

# ERF Policy Research Report

## The Fable of The Bees *Humanity in the 21ST Century Begin or End?*

Ismail Sirageldin

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*Humanity in the 21<sup>ST</sup> Century*

*Begin or End?*

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*Prepared as an Essay, and follows the publications of the  
'Encyclopedia of Life Support System,' and other publications for the author.*

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# Part One

# Concerns

**G**OD, we were told, created the Universe with the human species, a speck in its enormous oceans, left to search for purpose as they evolve. Organic evolution provides the natural tendency for violence and conquest, while symbolic cultural evolution creates views of nature and 'Gods' that justify the consequences of their actions, thus, making it a Game. But, for how long would Human continue to be part of the Game?

The purpose of the Essay, as mentioned in the Abstract is to examine the change in humanity that has been changing structures and increasing the conflicts between morality, allocation, environment and behavior. In the case of allocation in a society, changes are relatively stable: riches are mostly designed for the few, governments for control, and war the outcome of conflict. But, since the 18th century, the global society was provided with increasingly powerful systems that, on the one hand illustrate a hopeful era of peace, security and progress, but on the other hand it did not stay hopeful for long as the system continuously produced inequity and inequality. The result was apparently, the decline of the system and the rise of warfare.

The case of *warfare* is of interest to understand societies and their ways of survival. The advances of weaponry and their use are parallel in their development with the advance of technology. The parallel of advanced technological weaponry to the development of technology, started since the use of clubs, of the bow and arrow, the sword, gunpowder, nuclear and thermo-nuclear weapons, and more recently the use of cyberspace-based sophisticated non-lethal weapons leading

to cyber-criminals and cyber-warfare, HAARP, an instrument designed to enhance communication and surveillance systems, while having the potential to trigger floods, droughts, hurricanes and earthquakes, with devastating power, and the possibility of upheavals between Planets and Humans. <sup>1</sup> (Warfare to Upheavals. Also, the start for inserting photos)

These procedures have changed the structure and behavior of the global system especially as applications became the center of development with growing power, while a decaying morality is revealed to be infecting both faith and science. It is also observed that as the behavior of the system changes, its moral standard starts decaying especially when combined with accelerating change beyond the ability to adjust in apt time. With this decay, boundaries for any action are eliminated, since, without a fixed standard, morality and justice cannot be achieved or trusted. For example, some contemporary scientists maintain that scientific progress has not been based solely on rules or morals. It has been the outcome of "*breaking all the rules in the book. It owed [its progress] as much to a mixture of subterfuge, rhetoric, conjecture, propaganda, and politics as it did to rational argument.*"<sup>2</sup> (Science)

In such environment, nihilism, a stage in humanity that denies the existence of absolute moral standards, emerges. First, it influences society's moral by treating existing standards as sub-optimal and accordingly deserving of utter neglect leading to the disdain of all values and the belief in nothing. As a result, the vast majority of the human society is being turned into senseless tools that are bound to abandon higher aspiration and

ignore difficult and distant goals. In this phase of moral nihilism, humanity is distanced from its basic values and beliefs. Moral nihilism then moves toward Brutal nihilism, a phase that aims to destroy all standards and restructure society with only a few considered the “be-all and end-all of human activity.” In this brutal phase, the role of these select few, assigned by the structure of the phase, is to govern the global society by reducing the relative learning capability of the rest of society and thereby diminishing its effective behavior.

In essence, the vast majority of the global society is reduced to serfs or bland followers at best. But the issues are more complex since destruction leads to instability, social decay, and at the end every part of society become full of vice, and the whole social order become self-destruction.<sup>3</sup> (Mandeville, Adam Smith, and Schumpeter)

Also, attempts to improve technique or social processes will not improve or change injustice without dramatic change as discussed later. But, since the prospect for the *Future of Humanity* is unknown, then investigating the issues may lead to the central question of the Essay, namely: What is the prospect for humanity to survive, and if it does, will human change into different types of *homo-sapiens*?<sup>4</sup> Change of Humanity; also may view “Non-Market Components ...” by Sirageldin 1969)

As we enter the twenty-first century, those emerging threats become evident, with negative consequences that affect the future of governments and organizations. Apparently, the human path is not optimal since a change of direction, the presence of an invisible government, and visible Army, may change the whole society.<sup>5</sup> (Army is in Power)

Early in the Twentieth Century, Bertrand Russell, a leading philosopher-scientist and a Noble laureate, voiced such concerns with clarity and force.<sup>6</sup> (Russell History).

**The triumph of science has been mainly due to its practical utility, and there has been an attempt to divorce this aspect from that of theory, thus making science more and more a technique, and less and less a doctrine as to the nature of the world ... But unlike religion, technique is ethically neutral: it assures men that they can perform wonders, but does not tell them what wonders to perform. In this case it is incomplete ... the power impulse thus has a scope which it never had before ... Ends are no longer considered; only the skill-**

**fulness of the process is valued. This is also a form of madness. It is in our day, the most dangerous form, and the one against which a sane philosophy should provide an antidote.**

Also, Schrödinger (1954/1996: 13), a noted twentieth century physicist and a Noble Laureate, referred to rapid material advancement and reduced future vision as factors responsible for the negative impact of technique on the present human society:

**The early stages of the rapid material advancement, which came in the wake of modern science appeared to inaugurate an era of peace, security and progress, this state of affairs now no longer prevails. Matters have sadly changed. Many people, indeed entire populations, have been thrown out of their comfort and safety, have suffered inordinate bereavements, and look into a dim future for themselves and for those of their children who have not perished. The very survival, let alone the continued progress of man are no longer regarded as certain.**

The concerns of Russell and Schrödinger were echoed by Heidegger, a noted philosopher, who viewed technique as a process that is ‘*dehumanizing man and is leading humanity towards nihilism, a society without a standard of ethics*’<sup>7</sup> (Nihilism).

We may add, in the context of Heidegger that technique in its advanced state leads to a society divided into two parts: a select minute group that has full authority and control of society, but lack ethical values and unselfish wisdom, while leaving the rest of the population, its vast working people, with short memory and inability to control their destiny.<sup>8</sup> (Memory)

These concerns were not new. They were anticipated a century earlier by the famed American President Abraham Lincoln (1809-1865), the first to be assassinated.<sup>9</sup> (Assassinations) Lincoln was concerned about the negative impact of the power of Corporations on democracy and freedom, especially when Corporations are enthroned with both money and technique. The combination of controlling both finance and technique would, in Lincoln’s view, lead to dangerous consequences such as the concentration of wealth and political



power in the hands of Corporations combined with unabashed corruption. As material and technique advance in the hands of Corporations:

**I see in the near future a crisis approaching that unnerves me and causes me to tremble for the safety of my country ... Corporations have been enthroned and an era of corruption in high places will follow, and the money power of the country will endeavor to prolong its reign by working upon the prejudices of the people until all wealth is aggregated in a few hands and the Republic is destroyed. (Abraham Lincoln, November 21, 1876, Quoted in Jenson and Draffan, 2001: 85)**

Neither Lincoln nor the economists of that time were certain of how to prevent the system from moving into this destructive path. There were few political philosophers and economists whose ideas and advice had been powerful around Lincoln's period. Visionaries, between John Locke in the Seventeenth Century and John Keynes in the Twentieth Century, had ideas and potential policy recommendations that may have resolved Lincoln's dilemma. [Those, for example, include the thoughts of John Locke (1632-1704), Adam Smith (1723-1790), Edmond Burke (1729-1797), John Stuart Mill (1806-1873), Karl Marx (1818-1883), Alfred Marshal (1842-1924), John Dewey (1859-1952), or John Maynard Keynes (1883-1946)] Each of these thinkers had influence on socioeconomic and political policies within their time boundaries and beyond. However, none of them would have imagined, given their outlook and vision, that the World would reach its present form: **a form of madness, a society that lacks a standard of ethics, with ends no longer considered in a wise way and whose survival is no longer regarded as certain.** The fact that the World has reached such a precarious state would mean that there were errors either in judging human values and behavior, or unexpected change of parameters that are much faster in action. The forces underlying the present perilous state of the world are a combination of factors that nullified the thoughts of these great thinkers, to put in a different way: Human can only adjust for a changing nature, not redesign it. <sup>10</sup> (Nature control)

Advances in the neo-industrial age have been more inclusive, more spread-out, with production and trade being increasingly global, while technol-

ogy is becoming more multifaceted and complex. <sup>11</sup> (Truth vs. efficiency) Meanwhile, change has progressed at an exponential rate compared to previous eras.

In general, socioeconomic and political authorities or intellects tend to agree and focus mainly on their own views. For example, the socioeconomic and political views of Mill, Marx or Keynes are not similar in behavior or action. They differ significantly, as if those well-known authors were viewing the world through different spectacles, and, convincing the rest of the world to follow their path. This type of behavior is a case of prejudice that leads to patriotism towards own thought and action. It is more ideological rather than scientific. But many scientists may not accept to change their views and ideas, even if being pushed by force:

**He who's convinced against his will  
Is of the same opinion still  
Joan Robinson (1962: 23)**

However, scientists who are not prejudiced against others, and especially those who are specialists in the social sciences (CF, introduction in Part 2), will be willing to change their views and approach wider views of science.

It is evident that change of individuals or societies requires careful understanding. For example, since the ancient Pharos and Greeks and up to the present time, attempts to change the nature of individuals could end changing their thought and behavior, with astounding results. But, we are not referring to change generated in the time of 'Biological Evolution' that took hundreds of thousands of years for maturity. We are referring to change in more recent times that occur exceedingly fast. For example, in present times, education and training become a necessity, in order to adjust behavior to learning and not to wait for changing behavior. In such processes, different *authorities* have different ideas of controlling cultures and societies. But, planned change requires careful thought with minimum errors and intensive education in order to accommodate the needs of new structures. For example, to change the behavior of lay or common people, to learn the rules of new faith such as changing morality, require different types of training for the educational change. However, this type of learning may not necessarily be the desired or needed education for the *laypeople*. Most probably it is the requirements and plans of the authorities. But plans are continuously changing, especially in the Neo-Industrial Age, and

change occurs at exceedingly fast speed, leading to instability and volatility as it occurs. For some individuals or groups, their needs do not stay long for society, but for few others the needs of society are required for long. As Schumpeter put it aptly:

**Most of the creations of the intellect or fancy pass away for good after a time that varies between after-dinner hour and a generation. Some, however, do not. They suffer eclipses but they come back again, and they come back not as unrecognizable elements of a cultural inheritance, but their individual garb and with their personal scars, which people may see and touch. These we may well call the great ones. [J. A. Schumpeter 1951, *Ten Great Economists from Marx to Keynes*: 3]**

Most, if not all, of the creations of past intellects tend to eclipse except for few revivals, labeled by Schumpeter as the 'greats.' Karl Marx is evidently one of the Schumpeter greats. Marx, whose interest has been wide-ranging from philosophy to sociology, history and economics, has developed a comprehensive account of human nature and ways of life that exposed the weakness in capitalism. Marx's approach, on the other hand, has few systemic flaws. His system, called 'dialectical materialism' followed Hegel dialectic method although differing from it in fundamental ways. It took the evolutionary outlook but not the ethical substance. (Cf. Karl R. Popper 1966/62: Volume 2 on Hegel and Marx; Joan Robinson 1960, an *Essay on Marxian Economics*. London: Macmillan & Co. Ltd.) In his work, Marx dug deeply, analytically and historically to develop a consistent theoretical framework. His basic idea was that for the study of society a historical approach is necessary since there are no general laws for the functioning of society. Society functions differently under different epochs, since each epoch has a different mode of production. Marx's aim was to search for the laws that govern the development processes of the human society just as the chemical and physical laws form the basis of all processes in the universe. In other word, he believed that the development processes that are analyzable in the form of laws could govern both the development of the universe and the development of the organic life on earth, although Engels cautioned that the parallel between both is not total. [Cf. Engels, 1888, p. 365-6. Quoted from Marx and Engels 1970] Engels

confirmed Marx's view about the development processes of the human society in the speech he gave at Marx's graveside:

**Just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history. [Engels, Fr. 1883: "Speech at the Graveside of Karl Marx." Quoted from, Marx and Engels, 1970. Also in Erland Hofstin, 1977, *Demography and Development*, Stockholm, Sweden: Almqvist & Wiksell International: 128]**

Marx was also not satisfied with the statistic-type grouping of high and low income and wealth. To Marx, such a simplistic approach is meaningless if not dangerous to use for such analysis of inequality and inequity. Instead, Marx dug deep into the socio-economic structures and came up with the notion of modes of production and exchange, leading to class struggle between capitalists (Bourgeoisies/financiers) who own the property and workers (Proletariat/wage earners) who must sell their labor to survive. In Marxism, the structure of Bourgeoisies and Proletariats is based on historical and technical processes. History indicates that the hostile classes in society are the product of the mode of production of each particular epoch:

**It was seen that all past history, with the exception of its primitive stages, was the history of class struggle: that these warring classes of society are always the products of the modes of production and of exchange—in a word, of the economic conditions of their times; that the economic structure of society always furnishes the real basis, starting from which we can alone work out the ultimate explanation of the whole superstructure of juridical and political institutions as well as of the religious, philosophical, and other ideas of a given historical period. [In Engel's, *Socialism, Utopian and Scientific*, Quoted in Bertrand Russell 1961, *The Basic Writings of Bertrand Russell*: 54]**

But this type of analysis that presupposes supremacy to economic and historical conditions in order to adjust the structure of society is not totally reliable. This is because they are based on historical processes with deterministic and his-

toricist outcomes that are neither necessarily true nor practical, since there are many factors and forces, some unknown that influence both its processes and outcomes. From this perspective, one may conclude based on history that the two global Marxist experiments of the past century, namely Russia and China, have failed to illustrate the viability of the Marxist system. But failure is unacceptable in Marxism. Failure is beyond historical determinism, since corrupting the system through greed, psychology, or profit motives are repercussions that do not explain the move of history in Marxist framework. A Marxist would rather interpret such psychological and corrupting phenomenon as:

**Symptoms of the corrupting influence of the social system, i.e. of a system of institutions developed during the course of history; as effects rather than causes of corruption; as repercussions rather than moving forces of history. (Popper, 1966/1962 Vol. 2: 100-101)**

Although historical determinism is evidently not sufficient to understand or explain the key issues in the developmental processes, it could still be open to a Schumpeter-type 'revival.' But the present is more complex than the past and is increasing in complexity and rate of change. To adjust the sociopolitical system through proletariat revolts is a naïve solution if not a dangerous one, especially as the global juridical and political institutions are changing fast in both roles and structure. Also, Marxism, similar to present systems of governments, tends to give basic importance to authority and order while firmly control individual freedoms, thus, restrain progress and lose true democracy.

# Consequential Conflicts

There have been many attempts to save the human society from the negative aspects of technique. Economic policy is an attempt for that purpose. It focuses on goals to enhance development and reduce the negative aspects of technique by reducing equity and equality, minimize unemployment and poverty, and reduce environmental damage in order to enhance progress. But to achieve these objectives it is necessary to understand the role of the key forces that influence society, such as progress, stability, justice, and freedom. These key forces, although beyond the economic sphere, the understanding of their role and inter-relations are basic necessity. But there structural combinations are complex, since it needs to be done in grouping and not separately. As Kenneth Boulding demonstrated, both the difficulty of multiple analyses and the necessity may be viewed as follows:

**Our policy to be objective,  
Must chose a suitable objective,  
So, our economy should be  
Both Growing, Stable, Just, and Free.  
The Dog would surely be a Dunce  
Who tried to chase four things at once?  
Yet this is just the way we plan  
The task of economic man!**

**[Kenneth Boulding, Principles of Economic Policy, 1958, Englewood Cliffs, N. J. – Princeton-Hall INC: 1]**

These forces of growth, stability, justice and of freedom are features of the following conflicts: conflicts between theology and science, old and

traditions, and between social cohesion and individual freedom. These conflicts are discussed below.

## 2.1 Conflict between theology and science

This conflict has been present since theology and science were invented. The reason for the conflict between theology and science is that they differ in purpose and the conflict became less as time passed.

Early in time, out of the primitive myths, beliefs, and the speculation of Egypt and Mesopotamia that started about seven thousands years ago, grew the religions and philosophies of the later world, whose people were the most civilized people of this time; and they have lest the current societies a rich and varied literature which has been deciphered to a large extent during the last hundred years according to the authors, members of the Oriental Institute of the University of Chicago, Before Philosophy, by H. Frankfort, H. Frankfort, J. A. Wilson, and T. Jacobsen, University of Chicago Press, 1946.

To start with, in the present time with influence from the past, pure science unlike religion is ethically neutral and not value committed. Also, Science is continuously changing in structure and behavior. In comparison with Theology, when a religion explains its behavior to laity in the Church, it gives sufficient details as to what and why the action is required and the benefit or detriment of doing it, and more essentially, religious statements are almost permanent compared

to the changing in science that continuously expect reality. Also, in creating a religion, a distinction was made between *the power of nature and its ability to exist, and nature itself and its final use*. This was done by creating the power of nature prior to nature itself, and calling the former GOD and the latter Metaphysics and Mythology [CF. Holbach, D'Baron].<sup>12</sup> (Theology and Metaphysics)

Thus, religion became a distinct entity. For a given faith, religion presents its instructions and directives with the same meticulousness and clarity over time, making GOD an actual reality. Although believers benefit from such clear and evident presentation, they are being directed towards a historicist path, controlled by the laws of history.<sup>13</sup> (Historicism)

It is a path that requires full trust in the wisdom of God and theological learning. But understanding is necessary since at this time, the end of 2015, there is a large number of living Religions from: Judaism, Christianity, Islam, Zoroastrianism, Hinduism, Sikhism, Jainism, Buddhism and Chinese Religion, and Japanese Religions along with additions to the various religions. Also, as a result of the many religions, there are as many 'Gods' although Judaism, Christianity, and Islam believe in One GOD, although disagreeing with its role. The story of the rest of Gods is given in 'Living Religions'<sup>14</sup> (Ontology and the creation of God)

Religion also acts in moral governments, as 'Moral Religion'. In this mode, accomplishment is judged by action, as for example the Golden Rule of Confucius: Never impose on others what you would not choose for yourself [Cf. Confucius Golden Rule C. 551 BC – C.479 BC]. Or, how successful are Religions in "turning beasts into men, savages into citizens, and empty hearts into hopeful courage and minds at peace, how much freedom is still left to the mental development of mankind; and what its influence in history." Or reflecting on what the Prophets, Jesus and Mohammed (SAAS), have achieved in their lives such as the mastery of ideas and the achievement of ideals that continue to motivate human lives after thousands of years. [Cf., Bruce Barton, *The Man Nobody Knows*, 1925/2011 / Amazon; *The Qur'an*; Will Durant, 1963/1935. *The Story of Civilization: Part IV, Our Oriental Heritage*. New York: Simon and Schuster]. (Page 176)

The role of religion as a mode of moral governance requires basic sources of knowledge and information. First, God and the Heaven provide

strategic sources of information. However, it requires full trust and belief in God, especially 'his presence,' although, his presence has been questioned by diverse types of population groups. The second source is information based on data and analysis. But it is known that not all information is trusted. For example Morgenstern, an economist in the field of information, had examined the accuracy of quantitative data. His findings indicate that 'decisions made in business and public service are based on data that are known with much less certainty than generally assumed by the public or the government.' Also, similar doubtful conclusions have been the same for the findings of natural sciences. Furthermore, negative findings have significant implications beyond economic analysis and the social sciences. These include theology, science and applications. [Morgenstern, Oskar, 1950/1963. *On the Accuracy of Economic Observations*, Princeton, New Jersey: Princeton University Press]

Presently, science is focusing more on the design and production of market-based applications while doubting the reasoning ability of traditional ontology. As a result, incompatibility between religion and science has increased. The recent case of Evolution versus Intelligent Design is a case example. The case questioned the teaching of evolution as science in some USA schools. They created serious concerns in the teaching profession and among some religious authorities. For example, Paul Poupard, a Vatican Cardinal, indicated his concern: 'the faithful should listen to what secular modern science has to offer,' warning that 'religion risks turning into fundamentalism if it ignores scientific reason' [See also Fn. 14 and WWW.salon.com]. However, such examples indicate not as much the increased gulf between Religion and Science but rather the increasing control of the market place on the role of science mentioned above. This apparent control may be expressed by the mix between faith and the market place in the saying that "authority depends on faith, and that faith may depend on authority," a saying that "every businessman, every leader in any field today knows or should know." The outcome seems to accept religion as an obvious part of the market place. (Bruce Barton, 1925/2011. 'The Man Nobody Knows.' In his review of Barton, Richard N. Ostilling of the Philadelphia Tribune suggested that in his story, Barton is making 'Jesus the founder of modern business.' It is

evident that Barton is making Jesus part of the market place)

At present, science and religion are almost becoming wage earners under the command of market behavior. But, there was a time in which religion and science acted as twin sisters balancing views of scientific discoveries and 'modern knowledge' with 'ethical values and morals' – a balance needed in order to control the growing negative externalities of technique. (Cf. Maurice Bucaille 2003, *The Bible, the Qur'an, and Science: the Holy Scriptures examined in the light of modern knowledge*, New York: Tahrik Tarsile Qur'an, Inc.; *A New Handbook of Living Religions*, 1998, Edited by J. R. Hinnells, Penguin Books, References)

The present, however, seem to belong to technique with its labors and buyers and followers or 'laity' enjoying if not worshipping the flow of the apparently cherished applications, while, on the one hand, forgetting their ethical values, and on the other hand, being controlled by an invisible global government that allocate its input-output application. In the present era, applied science, controlled by 'Invisible Global Government,' is winning the soul of Capitalism, although it is not evident for how long or at what cost to humanity?

## 2.2 Conflict between old and new traditions

This conflict has been present since theology and science were invented. The reason for the conflict between theology and science is that they differ in purpose and the conflict became less as time passed.

Historically, the conflict between 'old' going back to thousands of years and present traditions is a result of wars, of change of ideas to new knowledge, and change in beliefs and values some being resisted. But, in recent times, the accelerated rise of applied science has introduced a new force influencing the structure and direction of humanity. But as the change accelerates, the human species itself changes. Human may develop into a different being with different structure and different behavior—a process that might have taken hundreds of thousands of years to occur in the biological evolutionary process, compared to cultural change that moves at an increasing velocity. But as the speed exceeds the ability of human to adjust its behavior on time, society is bound to

lose course and purpose, and if continue, it may become a society in decline. Civilizations in decline have been a common occurrence, although some stayed for centuries without knowing the underlying causes. For example, the causes of the decline of the Egyptian Pharos and of some Northern and Eastern societies are not adequately understood. In the case of the Pharos, they were perhaps the longest civilization in history that lasted more than six millennia until their decline and end. There are many reasons that make the forces responsible for the decline unrecognizable. Aside from inadequate historical documentation, misinterpretation of evidence, and lack of objectivity in the analysis by the international Egyptology scholars, the Egyptian Civilization had two types of dynamism: the first is that the Pharos' science lacked vitality, and the other is that in the same time, religion was active and dynamic. Such duality presents a difficult case for evaluating the causes of decline. Furthermore, the presence of these dynamic forces underestimates the extent of Egyptian Civilization of that time. It is evident that the Civilization of Greece or the Italian Renaissance that took place few thousand years later have learned from the Pharos as discussed below. A recent analysis of the Civilization of the Pharos concluded that:

- If Collingwood argues in *The Idea of History* that historical writing began with the Greeks, he is quite wrong. The four points that he lists as characteristics of history are fully apparent in the Hebrew historians and earlier in early Egyptian and Mesopotamian history writers.
- The Egyptians did write history, did possess accurate records and were aware that they were writing history. Like all history, it is to be dealt with critically. Because not a single Egyptian law has come down to us, we are not to conclude that the Egyptians had no laws. The scenes in the Tomb of Rekhmire prove that they had and show us a vizier seated before the 40 books of Law.
- The interest of Egyptians in religion was full of depth. For example, almost all-Egyptian history is thematic, has a subject or purpose. The King's primary duty is to maintain order not only in his kingdom but also in the universe. He is in a certain sense immanent. (CF. Frankfort, Kingdom

and the Gods, in Constant de Wit, *Ibid*: 166)

- The Egyptian concept of time is quite different from ours. The Egyptians do not consider events as a running stream, but more as the returning to quietness of the surface of a lake after this has been disturbed. It would be quite un-Egyptian to depict the evolution or the history of their whole civilization. They simply register events as they would register the contents of a granary. Evolution and progress make no sense for an Egyptian, for theirs is a static universe and time and again the kings say they have put everything in order again 'as it was in the beginning.'
- Egyptians had a very clear and correct insight into their own history and, as is the case with many other spheres with Egyptian arts, for instance it is absurd to say that nothing existed before the Greeks. You may call Herodotus the "father of history" if you like, the one who was the first 'travel writer,' but remember that without Babylonians, Egyptians and Hebrews the "Greek miracle" would never have been possible.] (Cf. *Egyptian Civilization, in Mythology: Myths, Legends and Fantasies*, Global Book, 2003: 284-297; Jill Kamil, *Labib Habachi, 2007. The Life and Legacy of an Egyptologist*: Cairo: American University in Cairo Press (ISBN 978 977 416 061: Pp. 344); Constant De Wit, "Egypt Methods of Writing History." *The Evangelical Quarterly* (Pp. 158-69)

The ancient history of Egyptian, although starting many millennia earlier than the Greece, the Romans or Eastern civilizations, it provided important lessons of its decline. However, cases such as the decline of ancient Greece and the Roman Empire are closer to present Europe and American civilizations. (See also Chapter 16) There are similar patterns of decline of the three civilizations, Greek, Italian, and Present Europe and America. These are the rise of creativity and genius coupled with decaying morals, while leading to an impotent collectivity. In the case of the Renaissance for example:

"Traditional moral restraints disappeared, because at that time they were seen to be associated with superstition; the liberation from fetters

made individuals energetic and creative, producing a rare florescence of genius; but the anarchy and treachery which inevitably resulted from the decay of morals made 'society' collectively impotent."

This pattern of change during the stages of decline that took about more than five thousand years is similar to the behavior of the decline of societies in the nineteen and twentieth century that took less than two hundred years (CF, Russell 1945: XIX). There are some significant differences however, in the patterns of change between the decline of Greece and the Italian Renaissance on the one hand, and that of twentieth century civilization. One of the obvious distinctions is the change in the role of science. In the last two centuries, advances in scientific knowledge have been unprecedented. But, the advance of science has been mainly a shift towards practical utility that has been moving science more and more towards technique and the market, and less and less as a doctrine investigating the nature of the world, regardless of financial rewards. It is likely that the apparent shift in the role of science means a society in decline! (See Chapter 5)

### **2.3 Social cohesion versus individual freedoms**

This conflict has been present since theology and science were invented. The reason for the conflict between theology and science is that they differ in purpose and the conflict became less as time passed.

