be *falsified* by future experience (using new data and/or including explanatory variables which were hitherto "uncontrolled" for).

  ⟶ If, however, data testing suggests a rejection of the hypothesis, it would not prove that the hypothesised relationship could never be observed through future testing, so it is *not falsified* either.

- Empiricism is expressive of *scepticism*, which can be formulated as: *nothing can be known with certainty, and anything might be possible in the realm of economics*; it leads to a philosophy of *social and economic relativism*. Perhaps most prominently, David Hume (1711–1776) rejected the notion of *causality*. He stated that even if we observe one event continually following another, we cannot conclude a *necessary connection* between the two (*post hoc, ergo propter hoc fallacy*).

- There is an even more severe problem with empiricism. Upon closer examination it can be shown that *empiricism* is a *self-contradictory doctrine*:

  — The empiricist proposition that *all economic events are only hypothetically related* is contradicted by the message of the basic empiricist proposition itself.

  ⟶ If we assume that the empiricist claim is *categorically true*, it would belie its own thesis, namely that empirical knowledge must invariably be hypothetical knowledge – thereby making room for a discipline as economics claiming to produce a priori valid (empirical) knowledge.

  ⟶ If, however, this proposition is regarded as itself being *hypothetically true*, it would not qualify as an epistemological pronouncement. Empiricism would not provide any

justification whatsoever for its claim that economic propositions are not, and cannot, be *categorically* (or *a priori*) true.

—Empiricism conceives of economic data as *objective data*, extending in time and space and being subject to quantifiable *measurement*. Note, however, that measuring cannot be observed in the first place. One has to know what measuring is before one can actually do something called measuring.

⟶ One cannot observe someone making an observation or measurement as such in the first place. In fact, one must first *understand* what observations and measurements are, and only *thereafter* one is in a position to interpret these phenomena accordingly.

⟶ As a result, empiricism must acknowledge that there is empirical knowledge which is based on *understanding* – something which does not, and cannot, rest on empiricism itself.

CONSTANCY PRINCIPLE

- There is another important reason why empiricism is a *self-contradictory*, self-defeating, *doctrine*: It tacitly assumes the existence of non-empirical knowledge as *non-hypothetical knowledge about reality*, and that is the *constancy principle*.

  The *constancy principle* says that observable phenomena are in principle determined by causes which are *constant* and *time-invariant* in the way they operate. It is a prerequisite for being able to falsify or confirm a theory:

  "Only if the constancy principle is assumed to be valid does it follow from any failure to reproduce a result that there is anything wrong with the original hypothesis."

  —Hoppe (2006), Is Research Based on Causal Scientific Principles Possible in the Social Sciences?, p. 298.

	Hypothesis: M↑ ⟶ P↑		
	Obervations:		
Periods	M	P	Results
t_1	↑	↑	confirmed
t_2	↑	↑	confirmed
t_3	↑	↓	falsified
t_4	↑	unchanged	falsified

—Experience only reveals that two or more observations regarding the temporal sequence of events can be classified as "repetition" or as "non-repetition". To either confirm or falsify a hypothesis, one has to assume that there are *constant causes* which operate in *time-invariant ways*. Without assuming the *constancy principle*, the obser-

vations are, and remain, non-repetitive registered experiences, not in any way related events.

- The constancy principle cannot be derived from experience, nor can it be disproved by experience:

  ⟶ The *constancy principle* cannot be derived from experience (as empiricism would need to claim). There is simply *no observable link* that would connect events (and this has been known since David Hume). Even if such a *link* were observable, one could not conclude from this whether or not the link was *time-invariant*.

  ⟶ The *constancy principle* cannot be disproved by experience. Any event which might appear to disprove it (such as a failure to duplicate some experience) could be interpreted as if experience had shown that merely one *particular* type of event was not the cause of another (otherwise the experience would have been successfully repeated). However, to the extent that experience cannot exclude the possibility that *another* set of events might be found which would turn out to be time-invariant in its way of operating, the validity of the constancy principle cannot be disproved.

HISTORICISM

- *Historicism* was the (pseudo-)scientific method of the *(younger) historical school*, and "Whoever has undertaken to present the teachings of historicism in a coherent form has generally been unable to avoid revealing, at some point in the process, the impossibility of systematically developing the doctrine."

  —Mises (2003), Epistemological Problems of Economics, p. 7.

  "The fundamental thesis of historicism is the proposition that, apart from the natural sciences, mathematics, and logic, there is no knowledge but that provided by history. There is no regularity in the concatenation and sequence of phenomena and events in the sphere of human action. Consequently the attempts to develop a science of economics and to discover economic laws are vain."

  —Mises (2007), Theory and History, p. 199.

- Historicism can be characterized as *subjectively interpretating a literary text*. It basically says that nothing in the historical account, and nothing in the sequence of historical events, is governed by *constant, time-invariant relations*. Economic events are whatever economists or historians (taking a subjective view) express or interpret them to be.

⟶ According to historicism, human actions (economic phenomena) and their interpretation are not constrained by any kind of *regularity*, of *objective law* (such as, for instance, the law of diminishing marginal utility).

- Claiming that economic and historical events – which are sequences of subjectively perceived events – are not governed by any constant, time-invariable relations, historicism cannot claim to say anything constantly true about economics and history. In fact, historicism leads to *arbitrary statements* that have a *fleeting value*.

  ⟶ The historicist proposition is that a certain historically observed historical or economic relation may be true on one occasion, yet it may possibly be false one another occasion. If this is the case, however, historicism must be assumed to be constrained by something outside the realm of arbitrary subjective creations:

  — If the historicist proposition is assumed to be *invariably true*, then such a proposition about historical or economic phenomena would contradict its own doctrine – which actually denies any such constant relationships.

  — If, however, historicism holds that economic phenomena are *not* governed by constant, time-invariable relations, then this very proposition cannot claim to say anything constantly true about history and economics.

A note on Karl R. Popper's *critical rationalism*

- Karl Raimund Popper (1902 – 1994) rejects *induction* as a scientific method for gaining knowledge. He proposes a continuous process of conjecture and refutation; this is what he calls *critical rationalism.*

  Note that the fundamental *problem of induction* is this: For logical reasons, there is no valid inference from particular to general. If your observation is that *all* swans are white, you *cannot* conclude that there are *only* white swans in this world.

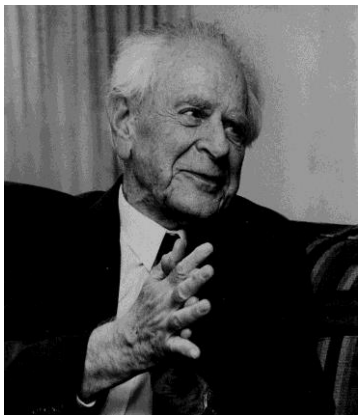
  ⟶ Induction cannot be justified *a priori* or *a posteriori*.

- Critical rationalism maintains that *one can never verify a hypothesis, at best one can falsify it*. Scientific progress is achieved by "trial and error", that is replacing falsified theories with non-falsified theories:

  "The way in which knowledge progresses, and especially our scientific knowledge, is by unjustified (and unjustifiable) anticipations, by guesses, by tentative solutions to our problems, by conjectures. These conjectures are controlled by criticism; that is, by attempting refutations, which include severely critical tests. They may survive these tests;

but they can never be positively justified: they can be established neither as certainly true nor even as 'probable' (in the sense of the probability calculus)."

— Popper, K. R. (2002 [1963]), Conjectures and Refutations, Routledge Classics, London, New, Routledge Classics, London, New York, p. xi.



Karl Raimund Popper
1902 – 1994

- How can the truth claim be justified that one cannot verify a hypothesis but only fail to falsify it? Popper makes use of *modus tollens* (which means: If *p*, then *q*. Not-*q*. Therefore, not-*p*).

- Popper's *falsificationism* claims that (i) knowledge about reality comes from observation; (ii) that the truth claim of theories has to be evaluated on the basis of observation, and (iii) that all knowledge of reality is only hypothetically true (thereby denying *a priori* knowledge of reality).

CRITIQUE

⟶ Falsificationism is grounded in *empiricism* – and as such subject to criticism levelled against empiricism (except for the *induction problem*). This concerns, for instance, the view that all knowledge comes from sensory experience.

⟶ It is an indisputable insight that there is no "pure" observation, or experience. Any observation is (and must be) *theory dependent*. As theory pre-determines observation, the question arises: *How do (or can) we know that the theory, which (pre-)determines observation, is correct?*

⟶ To make it even more difficult: Given that (correct) *theories change over time* (something falsificationists wouldn't deny), observations must change over time, too. Observations are therefore not time-invariant if and when theories change.

⟶ As far as human action is concerned, (repeatable) experiments (Popper calls them *protocol sentences*) – which are possible to conduct in natural sciences) are impossible. There are simply no repeatable (homogeneous) human actions.

- Hoppe places Popper(ianism) right in the positivistic-empiricist camp:

"Popper is in complete agreement with the fundamental assumptions of empiricism (…) and explicitly rejects the traditional claims of rationalism, i.e. of being able to provide us with a priori true empirical knowledge in general and an objectively founded ethic in particular."

> "In fact, it is only fair to say that it is Popper who contributed more than anyone else to persuading the scientific community of the modernistic, empiricist-positivist worldview."
> —Hoppe, H.-H., In Defence of Extreme Rationalism: Thoughts on Donald McCloskey's *The Rhetoric of Economics*, in: The Review of Austrian Economics, Vol. 3, No. 1, footnote 18, p. 208.

Immanuel Kant's Critique of Pure Reason

SUGGESTED READINGS: *Kant, I.* (2007), Critique of Pure Reason [first published in Germany in 1781, 1787], New Translation, Penguin Classics; in particular the foreword by M. Weigelt, pp. xv – lxxvi.

When Immanuel Kant (1724–1804) had established himself academically, *rationalism* had become a laughing stock among *the members of the science scene*. *Empiricism* had become state of the art in science.

Immanuel Kant, taken from P. Carus, Kant's Prolegomena, 1949

- On the one hand, it is true that the *laws of nature* cannot be based on *pure reason*, on mere deductive logical thinking. It is, for instance, by no necessity of reason that water freezes at zero degree celsius; such knowledge is gained through experience.

- On the other hand, however, the empiricist doctrine implies an *intolerable scepticism*: it claims that (a large number of) our beliefs about the natural world would be either simply false or at least unjustified – such as, for instance, the idea of God, the unchanging morality determined by reason, the concept of human freedom, etc. –, none of which could be proved if sensory experience would be accepted as the sole basis of our knowledge).

  ⟶ Empiricists surrender the *principle of causality*, which says that *all alterations take place according to the law of the connection of cause and effect*. They would say that for all the human eye ever *observes* when things change is a *succession* of their different states. Causality, the necessity in this succession, is *merely assumed*.

- Kant tried to solve the *epistemological dispute between rationalism and empiricism* by showing that our knowledge of objects (*natural reality* in general) does *not* depend on the objects themselves, but that *empirical objects depend on our knowledge of them*.

- Kant's *transcendental investigation* deals with the *conditions of our knowledge*: it investigates the *principles of reason* insofar as they provide the rules which govern our experience and knowledge of objects. In his *transcendental idealism*, Kant goes far beyond the alternatives of rationalism and empiricism, and remains equidistant from both.

⟶ It is Kant's idea that on the basis of a transcendental investigation we can establish a pure science, which formulates *absolutely true laws of empirical nature contained in the principles of reason*.

- *Judgements* (Urteile) are the form in which we express our knowledge (*declarative sentence*), and they establish objectively valid relations with objects. According to Kant, we can distinguish the following kinds of judgements:

  — *a priori* judgements – they express knowledge that is acquired prior, or independently, to experience.

  — *a posteriori* judgements – they expresses knowledge acquired on the basis and result of experience.

  — An *analytical judgement* is a judgement which content is restricted to what is already contained in the definition of the concept, to what we already know when we use that concept.

  — A *synthetic judgement* is a judgement about an object that provides information which is not contained in the concept of that object.

	Analytical	synthetic
A priori	(1)	(3)
A posteriori	(2)	(4)

- *Analytical judgements* should be *a priori*. For instance, for knowing that a bachelor is unmarried, we do not have to consult experience. Or: Bodies are extended. We do not need to go beyond the concept which we connect with the body in order to find that bodies are extended.

  "Propositions are analytic whenever the means of formal logic are sufficient in order to find out whether they are true or not; otherwise propositions are synthetic ones. And propositions are a posteriori whenever observations are necessary in order to establish their truth or at least confirm them. If observations are not necessary then propositions are a priori."

  —Hoppe (2007), The Austrian Method, pp. 17-8.

- A *synthetic judgement*, which should be *a posteriori*, is, for instance, that water freezes at zero degrees celsius. It is not something which can be derived from the concept of water but only from empirical observation; the *predicate* adds information which was not thought in the concept before, thereby yielding a *synthetic a posteriori judgement*.

- Kant explores the *conditions of the possibility of synthetic a priori judgements* – judgements that neither repeat the meaning of the concept tautologically nor express new information about the object on the basis of experience.

- Kant claims that there are judgements which are both *synthetic* and *a priori*:

  "[T]he features that the mind possesses *a priori* to confront all sensory experience and to shape all empirical knowledge can be expressed in such judgments, and they tell us something about the nature of the empirical world as the result of reason investigating itself."

  —Weigelt M. (2007), Introduction, p. xxxvi.

- Kant's *transcendental investigation* (the philosophical self-reflection of ourselves as knowing subjects) is about (i) spelling out synthetic a priori judgements and (ii) explaining how they should be possible. How can we discover a synthetic a priori judgement, then? The answer is that a synthetic a priori judgement must fulfil two requirements:

  — *First*, it must be possible to demonstrate that the judgements is *not derived from experience* (observational evidence), as the latter can only reveal things as they happen; there is nothing in it that would indicate why things must be the way they are – observational evidence cannot establish universally valid laws (*necessity requirement*).

  — *Second*, reflective understanding must yield judgements as *self-evident material axioms*. What makes a self-evident material axiom is the fact that no one can deny its validity *without self-contradiction*, for attempting to deny them one already presupposes its validity (*universality requirement*).

- Mises *re*constructed the science of economics, making it an *a priori science of human action* (in German it is: *a priori Handlungswissenschaft*).

  "Science does not give us absolute and final certainty. It only gives us assurance within the limits of our mental abilities and the prevailing state of scientific thought."

  —Mises (1996), Human Action, p. 7.

5. Mises's scientific method: *Praxeology*

SUGGESTED READINGS: *Rothbard M. N.* (2001 [1962]), Man, Economy, and State, A Treatise on Economic Principles, Ludwig von Mises Institute, Auburn, US Alabama, pp. 1 – 33; *Hoppe, H.-H.* (2006), On Praxeology and the Praxeological Foundation of Epistemology, in: The Economics and Ethics of Private Property, 2nd ed., Ludwig von Mises Institute, Auburn, US Alabama, pp. 265 – 294.

Praxeology

- *Praxeology* is the science of human action, and *economics* is the best developed *subdivision* of praxeology.

  "Praxeology is a theoretical and systematic, not a historical, science. … Its statements and propositions are not derived from experience. They are, like those of logic and mathematics, a priori."

  —Mises (1996), Human Action, p. 32.

- Mises's scientific method takes as its fundamental premise the existence of the *axiom of human action*:

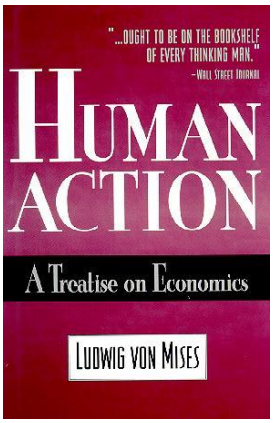
  "All human beings act by virtue of their existence and their nature as human beings. (…). It is this fundamental truth—this axiom of human action—that forms the key to our study. The entire realm of praxeology and its best developed subdivision, economics, is based on an analysis of the necessary logical implications of this concept."

  —Rothbard, M. N. (2001), Man, Economy, and State, p. 1.

- The *axiom of action* is a self-evident, it is irrefutably true: Its truth value cannot be denied, as denying it would itself have to be categorized as an action. The axiom of human action is *a priori* true:

  "Aprioristic reasoning is purely conceptual and deductive. It cannot produce anything else but tautologies and analytical judgements. All its implications are logically derived from the premises and were already contained in them."

  —Mises (1998), Human Action, p. 38.



- Once it is demonstrated that *action* is a necessary attribute of the existence of human beings, the rest of praxeology (and its subdivision, economic theory) consists of the elaboration of the *logical implica-*

tions of the axiom of action. From the *praxeological viewpoint, economic analysis* is of the form:

(1) Assert *A*—*action axiom*.

(2) If *A*, then *B*; if *B*, then *C*; if *C*, then *D*, etc.—by rules of *logic*.

(3) Therefore, we assert (the truth of) *B*, *C*, *D*, etc.

- The relationship and the distinction between *praxeology* and other *scientific disciplines* may described as follows:

  (i) Why man chooses various ends: *psychology*.
  (ii) What men's ends should be: *philosophy of ethics* (also: philosophy of aesthetics).
  (iii) How to use means to arrive at ends: *technology*.
  (iv) What man's ends are and have been, and how man has used means in order to attain them: *history*.
  (v) Elaborating the logical implications of the axiom of human action: *praxeology*.

- According to Hoppe, Mises demonstrated, in the tradition of the epistemological approach of *Immanuel Kant, the existence of true synthetic a priori propositions in the field of economics*.

- "It is one of Mises's greatest achievements to have shown precisely that there are insights implied in this psychologically speaking trivial axiom of action that were not themselves psychologically self-evident as well; and that it is these insights which provide the foundation for the theorems of economics as true a priori synthetic propositions."

  —Hoppe (2007), The Austrian Method, p. 61.

  Note that an *a priori synthetic proposition* has to meet two requirements: (1) *it is not derived from observation* but from inner reflection and (2) one cannot deny it without causing an inescapable contradiction. The axiom of human action – that is the proposition that humans act, that they display intentional behaviour – meets these requirements, as Hoppe (2007) points out:

  — The *axiom of action is not derived from observation*: One can only observe bodily movements, but no such thing as action. The axiom of action stems from reflective understanding (*transcendental investigation*).

  — The *axiom of action is a self-evident proposition*: Its truth cannot be denied, since denying it would itself have to be categorized as an action.

The *categories* of human action

Rothbard M. N. (2001 [1962]), Man, Economy, and State, A Treatise on Economic Principles, Ludwig von Mises Institute, Auburn, US Alabama, pp. 1 – 33.

- The *axiom of human action* means that humans act; it is impossible to think otherwise. For it is impossible to deny the truth value of the statement "Humans act" without causing an intellectual contradiction (denying is a form of human action).

  ⟶ Acting means to substitute a more satisfactory state of affairs for a less satisfactory state of affairs.

  "Action does not necessarily mean that the individual is "active" as opposed to "passive". … Action does not mean that an individual must stop doing what he has been doing and do something else. He also acts … who chooses to continue in his previous course, even though the opportunity to change was open to him."

  —Rothbard, M. N. (2001), Man, Economy, and State, p. 5.

- THE PREREQUISITES OF HUMAN ACTION. – The prerequisite of any human action is: (1) *uneasiness*, or *dissatisfaction*, (2) an image of a more satisfactory state of affairs, and (3) the expectation that purposeful behaviour has the potential to remove felt uneasiness.

  "In order to institute action, it is not sufficient that the individual man have unachieved ends that he would like to fulfil. *He must also expect that certain modes of behavior will enable him to attain his ends*. A man may have a desire for sunshine, but if he realizes that he can do nothing to achieve it, he does not act on this desire. He must have certain *ideas* about how to achieve his ends."

  —Rothbard (2001), Man, Economy, and State, p. 3.

  ⟶ A note on the issue of *indifference*: "Indifference can never be demonstrated by action. Quite the contrary. Every action necessarily signifies a choice, and every choice signifies a definite preference. Action specifically implies the contrary of indifference."

  —Rothbard (2002 (1956)), Toward a Reconstruction of Utility and Welfare Economics p. 14.

- ACTION IS PURPOSEFUL BEHAVIOUR. – One of the implications which can be logically deduced from the irrefutably true axiom of human action is that *human action is purposeful* (or: conscious) action: *action is directed at attaining certain ends*.

⟶ The insight that human action is purposeful action is not related to *psychology*. The latter aims at explaining the workings of the mind of a person and the motives that lead him to take action. *Praxeology* is strictly confined to the logic of human action.

Is it possible to draw an exact line between purposeful and non-purposeful action? *Yes*, it is: Human action is sharply distinguishable from those observed movements which, from the point of view of man, are not purposeful. The latter include all the observed movements of inorganic matter and those types of human behavior that are purely reflex, that are involuntary responses to certain stimuli.

"People are sometimes prepared to believe that the boundaries between conscious behavior and the involuntary reaction of the forces operating within man's body are more or less indefinite. This is correct only as far as it is sometimes not easy to establish whether concrete behavior is to be considered voluntary or involuntary. But the distinction between consciousness and unconsciousness is nonetheless sharp and can be clearly determined."

—Mises (1996), Human Action, p. 11.

We cannot deny that human action is *purposeful* action:

"[I]t would simply be silly to deny the fact that man manifestly behaves as if he were really aiming at definite ends. Thus the denial of purposefulness in man's attitudes can be sustained only if one assumes that the choosing both of ends and of means is merely apparent and that human behavior is ultimately determined by physiological events which can be fully described in the terminology of physics and chemistry. Even the most fanatical champions of the 'Unified Science' sect shrink from unambiguously espousing this blunt formulation of their fundamental thesis. There are good reasons for this reticence. So long as no definite relation is discovered between ideas and physical or chemical events of which they would occur as the regular sequel, the positivist thesis remains an epistemological postulate derived not from scientifically established experience but from a metaphysical world view."

—Mises (2007), Theory and History, p. 3.

- ONLY INDIVIDUALS ACT. – Human action can be undertaken only by *individual actors*. Only individuals have ends and can act to attain them. There are no such things as ends of or actions by *groups*, *collectives*, or *states* – as the latter are expressive of actions by various specific individuals; *collectives* have no independent existence. The idea that all economic issues can be traced back to the acting individual is called *methodological individualism*.

- MEANS AND ENDS. – The *means* to satisfy man's wants, or ends, are called *goods*. Goods are scarce and thus subject to economizing action.

—In human actions, means *must* be employed for achieving certain ends.

—Means are not given as such. Something becomes a means when human reason plans to employ it for the attainment of some end and human action really employs it for this purpose.

—Means which can satisfy wants only indirectly (when complemented by cooperation of other goods) are called *producers' goods* or *goods of a higher order*. Goods that satisfy human wants directly (whose serviceableness does not depend on the cooperation of other goods) are called *consumers' goods* or *goods of the first order*.

- SCARCITY. – *Means are scarce*; they are limited with respect to the ends that they could possibly serve. If something is available in unlimited supply, it is not a means and would not need to serve as the object of attention of any human action.

  — As means a scarce, action implies *choosing* which end shall be satisfied by the employment of the means; some ends can be satisfied, while others must go unfulfilled. The actor *economizes* the means to serve the most desired ends.

  ⟶Time, for example, must always be economized by the actor to serve the most desired ends.

  —The actor may be interpreted as *ranking* his alternative ends in accordance with their value to him. The *choice* of which *ends* to include in the value scale, and the assignment of *rank* to the various ends, constitute *valuation*. Each time the actor ranks and chooses between various ends, he is making a *value judgment*.

  — Whenever an actor has attained a certain end, he has increased his state of satisfaction (*happiness* or *welfare* or *utility* or *satisfaction* or *contentment*). Conversely, when someone considers himself worse off, as fewer of his ends are being attained, his satisfaction (happiness, welfare, etc.) has decreased.

  — Scales of preference *differ for each person*, both in their content and in their orders of preference. Furthermore, they may well differ for the same individual at different times.

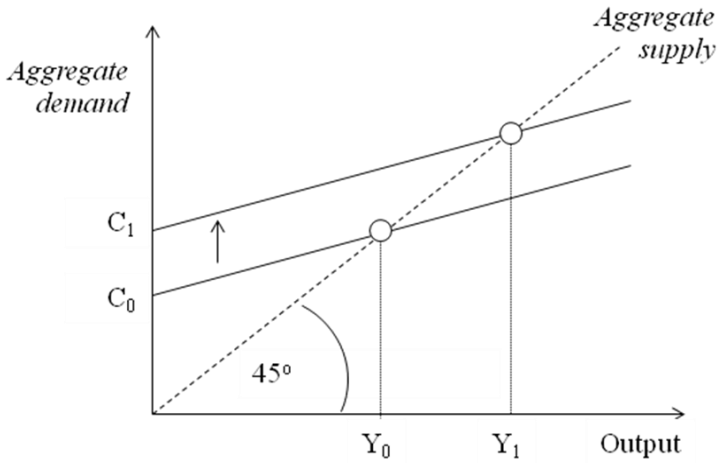
  — How do we know that it follows from the *axiom of action* that an actor always will act on attain his *most highly valued end*?

  "[T]he scale of values or wants manifests itself only in the reality of action. These scales have no independent existence apart from the actual behaviour of individuals. The only source from which our knowledge concerning these scales is derived is the

observation of a man's action. Every action is always in perfect agreement with the scale of values or wants because these scales are nothing but an instrument for the interpretation of a man's acting."

—Mises (1996), Human Action, p. 95.

- *Digression: The Keynesian world of no scarcity*. – What does the *45° line* in the aggregate-demand-output-space mean? It means that there is no scarcity. It implies that all what is demanded can be supplied. In fact, all economic problems are demand side problems. If overall output is lower than desired, just *increase demand* (by fiscal and/or monetary policies), the Keynesians tell us. If the private sector doesn't demand enough, make the *government* demand more goods and services for increasing output and creating jobs.



- UNCERTAINTY. – "Another fundamental implication derived from the existence of human action is the *uncertainty of the future*. This must be true because the contrary would completely negate the possibility of action. If man knew future events completely, he would never act, since no act of his could change the situation. Thus, the fact of action signifies that the future is uncertain to the actors."

—Rothbard (2001), Man, Economy, and State, p. 5.

Uncertainty about future events stems from two basic sources: "[T]he unpredictability of human acts of choice, and insufficient knowledge about natural phenomena. Man does not know enough about natural phenomena to predict all their future developments, and he cannot know the content of future human choices. All human choices are continually changing as a result of changing valuations and changing ideas about the most appropriate means of arriving at ends."

—Rothbard (2001), Man, Economy, and State, p. 5-6.

This does not mean, of course, that people do not try their best to estimate future developments: "Indeed, any actor, when employing means, estimates that he will thus arrive at

his desired goal. But he never has certain knowledge of the future. All his actions are of necessity *speculations* based on his *judgment* of the course of future events. The omnipresence of uncertainty introduces the ever-present possibility of *error* in human action. The actor may find, after he has completed his action, that the means have been *inappropriate* to the attainment of his end."

—Rothbard (2001), Man, Economy, and State, p. 6.

On (imperfect) uncertainty

Note that from the fact that we live in a *world of uncertainty* it does *not* follow that human beings live in a world of *perfect* uncertainty, that is a world with no certainty at all. The idea of *certain knowledge* requires, as its logical counterpart, the idea of *uncertainty*:

— Certainty is defined in contrast to uncertainty, and therefore not everything can be certain.
— Likewise, uncertainty cannot be defined without reference to certainty, and therefore not all knowledge can be uncertain.

The idea of *perfect* uncertainty is therefore either openly contradictory or entails an implicit contradiction:

— "Everything about the future is uncertain except that the future will be uncertain – and this we know for certain." This statement is an open contradiction. Or:

— "Everything is uncertain, and there is nothing but uncertainty, and this is uncertain, too." This statement is an implicit contradiction.

- ACTION TAKES PLACE IN TIME. – "All human life must take place *in time*. Human reason cannot even conceive of an existence or of action that does not take place through time. At a time when a human being decides to act in order to attain an end, his goal, or end, can be finally and completely attained only at some point *in the future*. If the desired ends could all be attained instantaneously in the present, then man's ends would all be attained and there would be no reason for him to act; and we have seen that action is necessary to the nature of man. All action aims at rendering conditions at some time in the future more satisfactory for the actor than they would have been without the intervention of the action."

—Rothbard (2001), Man, Economy, and State, p. 3.

"A man's *time is always scarce*. He is not immortal; his time on earth is therefore limited. Each day of his life has only 24 hours in which he can attain his ends. Furthermore, all actions must take place through time. Thus, time is a *means* that man must use to arrive at his ends. It is a means that is omnipresent in all human action."

—Rothbard (2001), Man, Economy, and State, p. 3-4.

Time is *scarce* for man because whichever ends he chooses to satisfy, there are others that must remain unsatisfied. When using a means some ends remain unsatisfied, and the necessity for a *choice among ends* arises.

- TIME PREFERENCE is always positive. – As noted earlier, *time* is omnipresent in human action as a means that must be *economized*.

  — A fundamental and constant truth about human action is that *man prefers his end to be achieved in the shortest possible time*: The actor prefers an earlier want satisfaction over a later want satisfaction – because time is *always scarce*, it needs to be economized. *The less waiting time, the more preferable it is for him*.

  "Time preference may be called the preference for present satisfaction over future satisfaction or present good over future good, provided it is remembered that it is the same satisfaction (or "good") that is being compared over the periods of time. Thus, a common type of objection to the assertion of universal time preference is that, in the wintertime, a man will prefer the delivery of ice the next summer (future) to delivery of ice in the present. This, however, confuses the concept "good" with the material properties of a thing, whereas it actually refers to subjective satisfactions. Since ice-in-the-summer provides different (and greater) satisfactions than ice-in-the-winter, they are not the same, but different goods. In this case, it is different satisfactions that are being compared, despite the fact that the physical property of the thing may be the same."

  —Rothbard (2001), Man, Economy, and State, p. 15-6 (footnote 15).

- THE "ORIGINARY INTEREST RATE. – Time preference, as a category of human action, manifests itself in the phenomenon of *originary interest* (or: the "natural interest rate"). The originary interest rate is the result of a value differential: It is the discount of future goods as against present goods. (It will be discussed in more detail in chapter 15.)

- THE LAW OF MARGINAL UTILITY. – The *law of marginal utility* is not a psychological law (of want satisfaction), it is a *logical law*. It reads as follows:

"There are … two laws of utility, both following from the apodictic conditions of human action: first, that *given the size of a unit of a good, the (marginal) utility of each unit de-*

creases as the supply of units increases; second, that the (marginal) utility of a larger-sized unit is greater than the (marginal) utility of a smaller sized unit. The first is the law of diminishing marginal utility. The second has been called the law of increasing total utility. The relationship between the two laws and between the items considered in both is purely one of rank, i.e., ordinal."

—Rothbard, M. N. (2001), Man, Economy, and State, p. 314.

The law of diminishing marginal utility is *self-evidently true*:

"The law of marginal utility and decreasing marginal value is independent of Gossen's law of the saturation of wants (first law of Gossen). In treating marginal utility we deal neither with sensuous enjoyment nor with saturation and satiety. We do not transcend the sphere of praxeological reasoning in establishing the following definition: We call that employment of a unit of a homogeneous supply which a man makes if his supply is *n* units, but would not make if, other things being equal, his supply were only *n*–1 units, the least urgent employment or the marginal employment, and the utility derived from it marginal utility. In order to attain this knowledge we do not need any physiological or psychological experience, knowledge, or reasoning. It follows necessarily from our assumptions that people act (choose) and that in the first case acting man has *n* units of a homogeneous supply and in the second case *n*–1 units. Under these conditions no other result is thinkable. Our statement is formal and aprioristic and does not depend on any experience."

—Mises (1996), Human Action, p. 124.

