

Valuation, Calculation, Transformation

Unveiling the Great Economic Growth Paradox

A Sustainable Point of View

Stephen I. Ternyik

Social science economist (-1985)

Magister Artium (Technologiae)

Researcher/Entrepreneur

Techno-Logos, Inc.

StephenJehucal@web.de

www.sociostudies.org/authors/ternyik_stephen_i/

Skype :stern.y0691

The economic model of geonomics is introduced to bend the arc of capitalism towards ecological democracy. Economic utopias are viewed as short-term ideologies that cannot help us to develop a long-term strategy for the eco-logical survival of the human race on this planet, in rational and ethical terms. Geonomics can provide for long-term allocation efficiency of the human social economy as an earth sharing system where territorial claims of rent are balanced against a fair economic income for all participants of value creation. A just third way towards economic growth and distributive justice is proposed that is based on the taxation of economic rent as public revenue, to reconcile passive income from private property and active income from public value creation; this economic method is seen as an efficient and effective tool to break through the Sisyphean circle of human economic history.

Geonomics, global dynamic efficiency, valuation, calculation, energy, time, eco-logical transformation, Sisyphean economy, rent.

JEL: B41

In the beginning

The beginning (3000BCE) of our human civilization is marked by ancient eco-logical codifications of economic activity; the code of Ur-Nammu can be dated as being about 4000 years old and it pre-dated the code of Hammurabi for at least 700 years, counted in solar years. Book-keeping evolved gradually into script and in ancient Sumer 11 gram of silver were equal to 180 grains of barley, i.e. in currency equal to one shekel. The civilizational start-up in the Sumerian city-states and temples as first banking centers was made possible by the application of a natural ratio for production and exchange; the first recorded trading of land (natural resources) also falls into this window of time. The knowledge transfer of this classical natural (physical) wisdom is documented in the Hebrew Bible (e.g. Leviticus: chapter 25) and the Mosaic deed (creed) established a new Israelite social economy (for about 1500 years) in a land of scarcity (symbolized by milk and honey), based on clear-cut ecological parameters of human economic activity. In the beginning (of human civilization) was ecology, the law of the common house, and economic growth was made possible by adhering to defined physical standards of ethical economic behavior, i.e. the transformation from a nomadic culture without trade (but most possibly gift exchange) to an agrarian culture with market trade (and monetary exchange) is still marked by deep insights into the origin and nature of resources (although becoming slowly converted into 'property'). We cannot know what will be in the end, but a long anthropological period (of estimated 50000 years) of predominantly nomadic hunting and gathering ended over well 5000 years with an agrarian feudal trade economy, starting the economic institution of private **territorial property**. If we count the socio-economic transformation period to industrial capitalism with roughly 500 years, it is easy to see that overall human social evolution was mainly on '**common ground**'. Today, we are still facing the social phenomenon of a Sisyphean economy with human progress and poverty; in the following, this economic paradox will be unveiled by consequent logical steps of methodical reasoning.

Natural Science of Human Society

Before we can analyze why capitalism could not break free from the ancient feudal limitations of the **territorial economy** (land and labor), it is necessary to do some mental clean-ups. Most classical thought in academic social science is sub-consciously influenced by religious-mythological proto-scientific (oral, written, legal) conceptions of humanity, whether in 'Judeo-chr-islam', 'Bud-hindu-ism' or 'anti-theism'. Neither interpretative (hermeneutic) nor laboratory (experimental) methods in applied social science (like economics) can tell us very much about the most decisive events in the empirical history of humankind; facts and narratives do not match, but thermodynamics and evolution do also not match. Concerning that human life under the physical conditions on this planet is limited by a temporal cycle ('chemical recycling'), it is reasonable to assume that human economic activity is very time-sensitive, i.e. the value of every-thing may follow a hierarchy of needs/demands, but value is derived from 'temporal gain'. However, the temporal construction of the physio-material world (on which the human social economy is based) is governed by energetic principles; let us face it: all we have is nature, our experiences and pain (which is also claimed to be a molecular function). If these universal constructions (Aufbau) follow the process order of an eternal upper/creative force (with an ultimate meaning) or a random selection mechanism of

eternal matter (with a nihilistic pattern) is a psycho-ideo-logical attitude, but survival is about the right strategy and direction of inter-acting with environmental feedbacks. To make a long story short: any given human social economy depends on energy and economic growth is exactly bound to the principle law of **dynamic energy efficiency**, i.e. in historical and empirical terms, e.g. sustainable human societies (measured in generations) always gained more economic productivity with less energy input, greater tech-know-logical quantum leaps were always saving 1/3 of the former energy consumption state (Snooks/Panov algorithm).