The structure of government plays an important role in this social - individual conflict. It is essential to approach the role of government historically since its structure, power, and purpose have been changing notably in the past three centuries, especially in the past few generations. The prevailing Ideal of government based on democracy, was born in Britain in the seventeenth century at the time of John Locke (Cf. Strauss and Cropsey 1987). By the mid-twentieth century, most countries have adopted democracy as their political ideal; some very recently, while others still struggling. The Preamble to the Constitution of India, the second largest country in the world with a population of 1.12 billion people in 2011 and growing by 1.41 %, expected to exceed China by 2050, illustrates the birth of democratic philosophy in the mid-twentieth century:

**We, the People of India, having solemnly resolved to constitute India into a Sovereign Democratic Republic and to secure to all its citizens: Justice, social, economic and political; Liberty of thought, expression, belief, faith and worship; Equality of status and of opportunity; and to promote them all ... In our Constituent Assembly this twenty-sixth day of November 1949 do hereby adopt, enact and give to ourselves this constitution. (Preamble to the Constitution of India, quoted in Ernest Barker 1951: ix; see also the story of Gandhi)**

However, the democratic ideal did not last for long. It started its decline not long after its conception in India, in most other countries, and even in Britain, its birthplace. According to Hayek (1955), the decline spread across countries, with varied degrees. First it was the decline of Isonomy (The Consistent Rule of Law), followed by the decline of Liberty and Individual Freedoms. The result is reducing Democracy to a mere label without substance, although the wording continues to be the same:

**We still describe our political ideals with the same terms which our grandfathers used, few people are aware how much their meaning has changed and how far we have moved from the ideals for which they once stood [Hayek, *ibid*: 2].<sup>15</sup>**

(Democracy)

There are various reasons for the decline of liberty and Isonomy. An important factor is the way the Global Neo-industrial system has been operating. These include its rules of governance that did not allow for equal Rules amongst disparate peoples, the absence of universal freedoms even in democratic governments, its accelerated speed of change that 'reduces the ability' of societies to adjust its behavior naturally, and the complexity of its organization and management that prefer social over individual-type organization. The lack of equality of Rules (Isonomy) and its implications to governance has been evident for many observers since the late thirty-nine century. Ivor Jennings of Great Britain put briefly the absence of Isonomy in his government, in his evaluation of the Report of the British Committee on Ministers'

Power, as follows:

**This Rule of Law is either common to all nations or does not exist. (Jennings 1932-1933, quoted in Hayek *ibid*)**

By its nature, the Neo-industrial system requires strict control of the global economy and a full control of all aspects of life that are actually or potentially of significance to the system - basically the structure of a totalitarian rule. This control has two sides. The first is to control all elements of production, exchange, and innovations. The second is to have full control on all elements of human behavior in the system. This latter requirement does not fall in line with the basics of liberal democratic government. However, to be part of democratic fundamentals, the system requires that the totalitarian governmental rule has to be by consent rather than by force. As mentioned earlier, there is a Global Invisible Government (GIG, details in II-1-6) that fills that role. GIG follows the twin strategy of Antonio Gramsci (1891-1937) that is meant to maintain for the ruling power its dominant position not by force or threat of force, but by consent. The strategy of Gramsci covers both the few ruling elite and the increasing ruled majority. Also, this twin strategy captures the requirements for the economy, the role of the sociopolitical system, and the use of power when required. Furthermore, the strategy focuses on the design and control of institutions, social relations, and of communication and information media, while keeping in mind the behavioral elements that change over time. The strategy of Gramsci produces three essential outcomes: full control of leadership, sustainability of governance, and maximum profit and accumulation by the ruling class. But also, the strategy requires time to function effectively. Its essence is as follows:

**Making compromises with various other social and political forces which are welded together and consent to a certain social order under the intellectual and moral leadership of the dominant class. This hegemony is produced and reproduced through a network of institutions, social relations, and ideas that are outside the directly political sphere. (Joseph Femia 1981, on Antonio Gramsci, quoted in Honderich 1995: 345)**



However, although the strategy of Gramsci produces abundant innovations, productive outputs, riches and power for the few, it also creates widespread injustice, distrust, inequality, unrest, and vice that require costly control and adjustments - a control that may put an early end to the whole system (See FN: 4 on Mandville). Although it is not evident how or when such end may occur.

A recent systemic experience may provide a case in point for both control and development. The global economy and humanity as a whole has just had a ruthless experience—the 2007 financial crisis whose costly effects and its end, have not been clearly comprehended after more than 7 years later (2015), especially in the economically advanced western countries. And even more significantly, this experience has been repeating itself often in the past few decades. However, the impact of the 2007 crisis went far beyond its effect on finance and the economy. It exposed the flaws in the structure of Capitalism in both its local and global levels. Trust has been broken and the efficacy of the value system has been questioned in human relations, in the political system, and in the market place (Cf. Stiglitz 2003; Sirageldin 2009). The repeat of the crises was inevitable, since the causes responsible for its occurrence, whether technical or civil, did not change for decades, evidently part of GIG socioeconomic and political management. On the non-technical side, the crises have been the outcome of decades attempting to move the soul of humanity towards a new Icon to worship: material artifacts that lack morals, with no distinction between vice and virtue, while being managed by an Invisible Government that lacks legitimacy—an outcome of Gramsci's strategy in operation.

The sociopolitical, economic and finance strategy of Gramsci seems to be designed to save the community from a paradox that produces mass Paradise in the midst of Injustice and Vice, thus loses values and ethics for deceptive stability. A Paradox that is concealed in GIG's invisible management, similar to that of Bernard Mandeville, *The Fable of the Bees*:

**Thus every part was full of vice,  
Yet the whole Mass a Paradise.  
(Bernard Mandeville "The Crumbling  
Hive" or *The Fable of the Bees* 1989: 16/67)**

In this part of the poem, Mandeville does not indicate what type of a country, if any, the presence of injustice and vice produce a paradise. Mandeville gave the answer as follows:

**What Country soever in the Universe  
is to be understood by the Bee-Hive 're-  
presented here', he /explained later, 'it is  
evident ... that it must be a large, rich and  
warlike Nation ... a populous, rich, wide,  
extended Kingdom ... a large stirring Na-  
tion ... a trading Country'. Mandeville  
recognizes another kind of state, howev-  
er, which he describes in such, terms as a  
frugal and honest society ... a small, indi-  
gent State or Principality ... a pitiful Com-  
monwealth. Such countries are exempt  
from his concern and have no need for the  
vices he describes. There is a considerable  
justice, therefore, to Mandeville's reit-  
erated assertion that he is not championing  
vice for its own sake when he insists on  
its importance to the emerging capitalist  
economy. If he argues that the economic  
prosperity of great nations is dependent  
on the vices of their inhabitants, he avoids  
expressing any open preference for rich  
countries over poor ones. He gives the  
recipe for national greatness without rec-  
ommending the product. (*The Fable of the  
Bees, Introduction by Phillip Harth: 18-19;*  
see also Fn. 4)**

# Beginning the Neo-Industrial Age

In the late Twentieth Century, the World has been witnessing the outcome of an evolution that was developing for a century following the famed Industrial Revolution that began while the latter started in the late 18th century. Within a hundred years before the beginning of the Neo-Industrial Age, the Industrial Revolution produced a large number of inventions that changed the structure of the world, as for example the case of Edison's electric lighting or Benz's horseless carriage, and many other impressive inventions. However, allocations were not perfect. Developments, although created riches for the few, jobs for some, improved the way of life of many people and transformed economic structures to the better, but on the other hand, created poverty and pain for the rest of humanity, generating many jobless, inactive sub groups, and, in general they generated employment for some and unemployment for the majority (Inactive workers increased as a percentage of workers). Furthermore, during the period of development and beyond, they generated severe inequality, inequity and unemployment. Also, countless wars were generated during this period some including "World Wars" that caused severe global losses. (World War One, 1914–1918; World War Two, 1939-1945; see also War in Chapter 16-2)

But not all the inventions and there allocations were painful or destructive, since there were attempts to create a positive future. However, the question that arises is 'how stable are these new developments?' The Neo-Industrial development that includes Biotechnology and Digital Wave

started late in the twentieth century but have been very active producing innovations especially the Digital Wave system that has a long history of innovations starting as early as the advent of the Symbolic Cultural Evolution, almost seven thousand years ago, based on Government and Rulers needs and not based on market behavior. (Cf. Sirageldin 2001/2009)

**[This early development is illustrated by the presence and active role in ancient Egypt. In ancient Egypt, during the reign of the Pharos, from 5000 to 300 BC, applied science had developed into a powerful sociopolitical role. It supported the needs of the Pharos' Empires for war, luxury, religious rituals, and external trade, as well as for other requirements of daily life. Its scientific discoveries and quality workmanship are legendary as evident in monuments and artifacts in museums around the world. (For details see Afia 2004/1996)]**

Since these ancient times, applied science was doing its work independently of market behavior and allocation, and continued to respond to the needs of the rulers, governments, and the powerful rich. But applied science was neither free to develop its own grounds nor make independent decisions that influence the structure and direction of the human evolution by infusing different tastes and ways of life. The inability to have freedom for development was evident, even for the early rising Multinational Corporations that have the technology but not the authority to produce

their desired types, and that was in the early times of consumer applications and to a large extent, it is close to ancient times. The scope of operation of these ancient applications has been on the one hand under strict control of metaphysics and religion and on the other hand following the needs of Government and the Army. It is postulated that modern science started as early as the third century BC, by Greek scientists such as Zeno, Pythagoras, Democritus, Euclid, and Archimedes among others of that time (Cf. the Little Book of Scientific Principles, Theories & Things. 2005. by Surendra Verma. Australia: Sterling Publishing Co., Inc.). Although Greek science did not produce market applications, it did produce scientific discoveries and were able to understand nature in many cases. Also, the technical (that is material) substratum of human existence was not allowed to be a legitimate end of human motivation and aspiration that guide their action and behavior. In general, applications of that ancient time were only means for higher human ends and mostly applied to the needs of rulers and few elites.

Applied science of the present time started its beginning of development and production in the fourteenth century spreading slowly till late in the 18th century followed by the Industrial Evolution in the 19th century, and the Neo-Industrial Evolution in twentieth century, including the rise of Biotechnology and the Digital Wave as mentioned earlier and that, in the process created the increasing speed of human action as an important feature of applied science and human development. The increasing speed of human action, whether in innovation or development has been one of the important features of applied science in the twentieth century. For example, in his book (Theory of Price, 1966/1942, London: The Macmillan Company), George Stigler illustrated the role of utility in purchasing a chosen commodity at the lowest possible price: "a buyer, not to be atypical or foolish, need to canvass all possible dealers who are selling the product, and buy from the seller with the lowest price." But in the 1960s, "canvassing all dealers would require several weeks. The buyer must reduce the number of visits to save his/her own time and money." There is a trade-off between speed and buying at reasoned price. Fifty years later, as a consequence of new developments (the use of the internet for example) buyers are able to canvass almost all available sellers without leaving their home, thus, saving time and

money.

The impact of speed in communication has been immense, but the change in economic analysis has not been as equal in speed, given the complexity of the subject matter. M. G. Kendall stated the difficulties in economic analysis illustrated below:

1. Dealing with the behavior of extremely complex systems with an enormous amount of interaction between the component parts.
2. In order to quantify, we have to measure, and the problem of measurement is itself of quite a different order of magnitude from that of physical sciences (Cf. Morgenstern above, On the Accuracy of Economic Observations).
3. A great deal of the system is either theoretically unobservable or, in practice, unobserved.
4. It is difficult to test hypothesis experimentally.
5. The conditions that determine the motion of the system may change, relatively rapidly compared to the duration of human life.
6. The human mind which understands the system, or think they do, are themselves part of the system and use their knowledge to alter it. We therefore have to cope with interactions of a higher logical type.

(M. G. Kendall, 1960. New Prospects in Economic Analysis the Stamp Memorial Lecture, London: The Athlone Press)

Kendall noticed that most of the difficulties in economic analyses arise in the behavioral sciences. These difficulties continue to be the same, although the structure of society has also changed dramatically. According to Kendall:

**"Analysts are at the threshold of attack on the problem of analysis of such systems." What is required according to Kendall is "to unlearn the classical approach that attempts to set up a comprehensive System of an axiomatic kind to explain, or to provide the basis of explanation for, everything, a basis that may not add much to substance." (Ibid: 6-7)]**

We label applied science, the "Neo-Industrial Age" when the utility of its applications were designed to meet the needs and desires of the popu-

lation at large with sufficient financial ability to create sustainable demand. Apparently these circumstances started in the late Nineteenth Century and early in the twentieth century.

The Neo-Industrial Age is more than an extension of these historical markets, keeping aside the difficulties mentioned by Kendal. Given its accelerating speed in innovation technology, production, and exchange, it has more serious consequences to human values and welfare than that of the Renaissance (or the “age of modernity” as that period, three centuries ago, is often referenced). The influence of the Renaissance, although emerging slowly, has been immense. It is characterized by a mental outlook that differed in two significant ways from that of the medieval period. The first is the diminishing authority of the church that led to the growth of individualism and the rise of a subjectivism that, in ethics, is the view that evaluations depend for their truth value on the existence of certain opinions or attitudes with their extremes considered by Russell to be a form of madness (Ibid, Russell 1945: 494). One example of an ethical subjectivist theory is that which holds that a state of affairs is desirable if and only if a subject desires it - e.g., myself, or a majority, or a sovereign body in a society (Penguin Dictionary of Philosophy 2005: 600). The second mental outlook is the rise of freedom of thought and the adherence to the scientific method; the latter embraced a significant degree of modesty as to the limits of the scientific method. The scientific method is a continuous interplay of observation and hypothesis leading to more experiments and change in theories, with its conclusions being tentative, neither fixed nor eternal, as it is the case in pseudoscience or systems of belief.

The emerging philosophy of Science and individual freedom attempted to escape from subjectivism that prevailed in the medieval era, whose moral judgment—its truth or falsity—is neither universal nor detached from the prevailing values or from the influence of personal or group interest. It attempted to move towards a philosophy based on objectivism and empiricism. A philosophy whose moral judgment can be rationally defensible that a fish has fins is an objective judgment, but not its taste. (Honderich: 631) However, the attempt for objective science, free from the influence of prevailing cultural values and biased interests, with object and subject being discrete or separate entities, and with reliable empiricism,

that is, accurate data and valid analysis, did not last for long (cf. Griffin 2007; Sirageldin 2007). On the one hand, science, as mentioned above was confused with applications. Science consists of principles and laws, applications are the things that goes out of it—medicines and medical procedures, faster-germinating seed, the telephone, the radio, the television, airplanes, missiles, satellites, man-in-space devices, nuclear reactors, or nuclear weapons are all applications of science but are not themselves science. This is not to say that applications are unimportant. In fact:

**‘Applications’ have changed the world so profoundly that we could not continue to live as we do, and in such numbers, without them. Both science and technology are so much a part of the cultural, economic, and political affairs of all modern nations that lack of understanding of either, by government officials or the general citizenry can have foolish or even dangerous consequences. But for too many people the differing purposes of science and technology are unclear. All too often, at present, far-reaching decisions of a technological nature are made without adequate appreciation to either the possibilities or the limitations of the underlying science. (Cf. George W. Beadle on Asimov 1960/65)**

On the other hand, science has been overtaken by the rise of its own applications. Its primary objective has become profit and accumulation. This primary objective results in a deep involvement, if not controlling interest, in all the domains mentioned above and, additionally, an influence over large-scale markets in a manner that may be labeled a ‘pacifier effect.’ That is, it creates addictive, non-productive, and typically unhealthy applications that range from tasty unhealthy food to music players, to smart phones or videos that people derive self-worth from owning or using. (Thanks to Engineer Kamal Sirageldin for illustrating desired but unproductive and unhealthy applications)

There is more to the Neo-Industrial Age, especially the role of the ‘Great Wave’ in Information, Communication, and Technology (ICT) in the late 20th century that ‘promises to deliver a mixture of social stress and economic transformation similar to the earlier Industrial Revolution.’ (See Ryan

Avent in Special Report, the World Economy, The Third Great Wave, The Economist, October 4th, page 3; also, the negative result of competition in a recent case of BlackBerry, initially a successful handheld device. For details see Chapter 13)

Evidently, producers are indifferent to truth and falsity, meaning and futility in their competitive attempts with respect to production and in dealing with the financial system, to maintain their products in the market place.

As Joseph Schumpeter pointed out:

**The way in which we see things can hardly be distinguished from the way in which we wish to see them (Schumpeter, quoted in Heilbroner 1999: 308)**

# Success of Applications

The success of applications in the market place went far beyond expectation. Early in the twentieth century, the use of scientific applications reached the mass level with dependency of humans on its capabilities becoming so enormous that humans are no longer able to cope with it only as a means, while governments' survival became increasingly dependent upon the tax revenue generated from its production and outputs, and, on innovative weapons and innovative medical system for existence. By the mid twentieth century, the use of scientific applications had become one of the key indices of development and modernity. For example, the number of cars, televisions, refrigerators, use of the Internet, etc., per person has become viewed as indices of development—applications define development (Cf. World Bank Reports and the UNDP Human Development Reports, especially the 1999 Report) Meanwhile, scientific applications generated expanded markets around the world with diverse job opportunities, innovative lifestyles, and, above all, produced new knowledge and systemic analytic techniques. In the economy side, production, consumption and resource allocation became interdependent with nature and societal values, with two key issues. The first is the ability of applications to change life-style to maintain and increase production. The second is dealing with nature and the harm to the natural environment as a result of unsafe usage. No wonder that with the evolution of application's optimistic-ethics, it spread its optimistic wings across the globe. Applied science became an end-in-itself; to which human must adapt to its way of life—a major step

in structuring the era of the technical society (cf. Ellul 1964/1954: xvi). Applied science, or more realistically, the few who manage and control it if not own it have acquired self-confidence, if not arrogance, as controllers. The pride of the few seems to wait to be worshiped or idolized—thus defining the type of the emerging few and that of the laity of the rest of society.

However, not all outputs and activities of applied science have been constructive or desirable as stated in Chapter 3. It produced unhealthy outputs and increasing mass of negative externalities, some of serious effects to human welfare and detrimental to the environment. Furthermore, it had turned optimism for better outputs and pay into pessimism and unfair performance by workers and management, as Schrödinger illustrated. Such unfair practices and negative externalities incur cost to both consumers and producers and reduce profit. These are costs that need to be minimized both in the technoeconomic and the sociopolitical domains. For example, producers including managers attempt to develop solutions for the flaws they create whether in health, environment, or in the decline of morals and beliefs. Never the less, the wealthy continue to be viewed by laity as the great, or the be-all and end-all of humanity, an elevation to a Nietzsche-type "Übermensch" status, if not a god-level eminence that produce and judge all its creation. This type of bringing into being a super human is implied in the analyses of Rorty, a contemporary neo pragmatic philosopher. (In the following discussion of Rorty, we use the Critique by John McDowell, in Roberts Brandon (Ed), 2001: Rorty and his Critics)

# Gods and Chaos

[1-5 to 3-5]

## 5.1 Gods and the Neo-Industrial age

In his analysis of human behavior over the course of time, Rorty, a ‘pragmatic’ philosopher, observed that Western culture since the Greek City-State has been evolving in phases.<sup>17</sup> (On Pragmatism)

Each phase provides additional freedoms till humans reach maturity, a final phase in which humans are only answerable to their own species. In the First phase, humans reached freedom from social control. In that phase, society is freed from the control of Plato-type Republic where every person is assigned both a heavenly designated and unchanged intra and inter-generational life-time role that also defines happiness (Plato define assigned job as happiness). This unchanging system is based on the scheme of the Egyptian Pharos. (Cf. Popper, Karl R. (1971/1962, Volumes 1&2; and details in Part Two) But the freedom from Plato-type Republic that started in the age of the Renaissance, and that opened education and occupational opportunities to a wide range of life opportunities, had its rules and designs heavenly controlled, all subject to the sense of sin. Second came the advent of freedom from humiliation initiated by Dewey, freeing human from the sense of sin—liberated from abasement before the divine rules (McDowell 2001: 109). Third, there was freedom from non-human subjugation before the divine towards the role and rules of science. The liberation from subjugation before the divine was replaced in the age of Enlightenment by the secular world with scientific knowledge becoming the acknowledged object of control in every day and time. But the secular world is still not represen-

tative of full human maturity since it is based on non-human conception that is similar in basic design to the abasements before the divine—a secular analogue to a religion of abasement. Human maturity according to Rorty requires that acceptance of authority is recognized only if it does not subjugate itself before a non-human subject. Rorty concluded that Human consensus is the only viable possibility, since when human is answerable to itself, it thus reaches full maturity (ibid: 110).

Rorty’s solution for human to be answerable only to ‘human’ is open to complex caveats and hard questions and that is after accepting that all humanity is equal. To start, we may conclude that Rorty’s whole approach seems to follow the logic of Hegel, especially his system of searching for absolute knowledge. Hegel’s logic is based on the ‘dialectic’ that starts with a proposition or thesis, which initially is taken to be true. Then an equally logical antithesis is formulated that presents a third position that develops as synthesis to become a new thesis and so on, until Geis, the stuff of existence recognizes itself as the ultimate reality, or in Rorty’s expression, the conclusion when human become answerable to itself. The incompatibility of the process is self-evidence although Karl Marx had to stand Hegel’s teaching on its head in order to devise his own pseudo-scientific philosophical, political, and economic approach. Evidently, to follow the dialectic of Hegel requires more clarification especially when used in Rorty’s context.

On the other hand, the global landscape is constantly changing as a result of the relentless arrival of new technologies and applications leading to shifts in cultures. But the change is not uniform. It

is inconsistent across and within countries leading to a large landscape of inequalities in knowledge and wealth. These gaps, although having high economic and social cost, are not necessarily narrowing by themselves. On the contrary, inequality in the USA, for example, accelerated in the past three decades reaching unprecedented levels. In 2007, the top 0.001 percent of American earners took home 6 percent of total US wages -- about twice the figure for 2000, and the top 10 percent got almost half the total wages, a level "higher than any other year since 1917" (Emmanuel Saez, Professor of Economics at the University of California, Berkeley, quoted in Peter Cohen, Internet, August 14, 2009; for more details about inequality see Krugman 2002; Phillips 2002; Sirageldin 1969; 2007). And continue to increase up to the present time (In the latest Report on inequality: The top 1% own 51%. Also, see Figure 17.1). There is a need to evaluate, judge and adjust human opportunities in the present era.

Rorty's laudable approach implies the presence of a small group that act as 'global judges,' essentially managing the world, and whose judgment does not mix between a-priori and an empirical ethics or confuse duty with self-interest, since such confusion has serious consequences that are "bound to have disastrous effects in practice" (Kant 1956: 15). But confusing duty with self-interest has been a normal human practice. For example, the management of the recent 2007 Credit Crisis that is continuing up through the present time (beyond 2012) is an example of such confused judgment, with the disastrous results anticipated by Kant. The management of the Crisis produced more not less worldwide inequity and inequality. The rise of inequality and inequity inclined to reduce wages rather than profit, increase poverty and unemployment rather than stability, while reducing any 'trickle-down' benefit to a minimum, and erode the practical benefit of competition and the trust in free market behavior. As a result, inequality becomes detrimental to development. It reduces democracy, and introduces a psychological effect on human behavior and relations by leading people to develop a high regard for wealth and the wealthy—a regard that borders on worship—an impulsive possessive tendency that leads to the development of economic classes and the rise of class rivalry that eventually destroys human harmony. As Adam Smith pointed out centuries ago:

**This disposition to admire, and almost to worship, the rich and the powerful, and to despise or at least to neglect persons of poor and mean condition, though necessary both to establish and to maintain the distinction of ranks and the order of society, is, at the same time, the great and most universal cause of corruption of our moral sentiments. (Quoted in Cropsey 1987/1963: 635)**

It is more likely that an ad hoc or unplanned group of judges as those suggested by Rorty, aside from corrupted ones, will end-up in the hands of a small group of wealthy class who is induced by a malignant-type self-interest motive that lacks balanced rationality, who attempt to control if not mastermind the status quo and prove that what Is—whether in allocation or class status—Is optimal. Or more seriously, this small group will attempt to divide the human species into types, with very few in an upper species, and the rest a lower sub-species (Cf. Cochran and Harpending 2009: 187-224), thus provide the Rorty-type judges with additional justification for inequality to rise even more. For Rorty's approach to be successful, these structural caveats, from the dubious Hegelian search engine to the continuously changing structure of human life, must be recognized, managed, and their drawbacks minimized by strict rules and regulations, both on the local and global levels, before allowing human to act as gods [See also McDowell 2001, and Footnotes 8-10]. We may also add that practical experiences with human judgment that, although comforting to the judges, have been neither truthful nor successful. The lack of success most probably lacks exceptionalism. Recently, Steven Walt put the case of American 'exceptionalism' as follows:

**Over the last two centuries, prominent Americans have described the United States as an "empire of liberty," a "shining city on a hill," the "last best hope of Earth," "the leader of the free world," and the "indispensable nation." These enduring 'troops' explain why all presidential candidates feel compelled to offer ritualistic paeans to America's greatness and why President Barak Obama landed in hot water – most recently, from Mitt Romney – for saying that while he believes**



in "American exceptionalism," it was no different from "British exceptionalism," "Greek exceptionalism," or any other country's brand of patriotic chest-thumping. Most statements of "American exceptionalism" presume that America's values, political system, and history are unique and worthy of universal admiration. They also imply that the United States is both destined and entitled to play a distinct and positive role on the world stage. The only thing wrong with this self-congratulatory portrait of America's global role is that it is mostly a myth. Although the United States possesses certain unique qualities – from high levels of religiosity to a political culture that privileges individual freedom – the conduct of U.S. foreign policy has been determined primarily by its relative power and by the inherently competitive nature of international politics. By focusing on their supposedly exceptional qualities, Americans blind themselves to the ways that they are a lot like everyone else. [Stephen M. Walt, Nov. 2011. *The Myth of American Exceptionalism: The idea that the United States is uniquely virtuous may be comfortable to Americans. Too bad it isn't true. Foreign Policy November 2011*]

## 5.2 Social behavior in chaos!

Given the complexity and interconnectivity among the components of applied science, its management and now it is focusing more on global reach that will even become more complex in production and allocation. This type of system requires more on social and less on individual behavior. The necessity for collective connectivity in the attempts for innovation, production processes, and distribution, lead to increase consistency and unity, necessary for continuation of invention and construction, but at the cost of reducing individual behavior and initiative. This apparent contradiction is contrary to the role and success of an organization that is too controlled by individuals that lose their freedoms and potential ideas.

To manage applications, the tendency is to have related few managers that control the applied system and cope with the social system.

Meanwhile, the rest of the workforce and society in general, is reduced to being automated without meaningful meaning to active society, thus disrupting the social structure of the applied system. In the course of action, many workers are heading towards chaos and anarchy, although the Neo-industrial Age requires cooperation among all its elements including obedience in order to continue its development, although increasing workers are surging towards chaos with the likelihood of a Rorty-type maturity attempting to reach consent through human control.

## 5.3 Growth of applications

We start with the proposition that the survival of applied science depends on continuity of growth. But continuity is limited by the constraints of supply and demand and by the ability to compete in locally and/or globally. Indeed, planning for quality and quantity of applications is a priority, but equally essential is assessment of market nature. In that case, E. J. Mishan (1973: 63) reminds us that survival in competitive markets depends on the changing pattern of demand, "the flow of market goods is adapted over time to the changing pattern of demand." For that purpose, applied science need to focus on the dynamics of global competitiveness. (Cf., Nathan Keyfitz, 1981. "Paradoxes of Work and Consumption in Late Twentieth Century America," ED Sirageldin, *Research in Human Capital and Development*, Vol. 2, JAI Press Inc.: pages 31-54)

The attempt to change demand in the Global context, it will be different from Mishan' adaptive system, since the global context we are moving into, requires the adaptation of both supply-demand and producer-consumer, aside from advertising that is playing a major role in the various parts of the market. In this context, the purpose and structure of applied science is not designed to enhance social welfare or improve equity and equality, but rather focus on the needs of the market. Also, as mentioned earlier, technique is ethically neutral, that is ethics is neither accepted nor rejected. It lacks the ability to make subjective judgments such as justice, fairness, or good and evil. Also, technique lacks the capability to differentiate between benefit and detriment issues.