What we know from praxeology

"Human action is an actor's purposeful pursuit of valued ends with scarce means. No one can purposefully not act. Every action is aimed at improving the actor's subjective well-being above what it otherwise would have been. A larger quantity of a good is valued more highly than a smaller quantity of the same good. Satisfaction earlier is preferred over satisfaction later. Production must precede consumption. What is consumed now cannot be consumed again in the future. If the price of a good is lowered, either the same quantity or more will be bought than otherwise. Prices fixed below market clearing prices will lead to lasting shortages. Without private property in factors of production there can be no factor prices, and without factor prices cost-accounting is impossible. Taxes are an imposition on producers and/or wealth owners and reduce production and/or wealth below what it otherwise would have been. Interpersonal conflict is possible only if and insofar as things are scarce. No thing or part of a thing can be owned exclusively by more than one person at a time. Democracy (majority rule) is incompatible with private property (individual ownership and rule). No form of taxation can be uniform (equal), but every taxation involves the creation of two distinct and unequal classes of taxpayers versus tax receiver-consumers. Property and property titles are distinct entities, and

an increase of the latter without a corresponding increase of the former does not raise social wealth but leads to a redistribution of existing wealth."

—Hoppe (2001), Democracy: The God That Failed, pp. xvii.

Methodological dualism

SUGGESTED READINGS: Mises, L. v. (2007 [1957]), Theory and History, Ludwig von Mises Institute, Auburn, US Alabama; Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, San Francisco, pp. 17 – 19.

- According to Mises's *methodological dualism*, human action must be analysed with a method that is radically *different from natural sciences* (such as, for instance, physics).

- "What differentiates the realm of the natural sciences from that of the sciences of human action is the categorical system resorted to in each in interpreting phenomena and constructing theories." "The natural sciences do not know anything about final causes; inquiry and theorizing are entirely guided by the category of causality. The field of the sciences of human action is the orbit of purpose and of conscious aiming at ends."

  —Mises (2007), Theory and History, p. 240.

- "The natural science must refrain from dealing with final causes because they are unable to discover any final causes, not because they can prove that no final causes are operative. (…) The reason for the natural sciences' neglect of final causes and their exclusive preoccupation with causality research is that this method works."

  —Mises (2007), Theory and History, p. 247-8.

- The science of human action (*praxeology*) is fundamentally different from natural sciences. The reason is that human beings *act*. They have objectives and purposes, and they try to achieve them through purposeful action. This is different in the natural sciences:

  "Stones, atoms, planets, have no goals or preferences; hence, they do not choose among alternative courses of action. Atoms and planets move, or are moved; they cannot choose, select paths of action, or change their minds. Men and women can and do. Therefore, atoms and stones can be investigated, their courses charted, and their paths plotted and predicted, at least in principle, to the minutest quantitative detail. People cannot; every day, people learn, adopt new values and goals, and change their minds; people cannot be slotted and predicted as can objects without minds or without the capacity to learn and choose."

  —Rothbard, M. N. (1985), Introduction to Mises's Theory and history, p. xiii.

- Individuals' actions cannot be investigated following the procedures of natural sciences. People learn, change their preferences and adopt new values and goals (from one moment to the other). Human action cannot be analysed and predicted as can objects without minds or without the capacity to learn and choose.

  "Concrete value judgments and definite human actions are not open to further analysis. We may fairly assume or believe that they are absolutely dependent upon and conditioned by their causes. But as long as we do not know how external facts—physical and physiological—produce in a human mind definite thoughts and volitions resulting in concrete acts, we have to face an insurmountable *methodological dualism*. In the present state of our knowledge the fundamental statements of positivism, monism and panphysicalism are mere metaphysical postulates devoid of any scientific foundation and both meaningless and useless for scientific research. Reason and experience show us two separate realms: the external world of physical, chemical, and physiological phenomena and the internal world of thought, feeling, valuation, and purposeful action. No bridge connects—as far as we can see today—these two spheres. Identical external events result sometimes in different human responses, and different external events produce sometimes the same human response. We do not know why."

  —Mises (1996), Human Action, p. 18.

- Today's *mainstream economics* has embraced the empiricist-positivist approach, an attempt to ape the methodological approach of physical sciences, something Mises's scornfully termed *scientism*.

6. Theory and history; mathematics and economics

SUGGESTED READINGS: Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, San Francisco, pp. 30 – 32; Mises, L. v. (2007), Theory & History, Ludwig von Mises Institute, Auburn, US Alabama; Salerno, J. T. (2002), Introduction to: Rothbard, M. N. (2002), A History of Banking in the United States, The Colonial Era to World War II, Ludwig von Mises Institute, Auburn, US Alabama, pp. 7 – 43.

Theory and history

- THEORY. – A *theory* is an attempt to achieve some form of systematic understanding of an aspect of the world of *experience*. As noted earlier, human actors always employ some kind of theory:

  "Thinking and acting are inseparable. Every action is always based on a definite idea about causal relations. He who thinks a causal relation thinks a theorem. Action without thinking, practice without theory are unimaginable. The reasoning may be faulty and the theory incorrect; but thinking and theorizing are not lacking in any action."

  —Mises (1996), Human Action, p. 177.

  "[T]hinking is always thinking of a potential action. Even he who thinks of a pure theory assumes that the theory is correct, i.e., that action complying with its content would result in an effect to be expected from its teachings. It is of no relevance for logic whether such action is feasible or not."

  —Mises (1996), Human Action, p. 177.

  "There is no such thing as a mere recording of unadulterated facts apart from any reference to theories. As soon as two events are recorded together or integrated into a class of events, a theory is operative."

  —Mises (1996), Human Action, p. 647.

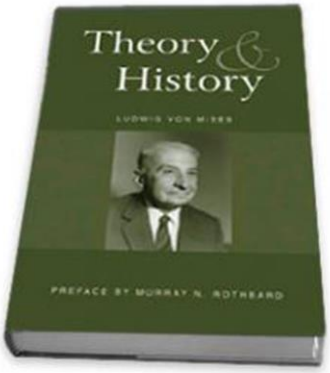
- HISTORY. – "History is the record of human action. Human action is the conscious effort of man to substitute more satisfactory conditions for less satisfactory ones. Ideas determine what are to be considered more and less satisfactory conditions and what means are to be resorted to alter them. Thus ideas are the main theme of the study of history."

  —Mises (2007), Theory and History, pp. 224-5.

- To Mises, ideas are the ultimate cause of all societal phenomena (Mises (1957), T&H, p. 187):

"The genuine theory of mankind is the history of ideas. It is ideas that distinguish man from all other beings. Ideas engender social institutions, political changes, technological methods of production, and all that is called economic conditions."

History "... establishes the fact that men, inspired by definite ideas, made definite judgements of value, chose definite ends, and resorted to definite means in order to attain the ends chosen, and it deals furthermore with the outcome of their actions, the state of affairs the action brought about."



—Mises (1978), The Ultimate Foundation of Economic Science: An Essay on Method, p. 45.

- If you try to dispute that human action is determined by (individual) ideas, you would have to deny that humans act (purposefully), which leads to an intellectual contradiction:

"Now, it would simply be silly to deny the fact that man manifestly behaves as if he were really aiming at definite ends. Thus the denial of purposefulness in man's attitudes can be sustained only if one assumes that the choosing both of ends and of means is merely apparent and that human behaviour is ultimately determined by physiological events which can be fully described in the terminology of physics and chemistry.

Even the most fanatical champions of the "Unified Science" sect shrink from unambiguously espousing this blunt formulation of their fundamental thesis. There are good reasons for this reticence. So long as no definite relation is discovered between ideas and physical or chemical events of which they would occur as the regular sequel, the positivist thesis remains an epistemological postulate derived not from scientifically established experience but from a metaphysical world view. The positivists tell us that one day a new scientific discipline will emerge which will make good their promises and will describe in every detail the physical and chemical processes that produce in the body of man definite ideas. Let us not quarrel today about such issues of the future. But it is evident that such a metaphysical proposition can in no way invalidate the results of the discursive reasoning of the sciences of human action."

—Mises (2007), Theory and History, pp. 3-4.

- ON THE RELATION BETWEEN ECONOMICS AND HISTORY. – The subject matter of *economics*, which is a subdivision of praxeology, is human action. Economics is the scientific discipline that deals with the logic of human action.

- The subject matter of *history* is the past. History describes how the acting person perceived the situation in which he had to act, what he aimed at, what he believed to be the means at his disposition. For history, actions and value judgments are not ultimate "givens". In fact, actions and value judgments are, in Mises's words, "the starting point of a

specific mode of reflection, of the specific understanding of the historical sciences of human action."

—Mises (2007), Theory and History, p 310.

Economics	History
Economics and *history* deal with individual choices of ends and the judgements of value underlying them.	
Branch of praxeology.	No branch of praxeology.
Value judgements and choices are taken as given data.	Value judgements and choices are *not* taken as given; they are the starting point of reflection, the specific understanding of the historical science of human action.
Restricts itself to logically inferring from value judgements the laws governing the valuing and pricing of goods.	The historian, with the method of understanding, tries to understand, when faced with individuals' value judgements and resulting action, how they originated in the mind of the actor.

Source: Salerno, J. T. (2005), pp. 13.

- "Economic history is possible only because there is an economic theory capable of throwing light upon economic actions. If there were no economic theory, reports concerning economic facts would be nothing more than a collection of unconnected data open to any arbitrary interpretation."

  —Mises (1996), Human Action, p. 51.

- "The experience with which the sciences of human action have to deal is always an experience of complex phenomena. No laboratory experiments can be performed with regard to human action. We are never in a position to observe the change in one element only, all other conditions of the event remaining unchanged. … The information conveyed by historical experience cannot be used as building material for the construction of theories and the prediction of future events. Every historical experience is open to various interpretations, and is in fact interpreted in different ways."

  —Mises (1996), Human Action, p. 31.

- "History can neither prove nor disprove any general statement in the manner in which the natural sciences accept or reject a hypothesis on the ground of laboratory experiments. Neither experimental verification nor experimental falsification of a general proposition is possible in its field."

  —Mises (1996), Human Action, p. 31.

- How far back should history be studied? There is, in fact, no rule that could be helpful in deciding when to stop historical research. The increasing remoteness in time means by no means decreasing practical relevance (for understanding the current circumstances for human action):

"The mere fact that an event happened in a distant country and a remote age does not in itself prove that it has no bearing on the present. Jewish affairs of three thousand years ago influence the lives of millions of present-day Christian Americans more than what happened to the American Indians as late as in the second part of the nineteenth century. In the present-day conflict of the Roman Church and the Soviets there are elements that trace back to the great schism of the Eastern and Western churches that originated more than a thousand years ago."

—Mises (2007), Theory and History, p. 290.

- Praxeology versus history:

"Praxeology is a theoretical and systematic, not a historical, science. Its scope is human action as such, irrespective of all environmental, accidental, and individual circumstances of the concrete acts. Its cognition is purely formal and general without reference to the material content and the particular features of the actual case. It aims at knowledge valid for all instances in which the conditions exactly correspond to those implied in its assumptions and inferences. Its statements and propositions are not derived from experience. They are, like those of logic and mathematics, a priori. They are not subject to verification or falsification on the ground of experience and facts. They are both logically and temporally antecedent to any comprehension of historical facts. They are a necessary requirement of any intellectual grasp of historical events. Without them we should not be able to see in the course of events anything else than kaleidoscopic change and chaotic muddle."

—Mises (1996), Human Action, p. 32.

METHOD OF UNDERSTANDING

- "In dealing with a historical problem the historian makes use of all the knowledge provided by logic, mathematics, the natural sciences, and especially by praxeology."

  —Mises (1996), Human Action, p. 49.

- The economic historian must supply the *motives* underlying the actions that are relevant to explaining the historical event. For this task, his only suitable tool is the *method of understanding*:

  "If the experimenter in the laboratory has established a fact which, at least for the time being, cannot be traced back to another fact of which it would appear as a derivative, there is nothing more to be said about the issue. But if we are faced with a value judgment

and the resulting action, we may try to understand how they originated in the mind of the actor."

—Mises (2007), Theory and History, p. 310.

- "The scope of understanding is the mental grasp of phenomena which cannot be totally elucidated by logic, mathematics, praxeology, and the natural sciences to the extent that they cannot be cleared up by all these sciences."

  —Mises (1996), Human Action, p. 50.

- How can the *method of understanding* provide true knowledge of a wholly subjective and unobservable phenomenon like human motivation? The method of specific understanding is *not an entirely arbitrary* or haphazard enterprise peculiar to each individual historian or actor. It is the product of a discipline that Mises calls "thymology," which encompasses "knowledge of human valuations and volitions":

  "Thymology is on the one hand an offshoot of introspection and on the other a precipitate of historical experience. It is what everybody learns from intercourse with his fellows. It is what a man knows about the way in which people value different conditions, about their wishes and desires and their plans to realize these wishes and desires. It is the knowledge of the social environment in which a man lives and acts or, with historians, of a foreign milieu about which he has learned by studying special sources."

  —Mises (2007), Theory and History, p. 266.

- Knowledge derived from the *method of understanding* may never overrule the knowledge provided by mathematics, praxeology and the natural sciences, though:

  "The scope of understanding is the mental grasp of phenomena which cannot be totally elucidated by logic, mathematics, praxeology, and the natural sciences to the extent that they cannot be cleared up by all these sciences. It must never contradict the teachings of these other branches of knowledge."

  —Mises (1996), Human Action, p. 50.

- "The specific understanding of past events is not a mental process exclusively resorted to by historians. It is applied by everybody in daily intercourse with all his fellows. It is a technique employed in all interhuman relations. It is practiced by children in the nursery and kindergarten, by businessmen in trade, by politicians and statesmen in affairs of state. All are eager to get information about other people's valuations and plans and to appraise them correctly."

  —Mises (2007), Theory and History, p. 265.

- The historian uses specific understanding to try to gauge the causal "relevance" of each factor to the outcome. But such assessments of relevance do not take the form of objective measurements calculable by statistical techniques; they are expressed in the form of subjective judgments of relevance based on thymology.

- A certain observable historical outcome can be thought of as a result of many (interrelated) causes. To the historian, there is the problem of assigning *relative quantitative weights* to different causes that combine into an observable effect.

  Example: In response to a stock market crash, the central bank increases the money stock by 10%. The oil prices falls by 30%, and wages drop by 5%. What will be the impact on consumer prices in, say, 12 months? In order to answer this question, the method of *understanding* is required. Economic theory informs us about the *directional effect* each of the aforementioned factors has on prices; and it can also inform us that some time must elapse before the (full) effect emerges. Any prediction, however, can only be made in qualitative, not in quantitative terms. The economist must supplement economic theory with his *understanding* about the impact each factor will have on consumer prices in the future. However, there is no scientifically justified procedure to extrapolate historical *quantitative* relations (which could be observed between, say, changes in the quantity of money and prices in the past) into the future.

- The *method of understanding* can never yield results which must be accepted by all men. In fact, the historian cannot ground his judgements in absolute and apodictic certainty:

  "The historian can enumerate all the factors which cooperated in bringing about a known effect and all the factors which worked against them and may have resulted in delaying and mitigating the final outcome. But he cannot coordinate, except by understanding, the various causative factors in a quantitative way to the effects produced. He cannot, except by understanding, assign to each of *n* factors its role in producing the effect *p*. Understanding is in the realm of history the equivalent, as it were, of quantitative analysis and measurement."

  —Mises (1996), Human Action, p. 50.

THE AUSTRIAN HISTORICAL METHOD

- Rothbard's innovative contribution to the historical method is the creation of a guide that mitigates some of the uncertainty associated with formulating judgments of relevance about human motives. He emphasis that the task of assigning motives and weighting their relevance is rendered even more difficult by the fact that, in many cases, historical actors, especially those seeking economic gain through the political process, are inclined to deliberately obscure the reasons for their conduct.

- Rothbard contends that attempts to obfuscate or conceal the pecuniary motive for an action by appeals to higher goals are easily discerned and exposed by the historian in those cases "where the causal chain of economic interest to action is simple and direct."

  —Rothbard (1974), Economic Determinism, Ideology, and the American Revolution, p. 4.

- The novelty and brilliance of Rothbard's guide lies in the fact that it is neither a purely aprioristic law like an economic theorem nor an experimentally established "fact" of the natural sciences. Rather it is a sociological generalization grounded on a creative blend of thymological experience (asking "Cui bono?") and economic theory:

  "At the core of this generalization is the insight that the State throughout history has been essentially an organization of a segment of the population that forsakes peaceful economic activity to constitute itself as a ruling class. This class makes its living parasitically by establishing a permanent hegemonic or "political" relationship between itself and the productive members of the population. This political relationship permits the rulers to subsist on the tribute or taxes routinely and "legally" expropriated from the income and wealth of the producing class. The latter class is composed of the "subjects" or, in the case of democratic states, the "taxpayers," who earn their living through the peaceful "economic means" of production and voluntary exchange. In contrast, constituents of the ruling class may be thought of as "tax-consumers" who earn their living through the coercive "political means" of taxation and the sale of monopoly privileges."

  —Salerno (2005), Introduction, pp. 26-7.

Mathematics and economics

SUGGESTED READINGS: Rothbard, M. N. (2009), A Note On Mathematical Economics, Mises Daily Article, 9/1/2009; Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, San Francisco, pp. 350 – 357.

- We know (for sure) that humans *act*. Human action aims at achieving *ends*, it is *purposeful action*. Human beings have *preferences*. They make choices, with the latter being expressive of *value judgements*.

- As a rule, no science can start with mathematics, neither the natural sciences nor the science of human action. Scientific endeavour has to start with "das ansetzende Denken" (Hugo Dingler (1881 – 1954)):

  „[I]ch kann mit Rechnen erst beginnen, wenn ich Formeln, Gleichungen, kurz symbolische Ausgangsausdrücke gegeben habe. Woher aber bekomme ich diese? Da sie nicht vom Himmel fallen oder an den Bäumen wachsen, kann ich sie nur von mir selbst haben. Ich gewinne sie durch ein Nachdenken, welches meine anschaulichen Vorstellungen über irgendein Naturgeschehen … irgendwie in Formeln faßt. Diese letzte Art des Nachdenkens ist eben das ansetzende Denken."

—Dingler (1931), Der Zusammenbruch der Wissenschaft, S. 64.

- *Verbal logic* versus *mathematical logic* (logistics):

  "Formal logic deals with the necessary and fundamental laws of thought, which must be *verbally* expressed, and logistics (that is *mathematical logic*, TP) is only a symbolic system that uses this formal verbal logic as its foundation. Therefore, praxeology and economics need not be apologetic in the slightest for the use of verbal logic—which is, in fact, the fundamental basis of symbolic logic."

  —Rothbard (2001), Man, State, Economy, pp. 65-6.

- Can mathematics be applied to economics, to the science of human action? To answer this question, it should be noted in a *first step* that there is a crucial distinction between the natural world studied by physics (the natural sciences) and the world of human action.

Differences between physics and the science of human action

Physics:	Human action (economics):
1. In physics, the facts of nature are given to us. They may be broken down into their elements in the laboratory and their movements observed.	1. In economics, however, the conditions are reversed. Here we know the cause: For human action, unlike the movement of stones, is motivated.
2. We do *not* know the laws explaining the movements of physical particles, though. They are *unmotivated*.	2. Therefore, we may build economics on the basis of axioms — such as the existence of human action and the logical implications of action — which are originally known as true.
3. We must therefore seek causes by hypothecating general theories. From these theories we are able to deduce not only the original facts, but other theories which can be directly tested by fact (the famous concept of "operational meaning").	3. From these axioms we can deduce step by step, laws which are also known as true. And this knowledge is absolute rather than relative – precisely because the original axioms are already known.
4. As much as we may progress in the knowledge of the laws of physics, our knowledge is never absolute, since the laws may always be revised by more general laws and through further empirical testing.	4. There are no simple elements of "facts" in human action; the events of history are complex phenomena, which cannot "test" anything. They themselves can only be explained by applying many relevant theories to different aspects of the complex fact.
5. Why is mathematics so useful in physics? Precisely because the axioms themselves, and the laws deduced from them, are unknown and in fact meaningless. Their meaning is only "operational," since they are meaningful only insofar as they can explain given facts.	5. Economics starts from an axiom that is known and meaningful to us — human action. Since the action is itself meaningful, all the laws which are deduced step by step from it are also meaningful.
6. The equation of the law of gravitation, for instance, is in itself meaningless; it is only meaningful to us in relation to the facts that we humans observe and that the law can explain. Consequently, mathematics, which performs deductive operations on meaningless symbols, is perfectly suited for the methods of physics.	

- In economics, Mises noted, "The mathematical method must be rejected … . It is an entirely vicious method, starting from false assumptions and leading to fallacious inferences. Its syllogisms are not only sterile; they divert the mind from the study of the real problems and distort the relations between the various phenomena."

  —Mises (1996), Human Action, p. 55-6.

- Let us explain in some more detail why mathematics cannot be applied in the field of human action or economics (which has a starting point that is *a-mathematical*).

  (1) In the field of human action, in economics, there are *no constant relations*:

  "There are, in the field of economics, no constant relations, and consequently no measurement is possible. If a statistician determines that a rise of 10 per cent in the supply of potatoes in Atlantis at a definite time was followed by a fall of 8 per cent in the price, he does not establish anything about what happened or may happen with a change in the supply of potatoes in another country or at another time. He has not "measured" the "elasticity of demand" of potatoes. He has established a unique and individual historical fact. No intelligent man can doubt that the behavior of men with regard to potatoes, and every other commodity is variable. Different individuals value the same things in a different way, and valuations change with the same individuals with changing conditions."

  —Mises (1996), Human Action, p. 55-6.

  (2) There is no such thing as *equilibrium*. Human action is about removing felt uneasiness. Having reached equilibrium (a "state of rest") would imply that there is no more human action – which, however, is impossible to think. An equilibrium can never be reached.

  (3) Human action is about *subjective value judgements*, which are not open to *measuring*, they cannot be pressed into a mathematical format (like an *indifference curve*):

  "A judgment of value does not measure, it arranges in a scale of degrees, it grades. It is expressive of an order of preference and sequence, but not expressive of measure and weight. Only the ordinal numbers can be applied to it, but not the cardinal numbers."

  —Mises (1996), Human Action, p. 97.

  (4) There are no constant relations between human action and its *determining factor(s)*. If human action could be explained by factors that have a constant, time-invariant impact on action, future human action would be known. In other words, there would be no more *uncertainty* as far as the future is concerned. This, however, would imply that humans couldn't and wouldn't be able to act – which is impossible to think.

CLASS AND CASE PROBABILITY

- "The uncertainty of the future is already implied in the very notion of action. That man acts and that the future is uncertain are by no means two independent matters. They are only two different modes of establishing one thing."
  …
  "Natural science does not render the future predictable. It makes it possible to foretell the results to be obtained by definite actions. But it leaves unpredictable two spheres: that of insufficiently known natural phenomena and that of human acts of choice. Our ignorance with regard to these two spheres taints all human actions with uncertainty. Apodictic certainty is only within the orbit of the deductive system of aprioristic theory. The most that can be attained with regard to reality is probability."

  —Mises (1996), Human Action, p. 105.

- "There are two entirely different instances of probability; we may call them class probability (or frequency probability) and case probability (or the specific understanding of the sciences of human action). The field for the application of the former is the field of the natural sciences, entirely ruled by causality; the field for the application of the latter is the field of the sciences of human action, entirely ruled by teleology."

  —Mises (1996), Human Action, p. 107.

- Class probability

  "Class probability means: We know or assume to know, with regard to the problem concerned, everything about the behavior of a whole class of events or phenomena; but about the actual singular events or phenomena we know nothing but that they are elements of this class.

  We know, for instance, that there are ninety tickets in a lottery and that five of them will be drawn. Thus we know all about the behavior of the whole class of tickets. But with regard to the singular tickets we do not know anything but that they are elements of this class of tickets."

  —Mises (1996), Human Action, p. 107.

- "It is possible to speak about numerical probability only in reference to a properly defined collective. But ontologically, no such collective exists as far as human actions are concerned. Each human action must be considered a unique event, constituting a class of its own."

  —Hoppe (2012), The Limits of Numerical Probability, p. 271.

- Case probability

  "Case probability means: We know, with regard to a particular event, some of the factors which determine its outcome; but there are other determining factors about which we know nothing.

Case probability has nothing in common with class probability but the incompleteness of our knowledge. In every other regard the two are entirely different."

—Mises (1996), Human Action, p. 110.

- On *praxeological predictions* (Mises (1996), pp. 117-8):

"Praxeological knowledge makes it possible to predict with apodictic certainty the outcome of various modes of action. But, of course, such prediction can never imply anything regarding quantitative matters. Quantitative problems are in the field of human action open to no other elucidation than that by understanding.

We can predict, as will be shown later, that — other things being equal — a fall in the demand for *a* will result in a drop in the price of *a*. But we cannot predict the extent of this drop. This question can be answered only by understanding.

The fundamental deficiency implied in every quantitative approach to economic problems consists in the neglect of the fact that there are no constant relations between what are called economic dimensions. There is neither constancy nor continuity in the valuations and in the formation of exchange ratios between various commodities. Every new datum brings about a reshuffling of the whole price structure. Understanding, by trying to grasp what is going on in the minds of the men concerned, can approach the problem of forecasting future conditions. We may call its methods unsatisfactory and the positivists may arrogantly scorn it. But such arbitrary judgments must not and cannot obscure the fact that understanding is the only appropriate method of dealing with the uncertainty of future conditions."

—Mises (1996), Human Action, p. 118.

7. Value theory and price theory

SUGGESTED READINGS: Menger, C. (2007), Principles of Economics, Ludwig von Mises Institute, Auburn, US Alabama, Chapter 11, pp. 114 – 174. Böhm-Bawerk, E. v. (1930), The Positive Theory of Capital, G. E. STECHERT & CO., NEW YORK, Chapter IV, pp. 203 – 213.

Value theory

- *Goods* are those elements of the external world that are integral to the causal process of want satisfaction upon which human action operates.

- There are goods of the *lowest order* (consumer goods) and *goods of higher order* (producer goods).

Consumer goods, producer goods, and roundabout production

Goods may be classified in either of two categories:
(i) directly serviceable goods, consumption goods (*first order goods*) and
(b) indirectly serviceable goods, producer goods (*higher order goods*), transformable (via production) into directly serviceable goods.

The factors of production may all be divided into two classes: (i) those that are themselves produced (produced factors of production), and (ii) those that are found already available in *nature* (original factors of production).

The original factors may, in turn, be divided into two classes: the expenditure of human energy, and the use of nonhuman elements provided by nature. The first is called labor; the latter is *nature* (or *land*). Thus, the classes of factors of production are labor, land, and the produced factors, which are termed *capital goods*.

Production runs in stages, and it requires time (as all human action does).

The *valuation* of factors of production is eventually derived from the end result—the consumers' good (purpose of production). Production factors are valued as far as they contribute to the production of consumer goods (or to contribute to the production of other lower stage goods with which consumer goods are produced).

It is *impossible* to conceive of a situation where only one factor of production produces a consumers' good or even advances a consumers' good from its previous stage of production. *At least more than one higher order good* (as co-operating factor) is required at each production stage. This insight leads us to the law of return.

The law of return (see: Rothbard (2001), Man, Economy, and State, p. 28 – 32.)

If there is just *land* and *labour*, the law of returns implies that if one increases the quantity of labor, that is increasing population (with land remaining unchanged), eventually a point will be reached where the output per labour-unit is *maximized*. This is the *optimal population size*.

If population growth goes beyond the optimum, income per head declines. Likewise, income per head will fall, if population falls below this point.

If technology is fixed, the only possible way for population to grow in size without causing a fall in income per head is through taking more land into use. If no more land is available, a population number beyond its optimal size must lead to a progressive decline in income per head (this has been called the "Malthusian trap").

"The purposive adjustment of the birth rate to the supply of the material potentialities of well-being is an indispensable condition of human life and action, of civilization, and of any improvement in wealth and welfare. … Where the average standard of living is impaired by the excessive increase in population figures, irreconcilable conflicts of interests arise. Each individual is again a rival of all other individuals in the struggle for survival. The annihilation of rivals is the only means of increasing one's own well-being. As natural conditions are, man has only the choice between the pitiless war of each against each or social cooperation. But social cooperation is impossible if people give rein to the natural impulse of proliferation."

—Mises (1996), Human Action, p. 672.

The above example is an illustration of the *law of return*. It states that with the quantity of complementary factors held constant, there always exists some optimum amount of the varying factor; that is for any combination of two or more production factors, there exists an optimum combination (and any deviation from it involves efficiency loss or material waste).

The law of return can be proofed *mathematically* and/or by contemplating the implications of the contrary.

FACTOR *Y* *b* UNITS	FACTOR *X* *a* UNITS	TOTAL PRODUCT *p* UNITS	AVERAGE UNIT PRODUCT p/a	MARGINAL PRODUCT $\Delta p/\Delta a$
3	0	0	0	...
3	1	4	4	4
3	2	10	5	6
3	3	18	6	8
3	4	30	7.5	12
3	5	40	8	10
3	6	45	7.5	5
3	7	49	7	4

- Goods are *means* necessary for achieving an end. As such, goods are *scarce*:

"Means are necessarily always limited, i.e., scarce with regard to the services for which man wants to use them. If this were not the case, there would not be any action with regard to them. Where man is not restrained by the insufficient quantity of things available, there is no need for any action."

—Mises (1996), Human Action, p. 93.

- "Value is thus nothing inherent in goods, no property of them, nor an independent thing existing by itself. It is a judgment economizing men make about the importance of the goods at their disposal of the maintenance of their lives and well-being. Hence value does not exist outside the consciousness of men."

  —Carl Menger (2007), Principles of Economics, p. 121-2.

- It was Carl Menger (1840 – 1921) who set out to establish a *causal* link between the subjective values driving consumer choices and objective market prices used in economic calculation of businessmen. In this endeavor, the *law of diminishing marginal utility* plays a crucial role.

THE LAW OF DIMINISHING MARGINAL UTILITY

SUGGESTED READINGS: Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, San Francisco, pp. 119 – 127; Rothbard, M. N. (2004, 962), Man, Economy, and State, Ludwig von Mises Institute, Auburn, US Alabama, pp. 21 – 33.

- The *law of diminishing marginal utility* is attributed to the work of Hermann Heinrich Gossen (1810–1858), Leon Walras (1834–1923), Carl Menger (1840–1921) and William Stanley Jevons (1835–1882).

- While Gossen, Walras and Jevons explained it by taking recourse to the *psychological law of want satisfaction*, Menger showed that the law of diminishing marginal utility follows from *logical considerations*.

On *utility* and the impossibility of *measuring* utility

Utility means *want satisfaction*, *happiness*, or *contentment*. If an actor has attained a certain end, he has *increased* his utility. If someone considers himself to be worse off (as fewer of his ends are being attained), his utility has *decreased*.

It is impossible to *measure* increases or decreases in utility. Not only is it impossible to measure or compare changes in the utility of different people, it is also impossible to measure changes in the happiness of any given person. Why is this?

For any *measurement* to be possible, there must be an eternally fixed and objectively given unit with which other units may be compared. However, there is no such objective unit in the field of human valuation (in contrast to the natural sciences, where you can measure grams, metres, temperatures, etc.).

The individual must determine *subjectively* for himself whether he is better or worse off. His preference can only be expressed in terms of simple choice, or *rank*. Thus, he can say, "I am better off" or "I am happier" because he went to a concert instead of playing bridge (or "I will be better off" for going to the concert), but it would be completely meaningless for him to try to assign units to his preference and say, "I am two and a half times happier because of this choice than I would have been playing bridge." Two and a half times *what*?

There is *no possible unit of happiness* that can be used for purposes of comparison and, hence, of addition or multiplication. Values cannot be measured; values or utilities cannot be added, subtracted, or multiplied. They can only be *ranked as better or worse*.