The Tragedy of Capitalism

The mechanization of machine working tools (and subsequently intelligent tool-machinery) forms the basis of industrialized production, i.e. the ongoing manufacturing automation of capital from capital (technical resources) via labor (human resources) and land (natural resources). What went wrong with capitalism as a social system? First, the Keynesian post-war economy of 'miracles' is over, since the Nixonian shift towards un-regulated monetarism with fractional reserves cannot work in long-term economic practice. Second, the peace dividend of 1989 was gambled out by the 'new economy illusion'. Third, more and more people on the globe want to share in distribution, but not in production; saving and investment have to capitulate to **short-termed consumption preferences**, i.e. rent-seeking became a widespread economic mentality. In addition, rent got out of control and it now consumes 1/4 to 1/3 of total productivity as the private monopoly of money creation transfers large quantities of purchasing power parity towards the land monopoly (and vice versa). Capitalism has become neo-feudalism, since about one working generation of 35 years, and the great depression will not have been the greatest depression in economic history. Furthermore, the psycho-social forces of fascism and communism are waiting again at the gateways of market societies, because millions of people protest for income and meaning. The reason for all this human regression is that economic rent has once again outsmarted the economic growth of the market society by a 'dangerous' margin, i.e. there exists legitimate private property and earning, but at the same time corruption of economics can become a social institution. A too great portion of progressive economic productivity (25-35% of value creation) is captured by a small rentier 'elite' that executes its legal right to property, but without any economic obligation to re-invest the temporal gain in liquidity to improve the capital asset structure. However, as in the case of economic speculation, we have to correct the systems error which shows us the wrong architecture of the current economic system. Labor and entrepreneurship are forced by the tax monopoly of the state to maintain the public infrastructure (of big government and career politicians) while the big business of the rentier property system can capture a great share of created economic value via the financial command economy of private bank credit money creation (out of thin air). Is this reality or a joke? Stalin would say, it is the inevitable tragic comedy of the final crisis in state monopolistic capitalism where capitalism turns into a centrally planned financial economy for rentiers via the 'hidden' interplay of private and central banks. This author thinks that also the **capitalist spirit is based on clear-cut ethical parameters** and that production precedes consumption; living a good life (before any assumption of a possible afterlife) is a legitimate motivation, but rational and moral reason dictates that on this earth the economic creation of values comes before the consumption of created values; of course, we should also reckon with the ethical universe of being a perfect accounting system. As a logical consequence of the current events, the emerging class of rentiers and cyber landlords, has to be primarily taxed for private wealth

concentration to being converted into public revenue for small government (!), a citizen's economic democracy and a participatory citizen's dividend for the economic use of natural resources. The time of nature as property and the economic rent-seeking from natural resources as banking collateral is actually over, in terms of (global) dynamic efficiency.