As history illustrates, neither in an Adam Smith invisible hand, seeking economic equilibrium, nor in a conflict-ridden Marxist system, attempting to

bring the march of time towards logical conclusion will succeed in producing optimality among four related structures, namely: Growth, stability, justice and freedom (See Kenneth Boulding, Chapter 2 about multiple analyses). Indeed, when reading Adam Smith, one gets the impression of the presence of duality in reading: Smith first book, *The Theory of Moral Sentiments* with humanity in its front seat, and the second famed book, *The Wealth of Nations*, with the focus on how the economy circulates its elements with minimal human role—with the human role reduced to a mechanical response following what the invisible hand provide. The dichotomy between the two treatises is wide-ranging. We may also remember that the *Theory of Moral Sentiments* has an invisible role in market behavior since it suggests a social approach to human behavior and not an individualistic approach (cf. Cropsey *ibid*). But the role is evidently forgotten. *Moral Sentiments* was shelved away from economic analysis—a scanning of economic textbooks since the mid-twentieth century, including the famed Samuelson *Economics*, did not include the *Theory of Moral Sentiments*. This is unfortunate since the inclusion of the *Moral Sentiments* in economic analysis would have facilitated the inclusion of different purposes that an economic system may aim for, as Russell illustrated below and discussed later. (Bertrand Russell 1917/1980, *Political Ideals*: 25. See later)

A verse by Robert Frost illustrates eloquently the lack of humane knowledge in economic analysis, but not about working men and their needs!

**“Men work together,” I told him from the Heart,  
 “Whether they work together or apart”  
 ‘Even those who think they work alone,  
 apart from others’  
 ‘Have more than they know in common’  
 (Frost, *The Tuft of Flowers*, 1971: 17-18)**

The focus on the mechanical response of the invisible hand has been visible in the recent, 2009 Consortium of Behavioral Scientist that included psychologists, economists, and other social scientists. This focus did not consider the behavioral implication of linking the two Smith treatises: *Moral Sentiment* (humane) and the *Wealth of Nations* (technical) [Time, 4-13-2009: 28-29]. It seems that the division between technical and humane in Adam Smith mind has been divisive, leading

to two separate minds that has been ingrained beyond Adam into the minds of subsequent generations with technical being distanced from humane!

The rise of applications, their increased necessity and widespread use, is changing societies beyond recognition of past modes and life styles. It is changing all standards of human relations whether individual ideals, social values, or forms of governance. The change is rapid and basic and is leading to a state of doubt regarding the future and accordingly resulting in a lack of commitment. This is resulting in a society without a standard of ethics that provides little guidance, if any, as to a destination or purpose—the birth of a nihilistic society. It is in this domain that the search for the future of humanity should begin. It is understandable that the rise of technique leads to change in values, ethics, and freedoms, but is it necessary that the change leads to a decline in values? It is also evident that the rise of a global market requires control, but is totalitarianism the only option for such control? Also, are maximizing profit and accumulation the only antithesis of the human good? Understanding the dynamic nature of the rise of technique and especially its connection to values and the type of government is essential for a meaningful understanding of the future. However, we must be wary not to take for granted the present political reality as a standard of reality—today politics is a reflection of a fast changing sociopolitical and economic system, moving at a confusing speed! The present neo-industrial era, especial the recent Digital Wave is a very fast and highly materialistic era. It acts as a force unifying the global system into a connected systemic whole, but at the cost of being highly volatile, susceptible to contagion, and extremely conflict-ridden era. (CF. Stephen Cohen and John Zysman Book “The Myth of the post-Industrial Economy” that in the Book the authors asked ‘why American manufacturing seemed to be losing out to competition from abroad. Robert Solow commented that the authors, “like everyone else, are somewhat embarrassed by the fact that what everyone feels to have been a technological revolution ... has been accompanied everywhere ... by a slowdown in productivity growth.” This failure of new technology to boost productivity (apart from a brief period between 1996 and 2004) has no easy answer and the question became known as the Solow paradox. For details of the present arti-

cle, also mentioned later, 'The Third Great Wave,' see the author Ryan Avent, *The Economist*, October 4th 2014).

The success of applied science has been at the cost of giving humanity both comfort and peril while being driven by two opposite forces. Since the mid twentieth century the speed of producing innovative technologies has accelerated dramatically, creating enormous advances in comfort and wellbeing, from progress in health care, neuroscience, communication, and transportation. However, on the side of peril, applied science has reduced workers' pay and belief in the value of what is being created, while producing deadly weaponry warfare resulting in enormous losses that inflicted nature, from air to water and all other habitats. Furthermore, the influence of applied science went far beyond the development of pioneering ideas of technique, and entered the realm of human ethics and freedoms. But the result is turning the human society into a secular-materialistic age that requires, as Russell and Schrödinger pointed out, a careful analysis of consequences.

But, as the discussion illustrate, there are two opposite forces driving the modern technical society, one is leading via scientific improvements adjusted via virtuous ethics; the second, although being the child of the first force, is flowing in the opposite direction undoing much of the good of the first. These opposite forces and their negative effects, represent how the rise of the new world system, the rising Neo-industrial revolution and especially the digital waves, are leading society to apparent decline. We may also add that, if Global managers followed the early time of Aristotle, they should not tolerate open discussion or debate about its structure or activities even if the outcome leads to Instability – it seems that in reality, managers are following such rules. Thus, both managers and the laity are being controlled, one with less authority to communicate and the other without any authority:

**From air to air, came charging to the  
ground  
Sheer, like a lark from the midsummer  
clouds,  
And, shaking me out of the saddle, where  
I sprawled  
Flicked at me with the tail,  
And left me blinded, miserable, and dis-  
traught**

**(The Arabian Nights, XXI)**

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# Part Two

## Stability

**B**y the end of the Twentieth Century the world had witnessed the outcome of a dramatic evolution that has been taking place for more than a century. A drama that has more serious consequences to human values and welfare than that of the Renaissance or the Age of Modernity as being referred to, that took place early in the seventeenth century. The influence of the Renaissance has been immense. It is characterized by a mental outlook that differed in two significant ways from that of the medieval period. The first is the diminishing authority of the church that led to the growth of individualism and the rise of a subjective philosophy.<sup>19</sup> (Objective and Subjective)

The second is the rise of freedom of thought and philosophy of science that produces a sense of modesty as to the limits of knowledge, since scientific conclusions are always tentative. The emerging philosophy of Science and individual freedom attempted to escape from subjectivism towards a philosophy based on objectivism and empiricism. But “Science for the sake of knowledge” was overtaken by the rise of its own applications and being judged by the market place while science, as knowledge has become “science for the sake of applications in the market place.”

With its increasing operational speed and evident market success, applied science acquired self-confidence if not arrogance. As it progressed and spread across the globe, applied technical science, presented a different view of nature and a different view of government. Moreover, the impact of its modern innovations such as internet and advances in computing and information and communication technology (ICT) is resulting in a

shift away from the Industrial age into a marriage between computer technology, the digital age, and genetic engineering, a marriage that has been producing innovations at an increasing rate.<sup>20</sup> (Internet). (Cf. John Cornwell ED, 1995, *Nature’s Imagination: The Frontiers of Scientific Vision*; Jeremy Rifkin, 1998, *The Biotech Century: harnessing the Gene and Remaking the World*; the Digital Age, see Ryan Avent in Special Report; and Stephen Hawking discussing artificial intelligence that may end humanity as discussed later)

Technique illustrates a sense of power against the environment. It displays an overoptimistic view that encourages the use of the environment in an attempt to control its future even at the cost of destroying it.<sup>21</sup> (Man and Nature)

But to destroy nature is to destroy technique. There is a need for a behavioral balance. Technique is social, although it is attempting with power to control and destroy Nature, and its needs are through careful understanding and cooperation, although its behavior is being anarchism. Furthermore, technique is ethically neutral with ends no longer considered; only the skillfulness of the process is valued. But these relations and behaviors are heading to a contradictory state of affairs that can’t be sustained for long.

On the whole, although Part-One has questions, the present is an age of applied science, a technical age in which technique controls the forces of theoretical science, religion, metaphysics, and the environment. These systems, science or religion are reduced in the present age into tools at the command and purpose of those who control applications. By the end of the twentieth century, applications have expanded its reach globally to-

ward production, consumption and business organization, but application continued to conceive the world as two different impulses, namely: mysticism and science. The result of the mixture is to confuse civic and morality. The reason for this confusion is understandable, since without civic morality, communities perish, and without personal morality, survival has no value. Also, security and justice, essential for survival, need government control, extended to the creation of world government. Also, progress requires the action of individual initiative compatible with the social order, thus reducing individual freedom.

Meanwhile, as the activities of applied science spread globally, their structure becomes increasingly complex and contagious. They require skillful management and full control of their input-output operations. Control is needed not only in production and exchange of the global system, but also in dealing with the sociopolitical order. In the era of applied science, management focuses more on profit maximization and less on maintaining ethics or morality, thus losing desire and approval of laity. But reducing dissatisfaction requires special policies by the invisible government. The result is more discontent, anarchy and more control, thus leading to reduced work and increased control and cost. In such milieu, management need not be visible or having noticeable civic responsibility.

We emphasize that it is not technology that is being blamed in the production and allocation of application. It is rather how applied science is being controlled and managed both locally and globally. Furthermore, the future of humanity may be viewed as an interactive outcome of changing technologies that produce outputs that influence the natural environment that eventually influence human nature. For example, examining various types of societies it produced positive outcomes (Schmidt and Cohen) while recently, Stephen Hawking informed the society of Artificial Intelligence that continuity of active mechanical digital waves will lead to evident threat to humanity. (See Eric Schmidt and Jared Cohen on *The New Digital Age: Reshaping the Future of People, Nations and Business* 4/8/2014; BBC December 2, 2014 on talk by S. Hawking talk; *The Cognitive science is the scientific study of the human mind. The field is highly interdisciplinary, combining ideas and methods from psychology, computer science, linguistics, philosophy, and neuroscience, MIT).*

But given the fast growth and speed of its global spread, and the indiscriminate value or merit of its outputs, the only way to control the negative externalities of its management style is by establishing a legitimate and effective global government with justice and Isonomy embedded in its Rule of Law. But, as the discussion in the First-Part illustrates, it is the forces responsible for the rise of technique and the decline of Science that present enormous obstacles for establishing effective Global Government - a pessimistic outlook. As the saying go:

My motives are incantations against things I don't want to happen but whose existence I have to acknowledge—incantations that, most probably are doomed as derelicts" (Morris: 10-12).

There are rebellions in the analysis of science such as Omar Khayyám who was attempting to understand better science and society. Freedom Dyson viewed Khayyám as "the great Arab mathematician and astronomer as a rebellion scientist," have the following verses:

**And that inverted bowl they call the sky,  
Whereunder crawling cooped we live and die,  
Lift not your hands to it for help, for it  
As impotently rolls as you or I  
(Freeman Dyson, 1995, 'The Scientist as Rebel,' in John Cornwell. Ed. *Nature's Imagination: 1*)**

# Issues

**The times through which we are passing have afforded to many of us confirmation of our faith. We see that the things we had thought evil are really evil, and we know more definitely than we ever did before the directions in which men must move if a better world is to arise on the ruins of the one, which is now hurling itself into destruction. Political ideals must be based upon ideals for the individual life. [A person's] life will realize its best potentialities if it has three things: creative rather than possessive impulses, reverence for others, and respect for the fundamental impulse in himself. Political and social institutions are to be judged by the good or harm that they do to individuals. Do they encourage creative activities rather than possessiveness? Do they embody or promote a spirit of reverence between human beings? Do they preserve self-respect? In all these ways the institutions under which we live are very far indeed from what they ought to be. (Russell 1917/1980: 9-15)**

These were the words of Bertrand Russell indicating his concerns and judgment about the state of humanity at the dawn of the Twentieth Century. They were presented as a public lecture when Britain was at war in 1917 and published as *Political Ideals* (80 pages). However, the British government banned both his lecture and his *Political Ideals*. Russell was banned from entering Glasgow so Robert Smillie, President of the Min-

er's Federation, read his lecture while *Political Ideals* remained unpublished in Britain for almost half a century, until 1963. *Political Ideals* reveals Russell's political philosophy: to think, speak, and act without interference is the most cherished freedom. But it has been a freedom that is continually reduced by local and global governance and through the behavior of the political, social, and warfare institutions of the time, thus hurling the world into inevitable destruction; witness the massive damage of World War II, twenty years later; that was followed by the devastation of the 'clash of civilizations' around the world through the twenty-first century (cf. Edward Said 2001).

Russell's vision and analysis in his 1917 *Political Ideals* describe, with amazing accuracy and penetrating insight, the distorted values and behavior of the World of the twenty first century; although the structure of the present World appears significantly different in its technological and institutional settings and in its development and changing patterns. Russell's *Political Ideals* serves as a base to understand the need and difficulties required for establishing a legitimate and effective global government, whether the difficulties were, cultural, economic, sociopolitical, or structural in nature. However, it is the persistence of that evil 'trait' identified by Russell as a major negative force in 'modern' human behavior—with an uncontrollable destructive attitude that seems to follow the same path across historical and technological cycles. This is the concern of the present search, especially with respect to understanding the origin of this peculiar characteristic and the forces supporting its persisting presence.

The idea of historical continuity and technological cycles, akin to historicism, may imply that the demands of the modern world on ethics and ethical thought do not differ much from the demands of ancient times. For example, Marvin Harris (1989/1974), a noted anthropologist, claims that there is a 'linkage between the secular convulsion of the twentieth century who are charged with the mission of bringing history to a preordained consummation and the messianic movement that preceded the Protestant Reformation—both seek paradise whether in heaven or in earth'. If such linkage is true, then it follows that to understand the present we only need to study the ancient thought. On the contrary, one of the conclusions of the present analysis is that the gap between the past and the present is too wide to be used in coordination between them. Furthermore, the demands of the modern technical world on ethics and patterns of behavior are unprecedented and beyond historical experience. The evolving ethical pattern is highly influenced by a fast changing technological development and by a response from an increasingly automated agency. The evolving human automation is based more on technical response rather than on sentiments and feelings. [Refer to Clocksin-page 190 / Edelma page 201 / The Economist 2014] Its response to 'change' almost mimics mechanical or computerized needs, if not the demands of applications—applications that are created by human agencies in the first place. In a fast changing technical society, the past may not be sufficient knowledge by itself to understand the present or provide a forecast into the future as for example the speed and the waves of inventions of the late twentieth century is creating disruption of the present more than the past. Furthermore, the philosophical ideas of rationality and methodological reductionism embodied in most moral philosophy and modern scientific and socioeconomic analysis do not necessarily provide for a full understanding of the evolving ethical system, as recognized by Harris (*ibid*). Evidently, what is required is a mix of ancient and present moral thought that balances reflection and practice, with less reductionism.<sup>22</sup> (Reductionism, cf. Williams 1985)

Technological development, by itself is not responsible for the sociopolitical ills that Russell indicated. Technological and scientific applications in the past two centuries have been major factors underlying the enormous advances in improved

longevity and health status and the unprecedented advances in communication technology, among other innovations that have been leading the global society to better and enjoyable life styles. But not all the outcomes of applied science have been beneficial to humanity. For example, advances in weaponry and military hardware led to devastating wars with apparent catastrophic consequences (see development of weaponry in the beginning of Part One). Also, the production and utilization of technical development seem to have negative impacts on labor freedoms and imaginations, and on a sustainable environment. These consequences however cannot be corrected or avoided through the mechanism of free markets such as relying on the market's ability to ration. The consequences are the outcome of management decisions that influence the choice factors underlying the decision making process—as for example the role of utility embedded in the utilitarian choice apparatus—thus, controlling the market ability to ration freely within its interest. As discussed earlier, it is how applied science is being managed, not its evolution as such, that is leading the global society to a system of governance that is neither just nor democratic.

Economics plays an important role in this human drama. But a full understanding of the drama is beyond the scope of 'modern' economic analysis.<sup>23</sup> (Broader economics and Keynes)

Its scope extends its reach to the understanding and evaluation of the whole socioeconomic and political system, and its institutions, not as a type of specialist in one of the social sciences, or a historical reflection, but as a living organism that influence the destiny of living beings and their environment, e.g., the consequences of the technical society to human well-being, rather than being a discipline reduced to technical statements that are void of morals and ethics.

As stated earlier, in the broader view of economics, four purposes may be distinguished at which an economic system may aim (cf. Russell, *ibid*: 23-25): first, it may aim at the greatest possible production of goods and at facilitating technical progress; second, it may aim at securing distributive justice; third, it may aim at giving security against destitution; and fourth, it may aim at a humane ethical system such as liberating creative impulses and diminishing possessive impulses. The present economic system fails on all four accounts. Although, it's present performance

is being passionately defended on the grounds of its success in the first purpose; namely the greatest possible production of goods and services and the advancement of technical progress. It is true that the system has had impressive success stories in its materialistic realm, but the substance and sustainability of this celebrated progress is elusive. It does not take into account the negative externalities of the harm and waste such persistent aim inflicts on human and natural resources. The attempt to attain the greatest possible production to the utmost level, in the immediate or short-term horizon, is rather a brutal 'belief' of the present Capitalistic enterprise and most probably unwarranted self-confidence. The outcome of applying such belief with vengeance has been the engaging of all the global energy in the production of something, no matter the cost or the benefit, without regard to the material balance principle between production and waste, or to the calculus of net benefit and welfare, or to a system of prioritization, except through signals from an alleged perfect market that is influenced by advertisements and misinformation that is full of both omission and errors of commission. Its influence, however, on the value of human being has been characterized as reducing humans into a producer-consumer lifeless machine, with narrow vision of life, and reduced freedom of choice except for material artifacts whether in work or leisure. Meanwhile analytical economists, in their quest for building a perfect market apparatus, aim to maximize their knowledge and predictions of human behavior, forgetting on the one hand Keynes notable warning that having perfect prediction is a sign of dictatorial or historicist regimes, and on the other hand, forgetting that, even in physics, Einstein's deterministic view of the universe has to give way to a probabilistic view in modern physics (Clark 1984/1971: 420-421)—nevertheless, the outcome of the present system is being labeled progress! (There are many economic books and treaties on economic analysis that do not cover the full structure and role of 'humanity' as for example Samuelson 'Economics' among many others)

Judging the present Capitalistic enterprise as overconfident in assuring a sustainable future may be a contemptuous statement. Negative outcomes have not passed undetected. Economics and economists have been addressing many social concerns ranging from income and wealth distribution, unemployment and destitution, scrutiny

of existing institutions, to the preservation of environmental quality across generations. However, most of these issues may not be resolved by applying positive economic analysis. It requires moral and value judgments that are not part of the bag of tools of positive analysis. Accordingly, the subject is delegated to the branch of welfare economics. But, in welfare economic analysis, moral rules or judgment are neither uniform nor consistent. They may be influenced by sociopolitical forces, as for example, the choice between spending on war or on universal health. The presence of indeterminate moral systems in the economic discourse apparently started with the rise of utilitarianism that aspired for a 'scientific value-free' economic sermon (cf. Wilson 1999: 9-10 on Jeremy Bentham and John Stuart Mill). However, notwithstanding the attempt to develop a consistent system of justice in welfare economics and, its kin, political philosophy, the practical outcomes have been far below expectation. This is especially apparent in the system's ability to enhance distributive justice, reduce destitution, and diminish possessive impulses that continue to create unnecessary devastating conflicts and wars. It is likely that I. M. Little's judgment on Welfare Economics, half a century ago still holds (I. M. Little, 1957/1950: 279):

**It is satisfying, and impressive, that a rigorous logical system, with some apparent reality, should have been set up in the field of the social sciences, but we must not let ourselves be so impressed that we forgot that its reality is obviously limited; and that the degree of such reality is a matter of judgment and opinion. [For more details, see Sen and Williams (1999/1982); Rawls (2007); Wilson (1999); and Sirageldin (2008)]**

The failure of the economic system on these three accounts: lack of distributive justice, security against destitution, and creative impulses is even more serious. It has a direct negative influence on the humane side of human life. It seems to reduce most of human beings into slave-type entities roaming aimlessly about within the global system of production and exchange, with no worthwhile destination, and with no recognition of the influence of such failure beyond the economic system. The lack of ethical concerns in economic analysis has been the case since modern economics. In its



pursuit for a scientific value-neutral status, the subject, having adopted a relativistic mode, has been defined either to exclude analyses of value and justice from its bag of tools, or to incorporate them as part of its standard market analysis. Excluding analysis of value is based on the ground that the subject of discerning duty and morality – seeing right or wrong – is beyond the ‘subject’ of economics. Ali Khan put it succinctly as follows (1999): “These are subjects who simply do not allow an economic and game-theoretic analysis, are poisoned by it, and poison us in turn.” Quoted in Sirageldin 2001) Ali Khan’s view leads to a complete separation of the two subjects in spite of their collective impacts—reductionism is not operative in this case. On the other hand, the incorporation of values and ethics, explicitly as part of market behavior and analysis as it has been the case in the analysis of human capital and social capital, although helpful as analytical tool, it is overlooked if not misused as in human behavior and relations. This situation became evident in the case of the concept of family being analyzed as part of human capital. The family became more analytic with less social concerns. (Cf. Brian Arthur review of Gary Becker’s 1982 book on *Treatise on the Family*, in which Arthur concluded that a market approach to family analysis abolishes the concept of the family)

There are, however, other attempts to integrate ethics in economic analysis (cf., Wilson 1997; Naqvi 2003 and references cited). Distributive justice, security of destitution, and diminishing possessive impulses, impact the economy directly or indirectly by reducing productivity through ill-health reduced motivation and reduced system stability. These reductions result from excessive control in both work and knowledge acquisition that focuses mainly on subjects necessary for the production system while ignoring the needs of the social system <sup>24</sup> (Education and technology), inequality, and poverty. Evidently, the presence of these three fundamental ethical aims is essential for evaluating governance and institutions.

When legitimate and responsible governments exist in state/nation-type settings. <sup>25</sup> (State and Nation), they attempt to reconcile liberty and organization. This process that has been met with varied but not lasting degrees of success, especially in the absence of Isonomy, a concept defined in ancient Greece as stability and equality before the Law—considered a necessary condition for applied De-

mocracy in seventeenth century Britain (cf. Hayek 1955). The lack of success in reconciliation is often associated with the failure in achieving the following three aims: reducing distributive injustice, destitution, and the presence of strong possessive impulse (greed). However, in the absence of effective government, as in the present case of the global system, the reconciliation between liberty and organization is more complex and difficult to implement, even in the presence of global institutions with some degree of implementing power. For example, in the case of a state/nation, the use of force by a government to implement order may be legitimate in special occasions such as safeguarding the system of reconciliation. But it is a different matter to justify the use of force, on the same ground, in the case of international relations that lacks a legitimate global government, as it has been the case of most wars, since the grounds for reconciliation are not always evident or unique and, more often, misrepresented. As Russell cautioned in his state/nation analysis of reconciliation, where governments are present, that such analysis may not be duplicated in the context of the international system that lacks a legitimate and effective global government (ibid: 21). It is evident that in the case of a state/nation with a legitimate government and the presence of an evaluative mechanism of its governance, the reconciliation of organization and freedom is feasible and necessary for the stability, progress and justice for its citizens. Such needs are even more necessary on the global level. But, on that level, it is the presence of a legitimate and effective global government that provides the sufficient condition for the reconciliation between freedom and organization/order—thus the question arises about the feasibility of instituting a legitimate and effective global government.

# Governments -- Past and Present?

In the present analysis we attempt to illustrate, on the one hand, the difficulties of having a legitimate and effective global government in the context of the structure of the present global system and, on the other hand, the immense harm that may inflict human well-being in its absence. The existing global system is not void from the presence of at least some type of governance. But the present global governance is neither effective nor democratic. There are more than hundred and ninety countries that are members of a United Nations Organization with equal vote regardless of their population size (from more than a billion to few thousands), or of their military power and wealth (from per capita income of \$30,000 to those below \$500, with inequality and inequity more prevalent within country borders). There is also a limited group of five countries that are permanent members of the United Nations Security Council with a veto power over any UN action or declaration which, of course, is used whenever their own interest arises. Evidently, the present United Nations system is not democratic for varied reasons: the presence of a few members with a 'veto power,' makes the system close to a dictatorial rule; the presence of severe inequality; and the absence of one vote per person. Although, we may caution that democracy based on majority rule has serious defects. The majority stance is not necessarily right, and its tyranny is a real danger, especially when a uniform decision is not required such as in religious freedom or education choice—respecting minority rights is a sign of true democracy. On the other hand, the present UN system of governance includes rules, regulations and courts

that attempt to safeguard peace, justice, culture, human rights, free markets, and the environment among other objectives. This elaborate web of international rules, institutions and regulations has been helpful in some practical cases and in providing a feel of a global village. But it has not been successful in creating a peaceful and equitable world order. However, it is not the purpose of the present analysis to evaluate the global system (cf. Singer 2002 for elaborate evaluation).

Our focus is different. It is not a description of the present status, but an attempt to understand its dynamics. Is the hegemonic structure of the global system accidental or an inevitable and endogenous outcome of system dynamics, regardless of time or space? Does its action lead eventually to its own ruin in repetitive historical cycles? At present, for example, the United States of America is the uncontested hegemonic power with great influence on global governance and directions. But its actions have not been helpful in promoting global peace or justice. If anything, they have been detrimental. This is illustrated by its actions and behavior towards critical global issues such as the environment, trade negotiation, or its stance to ratify the International Criminal Court (Palast 2004). The presence of such Court is an important step towards instituting a Global Law with Isonomy embedded in its structure. The Court was ratified in 1998 by 160 states. But the United States, as a condition to ratify the Court, asked for amendments that exempt U.S soldiers and U.S government officials from prosecution, otherwise it would not ratify the treaty. To backup such an unwarranted condition, members of the United States Congress threatened to withhold

payment that the U.S. owed to the United Nations. But, by the end of the day, power triumphed over reason. Furthermore, the United States has used its veto power more than any other member of the Security Council. In many such cases, its veto privilege was used against all members of the Security Council of the United Nations' theatre of democracy. (The 31st veto was expressed by President Bush with apparent 'pride,' it stopped a UN resolution condemning Israel's most recent savaging)

The relevant question, however, is not to follow the behavior of one nation, even the most powerful one at the time, but rather to find out who are the beneficiaries from the presence of weak and ineffectual global governance? The present World governance, including those of the United Nations and the USA, the latter presently being at the helm of the global hegemonic power, seems to be ruled by an 'external' and invisible power that is effectually placed beyond the reach of states or global laws and regulations. This invisible government, in contrast to the millions of invisible hands that produce the seeming optimal Adam Smith society, is composed of few powerful 'non-state-affiliated' entities without political identities or civil roles. This evolving system of invisible government essentially dismantled the logic of the Smithian system. In practice, this entity has strong sociopolitical and economic influence, locally and globally but without legitimacy to rule or govern, and thus without accountability. As mentioned earlier, we call this entity the 'Global Invisible Government' or GIG for short. An initial objective is to verify its presence. But the hypothesis that GIG exists is not sufficient to figure out the dynamics of the global system. The presence of a GIG-type entity is not a novel idea in practical political philosophy. For example, it was a century ago, April 1906 to be exact, when Theodore Roosevelt, being concerned about the rise of an underground invisible government in the USA, stated that:

**Behind the ostensible government sits enthroned an invisible government owing no allegiance and acknowledge no responsibility to the People. To destroy this invisible government, to befoul the unholy alliance between corrupt businesses and corrupt politics is the first task of the statesmanship of the day. (Quoted in Al Gore (2007: 90)**

Also, a similar view was given as follows:

**"It is no longer the climax of a career to become an American president or a British prime minister. More important is whether the president or prime minister can look forward, on retirement from office, to becoming a board member of the foremost influence peddlers in Washington, such as The Carlyle Group. As US Supreme Court Justice Felix Frankfurter wrote: "The real rulers in Washington are invisible, and exercise power from behind the scenes." As far back as 1922, New York Mayor John Hylan said: "The invisible government is like a giant octopus that sprawls its slimy length over ... the nation. At the head of this octopus are the Rockefeller ... interests and a small group of powerful banking houses ... who virtually run the U.S. Government for their own selfish purposes." He got it right. The corruption obvious in the Federal Reserve system, the gold cartel and big banks, has turned America into a nation most of the world no longer respects—a nation driven by greed, greased by influence-peddling, controlled by fear, and misled by lies."**

We may also add the corruptive elements of finance (Chapter 9). What is essential is to identify, not GIG, but the factors and circumstances that bring it and keep it in power. The identification of these forces is found partly in the motion of history and partly in the growth pattern of applied science.