An economic *good* (to which utility is attached), and increments in the size of the economic good, can be described in *physical terms*: The good and its increments extend in space and can therefore be *measured* and counted in unitary quantitative addition.

The utility assigned to a physical good and its unitary physical increments is purely *intensive in magnitude*. It does not extend in space. As a result, it is *immeasurable* and intractable by unitary counting and the rules of arithmetic. As an *intensive magnitude*, utility can be treated only *ordinally*; it is impossible to construct a cardinal measure of utility. Utility can be treated only as a rank order on a one-dimensional preference scale of the individual.

The individual actor knows whether he has experienced *psychic profit* or *psychic loss* as a result of his action; he knows which of his wants are more urgent than others, and he knows when his condition has improved or deteriorated. If someone's expectation turns out to be correct, he has made a *net gain* in his state of satisfaction (utility). If he has been in *error*, he has suffered a net *loss*. The *psychic* profit or loss *cannot be measured*, though.

All action involves exchange—exchange of one state of affairs, *X*, for another state of affairs, *Y*, which the actor expects will be a more satisfactory one (and therefore rank higher on his value scale). Action is indicative of *preference*, or *valuation*. Individual action *ranks*, or *grades*, according to action man's preference in the sense of "better" or "worse". From a praxeological viewpoint, all *human action* is an attempt to *exchange a less satisfactory state of affairs for a more satisfactory one*. The actor finds himself in a non-perfect state, and by taking action he demonstrates that he wishes to improve his state of affairs.

- The term "marginal utility" refers to the *utility of increments of goods* (which has nothing to do with measurability); it does *not* refer to increments of utility (which would imply measurability).

—In *neo-classical theory*, utility is assumed to be measurable. The term "marginal" in marginal utility is understood as the equivalent to the "marginal" of the *differential calculus*. In integral calculus, a total "something" is the integral of marginal "somethings."

—As a result, it is assumed that, for example, the marginal utility of a good with a supply of six units is equal to the "total utility" of six units minus the "total utility" of five units. If utilities can be subjected to the arithmetical operation of subtraction, and can be differentiated and integrated, then obviously the concept of marginal utility must imply cardinally measurable utilities.

As far as the concept of *marginal utility* is concerned, the important consideration is the relation between the unit to be acquired, or given up, and the quantity of supply (stock) *already available* to the actor:

—If no units of a good (whatever that good may be) are available, the first unit will satisfy the *most urgent wants* that such a good is capable of satisfying.
—If to the supply of one unit a second unit is added, it will fulfil the *most urgent want remaining* (which is less urgent than the one satisfied with the first unit).
—The value of the second unit to the actor will be less than the value of the first unit.

We know that human action implies that means a scarce. Form this insight it follows that a greater supply of means is preferred over a smaller supply of means; or that an earlier satisfaction of wants is preferred over a later satisfaction of wants – because time is a means and thus scarce.

"There are, then, two laws of utility, both following from the apodictic conditions of human action: first, that *given the size of a unit of a good, the (marginal) utility of each unit decreases as the supply of units increases; second, that the (marginal) utility of a larger-sized unit is greater than the (marginal) utility of a smaller sized unit*. The first is the law of diminishing marginal utility. The second has been called the law of increasing total utility. The relationship between the two laws and between the items considered in both is purely one of rank, i.e., ordinal."

—Rothbard (2009), Man, Economy, and State, p. 314.

- The *law of marginal utility can be logically derived from the axiom of human action*, it is *irrefutably true*; and it is *not* related the *psychology*, it is a (praxeo-)logical law:

"In treating marginal utility we deal neither with sensuous enjoyment nor with saturation and satiety. We do not transcend the sphere of praxeological reasoning in establishing the following definition: We call that employment of a unit of a homogeneous supply which

a man makes if his supply is *n* units, but would not make if, other things being equal, his supply were only *n*–1 units, the least urgent employment or the marginal employment, and the utility derived from it marginal utility. In order to attain this knowledge we do not need any physiological or psychological experience, knowledge, or reasoning. It follows necessarily from our assumptions that people act (choose) and that in the first case acting man has *n* units of a homogeneous supply and in the second case *n*–1 units. Under these conditions no other result is thinkable. Our statement is formal and aprioristic and does not depend on any experience."

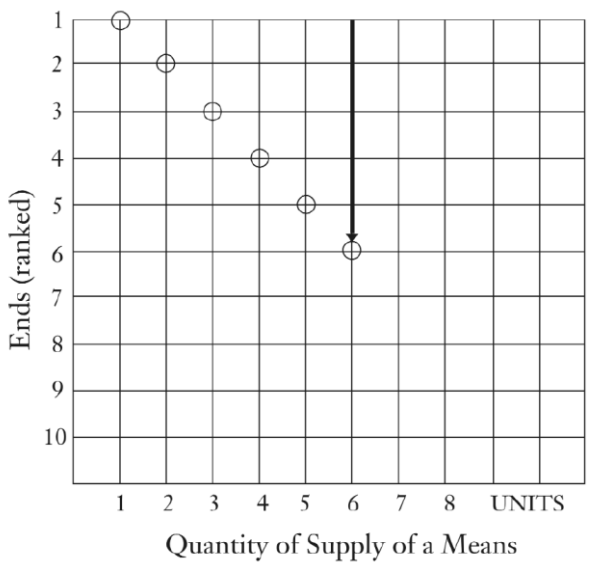
—Mises (1996), Human Action, p. 124.

- Let us look at an individual's *value scale*, which may look like this:

3 eggs
2 eggs
1 egg
2nd egg
3rd egg

The higher the ranking on the value scale, the higher the value. By the *second law*, 3 eggs are valued more highly than 2 eggs, and 2 eggs are valued more highly than 1 egg. By the first law, 2nd egg is ranked below the first egg, and the 3rd egg below the 2nd egg.

- Example I. – If the supply of the good is 6 units, then the first six ends, ranked in order of importance by the valuing individual, are the ones that are being satisfied. Ends ranked 7 to 11 remain unsatisfied. The first unit goes to satisfy end 1, the second unit goes to serve end 2, and so on.



— Let us assume the actor is now forced to give up one unit (so that he will be left with just 5 units). He will give up the unit that so far satisfies the end ranked sixth – and keep the units that satisfy the more important ends 1 to 5.

— As a result of the *interchangeability of units*, it does not matter to him which of the six units he must give up. The point is that he will give up the unit serving this sixth end – the lowest-ranking want that the original stock (in this case, six units) was capable of satisfying.

On interchangeability

The *interchangeability* of units in the supply of a good does not mean that the concrete units are actually valued equally. They may and will be valued differently whenever their position in the supply is different. Suppose that the isolated individual successively finds one horse, then second, then a third. Each horse may be *interchangeable* with the others.

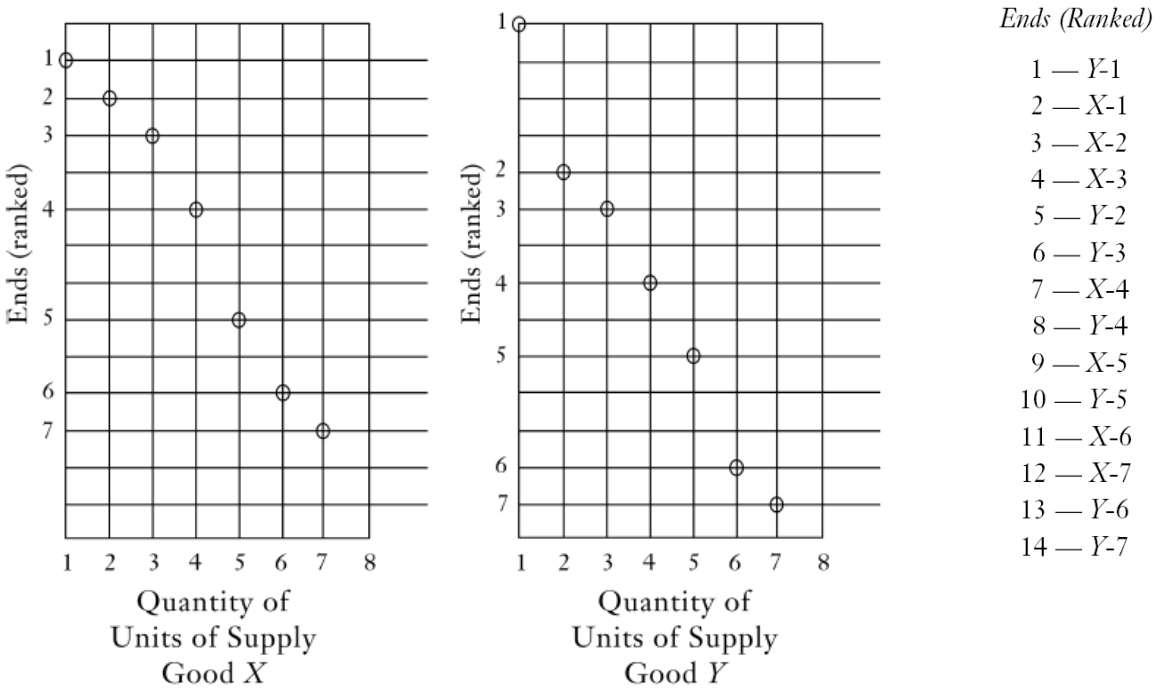
The *first horse* will fulfil the most urgent wants that a horse can serve; this follows from the universal fact that action uses scarce means to satisfy the most urgent of the not yet satisfied wants. The *second horse* will be put to work satisfying the most urgent of the wants remaining. These wants, however, must be ranked lower than the wants that the previous horse has satisfied. Similarly, the *third horse* acquired might be capable of performing the same service as the others, but it will be put to work fulfilling the highest of the remaining wants—which, however, will be lower in value than the others.

Result: The first horse will be valued more highly than the second horse; and the latter will be valued *more highly* than that third horse, and so on.

— The unit that he must give up is called the *marginal unit* (it is the unit *at the margin*). The least important end fulfilled by the stock is known as the satisfaction provided by the *marginal unit*.

— If the marginal unit is one unit, then the marginal utility of the supply is the *end that must be given up* as the result of a loss of the unit. If the supply consisted of four units, and the actor is faced with the necessity of giving up one unit, then the value of the marginal unit, or the marginal utility, would have a rank of four.

— In sum: *The greater the supply of a good, the lower the marginal utility; the smaller the supply, the higher the marginal utility*. This fundamental law of economics has been derived from the fundamental axiom of human action; it is *the law of marginal utility*.



Rothbard, M. N. (2004, 1962), Man, Economy, and State, p. 30.

- Example II. – Let us consider the relationship between two goods, *X* and *Y*. The diagrams show the relationship between the supply of *X* and *Y* and their respective marginal values. End *Y*-1 is ranked highest, then ends *X*-1, *X*-2, and *X*-3, and then *Y*-2; *Y*-3; *X*-4; *Y*-4; *X*-5; *Y*-5; *X*-6; *X*-7; *Y*-6; *Y*-7.

  — Assume that the supply situation for Mr Smith is 4*X* and 3*Y*. Now Mr Smith has to give up one unit of *X* or *Y*.

  The *marginal utility* of each good is equal to the value of the least important end of which he would be deprived. Mr Smith will thus *compare the marginal utility of X with the marginal utility of Y*.

  In this case, the marginal unit of *X* has a rank of *X*-4, and the marginal unit of *Y* has a rank of *Y*-3. But the end *Y*-3 is ranked higher on his value scale than *X*-4. The marginal utility of *Y* is in this case higher than (or greater than) the marginal utility of *X*.

  Since he will give up the lowest possible utility, he will give up one unit of *X*. *Thus, presented with a choice of units of goods to give up, he will give up the good with units of lowest marginal utility on his value scale.*

  — Now suppose that the supply is 3*X* and 2*Y*. He has the alternative of giving up 1*X* or 1*Y*. In this case, the marginal utility of *Y* is ranked at *Y*-2, and that of *X* is ranked at *X*-3. *X*-3 occupies a higher position on his value scale than *Y*-2. As a result, Mr Smith gives up a unit of *Y*.

— Now suppose Mr Smith has 3*X* and 3*Y*, and that he must make a choice between *adding* one unit of *X* or one unit of *Y*. Since the marginal utility of the increased *X* is greater than that of *Y*, he will choose to add the unit of *X* and to arrive at a position of (4*X*, 3*Y*) rather than (3*X*, 4*Y*).

The *valuation paradox*

- Why do diamonds (typically) have a higher *exchange value*, or *price*, than water – especially so as diamonds are a mere *luxury* while water is *essential to life*?

- Things are valued as means in accordance with their ability to attain ends valued as more or less urgent, and each *unit of a means* that enters into human action is valued *separately*. The actor is interested in evaluating only those units of means that enter, or that he considers will enter, into his concrete action. *A given choice is made on the margin*:

  — Actors choose between *specific units* of water or diamonds, they do not evaluate water or diamonds in general. This insight actually solves the *value paradox*.

  — For instance, in choosing between acquiring cows or horses, the actor does not choose between the *class of cows* and the *class of horses*, but between *specific units* of them—e.g., two cows versus three horses. Each unit that enters into concrete action is graded and evaluated separately. Only when several units together enter into human action are all of them evaluated together.

- If having a choice, most people would opt for the diamonds because the *marginal utility* of those particular diamonds is higher than the marginal utility of a particular cup of water. *The issue is one of relative scarcity*.

Price theory

- *Man must always act*. All action involves an exchange—a giving up of a state of affairs for what the actor expects will be a more satisfactory state.

- Every aspect of action has involved a *choice* among alternatives—the giving up of some good for the sake of acquiring another good.

- The actor adopts the course that he believes affords him the highest utility on his value scale; in each case, the actor gives up what he believes is of lesser utility to him.

- Value exists in the valuing minds of individuals, and individuals make an exchange precisely because for each of them there is an *inequality of values* between the goods surrendered and the goods received.

- In what follows, the market price will be explained on the basis of the value scales of buyers and sellers in the market place. To start with, consider the *value scale* of an actor *A* (a) and his corresponding demand schedule (b):

(a)

- 7 grains of gold
- (1st pound of butter)
- 6 grains of gold
- 5 grains of gold
- (2nd pound of butter)
- 4 grains of gold
- 3 grains of gold
- (3rd pound of butter)
- 2 grains of gold

(b)

MARKET PRICE Grains of gold per pound of butter	QUANTITY DEMAND (PURCHASED) Pounds of butter
8	0
7	0
6	1
5	1
4	2
3	2
2	3
1	3

Actors *B* and *C*, with the respective value scales, enter the market:

Buyer B

- 6 grains
- (1st lb. of butter)
- 5 grains
- (2nd lb. of butter)
- 4 grains
- 3 grains
- 2 grains
- (3rd lb. of butter)
- (4th lb. of butter)
- 1 grain

Buyer C

- 5 grains
- 4 grains
- (1st lb. of butter)
- 3 grains
- (2nd lb. of butter)
- (3rd lb. of butter)
- 2 grains
- (4th lb. of butter)
- (5th lb. of butter)
- 1 grain

Buyer B		Buyer C	
PRICE Grains/lb	QUANTITY DEMANDED lbs. butter	PRICE Grains/lb.	QUANTITY DEMANDED lbs. butter
7	0	5	0
6	0	4	0
5	1	3	1
4	2	2	3
3	2	1	5
2	2		
1	4		

The aggregated demand schedule for A, B and C is:

AGGREGATE MARKET-DEMAND SCHEDULE

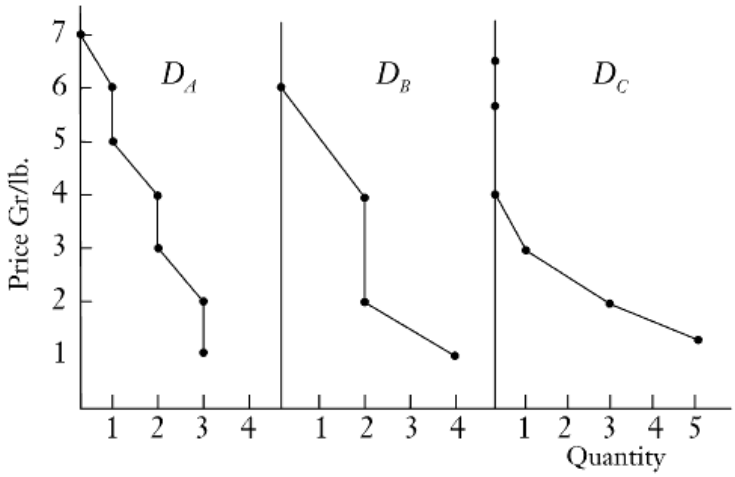
PRICE	QUANTITY DEMANDED
7	0
7	0
6	1
5	2
4	4
3	5
2	8
1	12

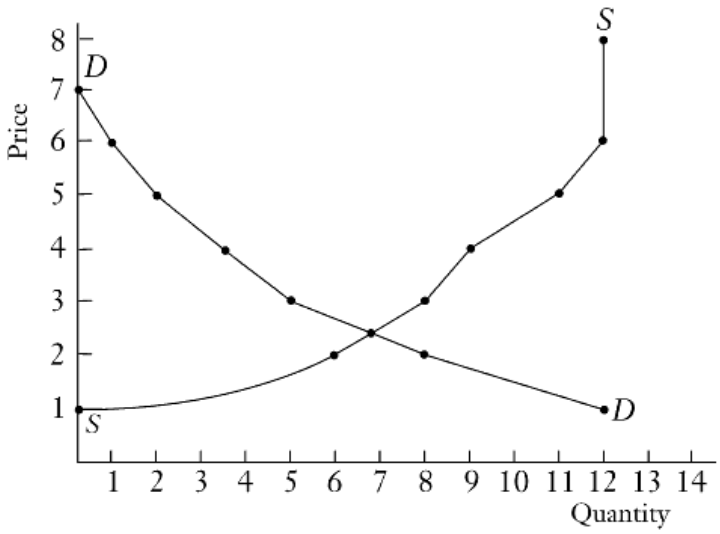
The sellers *X* and *Y* have the following value scale:

Seller X	*Seller Y*
(7 grains)	(6 grains)
(6 grains)	(5 grains)
6th lb. of butter	(4 grains)
(5 grains)	(3 grains)
5th lb. of butter	(2 grains)
4th lb. of butter	6th lb. of butter
(4 grains)	5th lb. of butter
3rd lb. of butter	4th lb. of butter
(3 grains)	3rd lb. of butter
2nd lb. of butter	2nd lb. of butter
1st lb. of butter	1st lb. of butter
(2 grains)	(1 grain)
(1 grain)	

QUANTITY SUPPLIED

Price	X	Y	Market
8	6	6	12
7	6	6	12
6	6	6	12
5	5	6	11
4	3	6	9
3	2	6	8
2	0	6	6
1	0	0	0





Market Demand = $(D_A + D_B + D_C)$
Supply = $(S_x + S_y)$

See: Rothbard (2009), Man, Economy, and State, pp. 233 – 249.

- Two-sided competition

BUYERS.				SELLERS.			
A_1 values a horse at			£30	B_1 values a horse at			£10
(and will buy at any price under)				(and will sell at any price over)			
A_2	,,	,,	£28	B_2	,,	,,	£11
A_3	,,	,,	£26	B_3	,,	,,	£15
A_4	,,	,,	£24	B_4	,,	,,	£17
A_5	,,	,,	£22	B_5	,,	,,	£20
A_6	,,	,,	£21	B_6	,,	,,	£21:10s.
A_7	,,	,,	£20	B_7	,,	,,	£25
A_8	,,	,,	£18	B_8	,,	,,	£26
A_9	,,	,,	£17				
A_{10}	,,	,,	£15				

[1] To show this, suppose we leave A_1 to A_4 out of our illustration. The position of the parties, then, is as follows :—

A_5	£22	B_1	£10
A_6	£21	B_2	£11
A_7	£20	B_3	£15
A_8	£18	B_4	£17
A_9	£17	B_5	£20
A_{10}	£15	B_6	£21:10s.
		B_7	£25
		B_8	£26

Here we see that the last pair within which the economical conditions of exchange are present consists of A_8 and B_4. The buyers, therefore, are now represented in the decisive marginal pair by a weaker member, the sellers by a stronger one. Accordingly the limit of price, which in the last case stood between £21 and £21 : 10s., moves down to between £17 and £18.

Source: Böhm Bawerk (1930), The Positive Theory of Capital, pp. 203 – 213.

Prices, taxation and price controls

- *Consumer surplus* and *producer surplus* are the basic tools in *mainstream economics* to study the welfare of buyers and sellers in the market.

  → *Consumer surplus* is a buyer's willingness to pay minus the amount the buyer actually pays.

  → *Producer surplus* is the amount a seller is paid for a good minus the seller's costs.

  → *From the Austrian economics viewpoint, it should be clear that voluntary transactions are mutually beneficial for both buyers and sellers – otherwise such transactions wouldn't take place.*

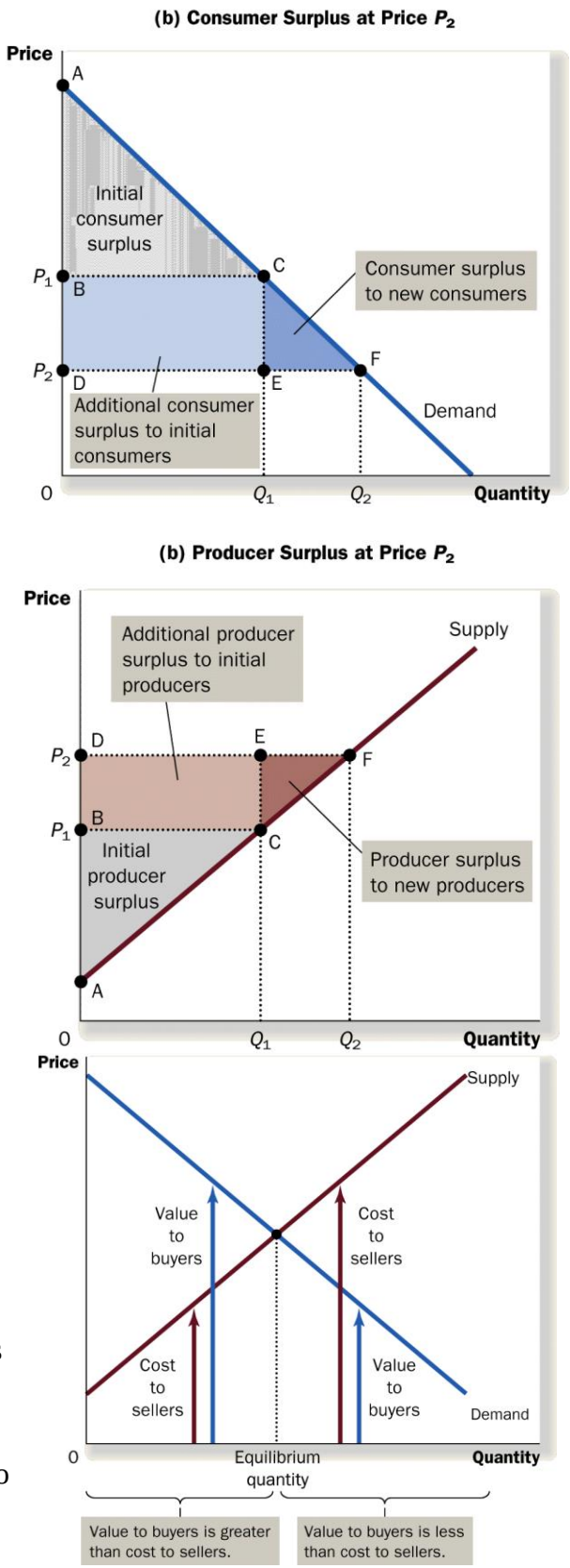
- To understand the *mainstream economic* measure of economic well-being, we can identify the following relations:

  (1) Consumer surplus = value to buyers – amount paid by buyers.

  (2) Producer surplus = amount received by sellers – costs to sellers.

  (3) = (1) + (2) = value to buyers – amount paid by buyers + amount received by sellers – costs to sellers.

  (4) Total surplus = value to buyers – costs to sellers.



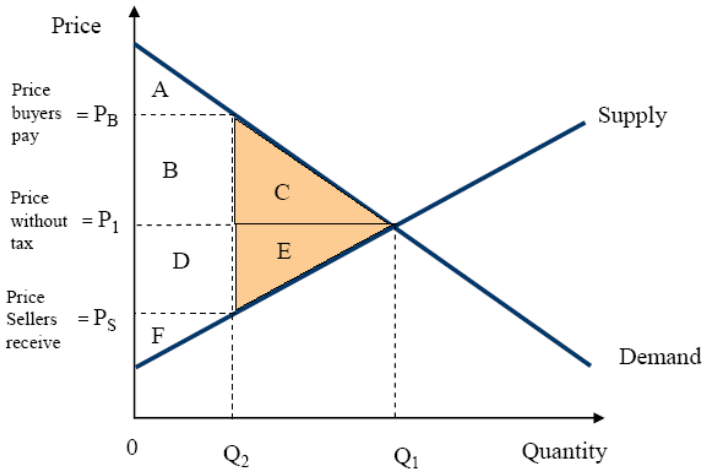
Source: Mankiw 2004.

- If an allocation of scarce resources maximizes *total surplus*, mainstream economists typically say that the allocation is *efficient*. *Equity* means the fairness of the distribution of well-being among members of society.

- *Mainstream economics* hold that free markets allocate resources *efficiently* and fairly – provided that there are no *market failures* or *externalities*.

  Question: Can you give an example for a *market failure*, that is a market outcome that is undesirable *and* which is not related to any *violation of individuals' property rights*?

- What happens to the optimal allocation once we introduce taxes? A tax on a good places a *wedge* between the price that buyers pay and the price that sellers receive (to the benefit of the tax receiver, that is the government). As a result, the quantity of the good sold declines – compared with a situation in which there is no tax.



A tax on a good reduces consumer surplus (by the area B + C) and producer surplus (by the area D + E). Because the fall in producer and consumer surplus exceeds tax Revenue (area B + D), the tax is said to impose a deadweight loss (area C + E)

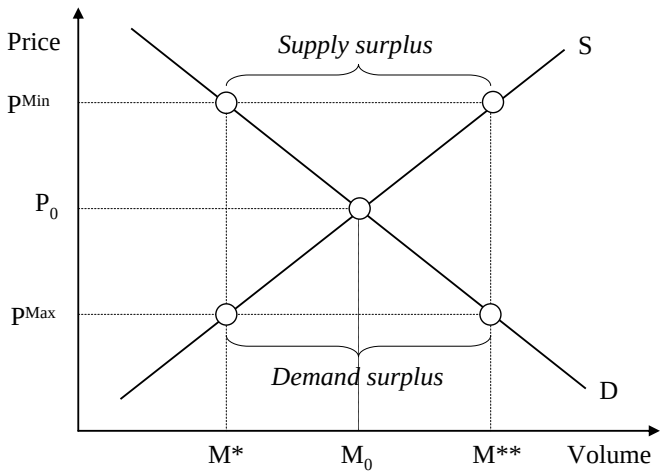
	Without Tax	With Tax	Change
Consumer Surplus	A + B + C	A	-(B + C)
Producer Surplus	D + E + F	F	-(D + E)
Tax Revenue	None	B + D	+(B + D)
Total Surplus	A + B + C +D + E + F	A + B + D + F	-(C + E)*

*The area C + E shows the fall in total surplus and is the deadweight loss of the tax.

- *On price controls*: Whenever the price is fixed above the market clearing price, we have a *minimum price*; and whenever the price is fixed below the market clearing price, we have a *maximum price*.

- If a *minimum price* is imposed by government decree, supply will outstrip demand, and a *supply surplus* will result.

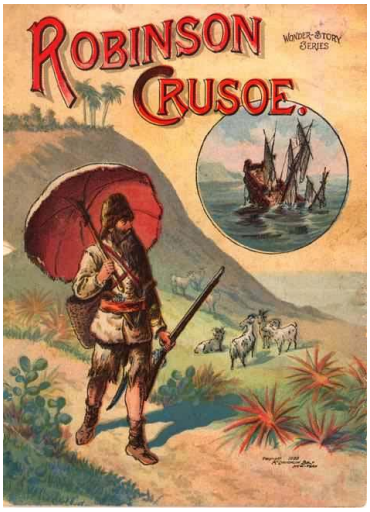
  — The surplus of goods does not find buyers. Milk and wine lakes, butter and grain mountains are the result. The artificially increased price provokes more investment in production capacities of surplus goods – at the expense of the production of goods for there is a greater need. It will be the *less efficient producers* which will contribute to the rise in production.



— If a *maximum price* is imposed by government, and the maximum price is lower than the market clearing price, demand will outstrip supply, and a *demand surplus* will result. It is made economically impossible for less efficient producers of the good to add to overall supply. Moreover, such a maximum price provides incentives to move production capacities to other production lines (which are not subject to price maximum prices/price controls), which exacerbates the supply shortage. Queues, rationing, favouritism, black markets etc. become commonplace as a consequence of the maximum price which is lower than the market clearing price.

8. Savings, investment and economic growth

SUGGESTED READINGS: Rothbard, M. N. (2009 [1962]), Man, Economy and State, 2nd ed., Ludwig von Mises Institute, Auburn, US Alabama, pp. 42 – 70.



- *Savings* are the part of current income which is not consumed. *Capitalistic savings* means that savings are invested (rather than horded). Savings and investments are made in the *time market* (credit and stock markets).

- Robinson Crusoe, stranded on a desert island, finds himself without the aid of capital goods of any kind. All that is available to him is his own labor and the elements given to him by nature.

- Let us assume that the only goods available to Crusoe are berries and leisure. Say that he can pick 20 edible berries an hour, and, on this basis, works 10 hours in berry-picking and enjoys 14 hours a day of leisure.

- Leisure is the one good that is produced almost instantaneously, while berries have a very short production period (as 20 berries have a production period of one hour). Goods with longer periods of production are not available to him – unless he acquires *capital goods*.

- There are two ways in which *longer processes of production* through the use of capital may increase productivity: Providing a greater output of the same good per unit of time (or allowing the actor to obtain a given output with shorter processes of production; or to obtain goods that are so far not available at all).

- An example of the first type is an increase in productivity: Robinson may decide that if he had the use of a stick, he could shake many berries off the trees instead of picking them by hand. In that way he might be able to step up his production to, say, 50 berries an hour. How might he go about acquiring the stick?

- Obviously, he must expend labor in getting the materials, transporting them, and shaping them into a stick. Let us say that 10 hours would be necessary for this task. This means that to obtain the stick, Crusoe must forgo 10 hours' of production of consumer goods. He must either *sacrifice* 10 hours of leisure or 10 hours of berry picking (200 berries), or some combination of the two.

- He will be able to begin using the capital good as an indirect aid to future production only after the 10 hours are up. In the meantime, he must forgo the satisfaction of his wants. He must restrict his consumption for 10 hours and transfer his labor for that period from pro-

ducing immediately satisfying consumer goods into the production of capital goods, which will prove their usefulness only in the future.

- The *restriction of consumption is called saving*, and the *transfer of labor (and land) to the formation of capital goods is called investment*.

- We see now what is involved in the process of *capital formation*. The actor must decide whether or not to restrict his consumption and invest (in the production of capital goods), by weighing the following factors: Does the utility yielded by the increased productivity of the longer process of production outweigh the sacrifice (that the actor must make) of present goods to acquire consumers' goods in the future?

- The fundamental truth about capital goods is this: Capital is a *way station* along the road to the enjoyment of consumers' goods. He who possesses capital is that much further advanced in time on the road to the desired consumers' good.