A Geo-Economic Synopsis

Geonomics is an earth sharing system or social system of a sharing economy, which aims at **economic democracy** and citizen's participation; it advocates small government (for social law and order), spontaneous markets (for production and exchange), a basic citizen's dividend (based on the taxation of economic rent) and public banking (money creation). The tax monopoly shall be directed towards the capture of all kinds of economic rent as public revenue, the money monopoly shall be under public control and the land value monopoly shall be made also public income (without confiscation of private property). This is the so called just third way between inefficient rentier capitalism and inefficient politburo totalitarianism (fascism, communism); geonomics favors association in equality via decentral, spontaneous and bottom-up decision-making. Participatory economy, a decentral market society and direct democracy are the core principles of this transformative approach of earth sharing. However, it is important to move from economic utopia to science: the living body economic has always to embrace the evolutionary survival strategy to minimize systems entropy; economically speaking, it is decisive and vital to adapt to the natural laws of **thermo-energetic dynamics**. The current eco-energetic circuit works by the following sequence: money/quantifies/energy; energy/quantifies time/; time/quantifies/production. But this is not all: the length (l) of any economic wave (which is the basis of cycles and spiral motion/i.e. forward and backward) is determined by its frequency (f), the monetary volume (x) and the reserve requirement (r), which results in the formalized thought of: $l=f(x/r)$. Furthermore, production (p) is a function of time (t), the monetary volume (x) and energy (e), which results in the formalized thought of: $p=t(x/e)$. The neo-classical formula of $P=R+W+I$ (production=p; rent=r; wages=w; interest=i) is an erroneous assumption; the geonomic formula of $P-R=W+I$ better models the capture or extraction of value for nothing or performance in return, i.e. the Sisyphean paradox of all given economies is the returning historical and empirical effect that after a certain temporal period the extraction of rent exceeds economic growth. The only peaceful tool to stop these fallbacks into the feudal limitations of the land monopoly is to tax it primarily, to free labor and entrepreneurship from unfair tax burdens (so that capital can produce more capital, to enhance human living chances), and the economic control of the money monopoly must be exercised via public banking. A geonomic system of production and exchange can create sustainable growth, because its calculation model is based on the land value of natural resources and locations of real estate! The transformation into the next society will be about dynamic energy efficiency, taxing the value of the land monopoly and calculating the long-term stability of money in relation (natural ratio) to energy (quanta). Valuation is about subjective preferences under limited time options, calculation is about objectified social conventions of accounting and transformation is about creating time-consistent value, which is done by knowledge (prediction) and wisdom (outcome). The geonomic model acknowledges the human interplay of physical constraints and social constructs; it goes far beyond the traditional book-keeping techniques of privatized territorial value extraction, which uses monetary liquidity technically to hoard assets (wealth concentration/accumulation) and to capture productive value for no-

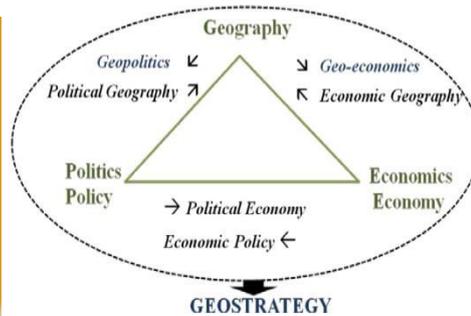
thing or performance in return. In any case and simple words, the land monopoly is the root cause of all other monopolies and it is the Sisyphean economic boulder that wants to capture/extract all other created values; the origin of the land monopoly is the territorial nature of human economic activity as natural resources (land) are converted via human resources (labor) into technical resources (capital). These economic processes are thermo-energetic processes (energetic thermodynamics) and the measurement unit (accounting) is money; however, our current monetary system has no natural ratio, in terms of energy (ecology). Money is an infinite (fiat) book-keeping unit that is used to account for finite resources; an optimal allocation of resources (for more than 7 billion people) is not possible with such techniques; monetary tools serve the land monopoly to direct liquidity into assets and these extracted values flow no more into productivity which leads to the cyclical repetition of economic crises in human history.

The Arc of Eco-Logical Democracy

The original role of the capitalist social system, to generate more capital from existing capital, in order to overcome the ancient and feudal limitations of land (and labor), has turned into a rentier function, i.e. the increasing value in economic growth has been re-captured by the non-productive factor of economic rent. A rent-seeking society and mentality, however, are impeding the progress of economic future and will lead inevitably to global social conflict, revolution and war. The physical finiteness of land (natural resources and the physiological limits of labor (human resources) can only be extended by creating more technical resources (capital) via human ingenuity and thermo-energetic prudence. This rational and ethical imperative for the survival of the human race and its living body economic is not an ideological contest of economic utopias, but a **scientific problem-generation** that will lead to a long-term strategy of eco-logical efficiency. A pre-requisite for this tech-know-logical quantum leap is to free the social science of economics from the dominating mechanistic model of economic production and exchange, i.e. economic life is not functioning in the form of a mechanical orbit of dead objects, but it is the living motion of creating value via knowledge. The technological informatization of the market society can be a successful event of human progress (without poverty), if we introduce the ultimate tax on the land value monopoly, re-gain public control over the modern monetary mechanism and tax all kinds (e.g. cyber landlords) of economic rent and make it public revenue. The overall thermodynamic parameter for this eco-logical democracy is the energy efficiency of the socio-economic system, measureable in quanta; the evolutionary path is always to find the **thermodynamic gap** for a growing population and needs (demands). The geonomic path is a peaceful just third way to a sustainable socio-economic system; our present centralized financial command economy is nothing else than the shadow of too big business to fail and its big government career politicians. Doing the right thing and doing things right means to adapt and learn from principle natural laws; it is this interplay of physical constraints and social constructs that make economics an exciting science, despite all the Sisyphean setbacks that accompany the study of economic history and empirical human economic action. This great eco-logical transformation of the human market society and economy is about valuation and calculation problem-solving; the total costs of the current economic practice of infinite financial alchemy against finite natural resources are outnumbering any private gain in wealth accumulation, i.e. death, disaster and disease are real and all available statistical data (e.g. human health) are pointing to a not sustainable 'way of life'. Economic growth and distributive justice are two