Identifying the hidden power in governance has been debated over the course of history from pre-Socratics to present day political philosophy (cf. Strauss and Cropsey 1987), with business and finance being favorite candidates since the rise of industry and organization two centuries ago. It is an apparent view that the rise to power of the GIG-type entity is the consequence of the rise of technology and the decline of Science, a process that produced an increasingly connected and interdependent structure that is highly contagion—a system that requires elaborate managerial and political skills and strict control of all its global operations, whether in production, inventory management, or sales, and, whose survival depends on continuity of growth. Indeed, the rise of applied science has added greatly to human satis-

faction and wellbeing through the production of useful goods and services, but it also produced excessive waste and environmental misuse (cf. Galbraith 1967), while adding immensely to the rise and use of destructive weaponry.

The negative role of applied science is partly a result of its management style as navigated by the desires of an invisible GIG. Evidently, GIG behavior is undermining the efficacy of local, state/nation, and global governance and institutions. The ineffectiveness of the present United Nation system has been identified in some courageous statements available in United Nations archives by Kofi Annan, the outgoing UN Secretary General. There are many publications on the ineffectiveness of the UN as it is the case among many others. (Cf. United Nations Documents; Peter Singer, 2002, "One World: The Ethics of Globalization." New Haven: Yale University Press)

# Integrated Global Society

The present state of the global society, either cast as Hobbes nihilism, or by the whip as Machiavelli if continued, especially when viewed at a macro scale, presents enormous risks (Cf. FN 7). But, in the midst of misery and suffering, there are few winners with enormous wealth and power who seem to yearn for the continuity of their privileged status. They view the system as destined. This view is similar to a Plato-type Republic in which optimality starts at creation and best possible justice and happiness is defined to be where individuals are set in Plato's social system: rulers as rulers, warriors as warriors, and slaves as slaves. No wonder Plato was against change and the open society, an original fundamentalist (cf. Popper (1972/1962)). Similarly, today's winners, the heirs of Plato's democracy, revere their system and feel it must be preserved regardless of its glaring injustice. But the attempt to maintain the system inflicts even more injustice. GIG, however, as the driving force of the system views the present status with its distribution of opportunities and rewards as destined and should be preserved at any cost. Such belief that the distribution is destined and the action of preservation must be taken could be a dangerous myth. It needs to be rejected. But dismissal or rejection could be costly if the forces that support such claims are not fully understood.

In the present global system, management, science, and application are highly interrelated and contagion. What appears to be a limited local issue could be contagion, spreading with global implications. For example, the dismantling of the United States Congressional Office of Technology

Assessment (OTA) late in the Twentieth Century, after almost a quarter century of 'consensus body of information,' scientific contributions, and a stellar international reputation—raised concerns in the science and political community. Some felt it was the beginning of freewheeling of politicization of expertise in Washington at the cost of undermining Science. Some scientists stated jokingly that OTA met the fatality of Socrates, the price of unbiased scientific advice (cf. Mooney 2005: 49-64). Such action, although part of the trend of the decline of Science mentioned earlier, seems to be an internal affair, with minimum or no effect on the rest of the world. That was not the case however.

The dismantling of the OTA ended up with political and business tactics that had environmental and other global effects. To illustrate, S. Rowland and M. Molina, who won the Noble Prize in Chemistry, indicated that chlorofluorocarbon (CFCs) deplete stratospheric ozone. Based on these findings, OTA made recommendations that negatively affected the profit margins of global oil and car industries. But, against industry lobbyists, the presence of biased scientists, and the dismantling of the OTA, the CFC-ozone hypothesis faded away along with its environmental and financial implications. As expected, global business won the day regardless of the grim consequences. In the present sociopolitical system, science, organization, and freedoms are becoming subservient to business purpose and demands (ibid: Mooney). The rearrangement of sociopolitical roles, although based on historical processes and technological procedures, is relatively new. Its integrated structure of finance, production, and trade, and

its sociopolitical consequences continue to evolve and change rapidly.

The operation, management and the role of finance in the present production and distribution system differ significantly from previous systems. Galbraith (1967), for example, characterized the predominance of giant firms in the mid twentieth century as a system in which decision making is taken over by experts, called at the time 'technostructure,' who, nevertheless, hold on to a societal ethics. According to Galbraith, they aim, not for maximize profit but for survival, security, and the elimination of risk. Accordingly, the growth of giant firms of that era was based on conservative approaches. Their growth needs were met from internal finance, advertising, and enlisting support from society: workforce, government, and the population at large. In the process, the aims of 'technostructure' became the societal ethic or, as labeled in that era, the cult of gross national product. The result is less social conflict (ibid). The present system that started late in the twentieth century differs significantly from the past in structure, operation and ethics. Its goal is maximum profit, its reach is global, its governance is authoritarian, its finance is external, its control is GIG that enforces, not elicits support, and its societal ethics is nihilistic. This type of system is bound to be conflict-ridden: business versus government-organization, versus individual freedom and initiative. The evolution of the present system is best illustrated by its integrated structure of finance, production, and trade. The spread of production, trade, and finance around the globe requires strict enforcement of management rules to assure maximum efficiency, timely access to inputs, and the presence of large markets to absorb increasing outputs. In such global production system, the humane purpose is ignored. Management aims at four objectives: first, securing essential inputs, e.g., energy and labor; second, harnessing technology for efficient operation and for the development of better and new products; third, securing consumer markets; and fourth, aiming at the presence of highly mobile finance capital for control and discipline. Finance plays a pivotal role in the present system of production, distribution, and allocation. In the remainder of this section, the role of finance is examined (Chapter 12), followed by the structure of the Technoeconomic system and its relation to the sociopolitical system.

# Finance in the Global Structure

**T**he role of finance in allocation and the production system is fundamental for correct and just production and allocation system. On the other hand, it is essential for GIG's role in maximizing profit and income distribution, given ethical and fair principles. As discussed earlier (II.1.3), there are economic and management principles with accepted moral values that act as the technical base for profit maximization. But there are also attempts to maximize profit that produce severe inequality and that are beyond moral and ethical rules. These latter behaviors produce serious social consequences. They require elaboration. But first we discuss briefly what is meant by money. Any economic textbook will indicate that there are three main functions for money. First, it is a medium of exchange so that people may not be looking constantly for someone to barter with for needed goods and services. Second, it is a store of value that allows value to be held over time to be saved for future use. Third, it is a unit of account that is used to measure the value of things. Our interest, however, is not to study the origin or history of money—although it is an interesting journey by itself—but rather to examine its current use. The present use of money may be reduced to a short statement that includes the basics of finance theories, their complexity and potential weakness and corruption, namely: Money does not exist. Or, to put it differently, Money exists only in the future. This short statement demonstrates a complex of monetary policy as illustrated briefly in. <sup>26 (Money)</sup>

For example, history illustrates that after each major innovation, finance capital follows good

economic principles with share prices relating closely to performance (thus accepted to create money). But soon after, principles are forgotten, giving way to speculative ventures. In this speculative phase (including banking), as share prices become independent of performance, economic facts give way to psychological fantasy. Initially, the classical role of speculative ventures was to regulate competition by seeking market areas that offer maximum rate of return in a free market economy. This classical process has changed however. Speculated ventures became ignorant speculators that are willing to maximize profit at any price even against the rules of basic economic principles. The result has been capital flight, stock market collapse, and prolonged Crisis such as the 2007 Crisis (Ibid. 2009) that continues up to the present time (the 2012). The outcome however, has been beyond the recurrence of large economic and social losses. Its effects included fundamental change in the structure of the financial (including the money) system and in human behavior. For example, there has been less concern with reasoned analysis of regulation, an area that has been more of a playhouse or a catch-up case. The concern of finance has been more on increasing profit and accumulation. The case of LIBOR (the London interbank offered rate) is illustrative. Its purpose is to develop finance rates to be the measure of the cost of banks' own borrowing and to be used as the foundation that sets interest rates for other groups in the banking system. This is an important task. However, asking daily selected bankers about what they feel they should pay to borrow and subsequently using the average of their responses, has set these rates. Thus, the LIBOR rates—and the

returns on \$360 trillion of financial contracts related to them, five times the size of the global GDP, are, in the final analysis, based on guesses rather than hard data and serious analysis. This situation has not only been partly responsible for the 2007 crisis, but has also opened the gate for manipulating and fixing the prices used as benchmark to set payments on about \$800 trillion-worth of financial instruments, ranging from complex interest-rate derivatives to simple mortgages and used by people and corporations around the world to pay for loans or receive their savings. The gate was wide open for more than ten years, starting with Barclays, a 300-year-old British bank whose employees, along with others from other banks, rigged the numbers, time and again with figures exceeding billions and billions (CF., *The rotten heart of finance: Briefing the LEBOR scandal*, *The Economist*, July 7th, 2012: 25-27). These, however, are not the only strategies intended to manipulate or rig the financial system (CF., FN. 26). Evidently, trust in banks' managers and in the banking system, as a whole is lost. Apparently, Banks should be reviewed more often by revamped regulators especially when costs and risks are involved.

On the other hand, the attempt to maximize and manipulate profit and accumulation require digging deeper into the structure of the finance system. To start with, the listing of the public company, the organization that has been at the heart of capitalism for at least 150 years is in trouble. The glory days of publicly traded companies dominating the American business landscape may be over:

**The number of companies listed on the major domestic exchanges peaked in 1997 at more than 7,000, and it has been falling ever since. It's now down to about 4,000 companies, and given its steep downward trend will surely continue to shrink. Nor are the remaining stocks an obvious proxy for the health of the American economy. Innovative American companies like Apple and Google may be worth hundreds of billions of dollars, but most of them don't pay dividends or employ many Americans, and their shares are essentially speculative investments for people making a bet on how we're going to live in the future. These days a healthy stock market doesn't mean a healthy economy, as a glance at the high unemployment rate or the low labor-market participation rate will show. The**

**Tea Party is right about one thing: What's good for Wall Street isn't necessarily good for Main-Street. And the Germans aren't buying the New York Stock Exchange for its commoditized, highly competitive and ultra-low-margin stock business, but rather for its lucrative derivatives operations. The stock market is still huge, of course: the companies listed on American exchanges are valued at more than \$17 trillion, and they're not going to disappear in the foreseeable future. But the glory days of publicly traded companies dominating the American business landscape may be over." (Felix Salmon, the New York Times: February 13, 2011)**

There are four types of companies: Public, Private, Family Ownership, and Quasi-State type. One may ask, why stick with 'family ownership' when going public would provide them with more money? German economic success, labeled "hidden champions," the dynamos of the world's most successful export economy, was based on 'Family ownership.' Other champions include India's Tata highly diversified family-dominated conglomerate, and the successful State-controlled enterprises that, although labeled public companies, are answerable to the state as in the case of China, the top challenger in the market, with the state accounting for 80% of its market capitalization. As Adrian Wooldridge put it, "the public companies will have to take their place besides a wide variety of other corporate forms, from private partnerships to family companies to giant state enterprises" (Adrian Wooldridge: *Management editor, the Economist, the World in 2012: 31*). Evidently, the future is full of different ideas and competitive spirit.

The present globalization phase seems to have more than qualitative differences from past experiences with finance capital. The modus operandi of the present globalization environment is being fueled by an accelerated pace of innovations in information and communication technology that facilitated the global spread of finance capital in all forms, legal or illegal. Similar to past behavior, the psychological element of finance capital takes over creating greater worldwide volatility at a much larger volume and speed. But the increased volume of financial activity is not a result of speed



alone. The unparalleled increase in international financial activities—e.g., daily foreign exchange trading, mainly short term, increased from about \$15 billion per day in 1973 to \$1260 billion in 1995, that was equal, at the time, to the entire world's official gold and foreign exchange reserves (Eatwell and Taylor 2000: 3-4). This dramatic change has been the outcome of abolishing the global system of (fixed) exchange rates in 1971. This led to deregulation and tremendous growth of international capital and especially the development of new innovations free from regulation as the case of hedge funds, that effectually ended the Bretton Woods system and lead to increased difficulties if not the marginalization of local and global regulatory agencies such as Central Banks and the International Monetary Fund (IMF).

The deregulation of international capital made it difficult for governments and Central Banks to control their money markets since exchange controls, cross-market access for financial institutions, along with quantitative controls on credit growth were all essentially abolished. Two major consequences followed as a result. The first is a privatization of risk, i.e. shifting the risk of exchange rate fluctuation from the public to the private sector with companies and workers carrying the major burden of risk. The second is a shifting of speculation from fundamentals of production and innovations towards expectations about movements of national exchange rates, seeking short-term gains, with damaging economic and sociopolitical consequences. It is becoming a different international finance system that is highly volatile, susceptible to contagion, and one with questionable ethics. Moreover, it opened a new setting for the evolution of GIG-type management since it basically produced another system of finance that controls corporate behavior to their advantage. For example, deep-pocketed hedge funds <sup>27</sup> (Hedge Funds) acting as 'active investors' demand a say in world-wide corporate behavior and are now "motivated less by the concerns of board governance and more by financial ones, activist funds build stakes in firms and use their clout to push for changes in strategy, from putting the company up for sale to putting their own people on the board. If persuasion fails, confrontation is rarely far behind". (The Economist June 2nd 2007: 65-66).

Deep-pocketed shareholder activists are few in number, but evidently they have enough votes to control the global monetary system. Unfortunately

ly they are not producing a better world, given the way they use their votes! (Cf. Paul Samuelson, *The Economist*, November 19, 2007; Sirageldin, "The 2007 Credit Crisis," *Ibid*). Samuelson's proposed solutions are not necessarily opinion-free and evidently they were on the side of 'activists' regardless of the harmful world they were setting up.

Meanwhile, in the midst of the attempt for the recovery over the past decade, British financial firms have been: "Enjoying an inglorious record of mis-selling to consumers. Dubious peddling of personal pensions, mortgage endowments and split-capital trusts has already led to \$23 billion in compensation, And that is before \$9.333 billion earmarked to redress the abuse over payment protection insurance, which was supposed to cover people falling sick or losing their jobs," and all this in addition to the LIBOR manipulation discussed above, and other actions that have been maintaining bankers' malodor. (The Economist: *The World in 2012*: 142) The situation in the rest of the world and especially the case of U.S.A. is not healthier. It is not evident whether the banking system is finally recovering or, is it returning towards another crisis that may be taking the banks, the economists and the political system by surprise, similar to what Alan Greenspan thought happened to the 2007 Financial Crisis. And that, although Greenspan was in control during the Crisis for almost all the key time of its behavior from 1987 to 2006, and including the behavior of banks and other financial establishments, regulators' behavior, and the role of governments and politics of that time. <sup>28</sup> (Role of Alan Greenspan)

As a rule, Central Bankers face a difficult task to set a balance between its two interrelated basic jobs: a medium-term pursuit to stabilize macroeconomics by setting interest rates to keep inflation in check, while being the guardians of financial stability, a short term pursuit that insure that the banking system has the right amount of liquidity and that in the process the Central Bank, in their attempt to remedy a dearth of liquidity, may have to interfere with the market and go beyond its operational mandate. The issue was whether to leave the crisis to resolve itself slowly by the market or let the Federal Reserve interfere without creating moral hazard. Greenspan chose the latter. But stabilization policies that aim for necessary liquidity must also deal with mortgages and it was evident that in the earlier years, thanks to new technologies, mortgage houses have changed

dramatically in structure and methodology that lured the mortgage business towards fast profit by various means: minimize the cost of debt, accept low loan-to-value ratio thus increases losses in case of default, and buy/sell mortgages as securities in the global financial market thus moving into an alien trade with increased uncertainty. This type of behavior, adopted by the mortgage industry during the past few decades, has led not only to a different mortgage landscape but also to a different banking and financial system and probably without a doubt leads to another serious crisis. (CF. Sirageldin 2009 for more details) Given the diverse issues the Banking system is facing, the attempt for bank regulation is evident and should be done with larger capital buffers, clearer distinction between commercial lending and investment-trading arms, among other rules.

Banks should keep in mind that the Banking system is a subordinate part of a larger economic and sociopolitical global system. Its function is to serve that larger system. Regulation should, in the final analysis, judge the performance of the Banks and the Banking system based on these principles and act accordingly.

# Technoeconomic and Sociopolitical Domains

In the past four decades, the interactions among the four management aims of harnessing technology, input requirements, securing consumer markets, and maintaining appropriate finance capital have produced a new global industrial system based on the disintegration of production and the integration of trade and finance (Fenster 1998). The Neo-industrial revolution that includes the digital and biological revolutions, is no longer the building of complex self-sustained industries with their ideas and parts assembled at the industrial homes with imports limited to semi-processed or raw materials. At present, production parts are produced and assembled all over the globe, based on master plans developed and implemented by a select few global managers and company homes. To produce, allocate and sell in the markets, Managers use an input-outputs and environmental system that differs from the ones used in the past. Part of the new system was used in previous chapters (From chapters 1 to 9). Chapter 10 includes the Technoeconomic Domain (10-1), the Sociopolitical Domain (10-2), and Chapter 11 includes the Global system. The changed systems require exceptional control and managerial skills.

## 10.1 Technoeconomic domain

In the present system, GIG evolved naturally as a result of a felt need to manage the rising complexity and growth of applications. But, given strong competition, not all growth is permanent. For example, the collapse of the successful BlackBerry is a vivid reminder of how fleeting success can survive in the midst of technique a result of

many factors ranging from the company did not adapt to changing technologies: “In the technology world, you can go from hero to zero in a very short period.” (Brian Modoff, the Deutsche Bank Security, USA Today, 8/13/13) This complexity requires on the one hand, a management system with global reach, and on the other hand, the ability to clarify unconventional procedures and outcomes—some that may require reformulation of economic theory. An example of this is the presence of labor markets in which workers compete to lower their operational cost (wages and benefit) even in advanced economies, while governments compete to reduce production costs including, in some cases, lowering environmental standards or reducing corporate taxes. The latter clearly illustrated with the decline of business taxes in the USA during the past decade, or the threat of Daimler to the German government: either reduce taxes or it will relocate to other markets. Meanwhile, global monopoly has been on a steep rise in the production and finance sectors. These procedures and outcomes have unexpected if not unacceptable sociopolitical consequences that tend to provoke unrest. They require either convincing justification to governments and citizens, or strict control of unrest. This type of control is attempted in the procedures of the sociopolitical domain (Discussed in 10.2).

In the present global system, GIG is not an exogenous element, either imposed or accidental, as was normally the case in previous eras. It became a necessity for system operation and sustainability. But GIG’s obvious materialistic and nihilistic moral fiber is neither endogenous nor a necessity of system survival and growth. These characteris-

tics are the result of GIG's chosen mode of operation in the technoeconomic and sociopolitical domains. In the case of the technoeconomic domain, the system of disintegrated production leads to the selection of the most efficient operation sites with minimum cost and maximum profit. However, this apparent success has been at the cost of unwarranted increases in labor uncertainty, insecurity, and reduced mobility that is an outcome of the disintegration of production and integration of finance. But uncertainty, insecurity, and reduced/controlled labor mobility seem to become part of management tools to control workers' hope a' la' Friedman. (Quoted in Sirageldin 2009) It compels workers to compete, not for higher, but for lower wages and benefit, simply to survive! Without notice, wages or benefits may be reduced or eliminated if a different location with lower cost or higher efficiency is found. This treatment of workers has been the case in both developed and less developed countries. The fast mobility of finance capital and its volatile speculative tendency are combined with the needs of workers, to serve the purposes of relocation and control. With risk privatized, private establishments, especially the labor force, carry the major part of the burden of risk and uncertainty, thus, workers wage, benefit, and 'hope,' are kept both at minimum and uncertain.

The control of moves and relocations, especially those affecting the hegemonic base, tend to provoke revolt against the system (Witness the frequent demonstrations against meetings of the World Trade Organization that has been taking place around the world and more often in the USA). Notice however, how on the one hand, the blame is transferred from the presence of an unfair world order to the presence of unfair competition from cheap foreign labor, while on the other hand, how the issue of security (authority) and freedom (individual) is being manipulated to suppress revolt and divert attention from the basic forces underlying increased labor risk and uncertainty. Countering uprisings requires concerted efforts and sociopolitical plans beyond the Technoeconomic domain. It is best done in the sociopolitical domain in coordination with the Technoeconomic domain, thus compelling GIG to become a major player in the sociopolitical arena. A full comprehension of the present system of global management requires an understanding of GIG's role in both the Technoeconomic and the sociopolitical

domains, since, in the era of applied science, the two domains are interdependent and mutually enforcing.

## 10.2 The sociopolitical domain

History informs that the rise of hegemonic power—partly the outcome of uneven advances in technology as evident in the present global system—leads eventually to a totalitarian regime. Such a move requires the presence of historicism as a prerequisite. The combination of hegemonic power, totalitarian government, and historicist leadership, especially if done by consent, presents an optimal setting for the operation of an entity such as GIG. In its tactics, as mentioned earlier (Cf. I.1.3-3), GIG seems to follow closely the strategy of Antonio Gramsci (1891-1937) designed to maintain the dominant position of hegemonic power not by force or threat of force, but rather by consent, a strategy that produces two important outcomes: control and sustainability. To achieve its outcomes, the strategy requires that the sociopolitical and Technoeconomic systems combine their forces with those of human conciseness in a two-part effort.

The first part is to convince the hegemonic power leadership that they are historicist, even if such convincing requires the authority of religion or metaphysics or the degrading of Science such as "science and scientists for sale." That is, they have a goal and mission on earth that must be achieved at any cost. There are many examples in history that illustrate such processes. For example, in the present hegemonic era, the Project for the American Century (PNAC), according to Griffin (2007: 208) basically articulated a plan for a Pax Americana that "looks like a plan for totalitarian rule of the planet".

The second part is done in parallel. The sociopolitical system must convince the general public that this role is destined. Convincing may require sophisticated visual art and psychology that has become more accessible in the present information age of television, Internet, and the latest technologies, e.g., 'voice morphing' to fabricate and falsify evidence (ibid: 82-86). Advances in IT (Information Technology) tend to reduce democratic participation: initially the written media provided for some participation in democratic processes, but radio and television, being mainly a one-way communication, tend to reduce such processes, while

the impact of the Internet continues to evolve with its own set of controls and regulations.

Gramsci's strategy, although based on anarchy, it is not based on force. It focuses on the control of institutions, social relations and the communication media to bring about the consent of the general public under the moral leadership of the hegemonic power. This is achieved by:

**Making compromises with various other social and political forces which are welded together and consent to a certain social order under the intellectual and moral leadership of the dominant class. This hegemony is produced and reproduced through a network of institutions, social relations, and ideas which are outside the directly political sphere." (Joseph Femia 1981, on Antonio Gramsci, quoted in Honderich 1995: 345)**

The Gramsci strategy is designed to allow entities like GIG to control the hegemonic power with the tacit acceptance of that power's leadership and citizens. But GIG's goal is global rather than local, both in labor control and finance mobility. For example, it is possible to perceive the Washington Consensus—although with varied interpretations—as a Bible guarded by the hegemonic power, while the global economic institutions, i.e., the IMF, World Bank, WTO, and we may add the US Treasury and Federal Reserve, act as high clergy spreading and implementing its Gospel, but, mainly guided by GIG's goals and intentions and not for purpose of social development (CF. Williamson 2000: 5-6; Stiglitz 2003 for a view of the Washington Consensus).

Is there place for morality or theology in Gramsci's framework? The answer is evidently in the negative. It has no interest in humane ethics. Its focus is on profit maximization that leads, if necessary, to the control of strategic resources and labor availability around the globe, regardless of the means to reach such control or to a constantly morphing ethics of business practice that is "custom tailored" to addressing changes in market competition, a system that lacks true ethics. But, success in business does not necessarily depend on this type of amoral approach. Most probably the presence of amorality leads more to business failure in the longer run. It is possible, however, to reach a synthesis between business success and citizen rights, a mixture that includes accept-

able morality. Pareto, the Godfather of positive economics believed that a synthesis is possible between positive economics and moral ethics (cf. Wilson 1997: 4-5). The parallel between Gramsci and GIG, although not perfect, is indicative.

The rules of GIG are in conflict with those of state/nation governments, or with those of a global government that aim to enhance human wellbeing. The state/nation is concerned with the needs and actions of its citizens as a whole, while the concern of GIG is focused on buyers and sellers in the economic structure that maximize profit and accumulation, regardless of being. It is in this sociopolitical domain, that GIG uses its power and resources to maintain conflicts and minimize cost. To meet its goals, GIG resources have to spread between local and global sociopolitical arenas to influence both governments and consumers, while controlling pay to labor, local or global, and act on lobbying or even bribery activities, and may ignite wars if required in the process (Cf. FN 9).

It is this mold of GIG that not only lost morality and ethics, but it does not also illustrate, in these dynamic systems, the role of population in reproduction and human continuity. This is rather a destructive approach especially since a large part of the World Society is without viable economy (Oswaldo De Rivero, 2003. *The Myth of Development*, see details in the next section). These hostile circumstances present the most trouble when attempting to establish a fair and effective Global government but lack ethics, while living in a mass destructions. The next analysis is the role of population, past and present.

# Population Rise and Fall

**I**n The previous analysis (Chapters 1-10) focused on conflicts, applications, stability in government, in production, trade, and finance. The overall conclusion thus far was not optimistic about stability and direction of development. The present Chapter focuses on the role of population dynamics, its functions, requirements, and stability. We start with the Opening of Chapter 11.