- The actor must balance his desire to acquire more satisfactions per unit of time as against the fact that, to do so, he must give up satisfactions in the present to increase his production in the future. His *time preference* for present over future accounts (or his *disutility of waiting*) must be balanced against the utility that will be eventually provided by the capital good and the longer process of production.

  Let us assume that producing a stick (a capital good) takes 10 hours' worth of present goods, i.e. 200 berries. The stick, in turn, allows to harvesting 1500 berries three days later as a result of the investment. If the 1,500 berries had been immediately available, there would be no doubt that he would have given up 200 berries to acquire 1,500. Thus, 1,500 berries in the present might have a rank of, say, four on his individual value scale, while 200 berries have a rank of, say, 11:

4	1,500 berries in the present
11	200 berries in the present

- How will Crusoe decide between 200 berries in the present and 1,500 berries three days from now? Since all choices have to be made on one value scale, Crusoe must grade the utility of 1,500 berries three days from now as against the utility of 200 berries now. The actor's value scale may be:

(*a*)

4	1,500 berries in the present
11	200 berries now
12	1,500 berries three days from now

or it may be:

(*b*)

4	1,500 berries in the present
9	1,500 berries three days from now
11	200 berries now

- In case (b) he will make the decision to invest; in case (a) he will not.

- In *Socialism* (1959, p. 459) Mises noted: "The greater the capital fund becomes, the higher does the marginal productivity of labor rise and the higher, therefore, are wages, absolute and relative. The progressive formation of capital is the only way to increase the quantity of goods which society can consume annually without diminishing production in the future – the only way to increase the workers' consumption without harm to future generations of workers."

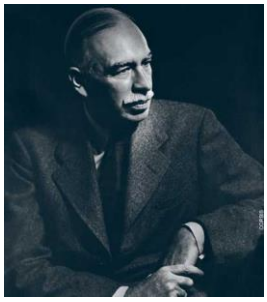
▶ *Digression*: The Keynesian savings fallacy

- In the Keynesian system, savings are defined as:

  $S = Y - C = Y - C(Y)$,

  where C is consumption, Y is income, and S represents savings. That said, savings is a function of income: $S = S(Y)$.

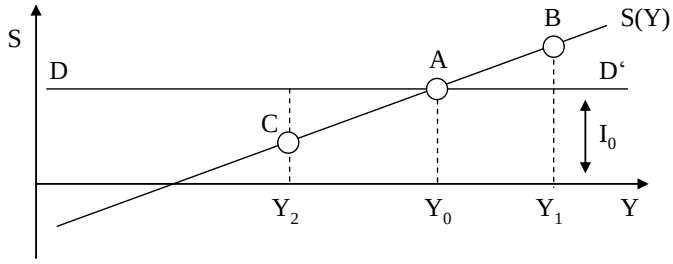
  Note: $S(i) = I(i)$ *versus* $S(Y) = I(Y)$.



John Maynard Keynes, 1883 – 1946

- Any discrepancy between S and I will be eliminated by changes in income. In the graph below, the horizontal line DD' represents autonomous investment I_0. In point A, for instance, equilibrium income is Y_0, bringing S in line with I_0. In point B, however, Y_1 makes $S > I_0$, inducing income to fall until the equilibrium income Y_0 is reached. Likewise, in point C we find that for income Y_2 we have $S < I_0$, inducing an increase in income.

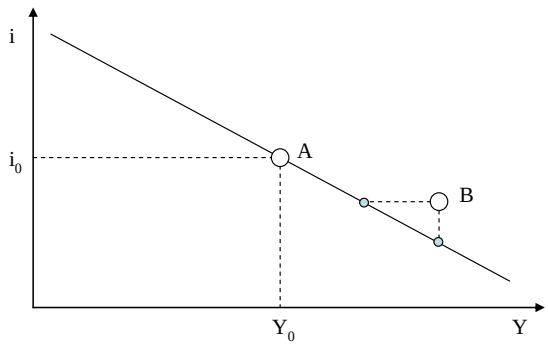
Savings and income in the Keynesian system



- If savings out of a given income is higher than investment, a contraction of demand will follow in the Keynesian system. In contrast, income will rise if savings is smaller than investment. If savings equals investment, the economy is in equilibrium.

- The Keynesian *IS*-curve represents the graphical locus of all income-interest rate combinations for which investment equals savings. The equilibrium condition is $S(Y) = I(i)$. In point *A*, equilibrium income is Y_0 and the equilibrium interest rate is i_0. In point *B*, however, the interest rate is too high so that $S(Y) > I(i)$. As the interest rate is considered a *given* in the Keynesian system, it is income that must decline to bring *S* back in line with *I*.

Keynesian *IS*-curve



- Against this background it becomes obvious why high savings (relative to investment) are considered *bad* from the Keynesian viewpoint, as such a situation would result in a contraction of income.

- The theory does not allow for a discrepancy between *S* and *I* being eliminated by a *change in the interest rate* and/or the prices of the resources supplied as savings and demanded as investment goods. The conclusion that, for instance, $S > I$ would lead to a contraction in income results in a *logical inconsistency*.

The role of time preference

SUGGESTED READINGS: Hoppe, H.-H. (2000), On Time Preference, Government, and the Process of Decivilization, in: Democracy – The God That Failed, pp. 1 – 44.

- *Civilisation process*: moving from a *subsistence economy* (*barbarism*) to *market based exchange economy* via a *declining societal time preference*.

- The market economy implies *peaceful cooperation* under the law of private property, division of labour and free trade.

- An individual's *high time preference* means that consumption (saving) out of current income is high (low); consumption (saving) out of current income is low (high) if an individual's *time preference* is *low*.

- Saving, investing and capital accumulation start if two conditions are fulfilled: (i) people realize that indirect (more *roundabout*) production processes yield a larger and better output per input than short ones; and (ii) people have enough present goods to satisfy all those wants whose satisfaction during the prolonged waiting time is deemed more urgent than the increment in future well-being expected from the adoption of more roundabout production.

- The increase in the accumulation of capital via saving and investment raises the marginal productivity of labour. This, in turn, raises employment and/or wages.

- The lower (higher) time preference, the stronger (weaker) the economic forces are working towards civilization. What are the factors influencing time preference?

  (i) External factors. – *Manna* falling from heaven (positive external factor) would lower peoples' time preference (the marginal utility of present goods declines vis-à-vis future goods, inducing higher savings). An *expected poor harvest* (negative external factor) would increase the marginal utility of future goods vis-à-vis present goods, that is lowering time preference and increase savings.

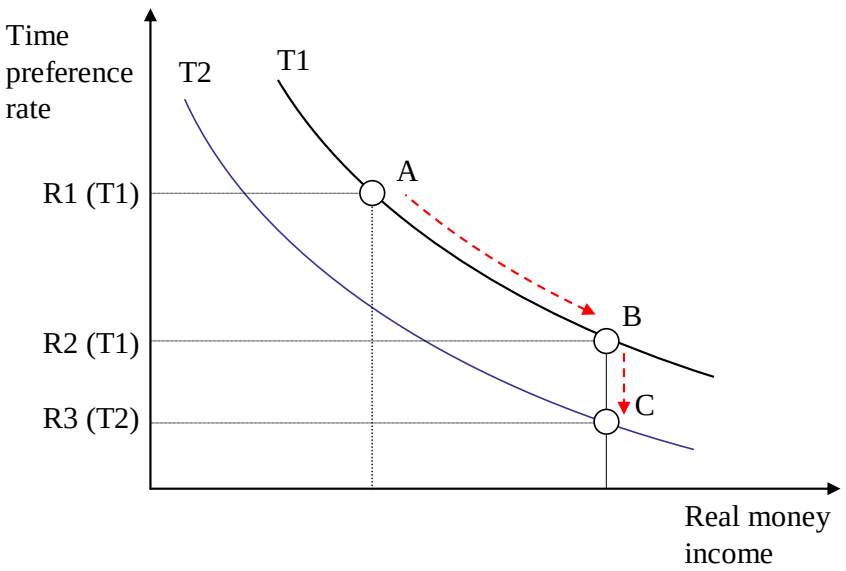
  (ii) Biological factors. – Children (adults) have a higher (lower) time preference; in fact, time preference may change over the *life cycle*.

  (iii) Social and institutional factors. – Respecting (violating) property rights will encourage, stimulate and even accelerate (disturb, halt or even reverse) the tendency toward a fall in time preference, leading to *civilisation* (*decivilization*).

- The chart below plots the *time preference rate* (vertical axis) against the level of real money income (horizontal axis). T1 and T2 represent *time preference schedules*. Reflecting the *law of diminishing marginal utility*, T1 and T2 slope downward: the higher (lower) the level of real income is, the lower (higher) is the marginal utility of present real money, and the lower (higher) is the time preference rate.

- The movement from point *A* (where the time preference rate is R1(T1)) to point *C* (where the time preference is lower, namely R3(T2)) represents the process of civilization. It can be explained by two factors:

Time preference, time preference rate and civilization



—The movement along T1 from *A* to *B* is due a higher supply of present goods, *reducing the marginal utility of present goods* vis-à-vis future goods, lowering time preference.

—The movement from *B* to *C* implies the move from a higher to a lower time preference schedule (as a result of, for instance, a transition from childhood (*present orientation*) to adulthood (*future orientation*).

—The movement from *A* to *C* can also be characterized as the *process of civilization*. Likewise, the movement from *C* to *A* would represent the *process of decivilization*.

(i) *Crime* (violation) of property rights reduces the supply of present goods of the victimised appropriator-producer, raising his time preference.

(ii) It also leads to a *reallocation of resources* (building fences, alarm systems etc.), leading to expenditures which were wasteful without the existence of crime.

- As people have the *opportunity to seek measures for protecting their property rights against crime* (even if they are costly), the tendency towards a lowering of time preference is only temporary; *the civilization process remains intact*.

- Matters change fundamentally, actually *running counter to the civilization process*, if property right violations come from government action:

  (i) *Government violation of property rights* – contrary to crime – are typically considered *legitimate* by the government agents *and* the general public (possibly even the victim).

  (ii) Because they are considered legitimate, government violation of property rights affect individual time preference *systematically different and more profoundly* than does (common) crime.

    — Like crime, *government violations of property rights* reduce an individual's supply of present goods, *raising his time preference*.

    — In contrast to crime, governmental violations of property rights are *continual/institutionalized*, the victim cannot seek effective protection.

    — Government violations of property rights also reduce the supply of future goods, something the individual cannot seek protection against.

    — Thus, by simultaneously reducing the supply of present goods and future goods, government violations of property rights raise an individual's time preference *and* his *time preference schedule*.

- If government induced violations of property rights go unchecked, the process of civilization will not only slow down, or come to a complete standstill, but may be reversed into a *process of decivilization*.

9. Property and the state

SUGGESTED READINGS: Hoppe, H.-H. (2005), The Ethics and Economics of Private Property, Mises Daily, 15 October 2004.

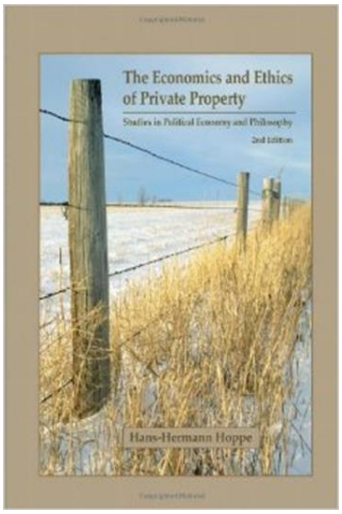
On property

- If there was no *scarcity of goods* (like in the *Garden of Eden*, where there is *superabundance of goods*), no interpersonal *conflict* could arise. For my actions wouldn't have any repercussions neither with respect to my future supply of such goods nor regarding the present or future supply of the same goods for you.

- A conflict is only possible if goods are scarce. Only then will there arise the need to formulate rules (*norms*) that make orderly—conflict-free—social cooperation possible.

  ⟶ From the diversity of individual interests and ideas alone it does not follow that conflicts must arise. For instance, I want it to rain, and my neighbor wants the sun to shine. Our interests are contrary. However, this does not result in a conflict: because neither I nor my neighbor controls the sun or the clouds, our conflicting interests have no practical consequences. Different interests and beliefs can lead to conflict only when they are put into action — when our interests and ideas are attached to or implemented in physically controlled objects, i.e., in economic goods – and the latter implies scarcity.

- Even in the Garden of Eden two scarce goods exist: the *physical body* of a person and its *standing room*. Accordingly, even in the Garden of Eden rules of orderly social conduct must exist—rules regarding the ownership of bodies and the proper location and movement of human bodies. And outside the Garden of Eden, in the realm of scarcity, there must be rules that regulate not only the use of personal bodies but also of everything scarce so that all possible conflicts can be ruled out.



- As Hoppe (2011) notes: "What is needed to avoid all conflict, then, is only a norm regarding the privatization of scarce things (goods). More specifically, in order to avoid all conflict *from the very beginning of mankind on*, the required norm must concern the *original privatization* of goods (the first transformation of nature-given "things" into "economic goods" and private property)."

CONFLICT-FREE ACQUISITION OF PROPERTY

- Property can be created and increased in three, and only three, non-aggressive ways:

  (1) perceiving nature-given things as scarce and actively bringing them into one's possession before anyone else has done so (homesteading, or first user-principle);

  (2) producing goods with the help of one's labour and such previously appropriated resources; or

  (3) acquiring a good through voluntary, contractual transfer from a previous appropriator or producer (including gifts).

- In the Garden of Eden, the solution is then provided by the simple rule stipulating that *everyone may place or move his own body wherever he pleases, provided only that no one else is already standing there and occupying the same space*.

- Outside of the Garden of Eden, in the realm of all-around scarcity the solution is provided by this rule: *Everyone is the proper owner of his own physical body as well as of all places and nature-given goods that he occupies and puts to use by means of his body, provided that no one else has already occupied or used the same places and goods before him*.

- The ownership of "originally appropriated" places and goods by a person implies his right to use and transform these places and goods in any way he sees fit, provided that he does not thereby forcibly change the physical integrity of places and goods originally appropriated by another person.

ON THE ETHICS OF PROPERTY

- An ethical rule (*norm*) must meet two requirements:

  (1) It must be generally and universally applicable, valid for everyone without exception (irrespective of time and place), as maintained by the Kantian *Categorical Imperative*: „Handle nur nach derjenigen Maxime, durch die du zugleich wollen kannst, dass sie ein allgemeines Gesetz werde."

  (2) An ethical rule must secure the survival of those adhering to the rule (otherwise you wouldn't be in need for any ethics).

- Rothbard provides a proof for showing that self-ownership and ownership of non-aggressively acquired goods are *just* (ethical) rules:

If a person A were not the owner of his physical body and all goods originally appropriated, produced or voluntarily acquired by him, there would only exist two alternatives. Either another person, B, must be regarded as the owner of A and the goods appropriated, produced, or contractually acquired by A, or both parties, A and B, must be regarded as equal co-owners of both bodies and goods.

In the *first case*, A would be B's slave and subject to exploitation. B would own A and the goods originally appropriated, produced, or acquired by A, but A would not own B and the goods homesteaded, produced, or acquired by B. With this rule, two distinct classes of people would be created – exploiters (B) and exploited (A) – to whom different "law" would apply.

This rule fails the universalization test and is from the outset disqualified as even a potential human ethic, for in order to be able to claim a rule to be a law (just), it is necessary that such a rule be universally-equally-valid for everyone.

In the *second case* of universal co-ownership, the requirement of equal rights for everyone is obviously fulfilled. Yet this alternative suffers from another fatal flaw, for each activity of a person requires the employment of scarce goods (at least his body and its standing room). Yet if all goods were the collective property of everyone, then no one, at any time and in any place, could ever do anything with anything unless he had every other co-owner's prior permission to do what he wanted to do. And how can one give such permission if one is not even the sole owner of one's very own body (and vocal chords)? If one were to follow the rule of total collective ownership, mankind would die out instantly. Whatever this is, it is not a human ethic.

Thus, one is left with the initial principles of self-ownership and first-use-first-own, i.e., original appropriation, homesteading. They pass the universalization test – they hold for everyone equally – and they can at the same time assure the survival of mankind. They and only they are therefore non-hypothetically or absolutely true ethical rules and human rights.

THE A PRIORI OF PRIVATE PROPERTY

- Hoppe showed that a *private property ethic* can be justified using the concept of *a priori argumentation* – as argumentation presupposes private property.

- As noted earlier, *scarcity* is a necessary condition for the emergence of ethics, as it leads to conflict.

- The sufficient condition is that non-aggressive actors, who have conflicting ideas, must be capable of *argumentation*.

- Argumentation is an orderly exchange of ideas, where each party tries justifying his own thesis, and questioning, or refuting, the other party's thesis (*discourse*). It resolves an initial conflict of opinion by way of a critical discussion.

- Truth claims are made through argumentation, and it is in the course of argumentation that truth claims are decided. Political philosophy/ethics thus presupposes argumentation. This is, we can say, is irrefutably true.

- Denying that political philosophy/ethics presupposes argumentation is contradictory, as denying would itself be an argumentation, and one cannot argue that one cannot argue. As a result, we have the *a priori of argumentation* (Karl-Otto Apel and Jürgen Habermas).

- Argumentation is a practical affair, and if argumentation is the presupposition of truth-claiming and possibly true propositions, then it follows that intersubjectively *meaningful norms* much exist, namely those which make an action argumentation. These intersubjectively meaningful norms must have a special cognitive status in that they are the practical preconditions of truth.

- This is a priori true: Denying the possibility of a rational ethics, and arguing that the acceptance/rejection of norms is an arbitrary affair, would invariably get caught in a practical contradiction. As for doing so, one has to presuppose the norms which underlie any argumentation as valid – simply in order to say anything at all.

- Argumentation is an action, and as such it requires an arguing person. The recognition of this undeniable fact, in turn, requires that a person must have exclusive control over the scarce resource of his body. And so, the right in one's own body must be said to be justified a priori.

- Any person who tried to deny this result (the right in his body) would run into a practical, self-defeating contradiction: as arguing in this way implies acceptance of the very norm which he is disputing.

- The right in one's own body, which is a priori true, extends to the right of ownership of other goods. By the virtue of being alive, property rights to other things must be presupposed to be valid.

THE LAW OF ASSOCIATION (LAW OF COMPARATIVE COST ADVANTAGE)

- Praxeology (*a priori theory*) makes us understand that human action tends towards cooperation and association:

  "The law of association makes us comprehend the tendencies which resulted in the progressive intensification of human cooperation. We conceive what incentive induced people not to consider themselves simply as rivals in a struggle for the appropriation of the limited supply of means of subsistence made available by nature. We realize what has impelled them and permanently impels them to consort with one another for the sake of cooperation. Every step forward on the way to a more developed mode of the division of labor serves the interests of all participants. In order to comprehend why man did not remain solitary, searching like the animals for food and shelter for himself only and at most also for his consort and his helpless infants, we do not need to have recourse to a miraculous interference of the Deity or to the empty hypostasis of an innate urge toward association. Neither are we forced to assume that the isolated individuals or primitive hordes one day pledged themselves by a contract to establish social bonds. The factor that brought about primitive society and daily works toward its progressive intensification is human action that is animated by the insight into the higher productivity of labor achieved under the division of labor.

  Neither history nor ethnology nor any other branch of knowledge can provide a description of the evolution which has led from the packs and flocks of mankind's nonhuman ancestors to the primitive, yet already highly differentiated, societal groups about which information is provided in excavations, in the most ancient documents of history, and in the reports of explorers and travelers who have met savage tribes. The task with which science is faced in respect of the origins of society can only consist in the demonstration of those factors which can and must result in association and its progressive intensification. Praxeology solves the problem. If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare. Experience teaches that this condition—higher productivity achieved under the division of labor—is present because its cause—the inborn inequality of men and the inequality in the geographical distribution of the natural factors of production—is real. Thus we are in a position to comprehend the course of social evolution."

  —Mises (1996), Human Action, p. 160-1.

On the state

Immanuel Kant's Metaphysics of morals

„Eine jede Handlung ist recht, die oder nach deren Maxime die Freiheit der Willkür eines jeden mit jedermanns Freiheit nach einem allgemeinen Gesetz zusammen bestehen kann."

—Kant, I., Metaphysik der Sitten, S. 67 [230-231].

„Wenn also meine Handlung oder überhaupt mein Zustand mit der Freiheit von jedermann nach einem allgemeinen Gesetze bestehen kann, so tut der mir unrecht, der mich daran hindert; denn dieses Hindernis (dieser Widerstand) kann mit der Freiheit nach allgemeinen Gesetzen nicht bestehen."

—Kant, I., Metaphysik der Sitten, S. 67 [230-231].

„Nun ist alles, was unrecht ist, ein Hindernis der Freiheit nach allgemeinen Gesetzen; der Zwang aber ist ein Hindernis oder Widerstand, der der Freiheit geschieht. Folglich: wenn ein gewisser Gebrauch der Freiheit selbst ein Hindernis der Freiheit nach allgemeinen Gesetzen (d. i. unrecht) ist, so ist der Zwang, der diesem entgegengesetzt wird, als Verhinderung eines Hindernisses der Freiheit mit der Freiheit nach allgemeinen Gesetzen zusammenstimmend, d. i. recht; mithin ist mit dem Rechte zugleich eine Befugnis, den, der ihm Abbruch tut, zu zwingen, nach dem Satze des Widerspruchs verknüpft."

—Kant, I., Metaphysik der Sitten, S. 68 [231-232].

„Ein Staat (civitas) ist eine Vereinigung einer Menge von Menschen unter Rechtsgesetzen".

—Kant, I., Metaphysik der Sitten, S. 169 [312 – 313].

„Die gesetzgebende Gewalt kann nur dem vereinigten Willen des Volkes zukommen. Denn da von ihr alles Recht ausgehen soll, so muss sie durch ihr Gesetz schlechterdings niemand unrecht tun können."

—Kant, I., Metaphysik der Sitten, S. 170 [313 – 314].

- The institution of private property is not sufficient to secure peaceful social cooperation. It is possible that people simply do not want to avoid conflict, as they might expect to benefit from conflict at the expense of others; man being what he is, there will always exist murderers, thieves, thugs etc.

- To protect private property, the enforcement of law and order is required, and this task is said to be the primary duty of the *state*. The (modern) state can be defined as an agency (group of acting men) characterized by two logically connected features:

  (1) The state exercises a territorial monopoly of ultimate decision-making (it allows no appeal above and beyond itself). It is the ultimate arbiter in every case of conflict: conflict among the state's citizens and conflicts between the state and its citizens.

  (2) The state is the agency that has a territorial monopoly of taxation. In other words: It unilaterally fixes the prices citizens have to pay for the state's monopolized law and order services.

- The state (that is the monopolist of ultimate decision-making and the right to tax) stands in clear contradiction to fundamental economic and moral principles:

  (1) A monopoly is "bad" for consumers. Shielded from competition, the price of the good under monopolistic conditions will be higher and its quality lower than otherwise; and

  (2) a tax-funded life-and-property protection agency is a contradiction in terms: it amounts an expropriating property protector.

- Now let us turn to some pressing questions and explore the answers.

  (1) What came first: the state of private property rights? Logically and temporally, property must have been in place first, and only after property was established, the state emerged. In other words: The state was not needed to establish private property in the first place.

  (2) Was the state established through a *social contract*? The answer is no. No one has ever seen, let alone signed, such a contract.

  (3) Is there any kind of an *implicit contract* having rightfully established the state? Again, the answer is no.

  (4) Is the state compatible with the a priori of private property? The answer is no. For anyone permanently subject to a monopolist of ultimate decision-making and the right to tax is no longer the unconditional owner of his own body and those goods he acquired through homesteading, production and contractual exchange.

  "No private property owner can possibly surrender his right to ultimate jurisdiction over and physical protection of his property to someone else unless he sells or other-

wise transfers his property (in which case someone else gains exclusive jurisdiction over it.)"

—Hoppe (2006),The Economics and Ethics of Private Property, p. 226.

"Such a monopoly contract would imply that every private property owner had surrendered his right to ultimate decisionmaking and the protection of his person and property permanently to someone else. In effect, in transferring this right onto some else, a person would submit himself into permanent slavery."

—Hoppe (2001), On the Errors of Classical Liberalism and the Future of Liberty, p. 227.

(5) What about Hobbesian logic (*homo homini lupus est*), namely that man needs to obey an authority? Hobbesians would have to argue that to secure peaceful cooperation, individual A and B require a third party, C, as ultimate judge and peacemaker. For without C, A and B would be in a state of anarchy/barbarism.

However, who will control C? And suppose each nation has a "C", wouldn't that still mean a state of anarchy of nation states (in fact equivalent to A and B without C)? What if all "Cs" would be controlled by a D, with D being the world authority? Where would this lead us to?

- What do (and can) we know about the origin of the state? The German sociologist and economist Franz Oppenheimer (1864 – 1943) characterized the state as a societal order of superior and inferior classes of people, having originated through aggression:

"Every state in history was or is a state of classes, a polity of superior and inferior social groups, based upon distinctions either of rank or of property. This phenomenon must, then, be called the "State."

—Oppenheimer (1919), The State, 1919, p. 12.

"[T]he State, as a class-state, can have originated in no other way than through conquest and subjugation."

—Oppenheimer (1919), The State, 1919, p. 15.

- In the *classical-liberal tradition*, from the American Declaration of Independence to Mises, it was the idea to assign to government the indispensable task of protecting life, liberty, and property as its sole function. Rothbard rejected this view – on the basis of his rational ethic of liberty. Rothbard's *The Ethics of Liberty* initially attracted little attention in academia. Presumably this can be ascribed to the anarchistic implications of his theory, namely that the institution of government is incompatible with the fundamental principles of justice.

10. Liberalism and capitalism

SUGGESTED READINGS: Mises, L. v. (2002), Liberalism In The Classical Tradition, Foundation for Economic Education, Inc. Irvington-on-Hudson, New York. Mises, L. v. (1972), The Anti-Capitalistic Mentality, Libertarian Press, Inc. (originally published by D. Van Nostrand Company, 1956); Hayek, F. A. v. (1949), The Intellectuals and Socialism, reprinted from The University of Chicago Law Review, pp. 417-420, 421-423, 425-433.

Liberalism

- "Liberalism is not a completed doctrine or a fixed dogma. On the contrary: it is the application of the teachings of science to the social life of man. And just as economics, sociology, and philosophy have not stood still since the days of David Hume, Adam Smith, David Ricardo, Jeremy Bentham, and Wilhelm Humboldt, so the doctrine of liberalism is different today from what it was in their day, even though its fundamental principles have remained unchanged. For many years now no one has undertaken to present a concise statement of the essential meaning of that doctrine."

—Mises (2002), Liberalism, p. 3.

- The fundamentals of liberalism:

—Private property

"The program of liberalism, therefore, if condensed into a single word, would have to read: *property*, that is, private ownership of the means of production (for in regard to commodities ready for consumption, private ownership is a matter of course and is not disputed even by the socialists and communists). All the other demands of liberalism result from this fundamental demand."

—Mises (2002), Liberalism, p. 19.

"It is not on behalf of property owners that liberalism favors the preservation of the institution of private property. It is not because the abolition of that institution would violate property rights that the liberals want to preserve it. If they considered the abolition of the institution of private property to be in the general interest, they would advocate that it be abolished, no matter how prejudicial such a policy might be to the interests of property owners. However, the preservation of that institution is in the interest of all strata of society. Even the poor man, who can call nothing his own, lives incomparably better in our society than he would in one that would prove incapable of producing even a fraction of what is produced in our own."

—Mises (2002), Liberalism, p. 29.

—Freedom

—Peace

—Equality

"All human power would be insufficient to make men really equal. Men are and will always remain unequal. It is sober considerations of utility such as those we have here presented that constitute the argument in favor of the equality of all men under the law. Liberalism never aimed at anything more than this, nor could it ask for anything more."

—Mises (2002), Liberalism, p. 28-9.

STATE AND GOVERNMENT

- "Life in society would be quite impossible if the people who desire its continued existence and who conduct themselves accordingly had to forgo the use of force and compulsion against those who are prepared to undermine society by their behavior. A small number of antisocial individuals, i.e., persons who are not willing or able to make the temporary sacrifices that society demands of them, could make all society impossible. Without the application of compulsion and coercion against the enemies of society, there could not be any life in society."

  —Mises (2002), Liberalism, p. 35.

- "One must be in a position to compel the person who will not respect the lives, health, personal freedom, or private property of others to acquiesce in the rules of life in society. This is the function that the liberal doctrine assigns to the state: the protection of property, liberty, and peace."

  —Mises (2002), Liberalism, p. 37.

- "We call the social apparatus of compulsion and coercion that induces people to abide by the rules of life in society, the state; the rules according to which the state proceeds, law; and the organs charged with the responsibility of administering the apparatus of compulsion, government."

  —Mises (2002), Liberalism, p. 28-9.

- There is an inherent tendency in all governmental power to recognize no restraints on its operation and to extend the sphere of its dominion as much as possible. To control everything, to leave no room for anything to happen of its own accord without the interference of the authorities—this is the goal for which every ruler secretly strives. If only private property did not stand in the way! Private property creates for the individual a sphere in which he is free of the state."

  —Mises (2002), Liberalism, p. 67.

RIGHT OF SECESSION

- "It must always be possible to shift the boundaries of the state if the will of the inhabitants of an area to attach themselves to a state other than the one to which they presently belong has made itself clearly known"

  —Mises (2002), Liberalism, p. 108.

- "The right of self-determination in regard to the question of membership in a state thus means: whenever the inhabitants of a particular territory, whether it be a single village, a whole district, or a series of adjacent districts, make it known, by a freely conducted plebiscite, that they no longer wish to remain united to the state to which they belong at the time, but wish either to form an independent state or to attach themselves to some other state, their wishes are to be respected and complied with. This is the only feasible and effective way of preventing revolutions and civil and international wars."

  —Mises, Liberalism, p. 109.

- "However, the right of self-determination of which we speak is not the right of self-determination of nations, but rather the right of self-determination of the inhabitants of every territory large enough to form an independent administrative unit. If it were in any way possible to grant this right of self-determination to every individual person, it would have to be done. This is impracticable only because of compelling technical considerations, which make it necessary that a region be governed as a single administrative unit and that the right of self-determination be restricted to the will of the majority of the inhabitants of areas large enough to count as territorial units in the administration of the country."

  —Mises (2002), Liberalism, p. 109-10.

ON THE UNITED STATES OF EUROPE

- "The evils that those who champion the idea of a United States of Europe are trying to combat undoubtedly exist, and the sooner they are eliminated, the better. But the formation of a United States of Europe would not be an appropriate means to achieve this end."

  —Mises (2002), Liberalism, p. 143-4.

- "The nations must come to realize that the most important problem of foreign policy is the establishment of lasting peace, and they must understand that this can be assured throughout the world only if the field of activity permitted to the state is limited to the

narrowest range. Only then will the size and extent of the territory subject to the sovereignty of the state no longer assume such overwhelming importance for the life of the individual as to make it seem natural, now as in the past, for rivers of blood to be shed in disputes over boundaries."

—Mises (2002), Liberalism, p. 144.

Capitalism

- "A society in which liberal principles are put into effect is usually called a capitalist society, and the condition of that society, capitalism. Since the economic policy of liberalism has everywhere been only more or less closely approximated in practice, conditions as they are in the world today provide us with but an imperfect idea of the meaning and possible accomplishments of capitalism in full flower."

  —Mises (2002), Liberalism, p. 10.

- "The characteristic feature of modern capitalism is mass production of goods destined for consumption by the masses. The result is a tendency towards a continuous improvement in the average standard of living, a progressing enrichment of the many. Capitalism deproletarianizes the "common man" and elevates him to the rank of a "bourgeois."

  On the market of a capitalistic society the common man is the sovereign consumer whose buying or abstention from buying ultimately determines what should be produced and in what quantity and quality."

