

## **Definitions**

**Action:** 1) The use of means to realize ends; 2) Meaningful behavior with subjective intent; 3) The intentional substitution of a more preferred state of the world for a less preferred state..

**Algorithm:** 1) That which is algorithmic is effectively constructible by a formal procedure that begins with some input that is then operated upon by a program, in the Turing or von-Neumann sense.

**Assets:** 1) Things that can yield incomes for their owners

**Capital:** 1) The stock of those non-permanent resources that contribute to the permanent maintenance of income at a particular level (Hayek 2007: 75); 2) The stock of those non-permanent resources that contribute to a permanent stream of useful services; 3) Sums of money that are dedicated to the acquisition of income; 4) J.B. Clark (1895: 257): “capital is an abiding fund of wealth employed in production”; Cassel (1967: 53): “profit-bearing wealth”

**Chaos:** 1) When the present determines the future, but the approximate present does not approximately determine the future

**Concavity:** 1) More is more, but at a decreasing rate.

**Consciousness:** 1) Perceived/felt free will, cum qualia;

**Cost:** 1) The value attached to the end an acting human beings must forgo to realize an end they are orientated towards; 2) The urgency of the next most urgent end;

**Durable Good:** 1) A good that does not immediately lose its utility upon use, but that be used repeatedly, or continuously, across a relatively long period of time

**Economy:** 1) The set of arrangements and activities by which a society satisfies its wants and needs.

**Ecosystem:** 1) “a geographic area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life” (*National Geographic*);

**Elasticity:** 1) How much does one variable change with respect to a change in another variable? E.g., price elasticity: How much does the demand for a given good change when its price changes?

**End:** A preferred state of the world towards which human action is, by virtue of its logical structure, always directed towards.

**Exchange:** 1) A willfully induced substitution of a more satisfactory state of affairs for a less satisfactory one;

**Factors of Production:** 1) The ingredients of production;

**Field:** 1) Fluid-like substances that are spread throughout the entire universe, and that ripple in strange and interesting ways; 2) Something that is spread throughout the entire universe that takes a particular value at every point in space and that can change in time;

**Goods:** 1) The objects that can satisfy people's demands; 2) E. Böhm-Bawerk (1930: 9): “The adequate instruments for the satisfaction of human wants, or—what is the same thing—the causes of beneficent changes in human conditions, we call goods.”; 3) Those things which people demand more of, at least *ceteris paribus*; 4)

**Gravity:** 1) The field associated with gravity is space and time;

**Hardware:** 1) A material platform for information processing.

**Homeostasis:** 1) A physical process that maintains multiple parameters of some system within acceptable ranges

**Income:** 1) The flow of goods and services to factors of production

**Indifference Curve:** 1) An indifference curve describes the various combinations of goods that confer the same level of utility;

**Information:** 1) Degrees of freedom; 2) a statistical time series measured on an ensemble.

**Information Storage:** 1) The systematic process of collecting and cataloging data such that it can be retrieved upon request.

**Intelligence:** 1) The capability to execute a complex task;

**Interest:** 1) *The Economist*: “The cost of borrowing, which compensates lenders for the risk they take in making their money available to borrowers”

**{Investment} Input Function:** 1) It describes the range of investment periods for various units of input;

**Means:** The instruments by which acting beings realize a more preferred state of the world.

**Measurement:** 1) An interaction that exchanges information; it is the quantitative variety of observation. At the quantum level, measurement creates entanglements between the interacting things and, according to the Copenhagen interpretation, it performs a faster-than-light rearrangement of the entire cosmos.

**Metabolism:** 1) Kauffman (1993: 343): “the connected flow of organic molecules through a web of transformations linking exergonic and endergonic reactions by which an organism harnesses the energy needed to drive the synthesis of molecular species”; 2) “a coupled web of chemical reactions among simple, complex, and very complex organic molecules, ranging from carbon dioxide to proteins comprised of thousands of amino acids” (Kauffman 2001: 95);

**Momentum:** 1) Momentum is the property of an object that remains constant unless that a force operates upon that object<sup>1</sup>; 2) A quantity of movement

**Observer:** 1) A system with enough degrees of freedom to record information and which can become entangled with the thing that it's measuring; entanglement is the key because an observer interacts with the system that it observes and that entanglement is the measurement;

**Odds:** 1) The ratio of favorable to unfavorable events.

**Organisms:** 1) Functional wholes that have achieved functional closure.

**Process:** 1) A conjunction of sequential events.

**Production:** 1) The creation of utility, though not of matter or energy

**Real Capital:** 1) A stock of capital goods, or intermediate productive goods;

**Resource:** 1) A means for human ends; 2) A source of income

**Ricardian Equivalence:** 1) Mankiw (2005: 562): “The theory according to which forward-looking consumers fully anticipate the future taxes implied by government debt, so that government borrowing today coupled with a tax increase in the future to repay the debt has the same effect as a tax increase today.”

***Status Nascendi:*** 1) A typically unprestatable succession/sequence of Adjacent Possibles.

**Subsistence Fund:** 1) The notion of the subsistence fund depicts capital as a fund that provides for the necessities of life during the course of the productive process such that the larger the subsistence fund, the more efficient the production process can be made (Cassel 1967: 192);

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<sup>1</sup> “Momentum is one of the two most fundamental concepts in physics. Momentum is the property that remains constant unless acted on by a force. Conversely, any change in momentum results in a force. The concepts of momentum and force are thus interwoven.”

**Supply:** 1) A stock of means that are perfectly substitutable for each other.

**Technology:** 1) A means to a purpose;

**Thermal Equilibrium:** 1) Maximal entropy

**Wealth:** 1) The aggregate of those productive resources and technologies that provide people with the capabilities necessary to solve the problems of economic life.