## Opening

Greed: Institutions, which will diminish the sway of greed, are possible, but only through a complete reconstruction of our whole economic system. Capitalism and the wage system must be abolished; they are twin monsters, which are eating up the life of the world. In place of them we need a system which will hold in check man's predatory impulses, and will diminish the economic injustice that allows some to be rich in idleness while others are poor in spite of unremitting labor; but above all we need a system which will destroy the tyranny of the employer, by making men at the same time secure against destitution and able to find scope for individual initiative in the control of the industry by which they live. A better system can do all these things, and can be established by the democracy whenever it grows weary of enduring evils, which there is no reason to endure. [Bertrand Russell 1917, *Political Ideals*: 24]

Specialism in the Social Science: This new type of specialist, people who believe that their discipline, be it sociology, psychology, economics, or politics, has reached that stage of development that provides a vantage point from which they can

understand society as a whole. ... There is first of all the confident planner, the economist who believes that his professional knowledge entitles him not only to shape the economy but also to manipulate all other aspects of a given society in terms of his basic strategy. Next to him is the new type of sociologist, the ideologist, firmly convinced that he carries in his hand both a model of society and the right means to achieve it? Slightly behind, one can see the new type of political scientist, a strategist doubled by a tactician. He smiles ironically at his confreres, the economist and sociologist, not because he mistrusts their kind of game, but because he is positively sure that he is better at it; he believes that 'the primacy of the polity' constitutes the first principle of social planning. Last but not least is the psychologist firmly convinced that his discipline entitles him to know not only how but why the individual's mind should be moulded in this or that direction. [Zavedei Barbu, 1971. *Society, Culture and Personality: An Introduction to Social Science*. New York: Schocken Books: xx]

Towards a new order: There is, in the wind, the beginning of a new world community—a new order of things where a total sense of common purpose will be forced upon all peoples. The arithmetic of survival requires it. The world, its peoples, and its parts will be forced into new kinds of symbiotic relationships. There will be less emphasis on materialism, and more emphasis on basic values and constructive efforts than we have ever known before. [Currier Jerome Holman (May 17, 1911 - February 16, 1977). Holman passed away after delivering the keynote address of the 1976 Midwestern Food and Social Policy Conference, Ames, Iowa: The Iowa State University Press]

Lifeboat Ethics: Hardin argument for Lifeboat Ethics can be summarized in five propositions: 1. What lifeboat passengers can do given limited resources; 2. Every life saved in a poor country diminishes the quality for subsequent generations; 3. Only two options available: ethics of sharing, or the 'lifeboat ethics,' which is harsher but more responsible; 4. For example, sharing resources through a world food bank will deplete the possessions of the rich; 5. Consider the claims of posterity, an ethics of sharing leads to future ruin. [George A. Chauncey, *Ibid* pp. 77-80]

The statements in the opening illustrate the presence of Greed in different forms. Witness Russell's interest in finding solution to reduce greed, and Holman's search for different approaches to life, and Barbu on specialization in the social science, or Harden survival role off the lifeboat. First, we examine the structure of population, birth, death and reproduction, and how these dynamics are related to survival and development.

The statement by Barbu on specialization indicates not only that specialists believe that their discipline has reached maturity but also that society has reached maturity. In such analysis, the focus is usually on own science and not on other sciences. But this is not a complete approach. For example, the advice of Frank Knight is illustrative (Details later), "For a society to be successful and continue to flourish on both individual and social levels, it must continue to improve its material goods, education standard, labor quality and skills, and its moral principles." Furthermore, "improvements are the accumulated funds being developed by the current generation to be inherited by the next generation, for the purpose of social continuity. They are also the accumulated power that every generation must use in order to regulate and correct deficiencies in society." These accumulations are the building blocks of humanity. It requires more than a single type of specialty. But there is limit to develop without being mechanically getting tired, if not weaker, although machines may continue much longer. But human is not machines. Even if human lose strength and abilities, it will continue to think and reproduce, until it dies, a mechanical end. It is also true that a human population, during its lifetime is able to create and destroy its parts, but as mentioned before, it is the scholarly parts that develop artificial intelligence that, bring end to human, faster than expected.

Population has been a key force in social continuity since the time of Malthus, late in the Seventeenth Century. Since that time, the behavior of population continued to be unchanged as follows: uncontrolled reproduction, high levels of mortality at birth up to young age and at young age, low education and increase in young ages. On the economic side, the majority of workers received low wages, low health and high poverty, while paying high food and high cloth prices, with the majority without their own homes. The result is reduced reproduction and those born or living. Thus, the cycle of population is as follow: high reproduction, to reduced born and young children, to increased birth, to reduced birth again, leading to the population cycle. For most people, the cycle continued up to late in the twentieth century before it ended. [Cf. UN, *Determinants and Consequences of Population Trends 1973*; Malthus, T.R. 1798, *An Essay on Principles of Population*, London; Frank H. Knight (1921). *Risk, Uncertainty, and Profit*, pp. 374-75; also, Timmer, Falcon, and Pearson 1983, *Food Policy Analysis*]

### 11.1 Population and society

We start by focusing on the relation of population and economics by asking: What is economics? Two top economists gave open-ended answers to the question. Paul Samuelson pointed out that Economics covers "all kinds of topics" (Paul Samuelson & William Nordhaus 1992, *Economics*) while Jacob Viner gave his famous statement "Economics Is what economists do." Kenneth Boulding, an established economist, came close to Viner's suggestion. He focused on the skills of the economists that, in his opinion present a better understanding of the subject matter. But almost all economists agree that the interest of the economist is not in human behavior but in the behavior of commodities: "The core of the economist's interest is not human behavior as such but the behavior functions which relate his economic quantities, his price, and his quantities of commodity produced, consumed, exchanged" (Boulding 1958: 29). The subject of economic analysis does not include human behavior, a subject left for sociology, anthropology, history, psychology, and biology. Economics ignores the importance of justice, security, and ethical behavior such as liberating creative impulses and diminishing possessive impulses, thus leading to a narrow mean-

ing of human knowledge and of being. In this respect, the theoretical approach is not the only way that gives shape to reality. (Cf. Frede, Dorothea, 1999/1993. The question of being: Heidegger's project; Charles B. Guignon, ED. Heidegger. New York: Cambridge University Press. See also FN-7)

But as economists are inundated in their quest for setting up the perfect coordinated market that develop, produce, and sell, with the best possible predictions of market operation and develop the best maximum future expectation, economists seem to forget Keynes warning that perfect prediction is a sign of dictatorial behavior. Keynes dictatorial warning has similarity in physics, illustrated by Einstein's deterministic view of the universe that has to give way to uncertain probabilistic view. (Cf. Clark 1984/1971: 420-1 above)

There is a large gap between the limited definitions of the economist and the broader views of social scientists, population, and philosophers. Russell for example thought economics should not be reduced to a calculating machine. Economic analysis, he argues, should be distinguished by a different and wider purpose and role in the socioeconomic system. We name this approach the 'wider view of economic analysis.' This is where population dynamics, economics, the sociopolitical sciences, and biology, join hands. <sup>29</sup> (Note on Population)

There are differences in the timing of birth depending on the behavior of the various groups. They either plan or don't plan the timing of birth. Those who don't plan the timing of their birth are having their birth by chance. The difference between planning and not planning is the desire of mothers and parents. In general, reproduction with design takes longer time to get birth, and usually a healthy birth. There are however, many reasons for postponing births. Reasons include health status and available income. For example, the case of the 2007 financial crisis that started in the United States and spread globally had a considerable effect on fertility. The crisis created local and global recession that is similar to the Great Depression with uncertain future. An example of its results is that a large number of American women had postponed having children. Accordingly, the American birthrate dropped to a lowest point in more than 25 years, a drop that worsened the declining market, reducing sales of thousands of products from diapers, cribs, health needs for babies and mothers, to baby toys and bottles, to

cars and other commodities. The decline seems to continue.

In the year 2012, the decline of the birthrate reached 2.06 and is expected to decline to 1.87 in 2012, a level below replacement level that result in negative growth in the USA (2.1 is the average number of children each woman must have to maintain the level of the current population). Furthermore, adult children reaching between 20 to 34 years of age, tend to stay at their homes, partly due to lack of jobs or low pay. The result is a decline in the housing market. (The number of young adults aged 20-34 who are living with their parents jumped from 17% in 1980 to 24% in 2007-09 according to a detailed analysis by Ohio State University, published in USA Today 8/1/2012). Also, even immigration policy that has been a key element in stabilizing the American population system did not stop the decline of fertility or the housing demand. The decline in children is expected to continue for decades. The decline fertility and its impact is not only the case in America. The decline of fertility rates have been far below replacement levels, ranging from 1.1 / 1.3 in the case of Taiwan, Portugal and a large number of East Asia changed from baby boom to bust. The fast decline of fertility coupled with improved child survival, have long-term implications. For example if the decline of fertility exceeds the decline of mortality as it is the case of Taiwan and Portugal, and if low fertility continues, the result would lead to structural change in population dynamics, with increase in the elderly, a declining labor force, reduced population size, and negative characteristics to the population system. <sup>30</sup> (Fertility / Mortality) It is important to understand the dynamics of demographic stability.

## 11.2 Demographic Stability

The previous discussion illustrated a strong effect of the Financial Crisis on the stability of the demographic system. But the demographic system does not change so often. Once settled it takes long time to unsettle. For example, when major changes occur, such as new technologies, new ways of getting agricultural outputs or changing the water system, then the system takes a long time to adjust towards a new equilibrium. During these periods of adjustments, fertility and mortality start to move towards a new equilibrium compatible with the new changes. The movement



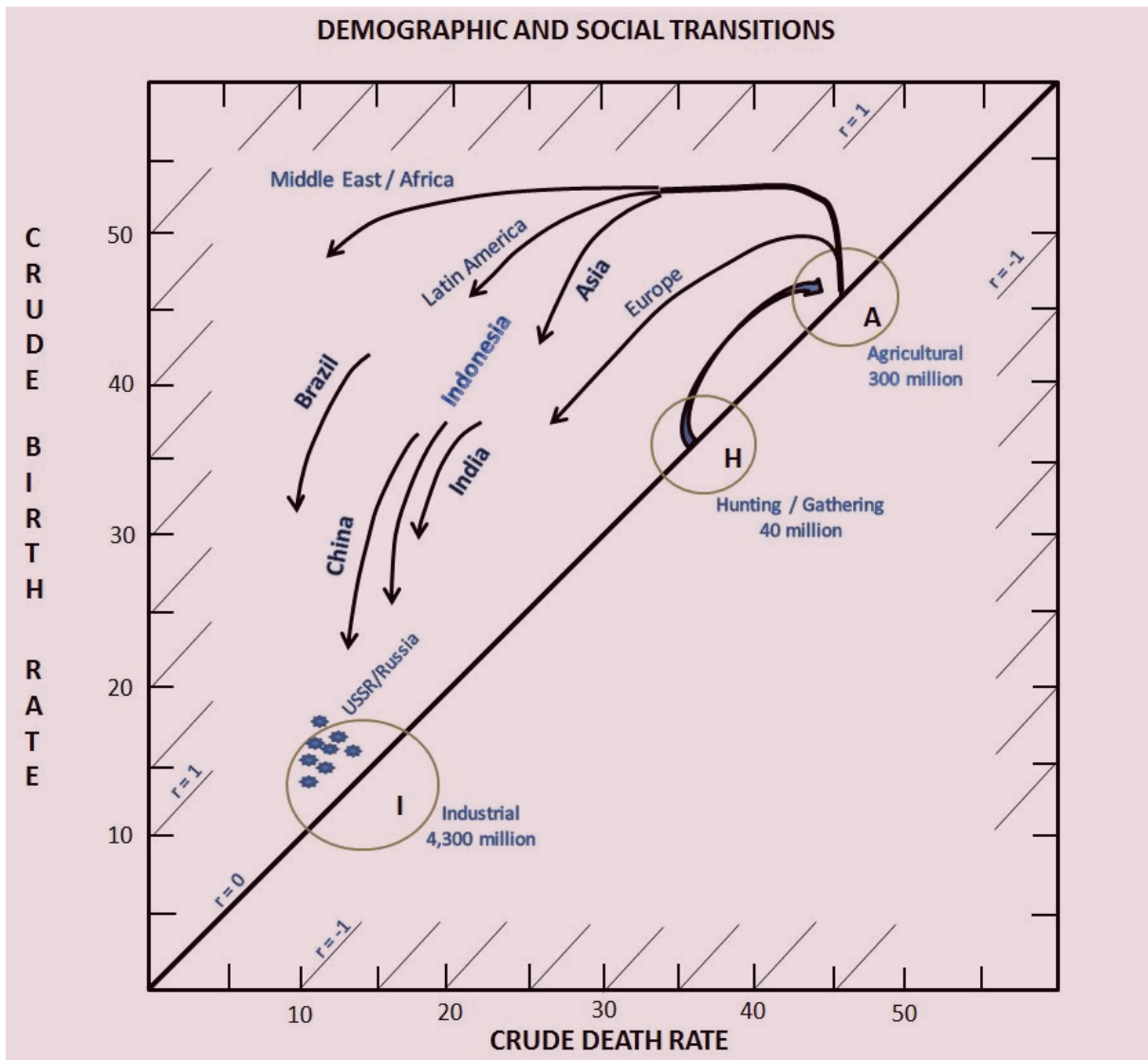
from one equilibrium level to another is labeled demographic transition. In the case of demographic and social transitions (Figure 11.1), three major transitions occurred in three overlapping historical Eras, namely: Hunting and Gathering; Agriculture; and the Industry and Neo-Industrial case. In each case, the new equilibrium may take hundred and sometimes thousands of years to settle, as for example, the settling the type of work or food, either for males, females, children or elderly. Assigning work to males, females, children and elderly, differs greatly in the case of Hunting-gathering than the case of Agriculture, or the case of industry, the neo-industrial or the waves of innovations. These changes influence the structure and timing of fertility. In the present analysis, we focus on the long-run path of world population growth. The change is illustrated in Figure 11.1.

The long-run path of World Population Growth (Estimated as an average increase of about 0.0043 percent per year) has been very close to the main diagonal of Figure 11.1 (i.e., birth rates equal death rates on the diagonal line). Change from a hunting/gathering mode illustrated as point H in the figure, to that of traditional settled agriculture, illustrated as point A, took almost 10,000 years to complete the transition towards the Industrial system illustrated as point I (Industerlization System). In the process world population increased from an estimated 40 million to about 300 million and moved to new, less efficient equilibrium level of vital rates (at point A) with the equilibrium at a higher level of fertility and mortality, implying an average annual rate of population growth of 0.020 percent. More recently, during the past two centuries, the world has experienced dramatic new technologies that have influenced all the parameters of human life, including the vital rates. A new equilibrium level of birth and death rates emerged at a much lower level implying a longer life span (point I in Figure 11.1) that is compatible with the social requirements of the growing industrial society such as longer education and training requirements.

The divergence between fertility and mortality levels during the periods of adjustment from hunting to agricultural to industrial resulted in producing natural rates of population growth that far exceeded the long run world average. The result has been a dramatic increase in world population from 300 million to over 4,200 million in the short span of less than 300 years, with an

average rate of growth of about 0.88 percent per year, almost 200 times the long-run rate. As evident from Figure 11.1, most of the now industrialized countries have reached a new equilibrium level of vital rates characterized by low CBRs (Crude Birth Rates around 10-20 per thousand), and low CDRs (Crude Death Rates, around 11-14 per thousand) and that is regardless of the structure of their socio-political system. In the present Neo-industrial and Inventive Waves Age, demographic change is getting faster, being influenced by change in social development and not only by change in technology. The experience of the less developed countries (LDCs) has been more recent and more dramatic. They clustered around point A of Figure 11.1, with birth and death fluctuating widely because of epidemics and disease. However, in the last half of the twentieth century, most of the developing countries have experienced a sustained decline in mortality with the rate of mortality shifting to the left indicating a decline in the rate (Figure 11.1). By the end of the Century, many developing countries started their fertility decline towards a low equilibrium level regardless of the stage of development. The pattern of converging vital rates has not been universal during this period. Some countries adopted the low mortality level while maintaining the high fertility, leading to high rates of population growth. For example, Figure 11.1 shows several small and oil-rich countries, with a birthrate over 45 per thousand and CDRs of less than 12 per thousand, implying very high rates of population growth. However, after a relatively short time, these countries started a return to the normal behavior of the transition in which the decline of fertility is catching up with the decline of mortality. The speed of the change is relatively fast with significant consequences both locally and globally. The global demographic transition of the past four decades led to a dramatic increase in world population exceeding 7 billion, an increase in the proportion of the elderly (65-years old) that exceeded 20% or more of the total population in some societies, while reducing the proportion of the labor force. Meanwhile, the temporary increase of the labor force in the less developed countries produced a majority of low labor quality found unacceptable to migrants, some of whom were returned back by the receiving countries, and others drowning in their quest for reaching a receiving country.

Figure 11.1  
Demography and Social Transitions



Source: Developed by Ismail Sirageldin 1984 and Engineer Kamal Sirageldin 2014.  
[Ismail Sirageldin 1984. *Lectures on Population Policies and Development in the '80s*. Pakistan Institute of Development Economics ISBN: 969-461-017-6 (92 pages). Data based on World Bank, *World Development Report 1982*. London: Oxford University Press]

### 11.3 Demographic Transitions

Population transition does not mean that change of "birth, human movement, and the end" is the same for all. It is not. Death, the end of human, is similar in type but not in style. It is also the same in time but not in power: rise to fall, begin to end.

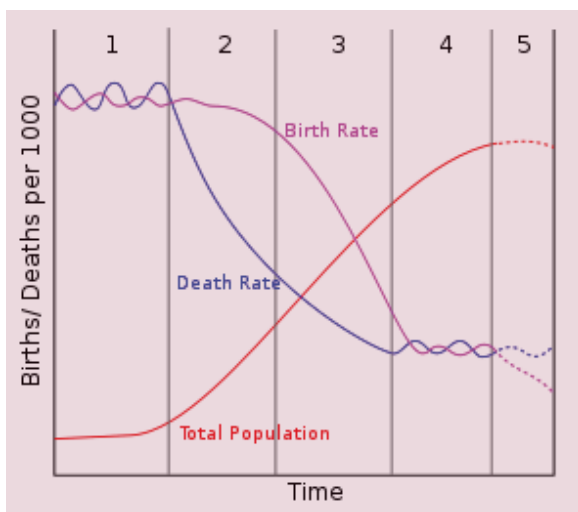
Transitions (Figure 11.2), include five cases. In the first case, both high birthrate and high death-

rates are both similar and keeping the size of population low. The second case is the decline of death rate while the birth rate continues at high level, thus, increasing the total population. In the third case, both birth and death rates are declining and the total population is increase. In the fourth case both birth and death are the same at low level thus the total population started to settle towards lower equality between birth and death. But the

birthrate started to decline lower than the death rate, leading to unbalanced declining population and unbalanced system.

At the beginning of humanity, transitions were simple parts of Nature, the way they exist and behave: birth – food-activities – end. But as time passes and activities become part of daily life, based on change in nature, through changes from hunting-gathering, agriculture, to industry and systemic waves. Early in the twentieth century, transitions considered to be the main system of planning for development. Transitions started its activities with the windows of opportunity. The windows is designed to reduce the size of population in order to produce the exact need for humans while reduce the cost for improving education, health, the labor force, and other developmental necessities. But few countries have planned for the future. One reason is the complexity of the process and lack of ability. But countries that anticipated the onset of the transition and planned for its success have succeeded in its development such as the earlier cases of Europe, the USA, and more recently China, South Korea, and other related countries. However, not all countries that planned for successful development has succeeded, since, gifted success, brought the end of life. A possibility, left for the coming chapters.

**Figure 11.2**  
**Demographic Transitions [From Case One to Case Five]**



Based on Wikipedia, the free encyclopedia: Stages 1 through 5 demographic transition models

The present analyses focus on change that is either done by chance or by planning. The case of planning requires structure that is designed. It influenced change in various ways and divided society into two parts. The first part acted as the controller of the global society and the purpose is to maximize profit. The second part is to accept and follow the orders of the controllers. It is the division between the few rulers-controllers and the followers that negative behavior have been created from change in population dynamics to overall social deterioration.

About five centuries ago, the average birth rates were about five per family. But fertility did not increase much because of the increasing mortality rates. The rise of birth rates and the high mortality have been the outcomes of increased sickness and lack of care. These changes started during the middle ages of Europe, and continued in their behavior through the middle of the last century. But high fertility did not stay long for most families. At the end of the last century, fertility rates changed its dramatic behavior also facilitated by the rise of the elderly, and reduced marriage rates that reduced the number of born children. In general, society moved from a case of baby boom to a case of bust. Birth rates started a consistent decline, facilitated by the rise of the elderly, among all kinds of people regardless of types of knowledge, incomes, of work, or the size of family around the globe. For example, in 2014, the huge change that started few years ago, will reach a milestone in the case of Asia, the world's most populous continent the total fertility rate will fall to 2.1. (Figure 11.2, case five. There is a view that the whole world is going to university although questioned by The Economist, 7-20-2015. Also, as mentioned, birth rate is the number of children a woman can expect to bear during her lifetime and 2.1 is a magic number known as the replacement rate)

In the Nineteen Sixties, Asia's average fertility was in the range of 5.8. The United Nations Population Division thinks that fertility will reach the replacement level during 2014-20, and that the decline in fertility has taken place worldwide and not only in Asia. For example, Latin America has experienced a decline almost exactly as great as Asia's although the size of Latin America Latin is much smaller than Asia. Also, the fertility rate of Iran (part of the Middle East) have crashed from 6.5 in 1980 to 1.9 in 2005, a change that can't occur

more dramatic, while the Fertility Rates of the rest of the Twenty Middle Eastern countries with the exception of Turkey, did not change much at that time.

Meanwhile, other issues have been taking place. Some countries are slipping into a pattern of very low fertility in which the rate falls towards 1.5 or less, and stays there for generations as social norms shift and people abandon the common ideal of two-child family (See Part five in Figure 11.2). This decline happened in Germany, and now in Japan, Italy, Russia and other countries in Europe, with attempts to adjust for the various needs for workers and for caring for the elderly. The case have reached China for over 20 years with the one-child family rule where the fertility rate has been declining and reaching below replacement for over twenty years that overwhelmed China's traditional way of life. It also lead to sex-selection through abortion that meant the presence of fewer Chinese women of child-bearing age for over 20 years since millions of female fetuses were aborted over the past 20 years as parents sought to ensure that their one child was a son. In 2015 and beyond, the country's leaders will face pressure to scrap the one child policy. Meanwhile, almost most of East Asia, the rest of Europe, Asia, and Latin America are slipping into the pattern of reduced fertility. The implications to global structure are yet to be comprehended.

# From Viable to Non-Viable Systems

**In a civilization which considers the whole universe to be a state, obedience must necessarily stand out as a prime virtue with a state built on obedience and unquestioned acceptance of authority.**

**Thus, the 'Good life' is the 'Obedience life'**

**Look at the child that is holding your hand,**

**And let your wife delight in your embrace.**

**These things alone are the concern of men.**

**But all told, the question is hopeless**

**(Based on Mesopotamia: Before Philosophy, 6000 years ago, The Good Life, P. 217-226)**

There are many ways to end humanity. The focus on the present analysis is on two cases. Each of the cases is a function of viable societies. If the first case is not viable enough to survive, it will end, sooner than expected. In the situation of the next case, although well-behaved humans that accept orders are ending nevertheless, but the way of their end is complex. It is facing a complex set of circumstances. Artificial intelligence started to replace their human functions, thus replacing the human society by the intelligent society. According to Hawking, the change of the structure of humanity is leading its decline, although the timing and processes of the change is evident but not clear. These changes are discussed in the last Part of this Essay. At present, the focus of the analysis is on the first case especially the consequences of non-viable behavior.

There are large parts of societies without viable

life, waiting for their end. These types are mainly in Africa, Asia, Middle East and Latin America as discussed by De Rivero, and that is aside from the active and dynamic societies including great thinkers, scientists, and the hard workers that are losing their being in the different settings mentioned above. We start with the first group including their rise and fall. Many of these countries and large parts of their cities in particular, are already falling and collapsing into 'ungovernable chaotic entities' under the control of warlords and mafias. These falling ways of life, also include unworkable state of demography, high unemployment, lack of adequate education, and lack of adequate health status. As De Rivero reminds us, state-driven and market-led development models have failed in dealing with the nonviable economies:

**Many countries are mistakenly called 'developing' – they would in fact, be better described as non-viable national economies. Today, after more than fifty years of applying a variety of development theories and policies, the real per capita income in more than seventy so-called developing countries is lower than it was twenty years ago. Of a population bordering 5 billion in the underdeveloped world, around 3 billion survive on only two or three dollars a day, and another 1.3 billion in extreme poverty can no longer even feed themselves, living on less than one dollar a day. This reality is an invitation to discard the myth of development, abandon the search for El Dorado and replace the elusive agenda of the wealth of nations. It is now crucial to stabilize the urban population**

**growth, and to increase the supply of water, energy and food. The achievement of this physical and social balance is not related to any ideology. Therefore, it should be possible to develop a 'pact for survival' among all the political leaders in any poor country where alarming symptoms are apparent. The 'pact for survival' should not only be established through dialogue and democratic consultation, but they should continue to function permanently on that basis. Oswaldo De Rivero, 2003/2001. *The Myth of Development*, London and New York: Zed Books)**

The analysis of De Rivero is solid but evidently incomplete. Most of the countries that are labeled 'non-viable' have lost the opportunity for a viable transition. Also, the opinion by De Rivero that 'international assistance' may only help in keeping these countries alive but not 'standing on their own,' is correct but does not inform the full story. For example, selective focus on the failure of some parts of the global society without questioning the rest of actual or potential failures raise many questions about the present and future of society. It is true there are poor populations in the midst of rich countries that lack education and job training and lack needed opportunities. Although few were able to get assistance from their rich countries, the majority mentioned by De Rivero have lost their ways and status.

When riches rule, poverty and inequality increase, while the meaning of equity is lost and when attempting to create justice, it fails. Also, wealth is concentrated in few hands that are connected with power and history. For example, Aristotle's "Best State" modeled around Platonic aristocracy, 'balanced' feudalism, and some democratic ideas. In the case of democracy, Aristotle designates that all citizens should have the right to participate in the government. But in reality, such participation excludes from citizenships not only the slaves, but also all the producing classes inclusive of all the working classes. Thus, in the case of the division of wealth and power, the working classes are ruled out while the feudal rulers must not work (CF., Popper, 1962/1966. *The Open Society and its Enemies*, Part 2, Chapter 11). However, there are differences between the allocation of wealth and power in the time of Plato

and the allocation during the present Era of the neo-industrial-waves. In the present era of high and rising inequality and inequity, the few take over the power of the majority depending on their ignorance and bribery behavior, thus, the few become totally in control. This leads to the conclusion that the difference between the present and the past is limited: they may differ but eventually lead to the same conclusion.

Two thousand years ago, Heraclitus informed that the World is not stationary. To Heraclitus all existing 'things' are in a state of flux, change is the only constant in the universe (Heraclitus, Greek philosopher, born 536 BC in Ephesus, Turkey and died 475 BC). For example, what we view in the rear window of a fast moving car is a blurred unreliable view of what was happening in reality around us. As the speed in the rear window increases, the blurring increases leading to reduced knowledge and reduces future knowledge. This is the case partly because the time needed for human adjustment is slower than the increasing speed. But mechanical adjustment, either in changing distance or in size of view, improves vision since it adjusts automatically for the needed change. In other word, human needs automatic adjustments to improve reflection. But human reflection improves only as human become more mechanical, that is, less human. This is another type of behavior, in line with Stephen Hawking artificial intelligence, that is on its way to starting the end of humanity.