  —Mises (2002), The Anti-Capitalistic Mentality, p. 1.

- "The profit system makes those men prosper who have succeeded in filling the wants of the people in the best possible and cheapest way. Wealth can be acquired only by serving the consumers. The capitalists lose their funds as soon as they fail to invest them in those lines in which they satisfy best the demands of the public. In a daily repeated plebiscite in which every penny gives a right to vote the consumers determine who should own and run the plants, shops and farms. The control of the material means of production is a social function, subject to the confirmation or revocation by the sovereign consumers."

  —Mises (2002), The Anti-Capitalistic Mentality, p. 2.

- "This is what the modern concept of freedom means. Every adult is free to fashion his life according to his own plans. He is not forced to live according to the plan of a planning authority enforcing its unique plan by the police, i.e., the social apparatus of compulsion and coercion. What restricts the individual's freedom is not other people's violence or threat of violence, but the physiological structure of his body and the inescapable nature-given scarcity of the factors of production."

—Mises (2002), The Anti-Capitalistic Mentality, p. 1.

ANTI-CAPITALISTIC MENTALITY

- In *The Anti-Capitalistic Mentality* (1956), Mises identified a deeply rooted, and economically uninformed, prejudice against capitalism, which he called anti-capitalistic mentality:

  "(…) people do not ask for socialism because they know that socialism will improve their conditions, and they do not reject capitalism because they know that it is a system prejudicial to their interests. They are socialists because they believe that socialism will improve their conditions, and they hate capitalism because they believe that it harms them. They are socialists because they are blinded by envy and ignorance. They stubbornly refuse to study economics and spurn the economists' devastating critique of the socialist plans because, in their eyes, economics, being an abstract theory, is simply nonsense. They pretend to trust only in experience. But they no less stubbornly refuse to take cognizance of the undeniable facts of experience, viz., that the common man's standard of living is incomparably higher in capitalistic America than in the socialist paradise of the Soviets." (Mises, 1972, p. 36)

- Mises saw that the spreading of the anti-capitalistic mentality would threaten the free societal order, as it is public opinion that will determine whether socialism or capitalism will dominate:

  "If public opinion is ultimately responsible for the structure of government, it is also the agency that determines whether there is freedom or bondage. There is virtually only one factor that has the power to make people unfree—tyrannical public opinion. The struggle for freedom is ultimately not resistance to autocrats or oligarchs but resistance to the despotism of public opinion. It is not the struggle of the many against the few but of minorities—sometimes of a minority of but one man—against the majority. The worst and most dangerous form of absolutist rule is that of an intolerant majority. Such is the conclusion arrived at by Tocqueville and John Stuart Mill."

  —Mises (1957), Theory and History, pp. 66.

- In fact, Mises was aware of the fact that public opinion, which is greatly influenced through the intellectual elite, must retain its culture of dissent, as without the latter there could not be competition and progress. In many writings, Mises had stressed the fundamental historical fact that social progress, made possible by the rise of capitalism, had resulted from the efforts of a small group of individuals:

  "The most amazing thing concerning the unprecedented change in earthly conditions brought about by capitalism is the fact that it was accomplished by a small number of au-

thors and a hardly greater number of statesmen who had assimilated their teachings. Not only the sluggish masses but also most of the businessmen who, by their trading, made the laissez-faire principles effective failed to comprehend the essential features of their operation. Even in the heyday of liberalism only a few people had a full grasp of the functioning of the market economy. Western civilization adopted capitalism upon recommendation on the part of a small élite."

—Mises (1956), The Anti-Capitalistic Mentality, p. 35.

- In his essay *The Intellectuals and Socialism* (1949), Friedrich August von Hayek noted:

  "In all democratic countries, in the United States even more than elsewhere, a strong belief prevails that the influence of the intellectuals on politics is negligible. This is no doubt true of the power of intellectuals to make their peculiar opinions of the moment influence decisions, of the extent to which they can sway the popular vote on questions on which they differ from the current views of the masses. Yet over somewhat longer periods they have probably never exercised so great an influence as they do today in those countries. This power they wield by shaping public opinion."

  —Hayek (1949), The Intellectuals and Socialism, p. 371.

11. The impossibility of socialism and interventionism

SUGGESTED READINGS: Mises, L. v. (1981), Socialism. An Economic and Sociological Analysis, Liberty Fund; Mises, L. v. (1990), Economic Calculation in the Socialist Commonwealth, see the Postscript written by Joseph T. Salerno, pp. 49 – 69; Hoppe, H.-H. (2010), A Theory of Socialism and Capitalism, Kluwer Academic Publishers, Ludwig von Mises Institute, Auburn, US Alabama. Mises, L. v. (1940 [1929]), Interventionism: An Economic Analysis, The Foundation of Economic Education, Inc., New York.

Socialism

- Socialism means public ownership of the means of production. "[I]t is a transfer of property titles from people who have actually put scarce means to some use or who have acquired them contractually from persons who have done so previously onto persons who have neither done anything with the things in question nor acquired them contractually."

  —Hoppe (2010), Socialism and Capitalism, p. 33.

FORMS OF SOCIALISM:

- The *Russian-style socialism* is a system in which *all* means of production are nationalised or socialised (which, it should be noted, cannot be carried through to its logical end without causing an immediate economic disaster).

- *Social-democratic socialism* was encouraged by the economic failure of Russian-style socialism and, in particular, its lack of support among the population. It has two central features:

  → *First*, social-democratic socialism does not outlaw private ownership in the means of production – as Russian-style socialism does. It even accepts the idea of all means of production being privately owned—with the exception of education, traffic and communication, central banking, and the police and courts.

  → *Second*, under social-democratic socialism no owner of means of production rightfully owns *all* of the income that can be derived from his means of production. Part of the income has to be handed over to society, and is then, according to ideas of egalitarianism or distributive justice, redistributed to its individual members.

  → The difference between Russian-style and social-democratic socialism is *not* of a categorical nature. As Hoppe (2010, p. 62) notes: "[T]he degree of expropriation of private producers' income is a matter of expediency, which suffices to reduce the difference be-

tween both types of socialism—Russian and social-democratic style—once and for all to a difference only of degree."

- The *socialism of conservativism* wants – via taking recourse to aggressions against private property (via, for instance, price controls, regulations etc.) – to prevent economic and societal change that is deemed unfavourable from the viewpoint of the conservatives.

  „Conservatism (…) is the anti-egalitarian, reactionary answer to the dynamic changes set in motion by a liberalized society: It is anti-liberal and, rather than recognizing the achievements of liberalism, tends to idealize and glorify the old system of feudalism as orderly and stable."

  —Hoppe (2010), Socialism and Capitalism, p. 90.

- "*Christian socialism* is governed by the idea that the economic system would be perfectly stationary if the desire for profit and personal gain by men directing their efforts solely to the satisfaction of material interests did not disturb its smooth course. … It is the duty of legislation to supress these excesses of the business spirit and to restore to handicraft the place in production from which it has been displaced by the machinations of big capital."

  —Mises (1951) Socialism, p. 252-3.

The way towards socialism

- There are advocates among the socialists for a *revolutionary overthrow* of the current societal order, replacing capitalism by the complete expropriation of all private property owners, and establishing – until scarcity would be eradicated – the temporary *dictatorship of the proletariat*.

- There are socialists who advocate a *peaceful and gradualist approach*. They reason that socialism can be established best via parliamentary, that is democratic, means. Universal suffrage would allow, over time, winning over the majority of the people to the socialist course.

THE IMPOSSIBILITY OF SOCIALISM

- In *Economic Calculation in the Socialist Commonwealth* (1920), Mises demonstrated irrefutably that socialism is doomed to fail. This argument was later incorporated and broadened in his book *Socialism* (1922) – at a time when the socialist idea had become state-of-the-art among many intellectuals and economists in particular. Mises's calculation argument can be outlined as follows:

(1) Monetary calculation is indispensable for choosing the optimum among the vast array of alternative production plans.

(2) If private property holders are at liberty to exchange goods against money according to their individual value judgements, objective monetary exchange ratios (money prices) emerge, which relate the values of all (consumer) goods to one another.

(3) In the competitive process, entrepreneurs seeking to maximize profits bid against one another to acquire production factors, thereby objectively appraising scarce resources in monetary terms according to their ultimate contribution to the production of consumer goods.

(4) Under socialism, where private property of the means of production is abolished, the appraisement of scarce resources is no longer possible (especially as far as the economy's capital structure is concerned).

(5) As actors are not in a position to compare the estimated costs and benefits of their decisions, economizing activities are, by definition, ruled out. A society without monetary calculation, that is a socialist society, is a society without an economy.

- *Question*: Why could socialist economies (such as, for instance, the Soviet Union) survive for decades (and collapsed only toward the end of the 20th century)?

PRINCIPLES OF DISTRIBUTION IN SOCIALISM

- In a *capitalist production*, the individual receives an income corresponding to the value of his contribution to the output. It is an essential feature of *socialist production* that the contributions of different factors of production to the (final) output *cannot* be ascertained.

- *Socialistic distribution* can conceivably be based on four different principles:
  (1) equal distribution per head;
  (2) distribution according to service rendered;
  (3) Distribution according to needs; or
  (4) distribution according to merit.

HAYEK ON SOCIALISM

- In contrast to Mises's analysis, Friedrich August von Hayek (1899–1992) ascribed the impossibility of a socialist economy to a lack of knowledge on the part of the socialist planners.

- Hayek agreed with Mises that in a socialist economy the planners would have no means of finding out the preferences of the consumers, or the scarcity of resources – while free market prices disseminate such knowledge from one individual to another.

- However, Hayek held that a static, general equilibrium economy could actually overcome the problem of making use of dispersed knowledge: eventually, so Hayek, all data would come to be known by all. Hence, as is usual for Hayek, the argument for the free economy and against statism rests on an argument of ignorance.

- To Mises, however, the central problem of a socialist economy is not the lack of knowledge (as maintained by Hayek). Mises's insight was that even if socialist planners knew perfectly, and tried hard to satisfy consumer preferences, and even if the planners enjoyed a perfect knowledge of all resources and all technologies, they still would not be able to calculate due to a non-existing price system of the means of production.

- To Mises, the starting point of entrepreneurial planning of production in a market economy is the experience of the present (actually immediate past) price structure as well as the underlying economic data.

- Knowledge of past market prices by the entrepreneur does not substitute for qualitative information about the economy, as Hayek argues, but is necessarily complementary to it, Mises argues.

- To Mises, the price structure that emerges in the future is relevant to the economic success of unavoidably time-consuming and future-oriented production plans. Entrepreneurs cannot know the future price structure directly (and perfectly), however. They can appraise them in light of their experience made in the past and of their understanding of what will influence them going forward. In contrast to Hayek, therefore, forming a view about future price developments (which are actually expressive of consumer preferences) is the starting point of the competitive process and not its social culminant.

- In other words: forecasting, or appraising, future price structures (in which discovery of new knowledge may be said to play a role) is a pre-competitive and non-social activity, as it takes place in the (subjective) mind of the entrepreneurial mind.

- The objective price appraisement of individual entrepreneurial calculation (for higher-order goods) is what can be called the social function of competition. [Note that the latter's operation does not presuppose knowledge discovery, which is inescapable an individual process.]

- As a result, it is impossible for socialist planners to employ resources in an entrepreneurial fashion, which requires anticipating future prices. Hayek's static equilibrium concept would just convey knowledge about past or present prices, but it would not provide any

guidance as far as future prices are concerned – a mechanism which is indispensable for entrepreneurial activity.

SOCIALIST IMPOVERISHMENT

- Without a free market based pricing system, it is impossible to calculate and appraise in cardinal monetary terms, and so the problem of socialism is not a lack of knowledge but the impossibility of calculability.

- What are the effects of socializing the means of production? It leads to relative impoverishment (when compared to production under capitalism). Three factors explain this conclusion.

  (1) *Relative drop in investing and thus capital formation*. "Since "socialization" favors the nonuser, the nonproducer, and the noncontractor of means of production and, mutatis mutandis, raises the costs for users, producers, and contractors, there will be fewer people acting in the latter roles. There will be less original appropriation of natural resources whose scarcity is realized, there will be less production of new and less upkeep of old factors of production, and there will be less contracting. For all of these activities involve costs and the costs of performing them have been raised, and there are alternative courses of action, such as leisure-consumption activities, which at the same time have become relatively less costly, and thus more open and available to actors." (Hoppe, 2010, p. 40)

  (2) *Wasteful squandering of scarce resources*. Scare resources will be used for the satisfaction of second-rate needs or, in the worst case, they will serve no need at all. Because the means of production either cannot be sold, or selling them is made very difficult, no (clean) market prices for the means of production exist, or the formation of such prices is hindered and made more costly. The caretaker-producer of the socialized means of production can no longer correctly establish the actual monetary costs involved in using the resources or in making any changes in the production structure. Nor can he compare these costs with his expected monetary income from sales.

  (3) *Over-utilization of the given factors of production*. "Because he cannot sell the means of production, his incentive to not produce, and thereby utilize the capital employed, at the expense of an excessive reduction in capital value is, if not completely gone, then at least relatively reduced. True, since the caretaker in a socialized economy also cannot privately appropriate the receipts from the sale of products, but must hand them over to the community of caretakers at large to be used at their discretion, his incentive to produce and sell products at all is relatively weakened as well. It is precisely this fact that explains the lower rate of capital formation." (Hoppe, 2010, p. 43)

Interventionism

- *Interventionism* is a "middle of the road policy" (or a "social market economy"), a system trying to steer between *capitalism* and *socialism*:

  "To be sure, it is conceded that socialism, the communal ownership of the means of production, is altogether, or at least for the present, impracticable. But, on the other hand, it is asserted that unhampered private ownership of the means of production is also an evil. Thus people want to create a third way, a form of society standing midway between private ownership of the means of production, on the one hand, and communal ownership of the means of production, on the other. Private property will be permitted to exist, but the ways in which the means of production are employed by the entrepreneurs, capitalists, and landowners will be regulated, guided, and controlled by authoritarian decrees and prohibitions. In this way, one forms the conceptual image of a regulated market, of a capitalism circumscribed by authoritarian rules, of private property shorn of its allegedly harmful concomitant features by the intervention of the authorities."

  —Mises (2002), Liberalism, p. 76.

- In *Kritik des Interventionismus* (1929), Mises exposed the fallacies of interventionism, that it would be an inherently unsustainable form of economic and societal organization:

  "Interventionism is not an economic system, that is, it is not a method which enables people to achieve their aims. It is merely a system of procedures which disturb and eventually destroy the market economy. It hampers production and impairs satisfaction of needs. It does not make people richer; it makes people poorer."

  —Mises (1940), Interventionism, p. 77.

  "The various measures, by which interventionism tries to direct business, cannot achieve the aims its honest advocates are seeking by their application. Interventionist measures lead to conditions which, from the standpoint of those who recommend them, are actually less desirable than those they are designed to alleviate. They create unemployment, depression, monopoly, distress. They may make a few people richer, but they make all others poorer and less satisfied. If governments do not give them up and return to the unhampered market economy, if they stubbornly persist in the attempt to compensate by further interventions for the shortcomings of earlier interventions, they will find eventually that they have adopted socialism."

  —Mises (1940), Interventionism, p. 91.

"The inevitable sequence of events which followed upon the application of interventionist measures fully proved the correctness of the economists' predictions. The predicted political effects, social unrest, dictatorship, and war, also did not fail to appear."

—Mises (1940), Interventionism, p. xi.

- Why is interventionism doomed to fail? Mises gives *three reasons*:

  "First: Restrictive measures always restrict output and the amount of goods available for consumption. Whatever arguments may be advanced in favour of definite restrictions and prohibitions, such measures in themselves can never constitute a system of social production."

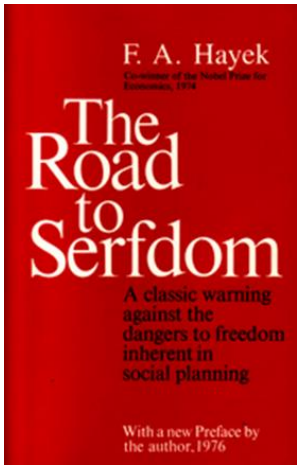
  "Second: All varieties of interference with the market phenomena not only fail to achieve the ends aimed at by their authors and supporters, but bring about a state of affairs which-from the point of view of their authors' and advocates' valuations—is less desirable than the previous state of affairs which they were designed to alter. If one wants to correct their manifest unsuitableness and preposterousness by supplementing the first acts of intervention with more and more of such acts, one must go farther and farther until the market economy has been entirely destroyed and socialism has been substituted for it."

  "Third: Interventionism aims at confiscating the "surplus" of one part of the population and at giving it to the other part. Once this surplus is exhausted by total confiscation, a further continuation of this policy is impossible."

  —Mises (1996), Human Action, p. 858.

- Sooner or later, however, a society following interventionism will be confronted with an inescapable choice: *either returning to capitalism or drifting to full-scale socialism*.

FRIEDRICH AUGUST VON HAYEK'S *THE ROAD TO SERFDOM*



- Friedrich August von Hayek (1899–1992) had become witness of the rise of *national socialism* (Nationalsozialismus) in Germany. What he later saw as the beginning of socialism in Great Britain led him to write *The Road to Serfdom* (1944).

- Hayek argued that those in favour of socialism must establish an institution responsible for formulating the central plan (which replaces the free market), a *Central Planning Bureau*.

- The fatal flaw of socialism, Hayek argued, is that these central planners would have no means of knowing which production possibilities would be economically feasible; they would have no market prices to serve as guides.

  Note: Hayek explained the impossibility of socialism with a lack of knowledge, while Mises's explanation rested on the non-existence of private property (and thus market prices).

- Hayek argued that there is – in addition to an insoluble economic problem – a severe political problem with socialism: those who rise to the top under socialism are those who have a comparative advantage in exercising discretionary power and coercion; and that it would be inevitable that these powerful men would run the system to their own personal advantage.

- Hayek proved right on both accounts. The 20th century is replete with impoverishment and innumerable innocent victims of one or another variant of the socialist experiment. Perhaps most important, he showed that *totalitarianism* is not a historical accident that emerges because of a poor choice of a leader under socialism. *Totalitarianism is the logical outcome of the very nature of socialism*.

- "It is a common mistake to regard National-Socialism as a mere revolt against reason, an irrational movement without intellectual background. ... But nothing could be further from the truth or misleading. ... Whatever one may think of the premises from which they started, it cannot be denied that the men who produced the new doctrines were powerful writers who left the impress of their ideas on the whole of European thought. ... Once one accepts the premises from which it starts, there is no escape from its logic."

  —Hayek (2001), The Road to Serfdom, p. 171-2.

- "The principle that the end justifies the means, which in individualist ethics is regarded as the denial of all morals, in collectivist ethics becomes necessarily the supreme rule. There is literally nothing which the consistent collectivist must not be prepared to do if it serves 'the good of the whole', because that is to him the only criterion of what ought to be done."

  —Hayek (2001), The Road to Serfdom, p. 151.

- "Once you admit that the individual is merely a means to serve the ends of the higher entity called society or the nation, most of those features of totalitarianism which horrify us follow of necessity. From the collectivist standpoint intolerance and brutal suppression of

dissent, the complete disregard of the life and happiness of the individual are essential and unavoidable consequences of this basic premise, and the collectivist can admit this and at the same time claim that his system is superior to one in which the "selfish" interests of the individual are allowed to obstruct the full realisation of the ends the community pursues."

—Hayek (2001), The Road to Serfdom, p. 153.

12. Money: function, origin – and misconceptions

SUGGESTED READINGS: Mises, L. v. (1981 [1912]), The Theory of Money and Credit, Liberty Fund, Inc., pp. 63 – 81; Menger, C. (2007 ([1871]), Principles of Economics, Ludwig von Mises Institute, Auburn, US Alabama, Chapter VIII., pp. 257 – 285.

FUNCTION(S)

- "Money is a medium of exchange. It is the most marketable good which people acquire because they want to offer it in later acts of interpersonal exchange. (...) This is its only function. All the other functions which people ascribe to money are merely particular aspects of its primary and sole function, that of a medium of exchange."

  —Mises (1996), Human Action, p. 401.

  Money's only function is the means of exchange function. The *unit of account* function of money and the *store of value* function of money are just *sub-functions* of money's exchange function:
  —The unit of account function is expressive of the medium of exchange function.
  —The store of value function denotes the possibility of transferring money's means of exchange function from the present into the future.

- Using money as a means of exchange allows for an overall *increase in productivity*. For instance, assume that there are n goods, so that in a barter economy the individual would have to know $(n^2 - n) / 2$ independent ex-change ratios. Using money as a unit of account, however, an individual would need to know just $n - 1$ exchange ratios.

  To show that using money increases peoples' productivity, assume an economy with 4 goods. Using the formula above, people would have to deal with 6 individual exchange ratios, namely:

  X1 : X2 = 1 : 2 X2 : X3 = 2 : 3
  X1 : X3 = 1 : 3 X2 : X4 = 2 : 4
  X1 : X4 = 1 : 4 X3 : X4 = 3 : 4

  Let us use X1 as the unit of account. Then we have:

  X2 = 2 X1
  X3 = 3/2 X2 = 3 X1
  X4 = 4/3 X3 = 4 X1.

Using money as a numéraire reduces the number of exchange ratios to three. If we had 100 goods, people in a barter economy would need to know 4950 individual exchange ratios. Using money as the unit of account, however, this number declines to 99.

- A modern economy – characterized by division of labor and free trade – could do without money:

  "[M]oney calculation … provides a guide amid the bewildering throng of economic possibilities. It enables us to extend judgements of value which apply directly only to consumption goods – or at best to production goods of the lowest order – to all goods of higher orders. Without it, all production by lengthy and roundabout processes would be so many steps in the dark."

  —Mises (1981), Socialism, p. 100-1.

ORIGIN OF MONEY

- In his book *Principles of Economics*, published in 1871, Carl Menger (1840–1921) laid out a theory of the origin of money. The starting point for Menger's historic-evolutionary theory of the origin of money is the notion that people in a *free market economy* – characterized by private property, division of labor and free trade – would recognize the benefits of using a universally accepted medium of exchange.

- In a barter economy, self-interested individuals would be reluctant to surrender real goods and services in exchange for intrinsically worthless goods (such as pieces of paper).

- In an original state of barter, goods would have different degrees of marketability or saleability. The more saleable a good, the more easily its owner could exchange it for other goods at an economic price. Over time, Menger argued, the most saleable goods were desired by more and more traders because of this advantage. But as more people accepted these goods in exchange, the more saleable they became.

- Eventually, certain goods outstripped all others in terms of their marketability, and became universally accepted in the exchange of all other goods. At this point, money had emerged on the market. Money emerged *spontaneously* through the self-interested actions of individuals.

- No single person conceived of a universal medium of exchange, no government compulsion was necessary to transform a barter economy into a money economy. Money as a universally accepted means of exchange must have naturally emerged from a *commodity*:

  "The origin of money … is, as we have seen, entirely natural and thus displays legislative influence only in the rarest instances. Money is not an invention of the state. It is not the

product of a legislative act. Even the sanction of political authority is not necessary for its existence. Certain commodities came to be money quite naturally, as the result of economic relationships that were independent of the power of the state."

—Menger (2007 [1871], Principles of Economics, pp. 261-2.

THE *REGRESSION THEOREM*

SUGGESTED READINGS: Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, pp. 408 – 410; Rothbard, M. N. (2009 [1962]), Man, Economy, and State, 2nd ed., Ludwig von Mises Institute, Auburn, US Alabama, pp. 268 – 276.

- In 1912, Mises logically explained why money could only originate in this way – that is by free market forces and out of a commodity –, by putting forward his *regression theorem*, which also allowed applying the marginal utility theory to money.

- The values individuals assign to non-money consumption and investment goods are, as a rule, independent and prior to market prices. This is different with money.

- Money is held not for direct use but for exchanging it against other goods. It is not useful in itself but because it has been, and therefore is expected to remain, exchangeable against other goods. In that sense, money is demanded because it has a *pre-existing purchasing power*: People demand money because it has already had an exchange value in the past.

- According to this viewpoint, the value of money on, say, day *t*, depends on the interplay between the supply of and demand for money on that very day. However, with people demanding money because it has already functioned as money in the past, today's value of money must depend on the exchange value of money on the previous day, *t*–1.

- Such an explanation seems to run into an *infinite regress*: the value of money on any day would have to be explained by its purchasing power on the previous day. But how can this price be explained? Mises broke out of the *circularity problem* by bringing the argument back to the point in time when today's money commodity served only as a non-money commodity in a barter system.

- As we *regress backwards in time*, one eventually arrives at the point in time when people first began to use gold as a medium of exchange. Let's consider the *first day* on which people passed from the system of pure barter and began to use a commodity (gold) as a medium of exchange:

  — On that *first day*, the gold price had a *time component*: namely gold's marginal utility as determined on the previous day, established through barter.

— If we regress to the *last day of barter*, the gold price had *no time components*. It was determined solely by the marginal utility of gold on that day; and the marginal utility of gold was determined by its non-monetary purposes.

- As a result, the demand for money can be pushed back to the last day of barter, at which point the temporal element in the demand for commodity money disappears, and the causal forces in the today's demand and purchasing power of money are fully explained.

- Mises's regression theorem logically explains why money must have originated on the market. No money could have originated by government decree (or *social contract*, for that matter). This is because money could not have a pre-existing purchasing power, driving individuals' demands for it.

- What is more, the regression theorem allows explaining why, in peoples' daily transactions, money proper (such as, for instance, gold), once established through the free market proc1ess, can be easily replaced by circulating paper certificates, book entries, etc., because the historical connection to a previous day's valuation would be preserved.

- Mises's regression theorem corresponds to Menger's theory on the spontaneous emergence and evolution of money, but in this case there is a retroactive effect. Mises's regression theorem is of utmost importance in any project for reforming the monetary system, and it explains why in this field there can be no "leaps in the dark," attempts to introduce ex novo monetary systems which are not the result of evolution and which would inevitably be condemned to failure.

OPTIMUM STOCK OF MONEY

SUGGESTED READINGS: Rothbard, M. N. (1990), What Has Government Done to Our Money? Ludwig von Mises Institute, Auburn, US Alabama, II.8, "The "Proper Supply of Money".

- Is there an optimal stock of money? Should the money supply grow in accordance with, for instance, increases in population and trading activities, or by a rate that keeps the price level stable?

- Other goods have various utilities, so that one can say that an increase in their supply satisfies more consumer wants. This is indeed different with money. Money has only utility for (prospective) exchange*: a rise in the money stock does not confer a social benefit*.

- All an increase in the quantity of money does is lowering the purchasing power of the money unit (compared to a situation in which the quantity of money had remained constant).

- Any given quantity of money is sufficient to financing the turnover of goods and services. A large quantity of money leads to (other things being equal) to high prices (a high price level), a small quantity to low prices.

- The finding is, as Rothbard noted, that "(…) it doesn't matter what the supply of money is. *Any supply will do as well as any other supply*. The free market will simply adjust by changing the purchasing power, of effectiveness of the gold-unit. There is no need to tamper with the market in order to alter the money supply that it determines."

  —Rothbard (2010), What Has Government Done to Our Money?, p. 25.

THE CANTILLON EFFECT

- An increase in the quantity of money can never be "neutral", it always affects the interpersonal distribution of income and wealth in the economy: some benefit from an increase in the quantity of money, others suffer losses. This insight is called the "Cantillon effect".

- The first (early) receivers of the new money benefit. They can exchange their new money balances against vendible items at *unchanged prices*. As the new money is passed on, the prices of goods start to rise (that is, they will be higher compared with a situation in which the quantity of money had remained unchanged).

- The late receivers of the newly created money (or those who do not get their hands on the new money) suffer losses: They can buy goods and services only at *elevated prices*. – The fact that an increase in the quantity of money can *never be neutral* can be explained by integrating money into the marginal value theory.

THE DIMINISHING MARGINAL UTILITY OF MONEY

- Money is a good like any other good, and it is the most marketable, the most liquid good. As such, it is subject to the law a diminishing marginal utility.

- As a means of exchange, money's value is its *purchasing power*: The number of goods and services which can be acquired by surrendering a money unit.

- As the quantity of money an individual actor holds *increases* (other things being equal), the marginal utility of the received money unit *decreases*: The additional money units can only be exchanged against goods which are valued less highly than the goods that are to be obtained had the quantity of money n amounted to just $n - 1$ units.

Consider the following *value scale* of Mr Jones:

3.4 grains of gold
3.3 " " "
(1st suit)
3.2 " " "
3.1 " " "
(2nd suit)
3.0 " " "
2.9 " " "
2.8 " " "
(3rd suit)
2.7 " " "

The market price of a suit is 2.9 grains of gold per suit. Mr Jones *will buy up to the last unit at which the diminishing marginal utility that the suit has for him exceeds the increasing marginal utility of money*. The rank of the second suit is still considerably above the rank of the 2.9 grains.

—Rothbard (2001), Man, Economy, and State, p. 260-8.

- An increase in the quantity of money leads to prices that a higher compared with a situation in which the quantity of money had remained unchanged:

"An increase in a community's stock of money always means an increase in the amount of money held by a number of economic agents … . For these persons, the ratio between the demand for money and the stock of it is altered; they have a relative superfluity of money and a relative shortage of other economic goods. The immediate consequence of both circumstances is that the marginal utility to them of the monetary unit diminishes. This necessarily influences their behaviour in the market. They are in a stronger position as buyers. They will now express in the market their demand for the objects they desire more intensively than before; they are able to offer more money for the commodities that they wish to acquire. It will be the obvious result of this that the prices of the goods concerned will rise, and that the objective exchange-value of money will fall in comparison."

—Mises (1953), Theory of Money and Credit, p. 139.

"Since the increased quantity of money is received in the first place by a limited number of economic agents only and not by all, the increase of prices at first embraces only those goods that are demanded by these persons; further, it affects these goods more than it afterwards affects any others. When the increase of prices spreads farther, if the increase in the quantity of money is only a single transient phenomenon, it will not be possible for the differential increase of prices of these goods to be completely maintained; a certain degree of adjustment will take place. But there will not be such a complete adjustment of

the increases that all prices increase in the same proportion. The prices of commodities after the rise of prices will not bear the same relation to each other as before its commencement; the decrease in the purchasing power of money will not be uniform with regard to different economic goods."

—Mises (1953), Theory of Money and Credit, p. 140.

MONEY DOES NOT MEASURE VALUE

- It is impossible to measure value:

  "It is important to realize that there is never any possibility of measuring increases or decreases in happiness or satisfaction. Not only is it impossible to measure or compare changes in the happiness of any given person. In order for any measurement to be possible, there must be an eternally fixed and objectively given unit with which other units may be compared. There is no such objective unit in the field of human valuation. The individual must determine subjectively for himself whether he is better or worse off as a result of any change. His preference can only be expressed in terms of simple choice, or rank. Thus, he can say, "I am better off" or "I am happier" because he went to a concert instead of playing bridge (or "I will be better off" for going to the concert), but it would be completely meaningless for him to try to assign units to his preference and say, "I am two and a half times happier because of this choice than I would have been playing bridge." Two and a half times what? There is no possible unit of happiness that can be used for purposes of comparison and, hence, of addition or multiplication. Thus, values cannot be measured; values or utilities cannot be added, subtracted, or multiplied. They can only be ranked as better or worse. A man may know that he is or will be happier or less happy, but not by "how much," not by a measurable quantity."

  —Rothbard (2009), Man, Economy, and State, p. 19.