sides of the same medal; if the role of speculation and the rentier mechanism are essential scarcity functions of a credit (interest)-based monetary system for production and exchange, then it is nevertheless existentially decisive to tax this kind of value capture as public revenue.

Conclusion: In compliance with the **time-tested** knowledge and wisdom (in rational and ethical terms) of humanity, it is part of a survivalist long-term strategy to focus economic alertness towards the extraction of rent from the natural land value of resources. The tax monopoly of the state is basically exercised on the capture of value creation from laborers and entrepreneurs, allowing the rentier function to concentrate progressively more wealth, i.e. subtracting massive flows of active income towards passive income. The current monetary system (monopoly) reinforces and accelerates this economic tendency of capturing economic growth in a few pockets and leads to growing distributive injustice and a loss of overall productivity, i.e. liquidity flows into the land value of assets and not into the capital value of productivity which is created by all kinds of human labor and ingenuity. Such an ancient and feudal economic value extraction mechanism of the territorial land monopoly inhibits labor and capital from reaching its full potential, especially in a global agenda of more than 7 billion people. Optimal allocation efficiency of finite resources can economically not be realized without accounting monetary circulation in terms of a natural ratio of energy; the valuation and calculation of natural resources stands at the beginning of this great social transformation of the market society. In the beginning was ecology and the road to eco-logical democracy is proposed via a geonomic approach of converting economic rent legally into public revenue. Economic valuation and calculation shall be accounted via the rational use (energy and location) of eco-logical resources for sustainable growth on this planet, to revert the evolutionary trap of destroying nature and humanity; the contemporary trend will definitely destroy the thermo-energetic gap in which we are living and this has no more to do with creative destruction.



Land monopoly is not only monopoly, but it is by far the greatest of monopolies; it is a perpetual monopoly, and it is the mother of all other forms of monopoly.

Winston Churchill

Literature/Links

Andelson R. (Ed).2001. Land-Value Taxation around the World. Malden: Blackwell.

Backhaus J/Wagner R.2004. Handbook of Public Finance. Boston: Kluwer.

Bird R/Slack E.2004.International Handbook of Land and Property Taxation. Cheltenham: EE.

Brooks N (et al).2012. Oxford Handbook of Urban Economics and Planning. University Press.

Huettermann A.1999. The Ecological Message of the Torah. Atlanta: Scholars Press.

Schwartz R.2002. Judaism and Global Survival. NY: Lantern.

Seidenberg D.2015. Kabbalah and Ecology. Cambridge: UP.

Ternyik S. 1989. Social Learning Processes. Frankfurt: Fischer.

Tirosh H.2002. Judaism and Ecology. Harvard: UP.

www.greenfaith.org

www.norberteliasfoundation.nl

www.progress.org

https://www.goconqr.com/en/p/2124645-energy-mind_maps

(The author created this mind map as an educational tool in 2015; it can be played in different speeds to better understand the many elements of the economic circuit which is ultimately and basically driven by the use of energy quanta from nature and accounted in money; taxation is focused on active labor & entrepreneurship and not on the passive economic return from natural resource conversion. Excesses of the monetary volume lead to the ‘need for more energy’, while energy is a finite unit and money an infinite unit; the natural feedback is cyclical economic crises, thus the coining of the expression: Sisyphian economy).