# The Rise and Fall of Societies: The Cases of China and Egypt

(China/USA, Egypt/Middle East)

The previous Chapters (1-12) included the concerns for the rise of application, of development, of innovations, and of the role of governments, finance and allocation. It also created a system of control that regulated the system through a small but purposeful and skillful group who were able to control the main parts of society such as theology, science, governments, finance, population dynamics, the environment, and wars. The analysis was done based on national and global levels. In general, the analyses illustrated that managing the Global system is a complex but essential task, that although differs between managing national and global systems, the conclusions of the analysis approach similarity in knowledge and power, among the various groups. For example, the change in types of power and behavior in the last five to seven hundred years of the United Kingdom, Spain, Germany, Russia, China, India, Turkey, Japan and the USA are indicative of change. These changes are known and important, and will be viewed in the historical analysis of Part Three where similarities are both historical and present. However, the purpose of the present analysis is to focus on continuity and on the end of humanity. The present focus is on the rise and fall of various social societies as examples of social change. The reason for the choice of China and Egypt is their historical background and the change of their roles that is leading to the basic question: is there an evident end to humanity?

In the case of China and Egypt, although different in size and structure, they illustrate the historical and dramatic change that took place dur-

ing thousands of years. Both are ancient countries with impressive history although at present, China has a large population of about one and half billion while the size of Egypt is about 85 million people. At present, China presents a rising power in the Twenty-First Century, challenging the global authority of the USA, while adjusting the quality, size and structure of its labor and health status (For more details see The Economist "Friend or Foe," December 4th 2010 and references cited there-in). On the other hand, Egypt is known by its seven thousand years history and its Pharaohs while being undeveloped in the past thousand years. At present, Egypt has been facing internal and external impediments in its attempts for development, a result of unstable government, lack of ethics and morality, and unstable population structure. (Cf. Sirageldin, 2006 "Egypt Human Resource Development: Challenges and Opportunities" The Economic Research Forum; Human Capital, Population Economics in the Middle East, Edited by Sirageldin)

It is evident that while China in the last year, has been adjusting for the development of its society namely its labor, its input-outputs relations, its power and international interactions, and getting an appropriate role in the Global society. China's development process has apparently been a success. Egypt seems to be going in the opposite direction in its development of the size and structure of its population, the roles of its government, of its economic and sociopolitical system, its relations with the international system, and the decline of its ethical values.

### 13.1 China and U.S Focus

What China wants and what China gets? As China becomes, again, the world's largest economy, it wants the respect it enjoyed in centuries past. But the respect means belief by both China and the rest of the world that China has already developed not only by its government and their rulers and planers, but more essential by its people and their ability and thoughts. It should know how to act accordingly.

**Statement about China:** When China was first united in 221BC, Roma was fighting Carthage for dominion over the western Mediterranean. Roma would go on to rise further and, famously, fall. (The rise and fall of the Roman Empire) China collapsed, too, many times, but the model had been set that it must always reunite. By the end of the Han dynasty in 220AD its rulers had institutionalized the teachings of Confusion, which emphasized the value of social hierarchy and personal morality, as the basis for government. By the Tang dynasty in the 7th century-at about the time Mohammed returned to Mecca-China was one of the wealthiest and most illustrious civilization on earth. Its economic and military power dwarfed that of neighboring peoples. [Essays about China: *The Economist*, August 23rd 2014; *Back to Business*, Vijay Vaitheeswaran, *the Economist*, 9-12-18th 2015]

**Will China be a Threat— an angry country set on avenging past wrongs and forcing others to bend to its will?** [Edward Carr: *Friend or Foe? A special report on China's place in the world*, *The Economist*, 10/4/1010] China can find reassurance in its own record of endurance and in the fact that no U.S. administration has ever thought to alter the reality of China as one of the world's major states, economies, and civilizations. America would do well to remember that even when China's GDP is equal to that of the United States it will need to be distributed over a population that is four times as large, aging, and engaged in complex domestic transformation occasioned by China's growth and urbanization [Also, GDP comparisons

should account for the increasing income inequality and its impact on the income distribution in the United States]. The practical consequence is that a great deal of China's energy will still be devoted to domestic needs.

The rise of China is less the result of its increasing military strength than of the United States' own declining competitive position, driven by factors such as obsolescent infrastructure, inadequate attention to research and development, and a seemingly dysfunctional governmental process. The United States should address these issues with ingenuity and determination instead of blaming a putative adversary. It must take care not to repeat in its China policy the pattern of conflicts entered with vast public support and broad goals but ended when the American political process insisted on a strategy of extrication that amounted to an abandonment, if not a complete reversal, of the country's proclaimed objectives. [Henry A. Kissinger, March/April 2012, "The future of U.S.–Chinese Relations," *Foreign Affairs*, Volume 91 No. 2: 55]

This, in general, is how the West was analyzing the East in the present time. The Economist questions were not based on how China has been developing, what forces are required for the continuity of China's rise, or whether its success serve as an example for the advancement of developing countries and perhaps the developed world. For example, pensions have spread in China at extraordinary speed (over 55% of adults were covered including new rural pension, about 862m, more than those covered by America's Social Security in relative terms). Carr's questions were different. They presented a negative attitude as to China's standing when compared to America, especially when the latter focuses on security rather than progress: Does China's growth makes it equal to the USA? Would America treat China as equal if China's power becomes equal to the USA? Would China settle with less than equality? These are the types of questions raised by Edward Carr of the Economist. The answer he gave was as expected, a negative answer to almost all the questions he raised, therefore leading to disastrous



conclusion regarding the future of both countries. Evidently, the Special Report already set the stage for negative conclusions before responding! It started by indicating that America is superior to China, and to all other eastern countries even if they were following America's path. Also, with an interestingly open conscience, America has been lecturing the East about its needs to "grow up" and to behave responsibly.

But 'lecturing a country with a history of millennia about its need to "grow up" and to behave "responsibly" can be needlessly grating.' However, America went beyond 'lecturing'. It prepared, without invitation, a policy that sets for China its wants, limits and restrictions, detailed in the Economist Special Report as follows: "America wants China to be a thriving market for its goods, and to become an active, responsible power world affair." Otherwise, the sociopolitical relations between the two countries may become sore. Nothing in the Special Report indicates that it is the hard work of the Chinese people and its informed rulers that produced quality education (CF, UNESCO studies on quality education in the nineties that put China in the top five while America behind in the twentieth), controlled reproductive behavior (the one child family is well known), and developed diligent and committed workers that guided China to its current state of growth and rise in: "economic, industrial, diplomatic and military, although it is still developing the structure of finance." Apparently, for most western writers, the 'best approach' to develop a peaceful relation between West and East (America and China) is through confrontation that focuses more on security and less on socioeconomic development and peaceful behavior. In the case of the latter, China is accused of developing a "supermarket approach" that "buys what it must, picks up what it wants, and ignores what it does not" (CF. Gary Schmitt of the American Enterprise Institute in Washington: page 14 in *The Economist* *ibid*). But the future does not belong to everyone. If America, China, Russia, or India were asked to whom the future belongs each would answer, "The future belongs to us."

As Kissinger indicates in a recent article, the rise of China is partly relative. It is a result of China's hard work that is still in process, and partly a result of a declining America's awareness of its needs to redevelop (See above Kissinger article, April 2012). Both China in the midst of its devel-

opment process and the U.S.A in its awareness to revitalize could be stopped or delayed if the focus become on pursuing security rather than progress, especially if progress includes equity and equality. Unfortunately, it is security that is on line of action. The analysis of both Kissinger and the Economist are bringing security to the forefront of the discussion leading to a divisive approach in which the East is east, the West is west, and the rest is lost. But there is more to say about the future of China and the western push to focus on security.

Goujian the Chinese King of Yue was defeated badly by King Fuchai of north China. Goujian was put to work in the royal stables of Fuchai where he spent his time with dignity. After his humiliating defeat, Goujian bided his time for eight long years as he "slept on brushwood and hung a gall bladder in his room, licking it daily to feed his appetite for revenge." (Story by: Edward Carr, 'The Economist,' December 4th 2010). Goujian, who bore his captivity with dignity and hard work, was able to regain his confidence in his superiority and was able to win the war that he started again against the declining kingdom of Fuchai. The historical story illustrates successful revenge and superiority, a story similar to many in the west such as those known of Briton and America with the motto being conquer and revenge. In the Chinese story, Goujian introduces the essence of what alarms some people regarding the rise of China as a superpower, a country acquiring great power and seeking revenge. There is, however, another historical reading about Goujian behavior and action that produces a different relation between China and America, and the West in general (Paul Cohen, Harvard University).

According to Paul Cohen of Harvard University, Goujian, at present, is viewed in China as a symbol of dedication and perseverance. Chinese students, workers, or soldiers are taught that, if they seek success, they must behave like King Goujian since great accomplishments come only with great sacrifice and unyielding purpose: "Goujian represents self-improvement and dedication, not revenge" (*Ibid* China's place in the world: 3). The question is not whether China of the 21st Century will follow the virtuous path of Goujian. More essential, the question is whether the America and the West will attempt to force China to use the 'different path' of Goujian that seeks revenge as implied in the articles by the

Economist, Kissinger and others. For example, when some policy makers analyzed the causes of the Peloponnesian Greek War that took place about c.460 BC c.400 BC, they depicted a trap that leads to war: “the growth of the power of Athens, and the alarm which this inspired in Sparta, made war inevitable.” This trap is similar to the present American – China debate-trap. For example the 2012 Republican presidential candidate Mitt Romney announced recently that: “on day one of my presidency I will designate China a currency manipulator and take appropriate counteraction.” This is reckless rhetoric against China and a move that ignores China’s positive behavior while risking catastrophic trade war and beyond! To escape the Peloponnesian trap, countries must develop rules not to overreact to perceived threats but to be ready for true threats. (Cf. Greek Historian: Thucydides; G. Allison, July 2012, The Cuban Missile Crisis at 50: Lesson from U.S. Foreign Policy Today, Foreign Affairs; also see the starting statement)

### **13.2 Egypt and Middle East Focus -- Cycle of History**

Egypt was discussed extensively about its history, the rise of its population, high rates of unemployment, health status, education, population and food supply, and the lack of fairness and honesty. Many writers have examined these issues and were reviewed extensively in 2006 on “Egypt Human Resource Development: Challenge and Opportunities”. (In the Economic Research Forum, Volume 1, by I. Sirageldin) And, Population and Development Transitions in the Arab World. (Research in Human Capital and Development, volume 9, 1966)

In the case of development, there are five basic transitions that need development, first Population, Health and Education; second, Agriculture, land and water allocation; third, Production, Trade and tourism; fourth, Government and Institutions; and fifth, Finance, Uncertainty, and Ethics. There are many similarities between the case of Egypt and many developing countries and the focus is rather limited in the case of Egypt.

In the coming decades, the Egyptian population will continue to grow for at least a generation with a growing young generation (almost one-third of the Egyptian population is below 15 years old and requires education). Also, for a genera-

tion, Egypt will continue its fast growth of young labor force but with the majority lacking quality and job opportunities. After two generations, the growth of the labor force will start decelerating while the elderly (65+) will more than double in size. The elderly will require extensive and expensive maintenance. To illustrate, in July 2011, the population of Egypt was estimated at about 83.7 million people growing at 1.9% rate, of which 32.7% being under 15 years of age, 62.8% between 15-64 years of age, and 4.5% at 65 years and females exceeding males in number. (For details about Egypt demography, see available Egyptian data)

Although the risk of major infectious disease is intermediate it is serious enough to influence the health structure of the country, mainly because of the presence of some key infectious food and waterborne diseases, such as bacterial diarrhea, hepatitis A and typhoid fever; vector-borne disease (Rift Valley fever); or water contact disease (schistosomiasis). Also, highly pathogenic H5N1 avian influenza has been identified in Egypt. In this environment, public health and private medicine require careful analyses for major improvements. The development of public health is essential in most developing countries and especially the case of Egypt. For example, the global rise of hepatitis C virus (HTV), with Egypt having the highest incident, is illustrative of need for improved Public Health management (CF. Science Illustrated July/August 2012). According to R. K. Jacobson: ‘Around 3 percent of people in the world have hepatitis C, and many of those infected aren’t even aware that they are carrying the virus, which makes it a potential time bomb – an explosion of outbreaks could easily lead to a global health disaster. Hepatitis C can cause severe diseases, such as liver cancer and cirrhosis of the liver.’ The high incidence rate in Egypt is ‘primarily due to an earlier problem with a parasitic worm transmitted via polluted water that invades the organs and causes the disease Schistosomiasis. In order to eliminate the worm, millions of Egyptians were treated with intravenous drugs in the 1970s and ‘80s when the existence of HCV was not yet known. Poor sterilization and reuse of injection needles were common. The worm was defeated, but at the expense of spreading HCV. This is an issue beyond medical treatment. It is related to inadequate water treatment, illegal and incorrect use of medical equipment that transfers disease to

other types of illness, inadequate education and training, and lack of public health regulation in general. [Cf. Sirageldin and Sorkin, 1988, *Public Health and Development in Human Capital and Development*, Volume 5, Greenwich, Connecticut]

Egyptian education requires three-parts: Education from childhood to the age of 14-15, the age of special education, and advanced and specialized education. The analysis illustrates that early education is limited. The proportion of children regularly attending schools is less than 45%, and for those attending, they face at least two difficulties, the first is the presence of adequate teachers and the second is low type and quality education. In order to develop, education needs to be committed and qualified. (Cf. Sirageldin, "Education and Development in the 21st Century." Paper presented at the International Forum on the Makkah Declaration: Implementing the Economic Agenda of the Muslim World. Kuala Lumpur, Malaysia: Institute of Strategic and International Studies (ISIS): 1-5; Sirageldin, 1998, "Evaluating quality education in Kuwait and the Arab countries," Kuwait, Ministry of Education 1998)

The case of agriculture illustrates lack of development. For example, more than a century ago, in the year 1900, there was about 5.5 million agricultural feddans (1 feddan = 1.033 acres) in Egypt (not crop feddans, the latter would add about 1.1 million cultivated feddans), and about 4.5 million workers combined with about 4 million working animals, with a total population of about 10 million. The data for the period 1960 - 1970 - 1980 indicates that workers in agriculture did not decline (in 1000s, it increased from 4,024 - 4,839 - 5,644), while the size of agricultural land almost did not change (in 1000 hectares it changed from 2,569 - 2,843 - 2,848), and the livestock declined (in 1000 units from 5,322 - 5,578 - 4,719), and horsepower tractors increased significantly (in 1000 hp from 220 - 645 - 1,029), while the total population of Egypt exceeded 84 million in 2012.

(Based on World Development Report of the World Bank (various issues); Hayami and Ruttan, 1985; Sirageldin, *Population Dynamics and Sustainable Agricultural Development in Egypt*: 219-230; Salah El-Serafy, *The Agricultural Sector in the Context of Egypt's Structural Adjustment Program*: 127-140, in M. A. Faris and M. H. Khan *ED Sustainable Agriculture in Egypt*, Boulder & London: Lynne Rienner Publishers)

As a result, average agricultural labor productivity declined while the size of temporary migration reached about 4 million with a large proportion from the agricultural sector with low productivity and mostly migrating to the oil economies, some in agricultural jobs, but the majority in service occupation. As expected, a large proportion of the migrants were from the agricultural sector since the demand for agricultural labor with low productivity was declining while there supply continued to be high. With high levels of under-employment and, given the start of the agricultural transition with the use of mechanical equipment's such as tractor horsepower and the use of oil, the agricultural sector was not expected either to absorb additional workers especially those with low productivity, or produce enough food to feed the fast increasing population. But, agricultural transformation is a process of decline and growth. What Egypt did thus far is the first part of the transformation but not its latter part: reduce its large size low productivity labor-force while attempting to expand its small size productivity labor without adequate planning for controlling the first part, neither in education nor in jobs. Evidently, Egypt's approach to agricultural transformation is not complete and could lead to serious and negative implications to development.

In the case of production, trade and tourism, the global industrial structure has changed significantly, leading to global disintegration of production, integration of trade and finance, and significant change the type of production that reduce specialization (See for example the recent advances in computing and information and communication technology (ICT) that change the role of workers in developing countries like Egypt). Industrialization is no longer the building of complete self-sustaining industries with most parts produced and assembled at home and only semi-processed or raw material imported. At present, parts are produced and partially assembled all over the globe based on master ideas and plans produced by a few global companies protected by 'patents' and other World Trade Organization rules. In the early 2000s there were close to 40,000 multinational companies with 300,000 branches spreading around the globe from China, India, to Latin America and Europe. In the present era, production became a world assembly line. Workers are trained as narrow experts. They don't move

to find new jobs. They stay in their own country or locale waiting for a multinational company to build in their locale as part of the global assembly line. Jobs and workers are reduced in scope as well as in mobility, with job opportunities narrowly defined and focused. Also, although Egypt has strong possibilities in Tourism, these possibilities have not been utilized adequately.

In 1955, the National Bank of Egypt invited a luminary group of economists to deliver its Fiftieth Anniversary Commemoration Lectures including one by F. A. Hayek on "The Political Ideal of the Rule of Law". His lecture at that time remains as relevant today for developing and developed countries. Two points about democracy are well known and probably enduring: There is no democracy without abiding with Isonomy that is the stability and universality of the Rule of Law, and such abiding has been eroding for more than a century starting its decline in England, the origin of that ideal. The result is a misconception of democracy and the erosion of freedoms. Both concepts, Isonomy and Democracy are essential for an enduring Social Contract. A move from a state of nature to a state of civil society depends on the combined presence of both concepts: Isonomy and democracy. This presence is lacking at the present time, in almost all countries, whether developed or underdeveloped and especially in the Egyptian case. Democracy in the absence of Isonomy and transparency will not lead to freedom, human respect, or enduring development. Furthermore, all governments and governance require efficient and effective institutions to achieve their objectives. The importance of 'right' and 'relevant' institutions in development is indisputable.

The missing question, however, is why institutions, aside from their expected flexibility to adjust to a changing environment, are not effective or die out early in Egypt and many developing countries. One reason, in the case of Egypt, is the lack of free markets and ethical values, and the presence of unequal distribution of wealth and power.

At the present time, finance, uncertainty and ethics are closely related. The systemic change in the global production systems and the fast mobility of finance capital movement led to uncertainty in actual and potential earnings, the erosion of return on investment in human capital, and the privatization of risk. Privatization of risk on the national and global level is partly responsible for

reducing efficiency. It was expected that increased market freedom would improve efficiency. But the rise of speculative and volatile activities that reduce productive investment and lack necessary risk management resulted, on the one hand, increased risk to small enterprises and workers (millions of Egyptian workers and small business have been losing their business, their jobs and their life-savings), and, on the other hand, increased budget deficit (examples are abundance in the case of Egypt, as for example the large and growing subsidies for energy, bread, and other necessities). Furthermore, the present analysis shows that the Egyptian regulatory institutions are weak relative to the complexity of the weight of political pressure and its demands. Indeed the 2007 crisis illustrates that the global financial institutions are subject to questionable ethics (cf. Chapra and Khan 2000). In the case of Egypt, some of these behaviors presented devastating consequences that spread through the sociopolitical system. To control political pressure and ethical standards in order to reduce inequality and moral hazard is not an easy task. However, it could be done by instituting an ethics committee that enforce ethical standards designed to reduce if not eliminate negative outcomes. (There is a resemblance between the work of Greenspan in the Federal Reserve Bank and the work of Farouk Al-Quqda in the Egyptian Federal Reserve Bank). Thus, similar to the case of Greenspan, many of the factors responsible for the decline of the Egyptian economy are technical in nature, most of the key factors responsible for the decline are a result of human behavior: political and ethical; leading to increased budget deficit, increased inequality, reduced equity and social benefits.

It is tempting to conclude that the absence of global ethics makes the outlook for human development dismal if not depressing. It is not evident how the change to better ethics and values is being planned. Behavioral change requires commitment, and a balance between individual freedom and collective security. These are difficult tasks since there are three issues that complicate if not confuse the clarity of the ethical system. The first is the variety of religions in Egypt. There are about 92 percent Moslems and 8 percent Christians. Among the Moslems there are about thirty percent believers with deep religiosity such as the Moslem Brothers that ruled Egypt for few months in 2012/13, and the rest have some open thought.

The second issue is the presence of high levels of inequality. The third is that personal and social ethics are not independent from global ethics, and that the progress of Egypt is part of the development of the Arab Society? More than six centuries ago Ibn Khaldun, an Arab Historian and known thinker, theorized that history runs in cycles: a reign lasts three generations before decadence sets in. The experience of the regimes of Tunisia, Egypt, Yemen, Libya, Syria, and the Sudan, not to mention the rest of the other members of the Arab League, are all in a state of decline, illustrating the prediction of Ibn Khaldun although somewhat delayed. The apparent delay is probably a result of a time lag since there is a difference of six centuries between Ibn Khaldun prediction and the formation of the present Era. In the present Era, the effect of oil, fast population growth, the revival of tension between Sunni and Shi'a Islam, and the role of the global power had an effect on the timing of Ibn Khaldun prediction. But Ibn Khaldun's theory may face difficulties since the input-output relations change over time. Oil, for example, is a non-renewable resource that its use and returns eventually end. Also, there is conflict among some of the major Muslim communities (Shiia and Sunni) and confused political system along with a fast growing population. These difficulties seem not to change Ibn Khaldun's basic prediction, although it may change its timing.

The present state of local and global dynamics requires complex adjustments in local and international roles that allows for uncertainty and minimization, if not elimination of unethical behavior. The present situation with reduced natural inputs and lack of hard currency that has been sending the prices of food and other outputs soaring while increasing the pressure to raise taxes, reduce price support to consumers, and the inability to quell rising protests. It is essential that although the power of the country to improve the economy is being limited, there are similar limits on other countries regardless of size or power. As mentioned earlier, it is not evident how the change to better ethics and values can be done in the context of a declining society, since behavioral change requires commitment, and a balance between individual and collective security, a situation that is difficult in the case of Egypt. The case is more complex, since progress in Egypt is part of the development process of the Arab Society as a whole. Egypt needs to understand and deal with

all types of limits in order to maximize its potential around the world.

The future of Egypt and of similar countries, require long term commitment and the ability for hard work for meaningful international relations, quality education and above all, trust, ethics, and belief in the future. There are countries however, including Egypt, who are in the extremes of Oswaldo De Rivero that believe that development is a Myth, and others who believe like Stephen Hawking that Artificial Intelligence is leading societies to the end of life.

# Environment and Society

[The Economist 2010] Mitigation versus adaptation: The fight to limit global warming (mitigation) to tolerated levels is over. Analysts who have long worked on adaptation to climate change—finding ways to live with scarcer water, higher peak temperatures, higher sea levels and weather patterns at odds with those under which today’s settled patterns of farming developed—are starting to see their day in the uncomfortably hot sun. That such measures cannot protect everyone from all harm that climate change may bring does not mean that they should be ignored. This is why adaptation has not been the subject of public debate in the same way as reductions in greenhouse-gas emissions from industry and deforestation have. But, adaptation by and for the poor alone is likely to be poor adaptation (The Economist November 27, 2010: 85-88).

[Goodland, Daly, and El Serafy 1992] Environment and Development: What are the factors that most directly affect the potential for achieving global sustainability? Economic growth should no longer be the unquestioned objective of economic development policy. There are policies and goals that could eventually lead to the emergence of a sustainable society (Robert Goodland, Herman E. Daly, and Salah El Serafy, 1992. *Population, Technology, and Lifestyle: The Transition to Sustainability*, The International Bank for Recon-

struction and Development and UNESCO, Island Press, Washington, D.C. & Covelo, California]

As evident from the previous analysis, the structure of society and the economy have changed significantly in the past century. Early in the twentieth century, aside from the disintegration of production and integration of trade and finance, the limiting factors in development were manmade capital (applications) and population demand that exceeded its availability. The limiting factor at that time was not natural capital (environmental inputs) since its availability exceeded its use. However, by the end of the twentieth century, these limiting factors changed direction: population and application no longer are the limiting factors, while natural capital have started to become the limiting factor, as for example the case of oil. As Herman Daly put it: A transformation took place from a world relatively empty of human beings and manmade capital to a world relatively full (CF. Herman E. Daly 1992: 23; Kenneth Boulding 1964). According to Serafy, these transformations led to the concept of ‘sustainability,’ a concept that comprises two key elements: “needs” and “limitations.” (For details, see: Sustainability, Income Measurement, and Growth, in Goodland, Daly, and El Serafy: 63-78) The changing case of population is illustrative. The exponential increase in population that has been filling the world space in the twentieth century has been affecting progress in various ways (CF., Keyfitz [1968]; Figures 2-2 and 3-1):

The annual excess of births over

**deaths in the world is now in the order of 70,000,000 that means, numerically speaking, that a new United States is brought into existence every three years. The new United States does enjoy the amenities of the existing United States to which it aspires, and this time of supreme aspiration may also be one of retrogression to the misery of the most primitive period of history. Much is being done toward population limitation, and much more need to be done to turn the tide in the direction of progress. (N. Keyfitz, *Introduction to the Mathematics of Population*, 1968, Quoted in J. D. Pitchford, *Population in Economic Growth*, 1974)**

But the excess of births over death has been changing towards the opposite direction, i.e., reduced birth given death, in almost all countries of the world, although some countries may take longer time before the structure of their population settles into small family size. As John Parker indicate: "over the past half-century the most profound influence upon the great majority of humankind has been the vast and gentle decline in the size of families." The average decline of the fertility rate given the death rate may exceed the replacement rate in as early as 2015-20 according to the United Nation Population Division. (As mentioned, the replacement rate is the average number of children the woman can expect to bear during her lifetime. 2.1 is the number that if sustained and given average mortality rate, it will produce a long-term equilibrium in population size) Consequently, the change in the global structure of population depends on the change of fertility and mortality, on the depth of change (fertility may fall as deep as 1.5 or less) and the pattern of change (change may stay for generation or less). The developmental outcome of these changes will vary dramatically as illustrated by De Rivero in the case of poverty compared with the case of East Asia. For example, China with more than 1.4 billion people, adopted the one-child family for almost a generation, 30 plus years. The change to one-child family was done with exactitude and created a population structure of reduced children, increased labor force, increased elders, and preference for male fertility, a rather disordered structure that China is changing in the opposite

direction. Meanwhile, the effect of poverty on fertility and mortality is rather ambiguous to both.