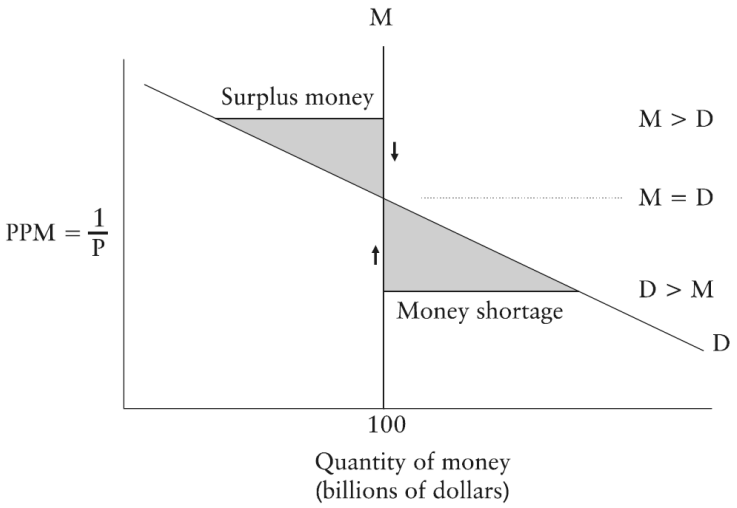
- Money prices (say, 1 US$ for an apple) represent an *objective exchange ratio* between money and a vendible item. However, money prices do *not* represent values the individuals assign to the goods bought and sold.

- On the purchasing power of money (PPM): Conceptually speaking, the *PPM* is the inverse of whatever we can construct as the (imaginary) price level:

  $PPM = 1/P$,

  where P is the price level of a good.

- The higher (lower) *P* is, the lower (higher) is the *PPM*, and there should be a falling demand curve for money in relation to hypothetical *PPM*s (just as there is one in relation to hypothetical individual prices).

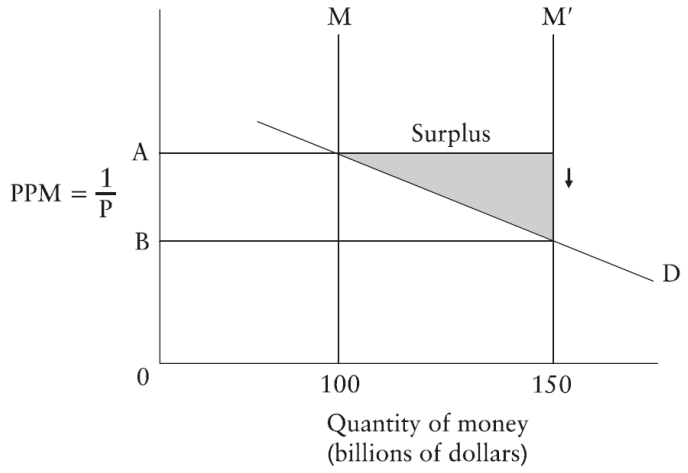


— If money demand (*D*) is smaller than money supply (*M*), so that $D < M$, the difference is *surplus cash balances*. People realise that their cash balances are greater than the level they need at that prevailing prices. They start spending money on goods and services.

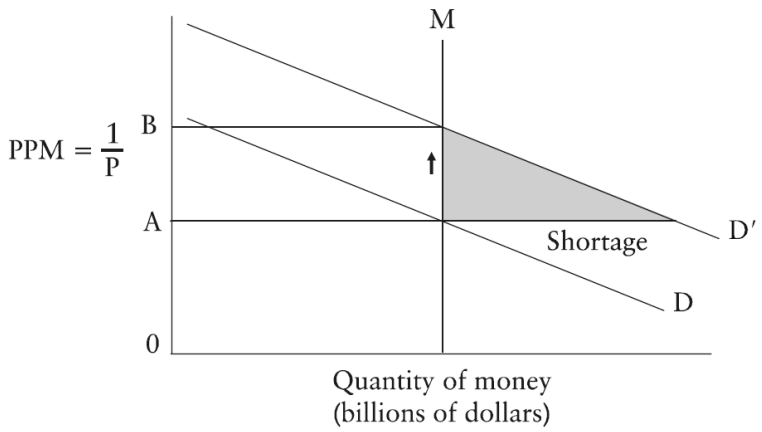
— While people can get rid of *excess* money *individually* by buying things with it, *they can't get rid of money in the aggregate*. As people spend, the demand for goods and services rises, and prices go up. But as overall prices rise further and further, *PPM* begins to fall, until a new equilibrium is reached where $D = M$.

— Suppose that prices were suddenly much higher and the *PPM* therefore much lower. People would need more cash balances to finance their daily lives, and there would be a shortage of cash balances compared to the supply of money available ($D > M$). They would then try to add to their cash balances, and they can only do so by spending less of their income and adding the remainder to their cash balance. Prices will fall, and the *PPM* will rise, with the equilibrium is $D = M$.

— Now consider the case in which there is an increase in *M* (from *M* to *M'*), so that $M' > D$, brings about a process of rising prices, thereby lowering the *PPM*. This, in turn, increases the demand for money, bringing it into line with the increased stock of money.



— An increase in the demand for money (so that $D > M$), brings about a shortage of cash balances. People will start selling goods and services, which, in turn, will lower prices. As the *PPM* rises, money demand declines. In the new equilibrium, *PPM* is higher than it was before the demand for money increased.



ON INFLATION (AND DEFLATION)

SUGGESTED READINGS: Mises, L. v. (1996), Human Action, 4th ed., Fox & Wilkes, San Francisco, pp. 422 – 428.

- In *mainstream economics*, inflation is usually defined as an ongoing rise in a (consumer) price index (of no more than, say, 2 or 3 percent per annum). Such a concept is based on the *price index regime* as put forward by Irving Fisher (1867–1947).

- "The notions of inflation and deflation are not praxeological concepts. They were not created by economists, but by the mundane speech of the public and of politicians. The implied the popular fallacy that there is such a thing as neutral money or money of stable purchasing power and that should money should be neutral and stable in purchasing pow-

er. (…) However, those applying these terms are not aware of the fact that purchasing power never remains unchanged and that consequently there is always inflation or deflation."

—Mises (1996), Human Action, p. 422.

- From a praxeological viewpoint, any increase (decrease) in the money stock must necessarily decrease (increase) the value of the money unit (that is its marginal utility) from the individual viewpoint.

  ⟶ Money is a good, and as such money falls under the law of diminishing marginal utility. As the quantity of money in the hands of Mr X changes, he would attach a different rank-value to the money unit. Thus, the idea of stable-valued money must be considered a praxeological impossibility.

The effect of an increase in the quantity of money

To distinguish the Austrian understanding of inflation from the mainstream interpretation, let us consider two cases based on the quantity theory, which can be formalized as follows:

$M \cdot V = Y \cdot P$,

whereas M = stock of money, V = velocity of money, Y = real output and P = price level

If the growth of the money stock exceeds the rise in the supply of goods and services, the price level increases. Mainstream and Austrian economists would call it *inflation*: the former because of a rise in prices, the latter because of a rise in the money stock. From the Austrian viewpoint, rising prices are the *visible effect* of a rising money stock.

If the growth of the money stock is accompanied by an equal increase in the production of goods and services, however, money prices would remain unchanged. In this case mainstream economists would diagnose price (level) stability, that is absence of any inflation.

Austrians, in contrast, would hold that the rise in the money stock had actually prevented money prices from falling and the purchasing power of money from rising – which would be the case had the money stock remained unchanged. That said, the Austrian definition of inflation includes the *invisible effect* of a rise in the money stock.

- Nowadays, deflation is much more feared than inflation. Hayek (in The Constitution of Liberty, 1960, p. 330) gives an explanation of why this is the case:

  "The difference between inflation and deflation is that, with the former, the pleasant surprise comes first and the reaction later, while, with the latter, the first effect on business is

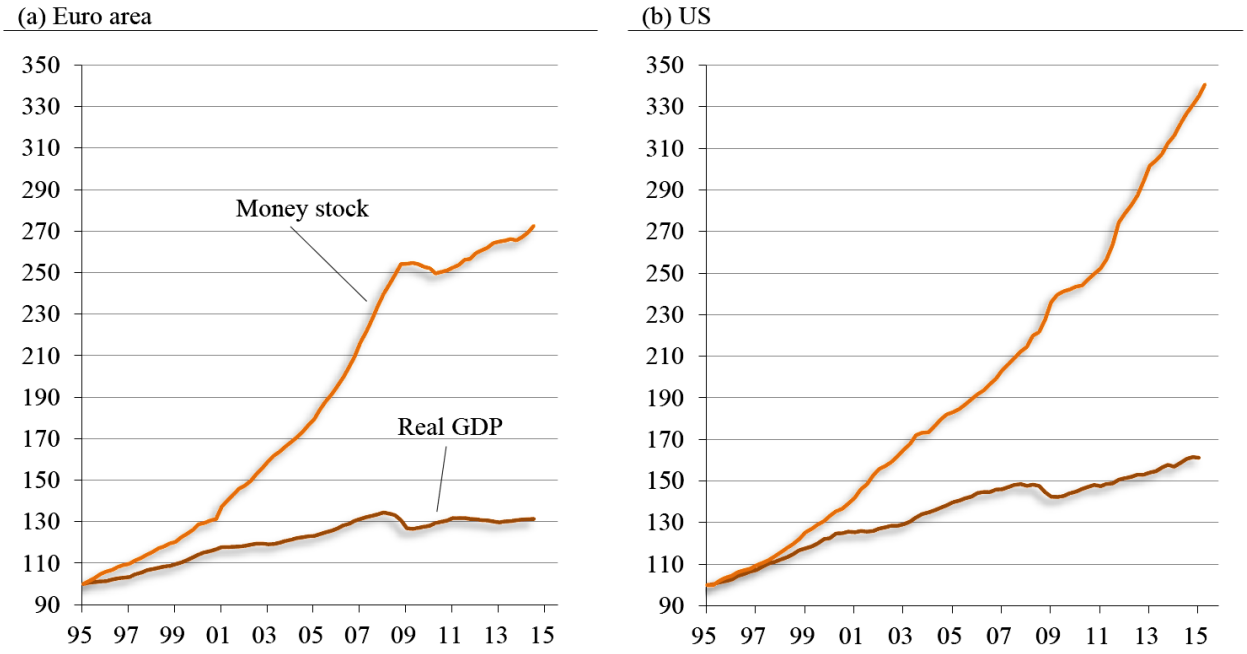
depressing." As a result, "[T]he chief source of the existing inflationary bias is the general belief that deflation, the opposite of inflation, is so much more to be feared that, in order to keep on the safe side, a persistent error in the direction of inflation is preferable." "[T]he determination to avoid deflation at any cost must result in cumulative inflation."

- Rothbard explains the *inflation bias* by pointing towards influential special interest groups:

  "The commercial banks live and profit by expanding credit and creating a new money supply; so they are naturally inclined to do so, "to monetize credit", if they can. The government also wishes to inflate, both to expand its own revenue (either by printing money or so that the banking system can finance government deficits) and to subsidize favoured economic and political groups through a boom and cheap credit."

  —Rothbard (2006), For A New Liberty, p. 232.

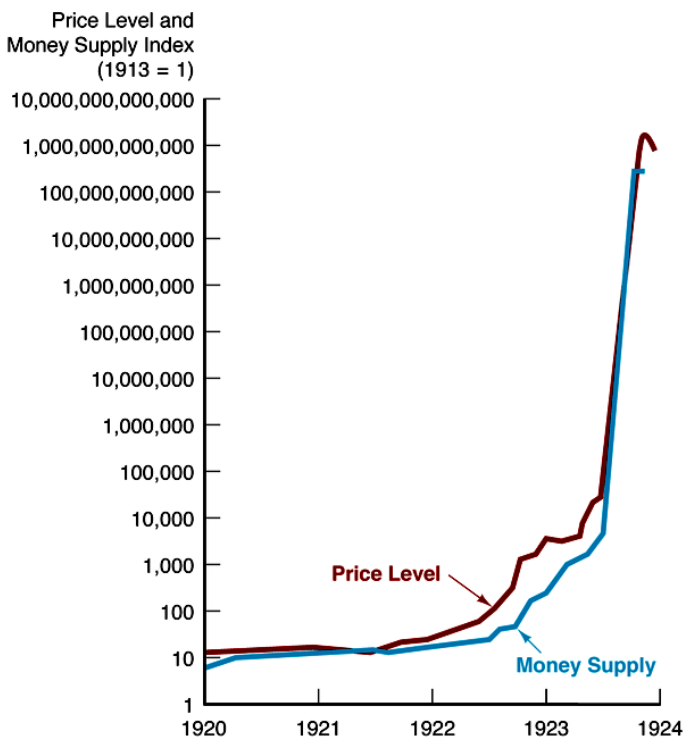
The quantity of money and real output



Source: Thomson Financial, own calculation. *Series are indexed (Q1 1995 = 100).

DIGRESSION: GERMAN HYPERINFLATION 1920 – 1923

SUGGESTED READINGS: Tables taken from: Graham, F. D. (1967 [1930]), Exchange, Prices, and Production in Hyper-Inflation Germany, 1920 - 1923, Princeton University Press.



- The cause of *hyperinflation* is ever higher growth rates of the money stock, or: money growth rates spinning out of control. The *symptoms* of hyperinflation are ever higher increases in prices.

- "Inflationist policy is never the necessary consequence of a specific economic situation. It is always the product of human action—of man-made policy. For whatever the reason, the quantity of money in circulation is increased."

  —Mises (2006), Stabilization of the Monetary Unit—From the Viewpoint of Theory, p. 38.

- Mises had a clear understanding of the very *forces that led to German hyperinflation*: namely political-economic considerations. Mises saw that, at some stage, the *printing up ever greater amounts of new money* can be, politically speaking, the most attractive funding strategy for the government:

  "We have seen that if a government is not in a position to negotiate loans and does not dare levy additional taxation for fear that the financial and general economic effects will be revealed too clearly too soon, so that it will lose support for its program, it always considers it necessary to undertake inflationary measures. Thus inflation becomes one of the most important psychological aids to an economic policy which tries to camouflage its effects. In this sense, it may be described as a tool of antidemocratic policy. By deceiving public opinion, it permits a system of government to continue which would have no hope of receiving the approval of the people if conditions were frankly explained to them."

  —Mises (2006), Stabilization of the Monetary Unit—From the Viewpoint of Theory, p. 38.

TABLE I

EXPENDITURES, REVENUES OTHER THAN FROM SHORT-TERM BORROWING, AND DEFICITS OF THE REICH; 1914–1919

(*Billions of marks*)

FISCAL YEAR (APRIL 1–MARCH 31)	EXPENDITURES	REVENUES OTHER THAN FROM SHORT-TERM BORROWING	DEFICITS (COVERED BY SHORT-TERM BORROWING)
1914–1915	9.6	8.2	1.4
1915–1916	26.7	24.0	2.7
1916–1917	28.8	24.6	4.2
1917–1918	53.3	37.1	16.2
1918–1919	45.5	34.2	11.3
Totals	163.9	128.1[12]	35.8

[12] Of this amount approximately 97 billion marks had been obtained through long-term loans.

Sources of data: (1) *Statistisches Jahrbuch* 1919, Verlag von Puttkamer und Mühlbrecht, Berlin, 1919, *passim*. (2) *Verwaltungsbericht der Reichsbank* 1918, Reichsdruckerei, Berlin, 1919, p. 11.

TABLE II

NATIONAL DEBT OF GERMANY, ISSUES OF PAPER CURRENCY, INDEX OF WHOLESALE PRICES, AND INDEX OF DOLLAR EXCHANGE RATES AGAINST PAPER MARKS; 1914–1918

(*Value figures in millions of marks*)

YEAR	TOTAL DEBT (END OF MARCH OF THE SUCCEEDING YEAR)	TOTAL ISSUES OF PAPER CURRENCY (EXCEPT EMERGENCY MONEY) (END OF YEAR)	INDEX OF WHOLESALE PRICES 1913=1 (END OF YEAR)	INDEX OF DOLLAR EXCHANGE RATES IN BERLIN 1913=1 (END OF YEAR)
1914	5,158	5,862	1.25	1.07
1915	16,955	8,360	1.48	1.23
1916	39,856	11,438	1.51	1.36
1917	69,211	18,245	2.03	1.35
1918	105,304	32,937	2.45	1.97

Sources of data: (1) *European Currency and Finance*, Vol. I, pp. 533-5, 540. (2) *Zahlen zur Geldentwertung in Deutschland* 1914 *bis* 1923, pp. 6, 45.

- In *Age of Inflation* (1979), reviewing Germany's hyperinflation from a political-economic viewpoint, Hans F. Sennholz asked (p. 80): "Who would inflict on a great nation such evil which had ominous economic, social, and political ramifications not only for Germany but for the whole world?"

- Sennholz's sobering answer was (1979, p. 80): "[E]very mark was printed by Germans and issued by a central bank that was governed by Germans under a government that was purely German. It was German political parties, such as the Socialists, the Catholic Centre Party, and the Democrats, forming various coalition governments that were solely responsible for the policies they conducted. Of course, admission of responsibility for any calamity cannot be expected from any political party."

TREASURY BILLS DISCOUNTED BY THE REICH, ISSUES OF PAPER CURRENCY, INDEX OF WHOLESALE PRICES, AND INDEX OF DOLLAR EXCHANGE RATES AGAINST PAPER MARKS; 1919-1923

(Value figures in millions of marks)

END OF MONTH	TOTAL AMOUNT OF TREASURY BILLS DISCOUNTED BY THE REICH[19]	TOTAL ISSUES OF PAPER CURRENCY (EXCEPT EMERGENCY CURRENCY)	INDEX OF WHOLESALE PRICES[20] 1913=1	INDEX OF DOLLAR EXCHANGE RATES IN BERLIN[21] 1913=1
1919 Dec.	86,400	50,065	8.03	11.14
1920 June	113,200	68,154	13.82	9.17
Dec.	152,800	81,387	14.40	17.48
1921 June	185,100	84,556	13.66	17.90
Dec.	247,100	122,497	34.87	43.83
1922 June	295,200	180,169	70.30	89.21
July	308,000	202,626	100.59	159.60
Aug.	331,600	252,212	192.00	410.91
Sept.	451,100	331,876	287.00	393.04
Oct.	603,800	484,685	566.00	1,071.94
Nov.	839,100	769,500	1,154.00	1,822.30
Dec.	1,495,200	1,295,228	1,475.00	1,750.83
1923 Jan.	2,081,800	1,999,600	3,286.00	11,672.00
Feb.	3,588,000	3,536,300	5,257.00	5,407.00
Mar.	6,601,300	5,542,900	4,827.00	4,996.00
April	8,442,300	6,581,200	5,738.00	7,099.00
May	10,275,000	8,609,700	9,034.00	16,556.00
June	22,019,800	17,340,500	24,618.00	36,803.00
July	57,848,900	43,813,500	183,510.00	262,030.00
Aug.	1,196,294,700	668,702,600	1,695,109.00	2,454,000.00
Sept.	46,716,616,400	28,244,405,800	36,223,771.00	38,113,000.00
Oct.	6,907,511,102,800	2,504,955,700,000	18,700,000,000.00	17,270,129,000.00
Nov.	191,580,465,422,100[19]	400,338,326,400,000	1,422,900,000,000.00	1,000,000,000,000.00
Dec.	1,232,679,853,100	496,585,345,900,000	1,200,400,000,000.00	1,000,000,000,000.00

[19] Practically all government borrowing after 1919 was in the form of discounted Treasury bills. The figure for November 1923 is as of the 15th of that month.

[20] In the index number of wholesale prices from December 1919 to December 1922 inclusive, the figures represent monthly averages. From January to June, 1923, statistics are available for specific days three times a month, and from July to December, 1923, weekly. The figures in the table are for the latest available date in each month.

[21] The December 1919 figure for the index number of exchange rates is a monthly average. All other figures for this index are end-of-month quotations.

Sources of data: (1) *Zahlen zur Geldentwertung in Deutschland* 1914 *bis* 1923; Statistisches Reichsamt, Verlag von Reimar Hobbing, Berlin, 1925, pp. 6-10, 16-18, 46-7. (2) *Germany's Economy, Currency and Finance*, Zentral-Verlag G.m.b.H., Berlin, 1924, p. 63.

Tables taken from: Graham, F. D. (1967 [1930]), Exchange, Prices, and Production in Hyper-Inflation Germany, 1920 - 1923, Princeton University Press, p. 7 and 13.

13. The commodity money standard

SUGGESTED READINGS: Rockwell, L. H. (1985), The Gold Standard, An Austrian Perspective, Lexington Books, Lexington, Massachusetts/Toronto; Fetter, F. A. (1926 [1916]), Modern Economic Problems, New York Century Co.; Rothbard, M. N. (1990 [1963]), What has government done to our money? Ludwig von Mises Institute, Auburn, US Alabama, Chapter IV. "The Monetary Breakdown of the West".

OVERVIEW

Phase I: 1815 – 1914, the *classical gold standard*

Phase II: World War I and shortly thereafter

Phase III: 1926 – 1931, the *gold-exchange standard*

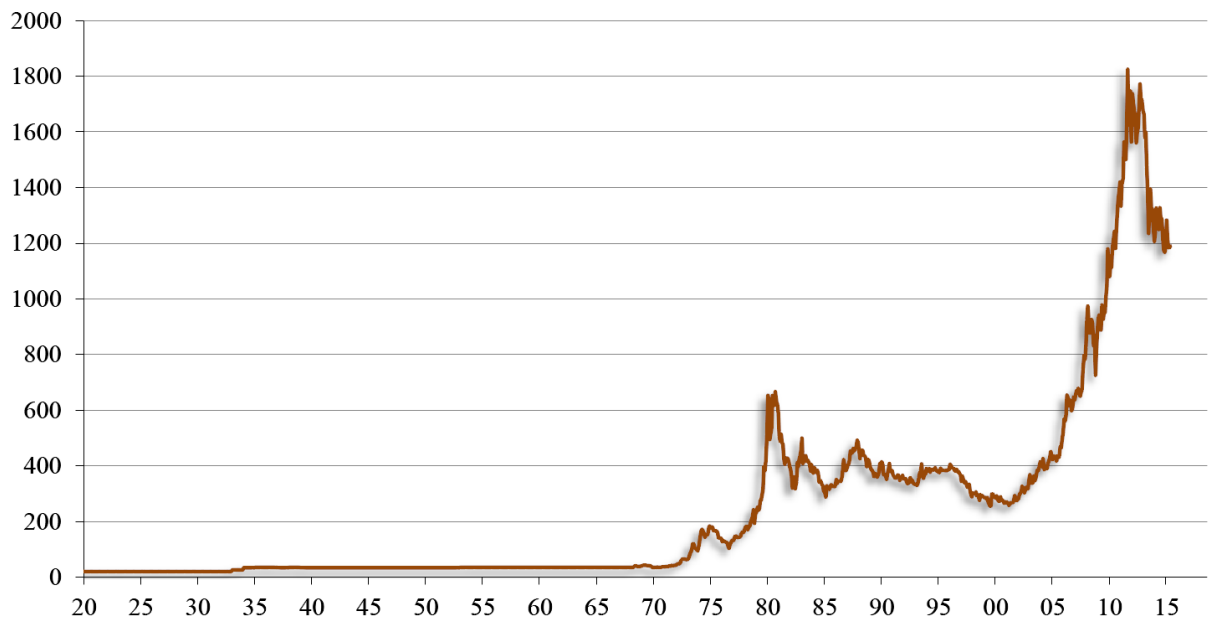
Phase IV: 1931 – 1945, fluctuating fiat currencies

Phase V: 1945 – 1968, the *System of Bretton Woods*

Phase VI: 1968 – 1971, the demise of the System of Bretton Woods

Phase VII: As from August 1971, unfettered fiat money systems
Gold exchange standard: *how it worked*

Gold price (US$ per ounce), 1920 to 2015



Source: Bloomberg.

GOLD MONEY

- Under a *gold standard*, gold is (the freely chosen) money: *gold is money*. Gold *coins* and *money substitutes* (or: *paper notes*) are used as a means of exchange, with the latter exchangeable *at par* at any point in time into physical gold.

  ⟶ Money (the *US dollar*, for instance) would be defined as being equal to a (predetermined) physical quantity of physical gold: For instance, 35 US dollar equal one ounce of gold (which is around 31.1 grams).

- Under a *gold specie standard* gold coins circulate as money (in conjunction with subsidiary coinage (made from a lesser valuable metal) and banknotes). Under a *gold bullion standard*, gold coins do not circulate, but circulating currency (banknotes) is exchanged against gold bars on demand at a fixed price.

- Once an international gold standard is in place, *exchange rates are fixed*. Assume, for instance, that 20.67 US dollar equal one ounce of gold, and that 7.38 British Pound Sterling equal one ounce of gold. In this case, 2.80 US dollar exchange for one British Pound Sterling.

  ⟶ The *gold points*, however, would determine the lower and upper limits of transferring gold from one to the other country (costs of shipping gold).

- Under a true gold standard, money warehouses serve as *deposit institutions*. Money warehouses are active in the business of custodian services and payments/settlement.

- The *credit business* (or: lending business, taken care of by banks) is (strictly) separated from the money warehouse business.

- Under an international gold standard, *international payments* are made in (the *physical transfer* of) gold.

  → If *export* > *imports* (that is: a *trade surplus*), a country's gold stock increases; if *exports* < *imports* (that is: a *trade deficit*), a country's gold stock declines.

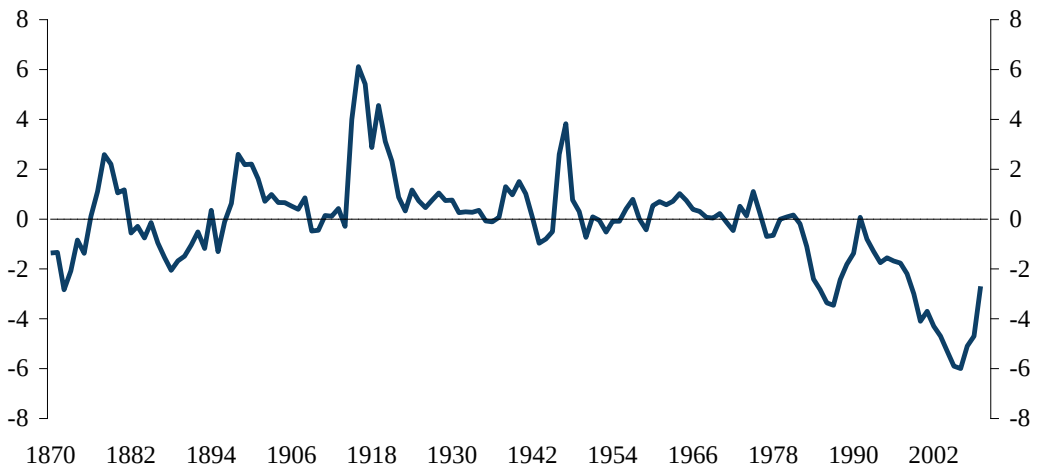
  → Under a gold standard, *countries' trade balances* tend to be balanced, on average, over time. If, for instance, a country runs of a trade surplus (*exports* > *imports*), the domestic gold (money stock) increases.

  → A rise in the domestic money stock (as a result of a trade surplus) drives up domestic prices (or it prevents prices from declining). Higher domestic prices, in turn, make the country's products less competitive relative to foreign goods. Imports increase and exports decline, so that the trade surplus declines (*towards zero*).

→ As a result, under a gold standard the *countries' trade balances* tend to be in equilibrium (on average).

- A rise in the gold (and thus money) stock in one country affects *income* and *prices* in (all) other countries which have adopted the gold standard.

US trade balance in % of GDP



Source: Pakko, M. R. (1999), IMF (current account for 2000 - 2009)

→ Under a gold standard, there is *nothing like a national economic policy*, which may shield national producers and consumers from international developments.

- A gold standard doesn't require a central bank. All that is required is unconditional respect of peoples' private property rights – and sanctions against violation of peoples' private property rights.

Distribution of *official gold reserves*

Gold reserves, metric tonnes, selected countries

	1895		1913		1920		1935		1950	
	metric tonnes	in % of total	metric tonnes	in % of total	metric tonnes	in % of total	metric tonnes	in % of total	metric tonnes	in % of total
UK	304.67	11.1	248.09	3.1	863.75	10.7	1464.56	7.3	2543.00	8.2
Germany	272.33	9.9	438.60	5.4	391.25	4.8	56.00	0.3	0.00	0.0
Austria	160.33	5.8	378.39	4.7	-	-	41.00	0.2	79.00	0.3
France	459.68	16.7	1030.43	12.7	1622.17	20.0	3907.00	19.4	588.00	1.9
Spain	58.25	2.1	140.38	1.7	708.56	8.8	656.00	3.3	99.00	0.3
Russia	695.17	25.3	1233.00	15.2	-	-	626.00	3.1	-	-
US	169.48	6.2	2293.46	28.3	3679.29	45.4	8998.00	44.6	20279.00	65.2
Japan	119.63	4.4	97.81	1.2	837.42	10.3	378.00	1.9	6.00	0.0
World total	*2,749.72*	-	*8,097.71*	-	*11,295.34*	-	*20,172.94*	-	*31,096.00*	-

Source: World Gold Council.

GRESHAM'S LAW

SUGGESTED READINGS: Friedman, M. (1994), The Crime of 1873, in: Money Mischief, Episodes in Monetary History, Harcourt Brace & Company, San Diego, New York, London, pp. 51 – 79; also: Bimetallism Revisited, pp. 126 – 156.

- When money was a precious metal, a currency's name (say, US dollar) was defined as weight of a commodity (say gold). For instance, 20.67 US dollar was equal to one ounce of gold.

  → One *ounce* of *troy* is equal to 31.1034768 grams, and one *ounce of troy* equals 480 *grains*.

- *Gresham's Law* (named after Sir Thomas Gresham (1519–1579)): If there is a *fixed exchange rate* between monies, *bad (overvalued) money drives out good (undervalued) money*.

Sir Thomas Gresham
1518 – 1579

- The US *Coinage Act* from 2 April 1792: The US Dollar was defined as equal to 371.25 grains of pure silver or 24.75 grains of pure gold, and so the exchange ratio between silver and gold was set at 15 to 1. Using silver *and* gold as money amounted to a *bimetallism standard*.

  → One *ounce of troy* is equal to 31.1034768 *grams*, and one *ounce of troy* equals 480 *grains*. As a US dollar was defined as equivalent to 371.25 grains of pure silver or 24.75 grains of pure gold, one ounce of silver was worth ≈$1.2929 … (that is 480 divided by 371.25), and one ounce of gold was worth ≈$19.3939 … (480 divided by 24.75).

- In 1792, the market exchange rate between silver and gold was almost exactly 15 to 1, the ratio recommended by Alexander Hamilton (1755–1804). Shortly thereafter, however, the ratio went above 15 to 1 – and so the US was de facto on a *silver standard*. Why?

  → If the *market ratio* is, say, 15.5 to 1, and the *official ratio* is 15 to 1, one can bring 15 ounces of silver to the mint, get one ounce of gold in return. Then sell the one ounce of gold in the market and get 15.5 ounces of silver in return.

  → Then bring 15.5 ounces of silver to the mint and get 1.033 … ounces of gold (15.5 times 1/15). Then take the 1.033 ounces of gold and exchange it for 16.0167 … ounces of silver. And so forth.

  → Sooner or later, the mint would be overflowing with silver and out of gold. In fact, from 1792 to 1834 the US was effectively on a *silver standard* (as silver was *overvalued* relative to gold).

- In 1834, new legislation was introduced: a ratio of 16 to 1 was finally adopted – with the market ratio standing at 15.625 to 1 on the world market. Now silver was *undervalued* against gold. From 1834 on, the US was effectively on a *gold standard*.

  → In 1834, the weight of the gold dollar was set at 23.2 grains of pure gold and at 23.22 in 1837 (to make the percentage of alloy in the minted coin precisely 10 percent). The adoption of 16 to 1 made the official price of an ounce of gold $20.67185 … (480 divided by 23.22).