However, turning the tide towards human progress was only an expectation for the majority of the world population. Progress for the poor majority did not materialize as De Rivero or Peter Singer illustrated. But there are inadequate and incomplete measurements and analysis especially measuring the level of input-output production and the environment especially the latter's change. The system of measurement was developed and started its' analysis in the early 1930s. Initially, it focused on the growth of national income, especially the growth of manmade goods and services but not on the dynamics of the environment. The growth of manmade goods and services has been increasing unprecedentedly. But, as Tinbergen and Hueting observed, its growth has been accompanied by "an unprecedented destruction of the most fundamental, scarce, and consequently economic good at human disposal—namely, the environment." (CF. Tinbergen and Hueting: 53). But the system of measurement that was used was neither set to measure the complexity of the environment, nor was it genuinely concerned with environmental performance. But understanding the behavior of the environment is necessary, especially its role in development and its ability to withstand the negative processes of market practice. [CF., Tinbergen, Jan and Roefie Hueting, 1992. "GNP and Market Price: Wrong Signals for Sustainable Economic Success That Mask Environmental Destruction," Goodland, Daly, and El Serafy, EDs. Washington, D.C. Island Press: 52-62]

It is true that the market mechanism generates desirable manmade goods and services. But it also generates negative externalities and undesirable manmade goods. Many economists and social scientists are not convinced of the viability of the market process in development. For example, given a fair distribution of income and the presence of perfect competition, it no longer matters, for the purpose of analysis, what or how much is produced. Neither fair distribution of income nor a perfect market has a satisfactory existence in the neo-industrial age (CF. Tinbergen and Hueting *ibid*: 52). It may be true that the market may work fine for the purpose of business, but not all factors contributing to human welfare or the well-being of the environment are contributed through such a mechanism. Market prices and economic indicators based on national income or cost-bene-

fit analysis are not just. They provide misleading and biased signals indicating that the outcome of full market production is resulting in satisfaction for society and the environment. But in reality, the result should be unsatisfactory. The careless use of these signals results in an impartial conclusion. Market prices and economic indicators must be corrected, especially for the case of environment analysis.

Tinbergen and Roefie have been concerned about the viability, if not the validity, of this type of economic analysis. These concerns are shared with others such as Russell and Schrödinger mentioned earlier. For example, the production of manmade applications, although increasing unprecedentedly, has been accompanied by unparalleled destructions and errors such as: the control of human preferences and culture, the production of arms, alcohol and drugs, inadequate data and analysis including double counting, the presence of serious inequity and inequality with negative impact on development, and a blatant neglect for the impact of these processes and activities on the environment. Environmental degradation is a consequence of three basic elements: production, consumption and growth. The burden on the environment is determined by the number of people in action, the amount of activity per person, and the nature of that activity. These factors are not part of Gross National Product (GNP) or National Income (NI). Although their inclusion does not exist, their presence and analysis is essential since the burden on the environment is increasing over time, a burden that has been creating a larger burden, not only on the production side, but also on the nature of humanity.

Manmade applications influence the nature of humanity. In that case, the present age may be considered a mechanical age: to be human is to be mechanical and destructive according to Heidegger. As the Neo-Industrial age proceeded and accelerated, its destructive effect on the environment intensifies. Glacken raised three questions about the role and place of humans in society, nature, and the cosmic order:

**Is the earth, which is obviously a fit environment for 'human' and other organic life, a purposefully made creation? Have its climate, its relief, the configuration of continents influenced the moral and social of individuals, and have they had an influence in modeling the character**

**and nature of human culture? In his long tenure of the earth, in what manner has 'humans changed it from its hypothetical pristine conditions? [Glacken 1967, quoted in Guide 1993:1 and in Sirageldin. 2002. "Sustainable Human Development in the 21st Century: An Evolutionary Perspective," Leading Essay, in Encyclopedia of Life Support Systems (EOLSS). Paris, France and London, UK: UNESCO and EOLSS]**

The answer to the first question is based on faith while the last two questions have not been fully answered. The present Neo-Industrial Age, with its increasingly powerful tools, has been able to alter the environment, but without assessing the long-term consequences of such action. These consequences are serious since in their conscious or unconscious attempts to change the environment, mainly for their personal needs, human values and cultures are being questioned and changed. For example, it is well known that the 'spiritual' notion that humans are set above and against nature was formulated into a philosophy of science and progress. But it is evident that the future of development, if not humanity as a whole, is contingent on a balanced coexistence between human and the environment. A balanced coexistence, however, depends on understanding the synergetic nature of environment, of technology and of population dynamics, a nature whose combined effect is greater than its parts, while the parts are becoming increasingly mechanical with concentration focused on applications and its use. The mechanical 'human' has no feeling towards other humans or towards the environment. In that respect, whether the production of applications require oil from the deserts or oceans, wood from forests, or serf labor, these resources must be obtained regardless of its negative impact on the environment. Apparently, negative effects on the environment could be positive in the context of the neo-industrial age as long as there is an increase in applications! Even, regulations, whether managing the negative behavior of finance, production or consumption, are designed to produce more applications regardless of their negative impact on nature.

The negative approach to nature is evident in the case of global action versus adaptation. Lim-



iting global warming to tolerable levels is being viewed as unrealistic if not a dream, given the demands of business and the evident reluctance in concluding the climate talks in Cancun, Mexico, 2010 or the earlier Copenhagen 2009. This reluctance is in spite of the fact that each year of this century has seen increasing global temperatures. However, the adaptation solution, although expensive to poor countries, is not necessarily limiting or sustainable (Some people and communities are too poor to adapt on their own; and if emissions caused by the consumption of the rich imposes adaptation costs on the poor, justice demands recompense, *The Economist* Nov. 27, 2010: 86). But recompensing is not usually done and adaptation is typically unsuccessful in the longer term.

The case of the Arctic is an example of the interrelation among business, science and the environment. The Arctic is the World's last wild places on earth and the least explored. On the one hand, the Arctic is warming twice as fast as the rest of the world and scientists are concerned about negative developments, especially since the area of Arctic land covered by snow in early summer has shrunk by almost a fifth since 1966. Also, most climate models predict that by the end of this century the Arctic Ocean could be ice-free during the summer months and some scientist think it will be sooner than 2037. It is a known fact that the basic cause of the warming is the result of an increase in heat-trapping atmospheric gases, mainly carbon dioxide released when fossil fuels are burned. As indicated in the *Economist* Special Report, "For those minded to ignore the risk, it is worth noting that even the more extreme predictions of Arctic warming have been outpaced by what has happened in reality" (P.5) (For more details, see Special Report, *The Arctic*, *The Economist* June 16th 2012, and references sited). On the other hand the retreat of ice probably spells the end of cultures that strive on the arctic way of life while making many people rich, not only in agriculture that will flourish as the area of cultivation increases, but also as sources of minerals expand such as zinc, gold, iron, nickel, and, above all, oil and gas in spite of the disasters that occurred in recent years. It is also exceptionally difficult and expensive to work in the Arctic, but the prize is huge for companies that continue their search for oil. These companies are encouraged to continue their investment and search for energy produc-

tion by the Arctic countries that includes Russia and the USA although their pattern of demand may lead to conflict or war. One may ask whether the economic opportunities caused by global pollution have exceeded the environmental risk leading to the destruction of a unique ecosystem and the loss of many precious species.

Our worlds, and our lives, are being shaped by the conflicting trends of the neo-industrial age, its information technology, and the attempt to restructure capitalism to induce a new form of society; a network society defused throughout the globe that is lost in locating its ultimate and probably its only home, the environment. What is forgotten in the present era is that humanity does not exist without the environment: Have its climate, its relief, the configuration of continents influenced the moral and social of individuals, and have they had an influence in modeling the character and nature of human culture? The question is yet to have an answer. As Ann Wroe put it:

**Long time that Orb turned tranquilly and bright,  
Blue shining like a Marble in the Night;  
Long time all hunky-doryish appeared,  
But Man was greedier than had been feared:  
Flatt'ning the Forests, and with grasping Hand,  
Pumping out oil from every Desert Land  
[Ann Wroe: obituaries editor, *The Economist*, *The World in 2012*: 162]**

We may also add that the "World of Human" is not permanent. Just as everything alive must die, including the structure of human beings (a human body is a collective organism of 10 trillion cells, the products of 23,000 genes, and 100 trillion bacteria dwelling in the human body of varied species, it could be a weak organism in a disorganized system), it is logical to conclude that the Earth, a diminutive if not insignificant part of the Universe, will also end before or along with the end of the Universe, whether a result of a Big Bang or of a Steady State route, as Davies (1992) and other scientists illustrated about how and when the Universe will end. Life persisted on Earth for nearly four billion years. (Richard Fortey 1997/1999) This residency on earth is probably long enough. But such knowledge is not sufficient to forecast the timing of its end. Some writers forecasted that the end of life on earth might be im-

pacted by a much bigger meteor than Tunguska, a meteor that leveled 80 million trees with 'force 1,000 times greater than that of the Hiroshima bomb.' (Tunguska impacted Siberia in 1908) But to follow the type and size of debris on earth does not indicate the timing of the occurrence. Another question has been 'How long will the Earth remain habitable?

The answer according to David Catling was "No matter what biological innovations evolve, the long term fate of Earth is sealed. About 4 billion years from now, Earth's surface will be bereft of plants, animals and even microbes. It will resemble the surface of Venus - a hellish and inferno"

The answer to the questions is complex because the forces needing the Earth have been performing different roles dealing with the climate. As time passes, the climate and human needs change in their actions and behavior, in both structure and timing, and awareness of the moving universe. (CF. Judith Lean, 2013: Is the Sun causing Earth's climate to change? Sky & Telescope) Knowledge about survival of the earth is part of knowledge about the Universe that includes the Sun whose knowledge and function, continue not to be fully known.

# Global Era

## Belding Global Society

(A continuity of 'Integrated Global Society' of CH. 8)

The development of a 'Global Society' can be justified by the need to develop systemic relations that are safe from the abuses of Human and Nature. For how long can the Global Society continue to survive? When and on what basis the 'Invisible Few' start to manage and control the Global Society? Does past action and behavior become future controllers? For example, the controls developed by the Pharos, Babylonian, Greek Sparta, Rome, Islamic Nation, British Empire, Russian, Japanese, and the United States of America; are they the same type for the present? Would a rising Global Society with its basic parts such as: Government, Finance, War, Ethics and the Environment, reduce hostility but increase conflict? Can the global system survive? If the Global Era succeeds, will it end faster than expected? These are the concerns of developing the Global system.

The answer to these questions is not simple; it is either yes or the end essentially now. It is necessary to form a balanced global system in which humans are divided but interrelated in their behavior. There are two tasks needed in building this system. The first, deals with the openness of the dynamics of Nature as discusses in Chapter 14. The second task deals with the various needs required by society from nature's availability, mainly through the market. The market becomes key element dealing between nature and human, although setting market price is not a straight for-

ward task. It is true that the market generates desirable human-made goods and required natural outcomes. But the market also generates negative and in some cases distractive externalities. Furthermore, as Tinbergen and Hueting put it, the settings of market structures and prices are not necessarily correct or just. They present misleading and sometimes biased signals (See Chapter 14). We may also add that applications, its type and distribution may influence the nature of humanity as the present age will probably end being a mechanical age that is, to be human is to be mechanical.

The discussion thus far indicates the complexity of developing the Global Society. There are many complex issues in the development and analysis of the Global society some are beyond the present capabilities. In the present Chapter 15, we focus on the factors that attempt to develop the system and that form society as one family. The example of divided societies within a controlled country is not difficult to find. The case of demobilizing the US war machine (control the country) while restoring its Constitution (one country) is an example:

**One thing is clear. We will not succeed in our effort to demobilize the US war machine and restore the US Constitution unless we open our eyes, full wide. Because our only chance to exert a positive influence on events will be through right action, and that means we must understand our world as it actually is, not as we would like it to be, or as some would have us believe ... we must never give up, for so long as the Spirit dwells in the hearts of**

**men and women, the future will be up for grabs ... and ours to win. (Black 9/11: Money, Motive and Technology, Mark H. Gaffney, 2012, Trine Day LLC: P. 216)**

History plays an important role in the present Essay. First we mention few points of Concern followed by three basic, namely: Government, War as business, and the position of Ethics.

**Concern:** One of the key perils of the present path is the attempt of managers to control the workforce not only as workers, but also in their thoughts and behavior. Managers have been directing the workforces towards a robotic-type action that focuses on mechanical approach to work with less thought or planning. The process introduces a pattern or type to which workers of all sort follow it, thus acting as robots. As a result of the spread of robotic behavior, almost all workers are become similar in thought, in their work style, and in their behavior and action. But similarity lacks clarity of thought. With the rise of inequality, inequity, and poverty, the tale of similarity and similar ideal for all workers become more evident and imposing. Workers require own spread that differ in thought and behavior and generate their own independence of thought that is impossible to get in a robotic system of structured applications. In this system, workers and their families are not only behaving robotic but also becoming serfs lacking freedoms. However, applications have not been stagnant. They need new innovations to survive and continuous inputs to keep the stream of production going. But necessary inputs are based on nature's non-renewable commodities that are being diminished by nature in quantity and quality. Thus, the earlier role of management was to control production and distribution with fairness although this wide-ranging purpose has changed dramatically. The three basic forces: theology, science and nature have become the inconsistent sole for the market place: more rules by human and none by human. In the process, democracy that lost the Rule of Law (Isonomy) has been on the decline in almost all countries of the United Nations as well as lost the behavior of the United Nations itself. The world is moving to a secular society with the few becoming the authority if human does not subjugate itself before a non-human subject (In late 2013, Europe declared itself Secular). It is the power of the few that govern, not

democracy, nor certainty of the Law. Thus, building a Global Society requires consistent knowledge about the roles of government, of war and ethics.

### **On Building the Global Society: Government, War, and Ethics**

When the interactions between management, war and ethics, the global society starts to be created, managed, controlled and avoid morality in its actions, by the "invisible few." But managing a system that includes the whole global society is different from managing single societies. Managing the Global System indicates full control. The present focus is on Government, War, and Ethics in the context of Globalization.

#### **15.1 Origin of the global society**

As mentioned earlier, the few invisible managers are powerful in thought and action. But being invisible and powerful, they lack legality, especially in the context of the Global system. In this context, their interest is on maximizing profit and accumulation. For that purpose the invisible few is focused on controlling the system, its structure and its workforce, basically attempting a full control regardless of rules or rulers. This control system designed by the few is similar to that of Robinson Crusoe who built his own control system in a way that the workers feel they are a free society and accepted Crusoe to rule without complaints. This type of acceptance is a result of thoughtful design and considerate treatment between Crusoe (Powerful and invisible), the ruler and the workforce. There is also a similarity between the behavior of Crusoe and that of GIG and Gramsci (Fn. 28). Both rulers have designed the control system to let the workforce and its human relations in general, feeling free and comfortable in action and behavior. Nevertheless, there have been complaints and protests buy the workers and social groups, some, were serious movements. They felt that what they are getting is below their own expectations. As the Economists put it, human value is lower than the same value, in money. <sup>31</sup> (Robinson Crusoe plus)

For many years, before philosophy was born, up to the present time, management has been a key force in behavior and action and some, close to being Global societies. ('Before Philosophy'

is a Book about: Egypt and Mesopotamia out of which grew the religions and managements of the later world, by Frankfort, Mrs. Frankfort, Wilson, and Jacobsen, Penguin Books 1951) Historically, there have been over forty types of governments with different habits of living.<sup>32</sup> (Governments and Welfare Economics)

The first type of governments cited, is Oligarchy. In the case of Oligarchy, the power rests with small Elite who are a notable part of society, namely being royal, wealthy, highly religious, or military. Next to Oligarchy is Theocracy. Theocracy is a form of government in which a god or deity is being recognized as the state's supreme civil ruler although the deity does not exist by itself. It is the presence of the diet-council that acts. Other types of governments include Social, Technocracy, and Fascism, each with its own-type of governments except the case of Anarchy that does not actually act in a government. The next government is Democracy/Capitalism. Democracy refers to broad range of types of governments based on the styles of the governed. It started with the form of a Republic, which provides checks and balances. Democracy is also named Capitalism, a political, social and economic system in which property that includes capital assets, are owned and controlled for the most part by private persons. Capitalism in contrast to Feudalism is characterized by the purchase of labor for money wages and opposed to feudalism that obtains directly its labor through custom. Also, it differs from Socialism principally in its prevalence of private ownership of the elements of production.

Under capitalism the price mechanism is used as a signaling system which allocates resources between uses. The extent to which the price mechanism is used, the degree of competitiveness in markets, and the level of government intervention distinguish the exact forms of capitalism. In other words, there are various degrees of capitalistic forms. Democracy also named Republic and Capitalism and refers to a broad range of types of governments, and characterized by the purchase of labor for money wage and opposed to the direct labor obtained through custom, duty or command. But although Democracy/Capitalism was taking over the global system beyond other systems, it was questioned and opposed strongly by Materialism although its power did not stay long, its' impact deserve a short historical view.

Historical Materialism developed by Marx

and used as Government for significant periods of time in Eastern Europe and Asia and still used in China. (see Part One of the Essay) It differs significantly from Democracy/Capitalism. It is known that in the case of Materialism, change in methods of production and exchange will cause the existing social relations and political structure to become outmoded, irrational and unjust, so that an epoch of social revolution is inevitable to occur. This was the situation. But the Neo-Industrial Age, especially the success of application is changing these relations and leading them to inevitable revolutions. But the revolution did not materialize. The question became, is the dynamics of Democracy and Capitalism joined in thought with Historical Materialism and combined with the forces of the Invisible Global Government, thus leading to the expected social revolution? But leading to which direction? It is evident that the role of Global Governance is a key force in the advance or the decline of humanity as the reminder of the Essay demonstrates.

Various societies, including the U.S.A. use different types of governments with different political implications. In the case of the USA, two governments seem to flourish, namely the Republican and the Democratic Parties. Both parties consider their societies to be 'united' against the behavior of the other party, while getting sometimes severe criticism from the other party, and from other societies. If this is the case for the same society, then, given such environment in order to control GIG's power or minimize its negative externalities in order to produce a united Global Society is not a simple undertaking. It requires the presence of a legitimate, effective, and the power of global government, in order to change GIG's policies and behavior. But such power is not available, and even if it was available, the challenge is how to control these invisible entities without disturbing the important function of applications. Internal reform on the level of State/Nation, although a necessity, is not sufficient by itself to control the behavior and action of GIG with its possessive impulses. It is essential to reduce, if not eliminate the increasing possessive impulses of humanity, especially GIG. Furthermore, it is not the historical forty plus of forms of governments, mentioned earlier, that is guiding the human society towards inequality, if not anarchy, it is rather the planning and behavior of the Invisible governors that are in full control of the society. It is obviously clear

that the three basic elements: Theology, Science and Applications are not in balance. To return to an effective system of values and behavior, in which Application, Science, and Religion interact for meaningful balance, a process that requires the rehabilitation of invisible GIG.

Such rehabilitation is possible since the system is not destined. It is growing and changing based on innovations in production, in management techniques, and in the sociopolitical system, with increasing speed but unknown direction of change. Even Einstein has to admit that the Universe is controlled by the change of laws (Clark 1984: 420-421). It is becoming evident that the behavior of the Universe is based on probabilities that are not fixed. In the human case, there is no lasting "We" or 'They'. All system elements are continuously changing including the structure of GIG.

### 15.2 War as business

War is no longer war for a noble or worthy purpose. It is becoming a 'War as business.' Its purpose is to maximize profit, an immoral behavior in the ethical sense. There are many types of war as business, starting from development, production, trading weapons, and benefiting from war activities such as preparing, starting or ending a war regardless of the winner or loser. War as business implies that war, although often face disastrous consequences, is becoming an essential part of business activities. Possessive impulses seem not to be part of human temperament once the 'war as business' starts. (Vietnam War an example of 'War as Business:' the war in Vietnam was not the war of a U.S. President. It belonged to CIA and Texas business, although President Johnson benefited greatly from Vietnam War. For details see Roger Stone, 2013. *The Man Who Killed Kennedy*, Skyhorse and Skyhorse Publisher: Delaware, Corporation. See also: 2010, *Watermark, Inc., Books-A-Million: The Art of War* by Sun Tzu, and *The Prince*, by Nicolo Machiavelli, *On War* by General Carl von Clausewitz, and *Instruction to his Generals* by Fredrick the Great).

As discussed earlier, the advance in weaponry has paralleled the advance in technology with increasing devastating power. Weaponry started with the use of clubs, arrow, the sword, gunpowder, nuclear and thermonuclear devices, non-lethal weapons, and more recent HAARP instru-

ments that have great potential either for peaceful development or for destructive war (FN. 2). But the presence of strong and growing possessive impulses have pre-occupied human thought and action to seek greater power with greater rewards, but without regard for disastrous human or environmental outcomes. It was Dwight Eisenhower, in his 1961 Military-Industrial Complex Speech, who warned against the consequences of constructing military production complexes, whether public or private, to face what is viewed as a hostile conflict, thus, military preparedness takes priority and control over private and government needs for human achievement and progress:

**Our military organization today bears little relation to that known by any of my predecessors in peacetime, or indeed by the fighting men of World War II or Korea. Until the latest of our world conflicts, the United States had no armaments industry ... But now we can no longer risk emergency improvisation of national defense; we have been compelled to create a permanent armaments industry of vast proportions. Added to this, three and a half million men and women are directly engaged in the defense establishment. We annually spend on military security more than the net income of all United States corporations. This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence -- economic, political, and even spiritual -- is felt in every city, every Statehouse, every office of the Federal government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society.**

**In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.**

**We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the**

proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.

Yet, in holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of scientific technological elite. It is the task of statesmanship to mold, to balance, and to integrate these and other forces, new and old, within the principles of our democratic system -- ever aiming toward the supreme goals of our free society.

Another factor in maintaining balance involves the element of time. As we peer into society's future, we -- you and I, and our government -- must avoid the impulse to live only for today, plundering, for our own ease and convenience, the precious resources of tomorrow. We cannot mortgage the material assets of our grandchildren without risking the loss also of their political and spiritual heritage. We want democracy to survive for all generations to come, not to become the insolvent phantom of tomorrow. [Public Papers of President D. Eisenhower, 1960, p. 1035-1040. Thanks to Engineer Sherif Sirageldin for bringing attention to Eisenhower 1961 speech. See also FN (6) on the ruin of government and public finance]

It is not easy, even under so-called democracy, to keep the military under the full control of the government. As long ago as antiquity, it became evident that 'army in power lead to financial ruin.' First, the army became conscious of its power and adapted the practice of choosing Emperors in return for monetary rewards and assassinating them afterwards to give occasion for a renewed sale of the Empire (See the case of Plotinus, FN. 6; also Egypt Chapter 16, and many other cases).

But, in the present time, not all war is military, leading to a triple evident war-type, mainly: 1. Military organization. 2. War as war. 3. War as business. It is evident that the advance in weaponry and warfare paralleled advances in technology, from the use of clubs, the bow and arrow, the sword, gunpowder, nuclear and thermo-nuclear

weapons, cyber-warfare, and HAARP. However, the most momentous change in American warfare over the past decade (now it is 2014) has taken place away from the standard battlefields. According to Studer, the war to watch in 2013 will not be the usual military one. For example, in the case of Iran:

**The war will be sabotage through cyber-warfare (For example, the case of the Stuxnet computer virus) and assassination (four Iranian nuclear scientists have been killed since 2010) will continue, in an offer to delay Iran's nuclear program. Sufocating international an economic war" (Stephanie Studer, The Economist, the World in 2013: 78).**

This new approach to war has been embraced by Washington (D.C.) 'as a lower risk, lower cost alternative to the messy wars of occupation and has been championed as a clean and surgical way of conflict.' Another recent approach is the use of 'Drones Warfare' or the killer robot war. In the tenure of George Bush used less than 50 drones while President Obama used over 400 of them. The drones seem to be doing their job 'remarkably well: killing key leaders and denying terrorists sanctuaries at little financial cost, at no risk to U.S. forces, and with fewer civilian casualties than many alternative methods would have caused.' But many critics remain skeptical: 'they claim that drones kill thousands of innocent civilians, alienate allied governments, anger foreign publics, illegally target Americans, and set a dangerous precedent that irresponsible governments will abuse. (CF. Daneil Byman, "Why Drones Work" and Audrey Kurth Cronin, "Why Drones Fail," July, 2013, Foreign Affairs) This way of the knife creates enemies just as it kills them:

It has fomented resentments among allies, fueled instability, and created new weapons unbound by the normal rules of accountability during wartime.' (Merk Mazzetti, 2013. The Way of the Knife, the Penguin Books Ltd, USA)

In this case, military war is replaced by a gravely type of war that it not only eliminates more human and nature but also it eliminates the meaning of ethics or values while accepting atrocity and ruthlessness as a vital part of human behavior. What is evident is the prediction given in the opening issues: "The vast majority of the human society is being turned into senseless tools that are

bound to abandon higher aspiration and ignore difficult ... and distant goals with the aims to destroy all standards." (FN. 1)

### 15.3 The Decline of ethics

In the previous discussion, there were signs that the Global Neo-industrial Society was losing its ethics and trust and becoming a society for the rich and the powerful whose culture is based on: 'human kill human' and the 'powerful destroy the weak.' There have been examples given earlier about the changing Ethics. For example, the Credit Crisis illustrates how the financial system has been losing its ethics and trust. In the Financial System, Credit Crises has almost become permanent residents since the beginning of the last century -- there has been more financial crisis than peaceful financial business in the Neo-industrial Society. This has been the case given the structure of the financial system and that of human behavior, as indicated by many authorities. (CF., Chapter 12 of Part Two; John Eatwell and Lance Taylor, 2000, *Global Finance at Risk*; Joseph Stiglitz 2003, *Globalization and its Discontents*; Sirageldin 2009, *The 2007 Credit Crisis: A Long-term View*; among many others) The present discussion is brief. To sum up, Crises are built into the structure of the financial system -- money exists only in the future with morality essential. Morality is essential but it is not embedded in the financial process. The need for regulation to control capital adequacy, systemic risk, control innovations, and ethical behavior, and to keep in mind that the financial system is a subordinate part of a larger economic and sociopolitical local and global system, but regulation is not immediately accessible -- 'life' in finance did not activate the system as desired. (Sirageldin, 2009: 22-23) The 2007 Credit Crisis is a result of many interrelated factors that are inextricably bound to national and global events, and most of these factors are technical in nature. On the technical side, finance, production and trade constitute an integrated system. But the technical side is only one part of the financial system (FN 39). But an attempt to regulate the system should have a holistic view. For example, an innovation in any part of the system affects the functioning of the whole system, technical or non-technical.

Not all factors are technical however. Human behavior, policies and ethics play important roles in the development of the crisis and its immedi-

ate solutions. It is impossible to understand what happened in the Credit Crisis without knowing what was happening in the political system -- how the power and wealth were distributed, and what this might have done to ethics, and to the circulation of information, opportunities, and liquidity. Crises, similar to innovations, tend to create the conditions under which new crisis emerges thus leading to a complex system of interdependences. But it was evident that the existing regulatory institutions are weak relative to the complexity of the new financial innovations, the weight of political pressure, and to the demands of the evolving global system. The role of the derivatives, a key invention of the new finance is illustrative of these forces. They were able to free itself from regulation through a strong lobbying organization and the expansion of its market globally, an expansion lacking in both transparency and regulation that proved to be disastrous. Furthermore, the Crisis illustrates that the present financial institutions and their policies are subject to human behavior with questionable ethics. Some of these behaviors presented devastating consequences that spread globally through extended time. Controlling political pressure and ethical standards that lead to increased inequality, moral hazard, penalizing the innocent, and the rise of monopoly is a task, although not easy but need to be done. Indeed, reducing financial breakdowns and economic upheavals are prerequisites for establishing a peaceful, more equal, and in general, a more humane global society, if not its survival.

It is true that in daily life, not only that we deal with highly improbable and unpredictable events that carry massive impact, and yet accept them as ordinary, after the fact. Also, understanding the past and predicting the future may differ greatly depending on how the observer interprets the events based on the view of the setting. For example, banking high rewards are usually given to very few persons who compete to have the rewards as high as possible with a value that usually exceeds the value of all the collective salaries of the rest of the Banks' employees. This is an unfair allocation but a real behavior.