- The Coinage Act of 1873 omitted the historical silver dollar of 371.25 troy grains of pure silver; silver was thus *de-monetized*. The Resumption Act of 1875 and the successful resumption of the specie standard on the basis of gold brought the US a *gold standard* as from 1 January 1879.

BANKING IN A COMMODITY MONEY STANDARD

ESSENTIAL DIFFERENCES BETWEEN TWO RADICALLY DIFFERENT DISTINCT CONTRACTS

Monetary Irregular Deposit	*Monetary Loan*
Economic Differences	
1. Present goods are not exchanged for future goods.	1. Present goods are exchanged for future goods.
2. There is complete, continuous availability in favor of the depositor.	2. Full availability is transferred from lender to borrower.
3. There is no interest, since present goods are not exchanged for future goods.	3. There is interest, since present goods are exchanged for future goods.
Legal Differences	
1. The essential element (and the depositor's main motivation) is the *custody* or safekeeping of the *tantundem*.	1. The essential element is the transfer of availability of the present goods to the borrower.
2. There is no term for returning the money, but rather the contract is "on demand."	2. The contract requires the establishment of a *term* for the return of the loan and calculation and payment of interest.
3. The depositary's obligation is to keep the *tantundem* available to the depositor at all times (100-percent cash reserve).	3. The borrower's obligation is to return the *tantundem* at the end of the term and to pay the agreed-upon interest.

Source: Huerta de Soto, J. (2007), Money, Bank Credit, and Economic Cycles, p. 19.

DEPOSIT BUSINESS IN A MONEY WAREHOUSE REGIME

Fig. 1a

Assets	Balance sheet of A	Liabilities
Gold stock (ounces)	100	
	-100	
Money warehouse receipts	+100	
	Σ 100	Σ 100

Fig. 1b

Money warehouse	
Custody: Gold ounces	+100
(Warehouse receipt issued	*+100)*

PURCHASING GOODS AND SERVICES

Fig. 1a

Assets	Balance sheet of A	Liabilities
Warehouse receipt	100	
	-100	
Goods	+100	
	Σ 100	Σ 100

Fig. 1b

Assets	Balance sheet of B	Liabilities
Goods	100	
	-100	
Warehouse receipt	+100	
	Σ 100	Σ 100

Fig. 1c

Money warehouse	
Custody: Gold ounces	+100
(Warehouse receipt issued	*+100)*

LENDING UNDER A MONEY WAREHOUSE REGIME

(a) Direct lending

Fig. 1a

Assets	Balance sheet of *A*		Liabilities
Warehouse receipt	100		
	-100		
Loan to *B*	+100		
	Σ 100		Σ 100

Fig. 1b

Assets	Balance sheet of *B*		Liabilities
Warehouse receipt	+100	Liability to *A*	+100
	Σ 100		Σ 100

Fig. 1c

Money warehouse	
Custody: Gold ounces	+100
(Warehouse receipt issued	*+100)*

LENDING UNDER A MONEY WAREHOUSE REGIME

(b) Indirect lending

Fig. 1a

Assets	Balance sheet of *A*		Liabilities
Warehouse receipt	100		
	-100		
Long-term claim on bank	+100		
	Σ 100		Σ 100

Fig. 1b

Assets	Balance sheet of *B*		Liabilities
Warehouse receipt	+100	Liability vis-a-vis bank	+100
	Σ 100		Σ 100

Fig. 1c

Assets	Bank		Liabililities
Warehouse receipt	+100	Liability vis-à-vis *A*	+100
	-100		
Loan to *B*	+100		
	Σ 100		Σ 100

Fig. 1d

Money warehouse	
Custody: Gold ounces	+100
(Warehouse receipt issued	*+100)*

MONEY CREATION UNDER FRACTIONAL RESERVE BANKING

Fig. 1a

Assets	Balance sheet of A		Liabilities
Gold stock (ounces)	100		
	-100		
Money substitute	+100		
	Σ 100		Σ 100

Fig. 1b

Assets	Balance sheet of B		Liabilities
Warehouse receipts	+80	Liabilities	+80
	Σ 80		Σ 80

Fig. 1c

Assets	Balance sheet of the money warehouse		Liabilities
Gold stock A (ounces)	+100	Warehouse receipts	+100
Loan to B	+80		+80
	Σ 180		Σ 180

GOLD CONFISCATION IN THE US

Suggested readings: Hoover, H. (1952), The Memoirs of Herbert Hover: The Great Depression 1929 – 1941, The MacMillan Company: New York, p. 390 – 407, esp. 398.

- US President Franklin D. Roosevelt was inaugurated as president on March 4, 1933. Two days after his inauguration, he ordered a "bank holiday", closing all the banks in the country from March 6 through March 9, 1933. He proclaimed that there was a national emergency caused by heavy and unwarranted withdrawals of gold and currency for the purpose of hoarding.

- On March 9, 1933, the Senate passed the Emergency Banking Act. It gave the Secretary of the Treasury the power to compel every person and business in the country to relinquish their gold and accept paper currency in exchange.

- On March 10, 1933, Roosevelt issued Executive Order No. 6073, forbidding people from sending gold overseas and forbidding banks from paying out gold.

- On April 5, 1933, Roosevelt issued Executive Order No. 6102. This was the order to confiscate everybody's gold: Gold had to be handed over to the Federal Reserve, against receiving paper money.

- On January 31, 1934, Roosevelt issued another Executive Order. The price of a gold ounce increased from US$20.67 to US$35.00. The purchasing power of the US dollar in terms of gold was reduced by around 41 percent.

Presidential Executive Order 6102 from President of the United States Franklin Delano Roosevelt, April 5, 1933

"I, Franklin D. Roosevelt, President of the United States of America, do declare that said national emergency still continues to exist and pursuant to said section to do hereby prohibit the hoarding gold coin, gold bullion, and gold certificates within the continental United States by individuals, partnerships, associations and corporations and hereby prescribe the following regulations for carrying out the purposes of the order".

"Section 2. All persons are hereby required to deliver on or before May 1, 1933, to a Federal Reserve bank or a branch or agency thereof or to any member bank of the Federal Reserve System all gold coin, gold bullion, and gold certificates now owned by them or coming into their ownership on or before April 28, 1933 (…)".

"Section 9. Whoever willfully violates any provision of this Executive Order or these regulation or of any rule, regulation or license issued there under may be fined not more than $10,000, or, if a natural person, may be imprisoned for not more than ten years, or both; and any officer, director, or agent of any corporation who knowingly participates in any such violation may be punished by a like fine, imprisonment, or both."

- "Governmental paper money is called "political money," in contrast to commodity money."

  —Fetter, F. A. (1926), Modern Economic Problems, 2nd ed., New York, The Century Co, p. 48.

  "Resorted to in desperate extremities, political money has usually proved to be a costly experiment. Once the issue of political money begins to be excessive, its further limitation proves to be most difficult. A result usually unintended is the derangement of business and of the existing distribution of incomes. The rapid and unpredictable changes in prices give opportunity for speculative profits, but injure legitimate business. This incidental effect on debts and industry offers the main motive to some citizens for advocating the issue of paper money. It is peculiarly liable to be the subject of political intrigue and of popular misunderstanding. It is this danger, more than anything else, that makes political money in general a poor kind of money."

  —Fetter, F. A. (1926), Modern Economic Problems, 2nd ed., New York, The Century Co, p. 53.

- In terms of setting the gold price in terms of US-dollar, Secretary of the Treasury Henry Morgenthau Jr. (1891–1967) reported:

  "Franklin Roosevelt would lie comfortably on his old-fashioned three-quarter mahogany bed. (…) The actual price [of gold] on any given day made little difference. Our object was simply to keep the trend gradually upwards, hoping that commodity prices would fol-

low. One day, when I must have come in more than usually worried about the state of the world [Hitler had just recently come to power in Germany], we were planning an increase of from 19 to 22 cent. Roosevelt took one look at me and suggested a rise of 21 cents. "It's a luck number", the president with a laugh, "because it's three times seven (…)." I noted in my diary at the time: "If anybody ever knew how we really set the gold price through a combination of luck numbers, etc., I think they would really be frightened."
(…)
But he rather enjoyed the shock his policy gave to the international bankers. Montagu Norman of the Bank of England, whom FDR called "old pink whiskers," wailed across the ocean, "This is the most terrible thing that has happened. The whole world will be put into bankruptcy." The president and I looked at each other, picturing foreign bankers with every one of their hairs standing on end with horror. I began to laugh. FDR roared."

"Gold is a currency. It is still, by all evidence, a premier currency. No fiat currency, including the dollar, can match it."

Alan Greenspan,
Council of Foreign Affairs, 29 October 2014.

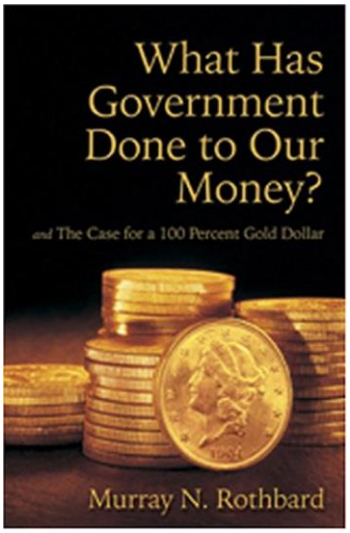
"Gold still represents the ultimate form of payment in the world. Fiat money in extremis is accepted by nobody. Gold is always accepted."

Alan Greenspan,
20 May 1999.

14. Central banking and fractional reserve banking

SUGGESTED READINGS: Rothbard, M. N. (2005 [1963]), What Has Government Done to Our Money?, 5th ed., Ludwig von Mises Institute, Auburn, US Alabama.

ROTHBARD'S PROGRESSION THEORY ON THE ESTABLISHMENT OF FIAT MONEY



- In *What Has Government Done to Our Money?* (1963), Murray N. Rothbard provides an account of how government has, over a lengthy period of time, replaced free market money by fiat money (created through credit expansion).

- Rothbard developed a *progression theorem* (basically along the line of Mises's *regression theorem*). He demonstrated that, by the praxeological necessity, government (once established) takes full control over money production.

  "Government could never cement its power over a nation's currency, if the people, when in need, could repudiate the fiat paper and turn to gold for their money. Accordingly, governments have outlawed gold holing by their citizens."

  —Rothbard (1990), What has Government Done to Our money, p. 84.

- To explain Rothbard's line of reasoning, let us begin with the issue of *funding government spending*. For the latter, any government must find ways of expropriation. Two strategies are available: (i) *seizing goods in kind* or, in a monetary economy, (ii) *seizing money*.

- *Taxation* tends to be politically unpopular (under monarchies and democracies alike). By creating new money out of thin air (*counterfeiting*), however, the government can actually appropriate resources slyly and almost unnoticed (at least at the beginning), without rousing hostility among the electorate.

- To get hold of the money supply and use *counterfeiting as a source of revenue*, the government apparatus has taken many lengthy steps (taken gradually and in a rather subtle way) – for the government cannot simply invade a functioning free market and print its own paper money. People would simply refuse to accept any such money (as the *regression theorem* would say).

- *STEP #1*: *Taking control of the minting business*. Minting coins was propagated as a prerogative of the ruler (emperor, king, etc.). This, in turn, reduced the variety of coins, and

the mint could charge a high(er) price for minting precious metals. *Seniorage* (the price charged by the ruler for minting coins) became a monopoly price.

- Having established the *minting monopoly*, the ruler (and later, governments) *named* the monetary unit, doing its best to separate the name of the monetary unit from its underlying weight (in precious metal). This, in turn, made the currency national (US dollar, Euro, British Pound etc.), liberating the government from the necessity to abiding by an international (world) money.

- These interferences opened the door to the governments' counterfeiting of coins: *debasement*. The government could secretly dilute gold and silver with base alloy, thereby producing shortweight coins. The mint would melt and recoin all the coins of the realm, giving back to the public the same number of "pounds" or "marks" but of a lighter weight. The leftover ounces were pocketed by the ruler.

- What is more, by establishing *bimetallism* the government (arbitrarily) set the exchange value of one money (say, gold) in terms of the other money (say, silver) – thereby replacing the market chosen *parallel standard* (of two or more currencies with freely fluctuating exchange rates).

- Under *bimetallism*, the government effectively places a maximum price on one type of money in terms of the other. If the officially determined exchange rate deviates from the market ratio, the overvalued money will drive out the undervalued money (*Gresham's Law*).

  — For instance, assume that the government establishes a silver-gold ratio of 20 to 1, while the market ratio is 21 to 1. In this case, people will bring their silver to the mint, exchanging 20 ounces of silver for one ounce of gold. With one ounce of gold, they will earn 21 ounces of silver. Silver (*overvalued*) will be the currency of circulation, while gold (*undervalued*) will be hoarded and/or exported.

  — However, the *market exchange ratio* of gold against silver changes due to changes in supply and demand, thereby deviating from the officially set exchange ratio. As a result, the fixed exchange ratio between gold and silver will lead to *economic problems*. The latter, in turn, were typically ascribed to a dysfunctional free market – rather than *government interference in free markets*.

- *Legal tender laws* also played a highly important role in governments achieving full control over monetary affairs. – With the money defined by *name* rather than by a specific weight of precious metal, contracts (for cash as well as for credit transactions) increasingly began to pledge payment in the legal tender *money*.

→ As soon as the government decrees that certain (pieces of credit) money is legal tender, *every creditor is bound to accept them in payment* at its face value. But why should, for instance, a lender accept repayment in a low-quality money?

→ Legal tender status had been given to money-substitutes (bank notes) at a time when they will were fully backed with money proper. At that time, the decree had basically no market consequences. However, it started to have consequences when market agents no longer considered them money-substitutes.

→ As the government declared as legal tender a lower-quality money (pieces of paper, credit money) side-by-side with money proper (gold, silver), Gresham's Law kicked in, with bad (overvalued) money driving out good (undervalued) money out.

- *STEP #2*: *Permitting banks to refuse payments*. Governments' scope of counterfeiting became almost unlimited with the advent of money-substitutes (such as bank notes and bank deposits, which were, at least originally, backed by pre-specified amounts of money proper (gold, silver)).

  → On an ad hoc basis, governments granted commercial banks the *privilege of refusing to redeem their liabilities in money proper* (as promised to their clients) – in order to prevent *bank runs* and *bank failures* and potentially ensuing *political upheavals*, which could threaten the very existence of government itself.

  → *Mass suspensions of specie payment* typically occurred in times of severe financial stress, which were all too often the result of an over-issue of bank notes and bank deposits not backed by money proper (*inflation*). Suspension of specie payments amounts to an expropriation of the holder of money proper.

  → Commercial banks soon realized that they need not have to fear bankruptcy as a result of over-issuance (that is issuing money-substitutes in excess of money proper holdings). *Fractional reserve banking* became the norm as the traditional checks against inflation were increasingly removed, especially by suspension of commercial banks' obligation of specie payments.

  → Under a system of *fractional reserve banking*, commercial banks could easily finance governments via extending *circulation credit* (that is credit expansion in excess of savings) and thereby creating new money out of thin air.

  → However, financial crisis as a result of over-issue (inflation) tended to be sporadic and unpredictable, and the expectation of commercial banks could *never* pay back their obligations would have eroded the public's confidence in the monetary system sooner or later.

→ The way forward was to establish a *central bank*, serving as the *bankers' bank*. It does not matter whether such a central bank is nominally owned by private individuals/private banks (like the *US Federal Reserve*) or publicly owned (like, for instance, the *European Central Bank*), as it is always directed by government-appointed officials.

- *STEP #3*: *Establishing the central bank*. A central bank enjoys all the support of the government. It is armed, following constant pro central bank *propaganda*, with the almost unlimited confidence of the general public.

→ The central bank takes control of monetary affairs by assuming the *monopoly of the note issue* (the *unsung key* to the central bank's power). Commercial banks are no longer allowed to issue notes, they just create deposits (largely due bank credit expansion).

→ Commercial banks are required to hold *reserves* in central bank money, called *minimum reserve requirements* (deposits to be held in the form of demand deposits with the central banks or in the form of central bank notes), which can only be obtained from the central bank monopoly.

→ In the US, for instance, commercial banks were *compelled* to keep reserves with the US Fed and, since 1917, these reserves only consist of deposits at the Federal Reserve Bank. *Gold*, which was no longer accepted as part of commercial banks' legal reserves, *had to be deposited with the Fed*.

→ People became used to accepting bank notes as a means of payment, as there was great *confidence in the central bank* (with its gold holdings, its prestige and backed by the might of government, so that is could not fail).

→ The central bank invested private banks with the public's confidence, simply by making it public that it would stand ready to act as a *lender of last resort*: if running into financial trouble, the central bank could step in and provide banks with all the money they needed (be it in the form of bank notes or demand deposits).

→ By doing so, *bank runs* – which serve as a *check against inflation* (that is increasing fiduciary media in excess of money proper) – were discouraged or better: were made impossible.

A WORD ON *THE ETHICS OF MONEY PRODUCTION*

SUGGESTED READINGS: Hülsmann, J. G. (2008), The Ethics of Money Production, Ludwig von Mises Institute, Auburn, US Alabama.

- Today's money production is *irreconcilable* with the principles of the capitalist economic order, under which private property can only be created through (i) homesteading, (ii) production and (iii) trade (*all voluntarily entered into*).

- Money creation (through credit expansion) has been monopolised by the state, which grants licences for money creation to the private sector (banks).

  "The prevailing ways of money production, relying as they do on a panoply of legal privileges, are alien elements in the capitalist economy. They provide illicit incomes, encourage irresponsibility and dependence, stimulate the artificial centralization of political and economic decision-making, and constantly create fundamental economic disequilibria that threaten the life and welfare of millions of people. In short, paper money and fractional-reserve banking go a long way toward accounting for the excesses for which the capitalist economy is widely chided." (Hülsmann, 2008, p. 238)

- Hasn't the monetary order evolved *naturally* over time?

  "We have argued that these monetary institutions [central banks, *TP*] have not come into existence out of any economic necessity. They have been created because they allow an alliance of politicians and bankers to enrich themselves at the expense of all other strata of society. This alliance emerged rather spontaneously in the seventeenth century; it developed in multifarious ways up to the present day, and in the course of its development it created the current monetary institutions."

  —Hülsmann, 2008, p. 239.

THE ORIGIN OF THE BANK OF ENGLAND

SUGGESTED READINGS: Rothbard, M. N. (1983), The Mystery of Banking, Richardson & Snyder, Chapter XII – XVI, pp. 177 – 190.

- In England in early 1693, a committee of the House of Commons was formed to figure out how to raise money for financing the war effort (*War of the Grand Alliance*), as the English government was chronically short of money.

- William Paterson (1658–1719) proposed the following scheme: in return for *special privileges* from the state, Patterson and his clique would form the Bank of England (BoE). The

latter would – via purchasing government bonds – issue new notes *out-of-thin-air* for financing the English state deficit.

- The plan was adopted, and as soon as the BoE was chartered in 1694, King William III himself became shareholders of the bank. However, the British Parliament refused Paterson's proposal to grant BoE notes *legal tender status* – which would have meant that everyone would be compelled to accept them in payment of money debt.

Bank of England, London

- In the years thereafter, the BoE's government financing via issuing new notes caused great *inflation*. What is more, the BoE became insolvent after a *bank-run*, so that in May 1696 the English government allowed the BoE to *suspend specie payments* – that is refusing to pay its contractual obligations of redeeming its notes in gold.

- The owners of the BoE increasingly feared *competition* (and, in view of potentially stiff competition from the National Land Bank, the BoE's stock price the fell). Parliament passed a law prohibiting any new corporate bank from being established in England, and counterfeiting of BoE notes was made *punishable by death*.

- In 1844, Sir Robert Peel (1788–1850) wanted to reform the English banking system along the insights of the *Currency School*, which recognised that issuing notes via bank credit cause inflation, business cycles and financial and economic crises. The supporters of the Currency School ascribed the responsibility for all these unfavourable developments to the BoE.

  → *Currency School*: Issues of banknotes should actually be required to hold an equivalent amount of money proper (gold or silver) as reserve; the result is a simple "rule", namely a 100% reserve ratio for *bank notes* issued.

  → *Banking School*: The money stock (notes and deposits) should not be subject to any supply side restriction (other than convertibility into specie); banks could *not* excessively issue credit, because any excess funds loaned out would simply be returned to the bank.

- Peel's Act of 1844 provided that:

  — all further issues of bank notes by the BoE must be backed by 100% gold or silver;
  — no new bank of issue can be established;
  — the average note issue of each existing country bank could be not greater than the existing amount of issue; and

— banks would lose their note issue rights if they were merged into, or bought by, another bank (there rights being transferred to the BoE).

- Peel's Act actually placed the effective monopoly of note issue in the hands of the BoE. By limiting the BoE to 100% reserve banking, however, inflation and business cycles were supposed to be eliminated. Unfortunately, Peel's Act overlook two important aspects:

  (ii) As a monopoly bank privileged by the state, the BoE could not be held to restrictive 100% reserve banking. The state would use, and therefore *misuse*, its monopoly power sooner or later.

  (iii) The restrictions were limited to bank *notes*, they did not apply to *demand deposits* (which were actually considered *non-monetary credit*).

- The BoE and the country banks, deprived of the right to issue notes at will, kept issuing *demand deposits*. Only the BoE could issue notes, and the country banks pyramided demand deposits on top of notes, which served as legal tender.

- *Fractional reserve banking* did not end, and inflation and crises continued after 1844, discrediting the promises of the *Currency School*. In times of crisis, the BoE succeeded in getting Parliament to *suspend* Peel's Act, allowing it to issue enough legal tender notes (in excess of gold and silver holdings) to get the entire banking system out of trouble.

- Peel's Act was *suspended periodically* in 1847, 1857 and 1866. It was finally ended in 1914, when the gold standard was effectively destroyed.

THE ORIGIN OF THE US FEDERAL RESERVE

SUGGESTED READINGS: Rothbard, M. N. (1994), The Case Against the Fed, Ludwig von Mises Institute, Auburn, US Alabama.

- The US Federal Reserve System (Fed) was created by the Federal Reserve Act of December 23, 1913 – pushed through Congress by the administration of US president Thomas Woodrow Wilson (1856–1924).

  → *The culmination at Jekyll Island*.

  - "From the beginning, the Fed has been headed by a Federal Reserve Board in Washington, all appointed by the President with

the consent of the Senate. The Board supervises the twelve "decentralized" regional Federal Reserve Banks, whose officers are indeed selected by private banks in each region, officers who have to be approved by the Washington Board." Since the reform of the 1930s, "the crucial open market policies of the Fed have been decided by a Federal Open Market Committee, which meets in Washington, and which includes all the seven members of the Board of Governors plus a rotating five of the twelve largely banker-selected Presidents of the regional Feds."

- As Rothbard noted further in his *The Case Against the Fed* (1994, pp. 119-120):

"The Fed was given a monopoly of the issue of all bank notes; national banks, as well as state banks, could now only issue deposits, and the deposits had to be redeemable in Federal Reserve Notes as well as, at least nominally, in gold. All national banks were "forced" to become members of the Federal Reserve System, a "coercion" they had long eagerly sought, which meant that national bank reserves had to be kept in the form of demand deposits, or checking accounts, at the Fed. The Fed was now in place as lender of last resort; and with the prestige, power, and resources of the U. S. Treasury solidly behind it, it could inflate more consistently than the Wall Street banks under the National Banking System, and above all, it could and did, inflate even during recessions, in order to bail out the banks. The Fed could now try to keep the economy from recessions that liquidated the unsound investments of the inflationary boom, and it could try to keep the inflation going indefinitely."

"At this point, there was no need for even national banks to hold onto gold; they could, and did, deposit their gold into the vaults of the Fed, and receive reserves upon which they could pyramid and expand the supply of money and credit in a coordinated, nation-wide fashion. Moreover, with reserves now centralized into the vaults of the Fed, bank reserves could be, as the bank apologists proclaimed, "economized," i.e., there could be and was more inflationary credit, more bank "counterfeiting," pyramided on top of the given gold reserves. (…) And at the base of the pyramid, the Fed could coordinate and control the inflation by determining the amount of reserves in the member banks."

- Rothbard (1994, pp. 145-6) summarizes on the motives and result of establishing the Fed as follows:

  "The American economy has suffered from chronic inflation, and from destructive booms and busts, because that inflation has been invariably generated by the Fed itself. That role, in fact, is the very purpose of its existence: to cartelize the private commercial banks, and to help them inflate money and credit together, pumping in reserves to the banks, and bailing them out if they get into trouble. When the Fed was imposed upon the public by the cartel of big banks and their hired economists, they told us that the Fed was needed to provide needed stability to the economic system. After the Fed was founded, during the 1920s, the Establishment economists and bankers proclaimed

that the American economy was now in a marvellous New Era, an era in which the Fed, employing its modern scientific tools, would stabilize the monetary system and eliminate any future business cycles. The result: it is undeniable that, ever since the Fed was visited upon us in 1914, our inflations have been more intense, and our depressions far deeper, than ever before."

FRACTIONAL RESERVE BANKING

- To show how *fractional reserve banking* (that is the multiple credit and money creation process) works, assume that the *minimum reserve rate* on sight deposits is 20% and the *cash coefficient* 25%.

- Commercial bank A hands over to the central bank a US$400 security against receiving a base money deposit with the central bank.

- Bank A lends US$400 to a borrower. The borrower's sight deposit is credited with US$300 (that is US$400 minus US$100 cash drain (US$400 times 0.25)). The bank's minimum reserves amount to US$60 (US$300 times 0.2), excess reserves to US$240.

- Bank A grants a loan to, say, a firm in the amount of US$240, crediting the client's sight deposit with US$180, that is US$240 minus the cash drain (US$240 times 0.25). Minimum reserves amount to US$36, excess reserves to US$144.

Assets	Central bank	Liabilities	
Security	*+400*	Base money	*+400*

Assets	Commercial bank A	Liabilities	
Security	400		
	-400		
Base money	*+400*		
Minimum reserves	*+60*	Sight deposit	+300
Excess reserves	*+240*		
Loan	240		
Minimum reserves	*+36*	Sight deposit	+180
Excess reserves	*+144*		

Assets	Commercial bank B	Liabilities	
Minimum reserves	+27	Sight deposits	+135
Excess reserves	*+108*		
Loan	*+108*		
Minimum reserves	21.6	Sight deposits	+81
Excess reserves	*59.4*		

- US$180 are transferred from bank A to bank B. The latter credits its client's account with US$135 (that is US$180 minus the cash drain of US$45). Bank B's minimum reserves amount to US$27 (US$135 times 0.2), excess reserves to US$108.

- Bank *B* grants a loan in the amount of the excess reserves, that is US$108, crediting its client's account with US$81 (that is US$108 minus the cash drain of US$27).

- The multiple credit and money creation ends (in theory) when excess reserves are *zero* – when the base money stock is fully absorbed by minimum reserves.

- Let us consider the multiple credit and money creation process in a more formally way. The symbols we will use are as follows: EX = excess reserves, r = minimum reserve ratio, c = cash coefficient, and ΔC = increase in credit. We find that:

  $\Delta C = 1 / (r + c) \cdot EX$.

  Under a given excess reserve, the higher (lower) the minimum reserve ratio and the cash coefficient are, the lower (higher) is the credit creation potential of the banking system.

KEY ELEMENTS OF GOVERNMENT CONTROLLED FIAT MONEY SYSTEMS

- Today, basically all countries of the western world have established *government controlled fiat money supply monopolies*. Government-owned central banks issue, typically via *extending credit*, new money.

- The *primary objective* of most central banks is keeping *inflation* (typically defined as a relatively small rise in the consumer price index over time) at a relatively low level.

- To avoid (open price) inflation as a result of politicians meddling in day-to-day monetary affairs (by taking recourse to the *printing press*), most central banks have been made *independent*.

- Central bank *independence* can be characterised as follows:
  (i) Political independence
    — Goal independence
    — Instrument independence
    — Financial independence
  (ii) Economic independence
    — No obligation to finance government deficits
    — No government saying in setting the (short-term) interest rate
    — No obligation to intervene in the FX market

- Another *defence line* against (open price) inflation is preventing, by setting up institutional/constitutional limits, the building-up of unsustainable government debt.

  → The idea is to prevent government from becoming bankrupt, as in such a situation monetizing government debt becomes, politically speaking, irresistible (like it was in, for instance, the Weimer Republic in Germany in 1923).

  → For instance, in the euro area the so-called *Stability and Growth Pact* was established, trying to prevent member states' deficits and debt levels from spiralling out of control.

- Government is one thing. But what about other *special interest groups* (banks, hedge funds etc.) which may well influence the central bank's monetary policy? What to make of the following news published on Bloomberg?

  Hedge Fund Diners Get ECB's Market-Moving News Hours Early
  by Jeff Black and Anchalee Worrachate, May 19, 2015 — 4:28 PM CEST, Updated on May 19, 2015 — 9:27 PM CEST

  On Monday evening, Benoit Coeure told a room of bankers and hedge-fund managers in London that the European Central Bank will front load its asset-buying program before a summer lull.

  The next day, the rest of the market found out, irking investors from Edinburgh to Frankfurt who weren't in the know as the euro dropped and bonds and stocks rallied. The ECB board member's dinner speech at the Berkeley Hotel came at the end of an invitation-only conference featuring senior officials from at least five central banks, and which was organized by research groups including one financed by hedge fund Brevan Howard Asset Management.

  The ECB said in a statement that the intention had been to release the remarks on Monday as Coeure spoke, and that a procedural error prevented that happening until Tuesday morning. It also said the speech was covered by Chatham House Rules, meaning it wouldn't normally be published.

  …

"The next thirty-six hours were intense. I joked that I felt like a seven-armed paperhanger, going from one phone to another, talking to the stock exchange, the Chicago future exchanges, and the various Federal Reserve presidents. My most harrowing conversations were with financiers and banks I'd known for years, major players from very large companies around the country, whose voices were tightened by fear. These were men who had built up wealth and social status over long careers and now found themselves looking into the abyss. Your judgement is less than perfect when you are scared. "Calm down", I kept telling them, "it's containable".

Alan Greenspan (2007), The Age of Turbulence, New York, p. 107.

15. The interest rate

SUGGESTED READINGS: Rothbard, M. N. (2009), Man, Economy, and State, Chapter 6: Production: The Rate of Interest and Its Determination, pp. 313 – 332. Herbener, M. (ed.) (2011), The Pure Time-Preference Theory of Interest, Ludwig von Mises Institute, Auburn, US Alabama.

EUGEN VON BÖHM-BAWERK'S THEORY

- ”The history of the interest problem (…) begins with a very long period in which loan interest, or usury, alone is the subject of investigation. This period begins deep in ancient times, and reaches down to the eighteenth century of our era. It is occupied with the contention of two opposing doctrines: the elder of the two is hostile to interest; the later defends it. The course of the quarrel belongs to the history of civilization (…).”

  —Eugen von Böhm-Bawerk (1890), Capital and Interest, p. 14.

- Böhm-Bawerk formulated the interest rate as *value problem*, which is related to human action: *“Present goods have in general greater subjective value than future goods of equal quantity and quality.”* (Böhm-Bawerk (1959), Capital and Interest, p. 265.)

- He argued that the interest rate is determined by three factors, whereas (1) and (2) are caused by *psychological dispositions*:

  (1) Current needs are typically less well satisfied than future needs;

  (2) human beings tend to underestimate future needs; and

  (3) a *technical* factor that determines *time preference*: namely that time preference is caused by the higher physical productivity of *roundabout methods of production*.

- However, Böhm-Bawerk's *psychological explanation* of *time preference* suffered from two shortcomings:

  (1) He considers the *value differential* between *homogenous goods*, available in the present and the future, while the very fact that the goods are available at different point in time makes them *heterogeneous goods*.

  (2) In view of Böhm-Bawerk's psychological explanation, time preference may be *positive* at some point in time (so future goods are valued less highly than present goods), while at other points in time preference may be *negative* (as future goods are valued more highly than present goods).

LUDWIG VON MISES' THEORY

- Mises made a distinction between the *market interest rate* (or interest rate on the loan market) and the *originary interest rate* (or: *Urzins*):

  Market interest rate =
  Originary interest rate
  + inflation premium
  + credit premium
  + liquidity premium.

- What is the *originary interest*? The originary interest is a *category of human action.* The (*micro-economic*) explanation runs as follows:

  —Human action requires means to achieve certain ends.
  —Action takes time. Time is a means and must be economized.
  —As time is a scarce means, an earlier satisfaction of wants is preferred over a later satisfaction of wants. As a result, time preference is positive.
  —Present goods are valued more highly than future goods, meaning that future goods trade at a discount relative to present goods.

  "Originary interest is the ratio of the value assigned to want-satisfaction in the immediate future and the value assigned to want-satisfaction in remote periods of the future. It manifests itself in the market economy in the discount of future goods as against present goods."

  —Mises (1996), Human Action, p. 526.

- *Time preference* and thus the *originary interest rate* must always be positive and cannot be zero, let alone negative:

  "If he were not to prefer satisfaction in a nearer period of the future to that in a remoter period, he would never consume and so satisfy wants. He would always accumulate, he would never consume and enjoy. He would not consume today, but he would not consume tomorrow either, as the morrow would confront him with the same alternative."

  —Mises (1996), Human Action, p. 484.

- Mises followed the reasoning of Frank A. Fetter (1863–1949) and Franz Cuhel (1862 – 1914), who argued that the ultimate cause of time preference is the necessity of consumption.

- *Question 1*: If returns on investment are zero, could the originary interest be zero? *Question 2*: What would happen to land prices if the interest was zero?

- It doesn't take wonder that Mises rejects Böhm-Bawerk's *psychological explanation* of the interest rate. Psychology, Mises argued, cannot establish (the *praxeological* fact that there is *positive*) *time preference*.

- Böhm-Bawerk (and also Frank A. Fetter (1863–1949) and Irving Fisher (1867–1947)) referred to a *value differential* between *homogeneous goods* available at two different times (present and future). However, the same good (in physical terms) may be viewed differently if and when it is available in the present or in the future.

  → Mises made use of a *counterfactual value differential* between two alternative uses of one and the same good. As Mises writes:

  → "[T]ime preference concerns the value differential between a present use of a good and an alternative future use of this good that could only have been realized had a different choice been made. When I use a good now rather than later, I demonstrate that I prefer to use the good now rather than later. And this in turn necessarily means that the value of its present use is higher for me than the value of the use I might have made of it in the future."

—Hülsmann (2007), Last Knight of Liberty, p. 777-8.

MURRAY N. ROTHBARD'S INTEREST RATE EXPLANATION

- The "pure rate of interest … is determined solely by the time preferences of the individuals in the society, and by no other factor."

  —Rothbard (2001), Man, State, and Economy, p. 389.

- *Present goods*: readily available goods (and services). *Future goods*: A future good is the present expectation of enjoying a consumers' good at some point in the future.

- Two types of exchanges:

  (1) Exchanging *present goods* against *present goods* (*present-present market. Example:* Purchasing a car (present good) for US$50,000 (present good) is a transaction in the market for present goods.

  (2) Exchanging *present goods* for *future goods* (*present-future*, or *time market*). *Example:* Loaning money takes place in the time market: money (a present good) is exchanged for a claim to future money (a future good).

- It all starts with individuals' *value scales*:

John Smith

..... (19 oz. future) (10 yrs. from now)
..... 4th unit of 10 oz.
..... (18 oz. future)
..... (17 oz. future)
..... (16 oz. future)
..... 3rd unit of 10 oz.
..... (15 oz. future)
..... (14 oz. future)
..... (13 oz. future)
..... 2nd unit of 10 oz.
..... (12 oz. future)
..... 1st unit of 10 oz.
..... (11 oz. future)
..... (1st added unit of 10 oz.)
..... (2nd added unit of 10 oz.)
..... (10 oz. future)

James Robinson

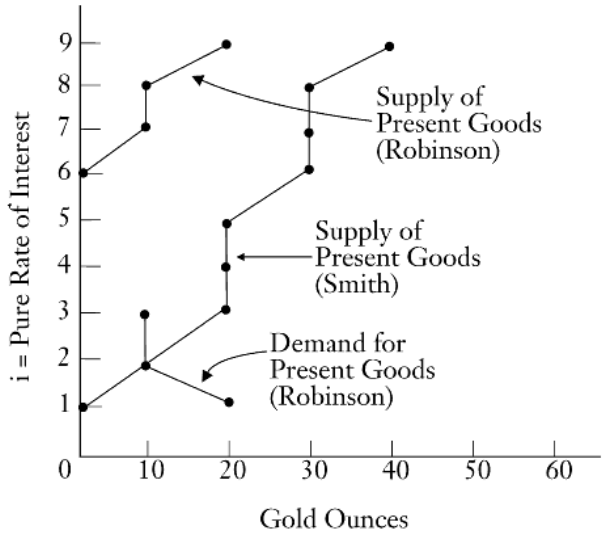
..... (19 oz. future) (10 yrs. from now)
..... 2nd unit of 10 oz.
..... (18 oz. future)
..... (17 oz. future)
..... 1st unit of 10 oz.
..... (16 oz. future)
..... (15 oz. future)
..... (14 oz. future)
..... (1st added unit of 10 oz.)
..... (13 oz. future)
..... (12 oz. future)
..... (2nd added unit of 10 oz.)
..... (11 oz. future)
..... (3rd added unit of 10 oz.)
..... (10 oz. future)

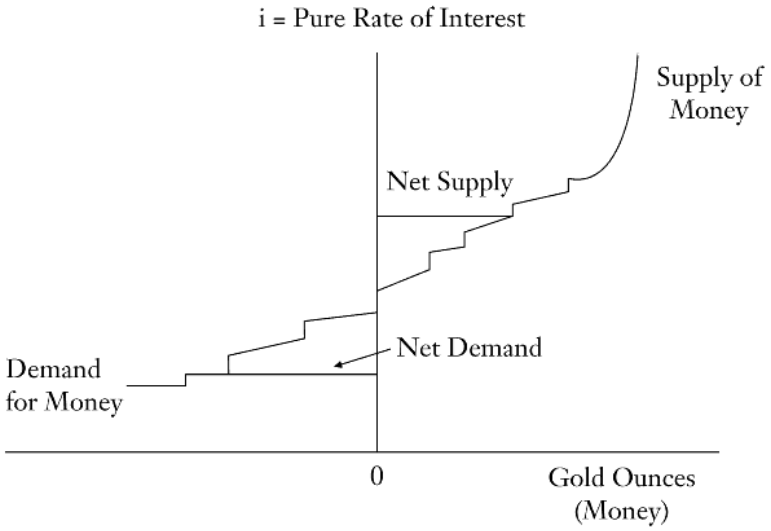
Mr Smith

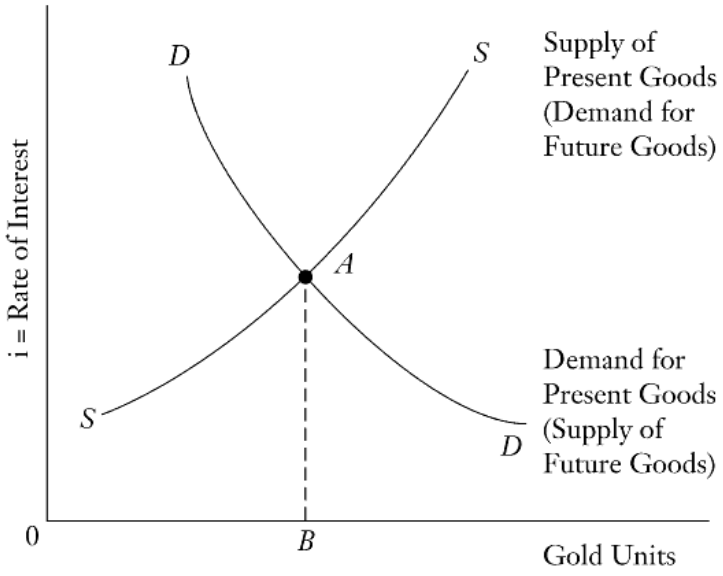
Interest Rate %	Supply of Present Money = Demand for Future Money = Savings oz. of Gold	Supply of Future Money = Demand for Present Money oz. of Gold
9	40	0
8	30	0
7	30	0
6	30	0
5	20	0
4	20	0
3	20	0
2	10	0
1	0	0

Mr Robinson

Interest Rate %	Supply of Present Money = Demand for Future Money = Savings oz. of Gold	Supply of Future Money = Demand for Present Money oz. of Gold
9	20	0
8	10	0
7	10	0
6	0	0
5	0	0
4	0	0
3	0	10
2	0	10
1	0	20


i = Pure Rate of Interest
9
8
7
6
5
4
3
2
1
0
10
20
30
40
50
60
Gold Ounces
Supply of Present Goods (Robinson)
Supply of Present Goods (Smith)
Demand for Present Goods (Robinson)


i = Pure Rate of Interest
Supply of Money
Net Supply
Net Demand
Demand for Money
0
Gold Ounces (Money)


D
S
Supply of
Present Goods
(Demand for
Future Goods)
i = Rate of Interest
A
Demand for
Present Goods
(Supply of
Future Goods)
S
D
0
B
Gold Units

Theories of the term structure of interest rates

1. Pure expectations hypothesis (PEH)

(i) Expected excess return is zero *or*

(ii) The term premium is zero for all maturities

$$E_t H_{t+1}^{(n)} - r_t = 0 \qquad R_t^{(n)} - E_t(r_{t+j'}s) = 0$$

2. Expectations hypothesis or constant term premium

(i) Expected excess return equals a constant which is the same for all maturities *or*

(ii) the term premium 'T' is a constant and the same for all maturities

$$E_t H_{t+1}^{(n)} - r_t = T \qquad R_t^{(n)} - E_t(r_{t+j'}s) = T$$

3. Liquidity preference hypothesis

(i) Expected excess return on a bond of maturity *n* is a constant but the value of the constant is larger the longer the period to maturity *or*

(ii) The term premium increases with *n*, the time period to maturity

$$E_t H_{t+1}^{(n)} - r_t = T^{(n)} \quad R_t^{(n)} - E_t(r_{t+j'}s) = T^{(n)} \text{ where } T^{(n)} > T^{(n-1)} \ldots, \text{ etc.}$$

4. Time varying risk

(i) Expected excess return on a bond of maturity *n* varies both with *n* and over time

(ii) The term premium depends on the maturity *n* and varies over time

$$E_t H_{t+1}^{(n)} - r_t = T(n, z_t) \qquad R_t^{(n)} - E_t(r_{t+j'}s) = T(n, z_t)$$

where $T(\cdot)$ is some function of *n* and a set of variables z_t.

5. Market segmentation hypothesis

(i) Excess returns are influenced at least in part by the outstanding stock of assets of different maturities

(ii) The term premium depends in part on the outstanding stock of assets of different maturities

$$E_t H_{t+1}^{(n)} - r_t = T(z_t^{(n)}) \qquad R_t^{(n)} - E_t(r_{t+j'}s) = T(z_t^{(n)})$$

where $z_t^{(n)}$ is some measure of the *relative* holdings of assets of maturity 'n' as a proportion of total assets held.

6. Preferred habitat theory

Bonds which mature at dates which are close together should be reasonably close substitutes and hence have similar term premia.

Source: Cuthbertson (1996), p. 219.

16. The Austrian business cycle theory

Suggested readings: Rothbard, M. N. (1973), For a A New Liberty, pp. 213 – 240; Mises, L. v. (1996), Human Action, Chapter XX: Interest, Credit Expansion and the Trade Cycle, pp. 538 – 586.

BUSINESS FLUCTUATION VERSUS BUSINESS CYCLE

- *Swings* of economic activity around its "trend" (the 'up and downs') are typically called *business fluctuations* – due to, say, seasonal factors or individual firm and industry developments. The term *business cycle* relates to *general* boom (artificial upswing) and bust (depression).

- A *business cycle theory* must explain *three* phenomena:
  —the *recurrence* of up and downs of economic activity;
  —the emerge of the "*cluster of error*"; and
  — Why capital goods industries fluctuate more widely than do consumer goods industries.

- The Austrian, or Misesian, theory of the business cycle is a monetary malinvestment theory of the business cycle. It consists of three theoretical building blocks:
  —the *Currency School;*
  —Böhm-Bawerk's capital theory (*roundabout production*); and
  —Knut Wicksell's *natural rate of interest* theory.

Johan Gustaf Knut Wicksell 1851 – 1926

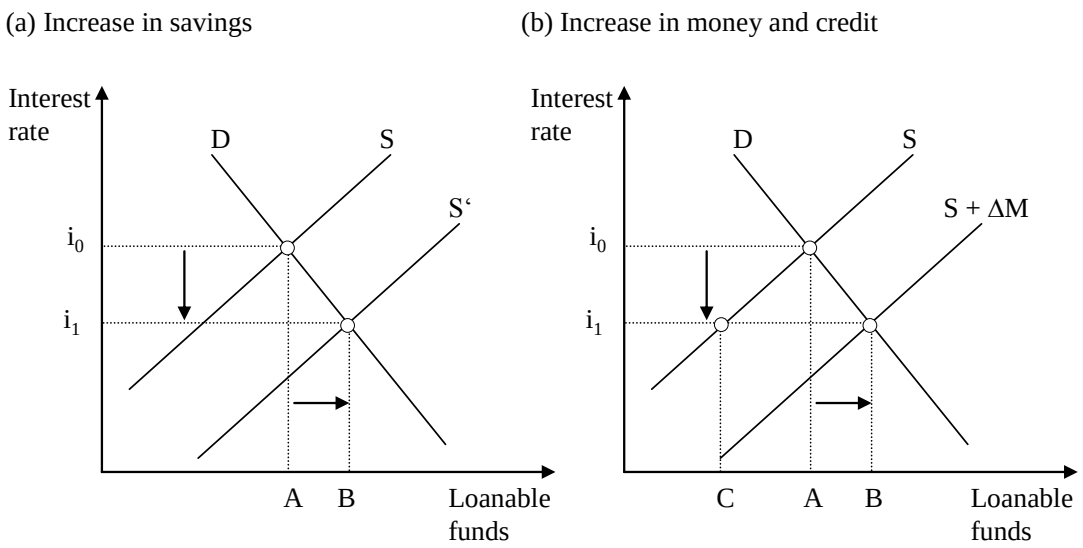
HOW IT WORKS

- The *central bank*, in cooperation with *commercial banks*, issue *circulation credit* (*Zirkulationskredit*): credit, which is *not* backed by *real savings*, and through which the money supply (the amount of fiduciary media) is increased. [Note that credit, which transfers already existing money from the saver, is called *commodity credit* (*Sachkredit*).

- The increase in *circulation credit* lowers the interest rate in the credit market below the level of the *natural interest rate* (that is the rate that would prevail had the circulation credit supply remained unchanged).

- The following graph helps to illustrate the consequences an increase in circulation credit has on economic activity – when compared with a decline in time preference:

- Fig. 1 (a) shows a *decline in time preference*, illustrated by a rightward movement of the savings curve (from *S* to *S'*). The equilibrium interest rate declines from i_0 to i_1. Savings and investment increase from *A* to *B*. A higher savings rate is accompanied by a decline in consumption.



- Fig. 1 (b) shows an *increase in circulation credit*. The savings curve moves from *S* to *S* + Δ*M*. However, people have *not* become more thrifty, or future-oriented, as their time preference has not changed. The market clearing interest rate falls from i_0 to i_1. Investment increases from *A* to *B*, while genuine savings fall from *A* to *C*.

- After the initial injection of new credit and money has run its course, people bring their savings-consumption profile back to the preferred initial relation. As a result, the savings curve moves back to the left, raising the interest rate back to i_0 and reducing investment.

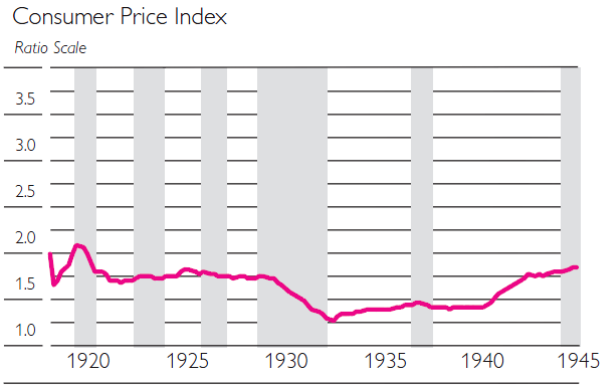
- A lowering of the market interest rate below the neutral rate through circulation credit expansion provokes an initial *boom*, to be followed by *bust*.

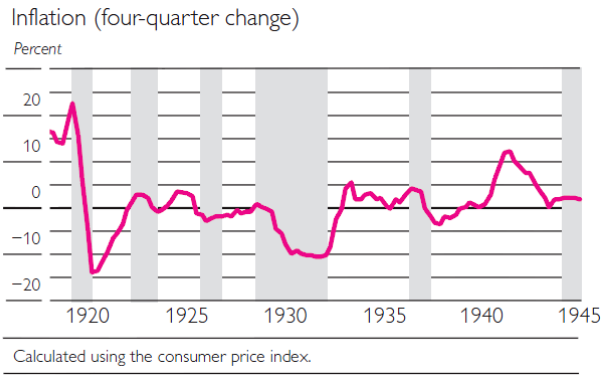
BOOM IS MALINVESTMENT, BUST IS CORRECTION OF MALINVESTMENT

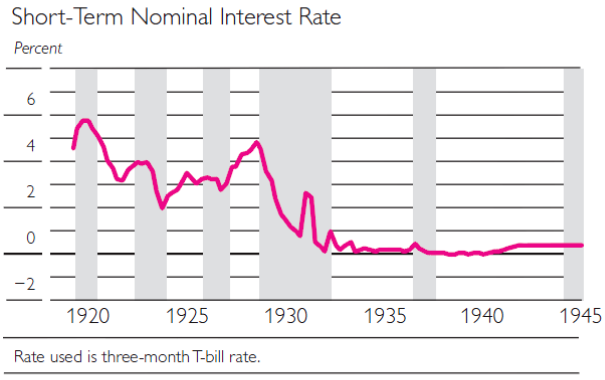
- The artificial upswing (the *boom*) is typically considered as a period of *prosperity* and highly welcome, while the downswing (the *bust*) is seen as the period of *crisis*, which people don't like. However, the boom makes an economy *poorer* – compared with a situation in which the boom hadn't occurred:

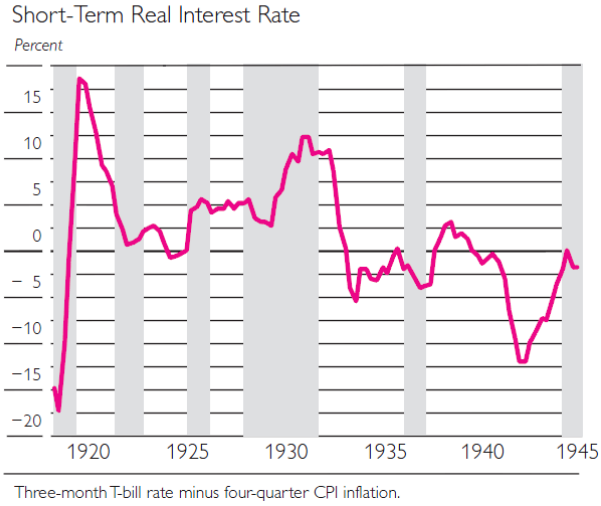
  "One must guard oneself against a misinterpretation of this term impoverishment. It does not necessarily mean impoverishment when compared with the conditions that prevailed on the eve of the credit expansion. Whether or not an impoverishment in this sense takes place depends on the particular data of each case; it cannot be predicated apodictically by

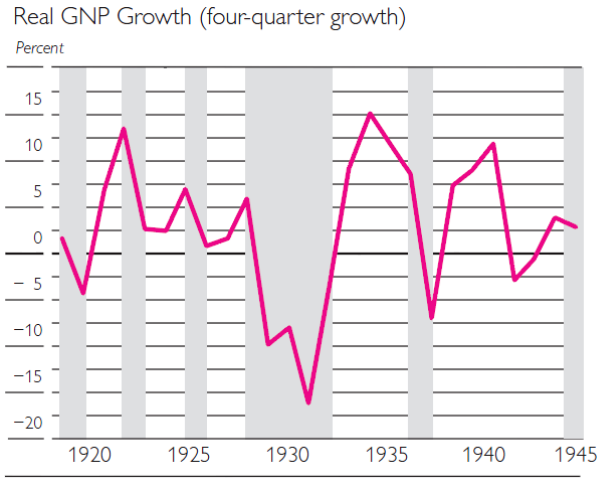
The US 'Great Depression'

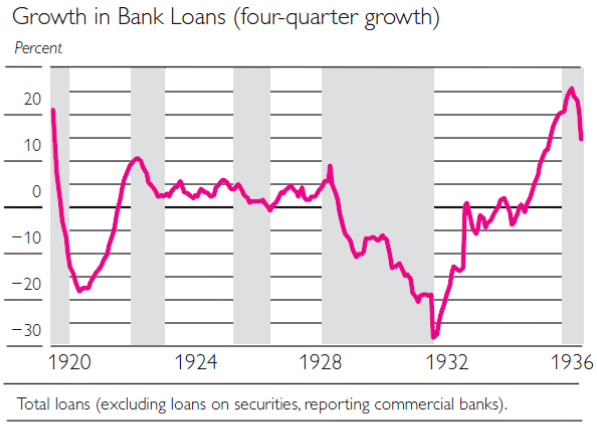












Source: Johnson, Small, Tryon (1999), Monetary policy and price stability, p. 68.

catallactics. What catallactics has in mind when asserting that impoverishment is an unavoidable outgrowth of credit expansion is impoverishment as compared with the state of affairs which would have developed in the absence of credit expansion and the boom. The characteristic mark of economic history under capitalism is unceasing economic progress, a steady increase in the quantity of capital goods available, and a continuous trend toward an improvement in the general standard of living. The pace of this progress is so rapid that, in the course of a boom period, it may well outstrip the synchronous losses caused by malinvestment and overconsumption. Then the economic system as a whole is more prosperous at the end of the boom than it was at its very beginning; it appears impoverished only when compared with the potentialities which existed for a still better state of satisfaction."

—Mises (1996), Human Action, pp. 568-9.

- The *boom* is the period in which overconsumption and malinvestment occurs, and the *bust* is the period in which overconsumption and malinvestment (caused by the *boom*) are corrected.

  "The depression is the painful but necessary process by which the free market rids itself of the excesses and errors of the boom and reestablishes the market economy in its function of efficient service to the mass of consumers. Since the prices of factors of production (land, labor, machines, raw materials) have been bid too high in the capital goods industries during the boom, this means that these prices must be allowed to fall in the recession until proper market proportions of prices and production are restored."

  —Rothbard (1973), For a New Liberty, p. 235-6.

RECURRENCE OF BOOM AND BUST

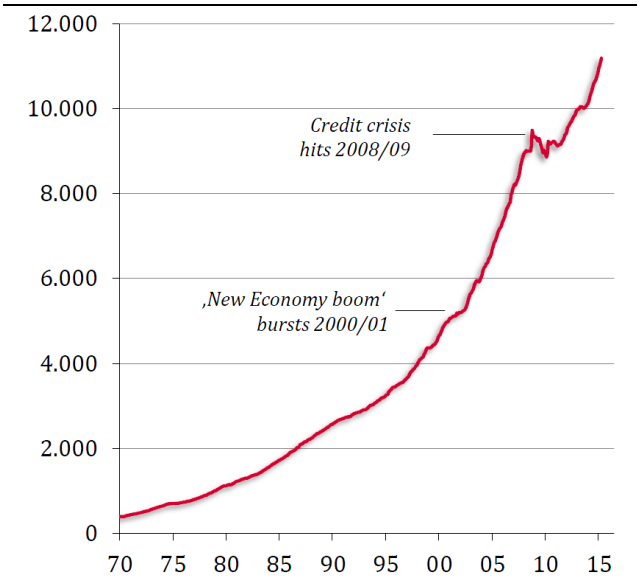
- What is the reason for a *recurrence* of boom and bust, the boom and bust cycle?

  "The boom produces impoverishment. But still more disastrous are its moral ravages. It makes people despondent and dispirited. The more optimistic they were under the illusory prosperity of the boom, the greater is their despair and their feeling of frustration. The individual is always ready to ascribe his good luck to his own efficiency and to take it as a well-deserved reward for his talent, application, and probity. But reverses of fortune he always charges to other people, and most of all to the absurdity of social and political institutions. He does not blame the authorities for having fostered the boom. He reviles them for the inevitable collapse. In the opinion of the public, more inflation and more credit expansion are the only remedy against the evils which inflation and credit expansion have brought about.

  —Mises (1996), Human Action, p. 576-7.

- Ongoing injections of new credit and money "created out of thin air":

US bank credit in US$ bn



Source: Thomson Financial.

"Like the repeated doping of a horse, the boom is kept on its way and ahead of its inevitable comeuppance by repeated and accelerating doses of the stimulant of bank credit. ... As soon as credit expansion stops, the piper must be paid, and the inevitable readjustments must liquidate the unsound over-investments of the boom and redirect the economy more toward consumer goods production."

—Rothbard (1973), For a New Liberty, p. 240.

- "The wavelike movement affecting the economic system, the recurrence of periods of boom which are followed by periods of depression, is the unavoidable outcome of the attempts, repeated again and again, to lower the gross market rate of interest by means of credit expansion.

  —Mises (1996), Human Action, p. 572.

- The boom *must* be followed by bust (other things being equal):

  "The boom cannot continue indefinitely. There are two alternatives. Either the banks continue the credit expansion without restriction and thus cause constantly mounting price increases and an ever-growing orgy of speculation, which, as in all other cases of unlimited inflation, ends in a "crack-up boom" and in a collapse of the money and credit system. Or the banks stop before this point is reached, voluntarily renounce further credit expansion and thus bring about the crisis. The depression follows in both instances."

  —Mises (1940), Interventionism, p. 40.

- "Instead of preventing inflation by prohibiting fractional-reserve banking as fraudulent, governments have uniformly moved in the opposite direction, and have step-by-step removed these free-market checks to bank credit expansion, at the same time putting themselves in a position to direct the inflation. In various ways, they have artificially bolstered public confidence in the banks, encouraged public use of paper and deposits instead of

gold (finally outlawing gold), and shepherded all the banks under one roof so that they can all expand together."

—Rothbard (2000), America's Great Depression, p. 25.

UNDERUTILIZATION O FACTORS IN THE FIRST STAGES OF A BOOM

"The advocates of credit expansion argue that what is wanted is more fiduciary media. Then the plants will work at full capacity the inventories will be sold at prices their owners consider satisfactory, and the unemployed will get jobs at wages they consider satisfactory. This very popular doctrine implies that the rise in prices, brought about by the additional fiduciary media, would at the same time and to the same extent affect all other commodities and services, while the owners of the excessive inventories and the unemployed workers would content themselves with those nominal prices and wages they are asking—in vain, or course—today. For if this were to happen, the real prices and the real wage rates obtained by these owners of unsold inventories and unemployed workers would drop—in proportion to the prices of other commodities and services—to the height to which they must drop in order to find buyers and employers."

The course of the boom is not substantially affected by the fact that at its eve there are unused capacity, unsold surplus inventories, and unemployed workers. Let us assume that there are unused facilities for the mining of copper, unsold piles of copper, and unemployed workers of copper mines. The price of copper is at a level at which mining dies not pay for some mines; their workers are discharged; there are speculators who abstain from selling their stocks. What is needed in order to make these mines profitable again, to give jobs to the unemployed, and to sell the piles without forcing prices down below costs of production, is an increment p in the amount of capital goods available large enough to make possible such an increase in investment and in the size of production and consumption that an adequate rise in the demand for copper ensues. If, however, this increment *p* does not appear and the entrepreneurs, deceived by the credit expansion, nevertheless act as if *p* had really been available, conditions on the copper market, while the boom lasts, are as if *p* had really been added to the amount of capital goods available. But everything that has been predicated about the inevitable consequences of credit expansion fits this case too. The only difference is that, as far as copper is concerned, the inappropriate expansion of production need not be achieved by the withdrawal of capital and labor from employments in which they would better have filled the wants of the consumers. As far as copper is concerned, the new boom encounters a piece of malinvestment of capital and malemployment of labor already effected in a previous boom, which the process of readjustment has not yet absorbed.

Thus it becomes obvious how vain it is to justify a new credit expansion by referring to unused capacity, unsold—or, as people say incorrectly, "unsalable"—stocks, and unemployed workers. The beginning of a new credit expansion runs across remainders of preceding malinvestment and malemployment, not yet obliterated in the course of the re-

adjustment process, and seemingly remedies the faults involved. In fact, however, this is merely an interruption of the process of readjustment and of the return to sound conditions. The existence of unused capacity and unemployment is not a valid argument against the correctness of the circulation credit theory. The belief of the advocates of credit expansion and inflation that abstention from further credit expansion and inflation would perpetuate the depression is utterly false. The remedies these authors suggest would not make the boom last forever. They would merely upset the process of recovery."

—Mises (1996), Human Action, p. 579-80.

THE WAY OUT

- "[W]hat the government should do, according to the Austrian analysis of the depression and the business cycle, is absolutely nothing. It should stop its own inflating, and then it should maintain a strict hands-off, laissez-faire policy. Anything it does will delay and obstruct the adjustment processes of the market; the less it does, the more rapidly will the market adjustment process do its work and sound economic recovery ensue.

  The Austrian prescription for a depression is thus the diametric opposite of the Keynesian: it is for the government to keep absolute hands off the economy, and to confine itself to stopping its own inflation, and to cutting its own budget."

  —Rothbard (2002), For A New Liberty, p. 240.

MISES'S *SOUND MONEY PRINCIPLE*

SUGGESTED READINGS: *Mises, L. v.* (1912), The Theory of Money and Credit, Liberty Fund, Indianapolis, p. 454 and p. 455.

- To Mises, only free market money is compatible with a free market order. In that sense, *sound money* is actually a means to and end: *it is an indispensable element in maintaining the free market order*.

- This is why money created out-of-thin-air, that is in defiance of free market principles, not only endangers but destroys the free market order:

  "It would be a mistake to assume that the modern organization of exchange is bound to continue to exist. It carries within itself the germ of its own destruction; the development of the fiduciary medium must necessarily lead to its breakdown."

  —Mises (1981), The Theory of Money and Credit, p. 448.

- By fiduciary medium Mises meant fraudulent money: money that systematically violates the principle of private property — money that isn't backed by freely chosen money proper (such as gold and silver). Government controlled fiat money is and will always be, by construction, fraudulent money.

- It is against this background that Mises formulated his *sound money principle*:

  "[T]he sound-money principle has two aspects. It is affirmative in approving the market's choice of a commonly used medium of exchange. It is negative in obstructing the government's propensity to meddle with the currency system."

  "It is impossible to grasp the meaning of the idea of sound money if one does not realize that it was devised as an instrument for the protection of civil liberties against despotic inroads on the part of governments. Ideologically it belongs in the same class with political constitutions and bills of right."

  —Mises (1981), The Theory of Money and Credit, p. 454-5.

- The key to sound money is free market money and free banking (under a 100% reserves banking).

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