On the other hand, psychologists and behavioral economists have investigated for years the relation of human rationality to fairness. Rationality implies self-maximizing and efficiency while fairness has been viewed as opposed to rationality as for example psychological fairness versus



profit. But some researchers view that “the moral sense of fairness is hard wired into our brains and is an emotion shared by most people and primates tested for it.” (Shermer 2008) They believe that “Don’t Be Evil” is the right model and rule for market behavior, while the “Greed Is Good” model is the exception since if the latter behavior is the rule, market capitalism would have imploded long ago. (Shermer *ibid*: 36) But the “Greed Is Good” has become the dominant moral code of market behavior for many years. In 2008, Woo put it in the context of financial analysis as follow: “greed is built into the institutional genome of the financial market” (Woo, Wing Thye, 2008, “The Emerging Global Stagflation: A Different Malaise from the 1970s.” *The Arab Bank Review*, Volume 10, Number 1, and June 2008: 4-7). Evidently, the greed model is built into the ethical behavior of the vast majority of humanity. But more essential, it is the tiny and powerful that is also the very rich and the controllers of society that in general use the ethical behavior of the greed model. It seems that this small but economically and politically powerful group was able to override the “Don’t Be Evil” ethical model. For example, in the USA between 1967 and 1977, after tax annual average income of the top 1 percent households, increased from \$175,000 to \$600,000, while that of the average income of the middle 20% did not change significantly and the poorest 20% did not change during the whole period. Also, the share of household wealth of the top one percent increased from 19.9 percent to 40.1 percent. (Philips 2002: 123-129, for more details see Figure 17.1)

But controlling a society does not depend only on the presence of wealth, income, and the army. It is also based on the ability and power to manage society. It is ‘the few’ that plan for war, mainly a ‘war as businesses,’ done to maximize profit and accumulation. (Chapter 18–5) This un-shameless behavior is part of the decline of ethics. But in reality there is more than a decline of ethics. It is an open rise of crimes that are performed openly and willingly in their neighborhood and around the globe. These performances, however, do not illustrate effectively the depth of change in values and trust. Two types of change illustrate the depth of change.

The first is the incompleteness of the learning process. Education is not only how to think or to speak and act. It must be done with full freedoms, without intrusion or interference. These essential

freedoms have been reduced repeatedly in the neo-industrial age. Education has been focused on the needs required for production of applications and not on free thought: applied education and not humane education. Furthermore, applied education does not secure distributive justice, security against destitution, or aim at humane ethical system such as diminishing possessive impulses and liberating creative impulses. Although, learning about these impulses are essential to know more about ethic and trust as part of the education system. The present education system that is tailored for the development of applications, ignores the basic requirements for human development, thus, it has been failing badly in this sphere (See Chapter 9).

The second type is the attempt by application to develop solutions for any deterioration in health, environment, socioeconomic, political, or ethical issue it creates or encounters. But not all solutions have been successful. However, these attempts, although essential, have made the laity believe that the managers of applications are select humans -- be-all and end-all. Managers and controllers are elevated to a Nietzsche-type “Übermensch” or “Overman” status, if not to eminent god-level that are responsible to produce, care for, and judge all its creation. But the laity has been discovering that Overman is nothing more than Lowerman, thus the rise of insecurity and doubt about who are we. (See, the role of humanity discussed in Rorty Chapters 4 and 5) This unsettling approach to the status of human implies developing a select few that act as ‘global judges and managers’ that control the world. But it is the human judgment that confuses ‘duty’ with ‘self-interest.’ Such mix between duty and self-interest is “bound to have disastrous effects in practice” (Kant 1956: 15). However, such confusion has become a normal practice in the present age. But allowing human to be supreme judges, not to be challenged, will eventually result in a small group of wealthy and powerful class, who is induced by a malignant-type self-interest motive that lacks balanced rationality while attempting to mastermind the status quo of humanity, by indicating that what is—whether in allocation or in class status—is optimal in the final analysis. This small powerful group will also attempt to divide the human species into types and grades, with the few in the upper species, while the majority of the rest of humanity being in the lower part of society, a sub-

species. For the few powerful to be in full control, structural caveats must be developed, managed, and their drawbacks minimized by strict rules and regulations before elevating them towards supremacy!

# History

**H**istory is the reminder of the past, the center of the present, and the focus of the future. It is also to know what changed, what continued, and what way is right. The present search is probably the reason for the thought and writing the present Essay. It is amazing how similar and how un-similar humanity are, as time passes: change is unchanged while old is a showing in life, getting ready for future times?

## 16.1 Old Egypt in History <sup>33</sup> (Story of the Pharaoh, Started 7000 years ago)

Menes is the first Pharaoh of the First Dynasty who represented himself next to the Gods. When the child was seven, his father started teaching him agriculture: how to cultivate wheat, barley, flax, onion and garlic and other plants cultivated at the time. The agricultural land was rich but could only be cultivated half the season since the rest of the season the Egyptian Delta gets inundated with water overflowing from the south. During the off-season, farmers would do other jobs such as working in the stables of the Pharaoh. In other years services were borrowed by the Vizier or by other noblemen. The farmers' family worked hard for the Pharaoh both in cultivation and other jobs. Their relation with the Pharaoh was serfdom type. The job may be moved without notice to other farms or other types of jobs. Farmers and other workers must follow orders and directions since the Pharaohs' orders are considered sacred in the context of serfdom relation.

The agricultural land produced rich and var-

ied products that farmers don't own. It is the Pharaoh, the Noblemen, and few rich farmers that own most of the land. The Pharaohs, who used a system of exchange similar to the use of 'money' for purpose of trade instead of barter, get their income from the tenants and from public 'taxes'. Meanwhile, Noblemen, few rich farmers and merchants got their income from rent. If tenants default, that is, they are unable to pay the rent, they are mostly forgiven since the Pharaoh and most of the landlords realize that agricultural production sometimes get poor harvest because of bad weather, lack of water, the presence of excessive insects, or the farmers got sick. But some greedy landlords, who are self-centered, or not altruistic by nature, take advantage of the default situation and evict the tenants (workers and farmers) who they feel disobedient or unmanageable. To the rest of society, such actions are not desirable. They lead to the rise of poverty, increase of outlaws, and reduced harvest. In general, the Pharaoh divides the output of the farmland among the various parts of society. The largest share goes to the Pharaoh and his family, to army requirement, followed by requirements of Noblemen, government and farming requirements, and the farmer's needs, religious requirements and other. There are other source incomes such as market activities.

An expensive activity, but considered part of the way of life of that Era, is the belief that death is temporary and that mummification keeps the dead alive forever. Mummification is operated upon at the time of burial. It is done regularly for Kings, Queens and their family members, and

for Noblemen, but not done for laity because of its high cost. However, some people who saved or borrowed to have mummification for some valuable family members. This was the case for a forty-year old woman, a member of a farm family that died unexpectedly. The family decided to mummify the woman. The operation required, aside from funeral needs and the regular prayers, the presence of a medical practitioner to operate on her corpse. The process took a few days to complete. First, the family agreed on a price, then the bearers went away and the workmen were left alone to embalm the dead body under the direction of the 'Doctor,' by drawing out part of the brain and closing the body again after injecting certain drugs into the rest of the body. That makes the body of the deceased ready for burial. <sup>34</sup> (Mummification).

After the funeral, the body stayed fresh and continued to look the same almost forever. (For details, see Owen Jarus, LiveScience, 12/14/2012. The procedure is not fully known even at the present time, thousands of years later)

For thousands of years, life in the pharaoh's country continued to be calm, peaceful, and a fully controlled society. The main duty of the Pharaoh was to maintain peace and order, not only in the kingdom but also in the entire Universe, an action similar to that of present rulers including the American attempt to control the global system as discussed earlier. Thus, full control is justified by the Pharaohs who ruled Egypt for more than four thousand years including Pepi II of the Old Kingdom who became king as an infant, Ahmose of the legendary era of the New Kingdoms that also included Akhnaton, who and his wife Nefer-titi brought about a bold new religion that had an effect beyond Egypt, his famed son Tutankhamun with dazzling tomb, and the Ramesses Pharaohs I - III, the last was famous for his success in wars. But after thousands of years of control and apparent stability, the power of the Pharaoh started to fade away. To continue the control as done before, the Pharaoh shifted its raw power to sociopolitical and religious approaches but continuing its use of power, with severe punishments to those unruly.

**Cruel punishment leads to increased inequity and inequality. Separating the reasoning of inequality from freedom makes it even more difficult to control equality. Cruel punishment and full control of the vast majority of humanity, has**

**been almost unchanged, from the beginning of the fable (the Pharaohs), up to the present time (Internet time, see also FN. 35).**

### **16.2 Ancient Greece (Started 620 BC to BC 200)**

After the reign of Menes and other Pharaohs, there have been many ships sailing in the South East part of the Mediterranean almost four thousand years later. At the time, sailors are from Greece since the laws at the time did not allow foreign hands except as slaves. Local citizens will punish foreign workers seeking high local jobs. Also, foreigners are excluded from the benefits of democracy according to the structure of Plato's Republic (See, The Republic below). Most foreigners, even those who are knowledgeable, are not allowed to choose a job. If a foreigner continues to search for local jobs, he may be thrown out of the country or into the bottom of the ocean! This type of behavior is not unique to Greece. It is the same across the countries in both sides of the Mediterranean and beyond. For example, Machiavelli (1469-1527), described Italian men at the time of his writing as: ungrateful, disloyal, insincere, and deceitful, timid of danger and avid of profit. (Quoted in Jeremy Hardwood: 63) Evidently, this description fits all men from the time of the Pharaohs to Ancient Greece, Italian men, to men of all types and locations, through the present time.

Around 600 B.C. the people of the sea lived in different cities. The most powerful of these cities were Athens, Sparta, Corinth, Megara, and Argos. These cities are called city-states or polis. Within Greece, City-states have many things in common such as believing in the same gods and speaking the same language. But Polis's are independent entities without a central government. Each polis has its own structure, laws, customs and goals of life, and each has its own form of government. For example, Corinth was ruled by Kings, Sparta by a small group of men, while different types of government ruled Athens. Although the Polis may band together to fight a common foe, they often go to war with each other. The result is confusion about enemies and friends, even to Greek citizens.

In Athens, the creation of Plato's Republic was often debated. It has three principal parts. The first is the structure of government, especially the attempt to develop an ideal commonwealth or Utopia as the main building block of the Republic.

The second part is to select the best rulers to govern the commonwealth. Plato suggested a philosopher for this job. The third part is to define justice in the context of an ideal constitution. However, the outcomes of these attempts have not been fully successful. The Utopia has been limited since in the laws of the Republic, citizens are not free or all have the chance to be free. They are divided into three classes or social ranks. The first is the guardians or rulers of the Republic. These are a very small group that is given the most important job in the Republic. They were chosen with extreme care mainly from elite aristocracy. Being absolute rulers, their decisions are definitive, and in general, they were treated as Gods. The second is the military that are carefully selected and trained as warriors. The third class is the vast majority of citizens. These are workers and serfdoms that are without properties and excluded from the democratic system without voting and without basic freedoms. Many of the workers and the serfdoms are considered and treated as slaves. The division of the Republic into classes was similar to the Pharaoh's system that Plato had a chance to visit. In general, the systems of government, the behavior of citizens, and 'class' divisions are similar to the various systems around the world, regardless of time.

A group of dedicated scientists who developed important ideas such as those of Thales of Miletus (620-540 BC) who is known for his analytic thought, Anaximander (611-547 B.C), astronomer and philosopher whose fame is in the development of a systematic approach to philosophy, Heraclitus who believed that all things exist in a state of flux, Parmenides (510-450 BC) who believed that appearances are deceptive and that change is impossible to happen, Democritus (460-370 BC) who developed the theory that the universe is made up of indivisible atoms that are constantly moving, or Archimedes, two hundred years later (287-212 B.C) who explained the important principle of why things float, among other scientists were impressive although most Greeks did not understand their science. (Alexander was elated at his discovery, he ran naked through the streets, crying "Eureka, I found it" But the idea of why things float and other innovations, remind the sciences of the time with the case of agriculture, during the rule of the Pharaohs. Agricultural production and management was successful in Egypt. Egyptian scientists did not see a need for

change in technique or new ideas to improve or enhance production. To them, and apparently in Egypt up to early twentieth century, innovation would be a waste of time and effort, although this negative way of thinking does not lead to future' improvement as it was the case with the impressive futuristic Greek approach to science. To a large extent that was the difference between Greek development and Egypt and Babylonian development pattern. Egypt developed arithmetic and geometry thousands of years before Greece but it was mainly in the form of the rule of thumb. It was deductive reasoning from general premises that was the Greece innovation that transformed the rule of thumb into science. However, both the Pharaohs, the Greeks, and we may add most of the countries of today's world, are willing to give first priorities to improve the capabilities of their army's in order to secure victory in wars, even at considerable cost.

At that time, there was no unambiguous Greek religion or superstition in the Hellenistic world even some were completely against belief in Gods, following the famed Epicurus (341 BC-270 BC) who regarded religions as hostility; they have no influence on life, which should be devoted to the pursuit of happiness. (Hellenistic refers to the Greek culture and language before and after the wars of Alexander; CF. Gilbert Murray [1866-1957], 2012, Five Stages of Greek Religion, see also more details about Alexander later) Alexander the Great in his numerous campaigns around the world discovered the presence of religions among the nations he came across (A New Handbook of Living Religions 1998, Edited by John R. Hinnells) Alexander found that Buddhists, Jews, and Persians had their own religions; a case that created confusion among the Greeks and lead to Greek moral decay. The Hellenist society started to question its principled perspective:

**"Why thrift, when tomorrow all your savings may be dissipated; no advantages in honesty; when the man towards whom you practise it is pretty sure to swindle you; no point in steadfast adherence to a cause, when no cause is important or has a chance of a stable victory; no argument in favor of truthfulness, when only supply tergiversation makes the preservation of life and fortune possible. The man whose virtue has no source except a purely terrestrial prudence will in such a world, be-**

come an adventurer if he has the courage, and if not, will seek obscurity as a timid time-server." <sup>36</sup> (Hellenistic behavior)

But not all Greeks have the same behavior even though they belong to the same society. Some differ significantly in attitude and behavior, some feel comfortable about the way they behave but not necessarily the way society acts, and some plan to reform society, while others are nonbelievers and pessimists about the future of humanity.

The discussion thus far presents a puzzle as to why human behavior, either of the Hellenist community or from another social order, is in a continuous struggle to acquire of a neighboring tribe, the Midianites. Worse still, it seems that those women succeeded in persuading their Israelite lovers to follow the Midianite religion:

**And the LORD Spake into Moses, saying, Avenge the children of Israel of the Midianites. And Moses spake unto the people, saying, Arm some of your selves unto the war, and let them go against the Midianites, and avenge the LORD of Midian. Of every tribe a thousand throughout all the tribes of Israel, shall ye send to the war? So there were delivered out of the thousands of Israel, a thousand of every tribe, twelve thousand armed for war. ... And they warred against the Midianites, as the LORD commanded Moses; and they slew all the males. ... And the children of Israel took all the women of Midian captives, and their little ones, and took the spoil of all their cattle, and all their flocks, and all their goods. And they burnt all their cities wherein they dwelt, and all their goodly castles, with fire. And they took all the spoil, and all the prey, both of men and of beasts... And they brought the captives, and the prey, and the spoil, unto Moses, and Eleaza the priest, and unto the congregation of the children of Israel, unto the camp at the plains of Moab, which are by Jordan near Jericho. ...And Moses said unto them, Have ye saved all the women alive? Behold, these caused the children of Israel ... to commit trespass against the LORD ...and there was a plague among the congregation of the LORD. Now therefore kill every male among the little ones,**

**and kill every woman that hath known man by lying with him. But all the women children, that have not known a man by lying with him, keep alive for your selves. Singer illustrated further the negative implications of fight and hate to human behavior. [Singer, Peter, 2002, *One World: The ethics of globalization*. New Haven: Yale University Press: Part 4]**

At the death of Alexander, the Macedonian Empire was divided among three generals: Antigonos and his descendants got the European part; Ptolemy obtained Egypt and the rest of Africa; and Seleucus obtained the parts of Asia controlled by Alexander. Ptolemy made the town of Alexandria the capital of Egypt. He also made Alexandria a basic place for learning. He built the famed 'Library of Alexandria' and attempted to attract the best scientists of the age to be part of its staff, such as Archimedes and other scholars. But scientists working in the Library of Alexandria were somewhat specialized, not a universal-type as it was the case of their predecessors in Greece, who attempted to be informed simultaneously in almost all types of knowledge, whether science, psychology, biology, economics, philosophy or other learning. In fact, Scholars at the Library of Alexandria started a system of specialization that became the start of a new approach to learning – a capable person is not capable of everything since everything is increasing and becoming more complex. (Cf. Cambridge Ancient History; "The Social Question in the Third Century," by W.W. Tarn, in *The Hellenistic Age*, Cambridge, 1923; Sirageldin 2009, *Sustainable Human Development in the Twenty-First Century*; Russell, *Ibid*: 223-225)

But after the death of Alexander, the Hellenistic age changed in character and behavior. It lost rationality especially in human relations, affecting understanding between right and wrong, and among friends and foes, a sign of a society in decline while the Romans started their rise but not necessarily for better or long. As Milton's Satan put it:

**The mind is its own place, and in itself  
Can make a heaven of hell, a hell of heaven  
(In Russell, *ibid*: 224)**

After the death of Alexander, there was widespread discontent that started the decline of Greek civilization: labor wages were falling and the price of necessities escalating, while inequalities and poverty increasing than ever, a case that has been leading the Greek society to insecurity, decline of values and ethics, and the rise of possessive impulses leading to the growth of inequality and poverty. The factors leading to the decline of ancient Greece are similar to those that occurred to the societies of the Twentieth Century and beyond. (CF., *Dividing the Spoils: The War for Alexander the Grate's Empire, Ancient warfare and civilization*, by Robin Waterfield. But Alexander's successors were no mere plunderers than Alexander)

**Inequality and Poverty in Ancient Greece: Aside from the decline of ethical values, and the rise of possessive impulses there are three factors that influence inequality and poverty. These are the type of government, the structure of society, and the understanding of poverty. The case of government is best illustrated by the case of Socrates. Socrates was condemned to death and executed by the government, based on a mystified religious and behavioral action that allowed judgment and the Judge to be made regardless of its truth-value. In other words, it is the intent and power of the ruler not the law that makes the judgment -- the law does not exist in this case. Accordingly, the structure of society is closely related to the character of the ruler. In judging the character of Alexander the Great, the conqueror of most of Europe, Asia and Africa, he was found "arrogant, drunken, cruel, vindictive, and grossly superstitious. In essence, he united the vices of a Highland chieftain to the frenzy of an Oriental despot." (See A.W. Benn for more details, 'The Greek Philosophers,' Volume I, p. 285) We may add that it is not only Alexander who has such character. According to Machiavelli, men in general are increasingly ungrateful, disloyal, insincere, and deceitful, being timid of danger and avid of profile. In the case of the forces underlying poverty there are three concepts of poverty, namely: substance, inequality and externality.**

**The concept of poverty must be seen in the context of society as a whole and not limited to a person or family. Poverty cannot be understood by isolating the poor as a special group, and focus on its behavior independently of society. It is essential to understand the behavior and views of the rest of society especially the rich segment on how to minimize it. (CF. Sirageldin, 2000C "Elimination of Poverty: Challenges and Islamic Strategies." *Islamic Economic Review*, Vol. 8 No. 1, October: 1-19)**

### **16.3 Dark Europe (Between 500-1500 A.D.)**

The Dark Ages of Europe are a complex set of issues that include experience to adjust, effect of external forces, and, behavior and action. In the present analysis, we focus shortly on four issues: the rise of the Black Death, the role of Religion, and the role of wars in the region. During the period of Dark Ages, a key issue happened: the transfer of Hellenistic civilization to the Nation of Islam and then transferred to Europe through the rise of the Islamic civilization. The completion of this double transmissions from Hellenistic to Islamic and from Islamic to Europe, have changed every part on the face of earth. (viewed as a social institution, especially the rise of papal power during the period A.D. 600 to 1000), the interaction of Islam with Hellenism and the development of Europe (Islam was born 622 years after the birth of Christianity, also the Lunar Islamic Calendar started the same year, A.D. 622)

The Dark Ages is a historical term that characterizes the bulk of the middle Ages roughly the 6th to 13th centuries as a period of 'intellectual darkness' between the fall of Rome and the rise of the Italian Renaissance in the 14th Century. (FN. 36: Dark ages) During that period, Europe experienced both the presence of wars, disease, and, in general the absence of meaningful and peaceful life, and on the other hand, the time of change and readiness for growth and progress of Europe. Europe and the World as a whole have been living European wars, disease, and a declining faith. The presence of negative experience in Europe was not expected since Europe had intelligent and educated people even in the 'darkness.' It became apparent however, that although intelligence and education are necessary for growth, they might

not produce mature governments and peaceful life. Intelligent and educated rulers may produce the opposite of peaceful and evocative society, especially if they have considerable possessive impulses with the objective of controlling the world. It is true that people who abuse power, are few, but more often, they are in control of the globe. In this early period of Christianity, Europe was the center of change. It was producing superior managers, capable of changing the world. But, the change leads the global society into ruin. <sup>36</sup> (Dark ages)

#### 16.4 Black Death

The Black Death was one of many catastrophes that occurred in Europe during the High Middle Ages. During the period between 1000 and 1300 A.D., the European population almost doubled from 38 million to 74 million, a fast growth that in order to survive, it requires change in the structure of the sociopolitical system, of health, and the economy. Population growth was shared with agricultural development and with the rise of cities that began with artisans, farmers and other crafts people specializing in their own field of work settling there. But the cities were not equipped to provide health and basic needs for the growing European population. The reason for the lack of such development is the lack of knowledge and inadequate finance. The result was the rise of cities with crowded homes, polluted water, lack of sewer system, and inadequate disease management. Evidently, the rise of population that lacks essential needs for survival is apparently waiting for a major catastrophe and the rise of power is mainly to subjugate other humans, in order to feel satisfied, although at great cost to all concerned!

As mentioned before, aggression is part of human nature, a nature that requires fundamental change if the human society survives! Parmenides (510 BC-450 BC) is apparently right about change: All appearances were deceptive and change impossible. Human does not change. For thousands of years, there have been innumerable wars; some labeled 'World Wars,' and conflict seems endless. For example, in a recent civil war that is taking place recently in the year 2013, in the Democratic Republic of the Congo, a young soldier that looks like a fighter in the army of Alexander or in other armies, said:

**"I really tortured others. At night we went out and raided villages. We killed**

**whomever we saw. If we happened to see a woman, we rape her ... Fighting is all there is in the life of a man. Whenever I hear guns go off, I want nothing more than to fight. This thirst lies deep within me."** (Roland Weierstall, Maggie Scheuer and Thomas Elbert, May/June 2013, *An Appetite for Aggression: The peculiar psychology of war likely holds answers for avoiding future atrocities. Scientific American: MIND, Behavior, and Brain Science, Insights: 47-49; see also Chapter 18-4: War as Business.*)

This young man was not only fighting others from his own clan but was full of hate that could be an accepted member of an army in any war, at any time or place, past or present. Such commitment to hate and fighting to killing is obviously the outcome of a Bible for War training. <sup>37</sup> (Bible 'War')

The presence of a catastrophe did not wait for long. In the fourteenth century, Europe suffered numerous catastrophes that would go down in history as "The Four Horsemen of the Apocalypse"; a reference to the book of Revelation in which four great ordeals, which Earth had to endure in its final days before judgment. (AD 1300 - 1349 to be exact) The Black Death stands out as the most dramatic and changing lifestyle event during the fourteenth century. The epidemic was a widespread type of the Bubonic Plague that passed from Asia and through Europe in the mid fourteenth century. In Europe, it was partly a result of the spread of waste and the contacts between cities, the national and international traders, and the presence of crowded surrounding villages that facilitated the spread of the Black Death. In the span of three years, the Black Death killed one third of all the people of Europe. This traumatic change in population coming into the Middle-Ages caused great changes in European culture and lifestyle. About the year 1347 to 1350 A.D. an attempt was made to find how England suffered from the Black Plague in its sizeable death and behavioral change:

**The Plague broke out near Christmas time; her two older brothers had taken work as watchmen. Their jobs were to stand at the doors of infected houses and see that the inhabitants inside did not leave the residence for any reason. Anne**



herself worked as a sick-nurse for several wealthy families.

With the passing weeks, the horror she had seen became merged in her memory. The church bells rang day and night. The cemeteries everywhere became over-filled; soon there were no more individual graves, but the bodies were dumped by the score into deep trenches, and hastily covered over with white lime powder and earth. The death carts, piled high with bodies, were hauled through the streets; the sextons paused before each dwelling to call out, 'bring out your dead.' The smell of corrupted air was everywhere.

So was the fear. She remembered seeing a man fall dead in the street, his fat purse by his side, clinging with money. Crowds passed by the corpse, but none would dare to pick up the purse, the purse remained untouched.

(The Plague, on infection and disease, by Anne Sharpe [Pirate latitude by Michael Craighton, 2010 Harper])

The Plague affected behavior in many ways: change in the function of religion and in the ethics and values in the behavior of people during in the presence of high rates of death. As trade expanded, trade routes become death routs. For example, the trade route between China–Genoa–Sicily facilitated both trade and for the Black Death to spread through the rest of Italy and Europe. As death increased and spread across Europe, migration routes became runaway Plague stations but the societies of Europe lacked the knowledge to manage disease and food leading to the rise of inequality and poverty. The development of science had to wait till the plague ends. But Plagues are endless. They repeat themselves in different types and methods up to the twenty-first century. (CF. Black Death, Wikipedia, The Free Encyclopedia, June 6, 2013 and references cited)

### Note to Part Two:

The previous discussion indicates that the recent humanity has changed in thought and reflection but not in basic structure. The present human type acts the same as those behaving for thousands of years and acting in: love and hate, learn and ignore. In the case of business or action, human, as usual, allocate maximum income to the rich few, while the remaining human, the poor moneyless majority, get nothing. As it is in the opening, change calls for thought and emotion. But emotion - happy or not - continue in action, a type of apparent behavior that is similar to animals. These types of acts, lead us to review Frank Knight statement in the present note.

Change is for the better, since the structure of the global power is moving away from hegemony, while knowledge and information are becoming increasingly public good. The reconciliation between freedom and organization is necessary, especially on the global level, since setting limits on human freedoms, if not balanced by enhanced security and wellbeing, is against 'informed' human nature. The presence of such one-sidedness that lacks individual freedoms and evokes revolt with escalating cost to maintain it, will in the foreseeable future, exceed GIG's profit and accordingly its capacity for control—there are limits to setting limits. We notice as mentioned earlier that economics focus directly on the behavior of applications and not on human behavior, although the ultimate difficulties of any society centers on the issue of improved social continuity, an issue that requires the purpose of the behavior of economic commodities, and the continuity of harmony between collective and individual behavior. It was almost a century ago, in 1921, when Frank Knight presented a brilliant illustration of the dynamic nature of social continuity:

The ultimate difficulties of any arbitrary, artificial, moral, or rational reconstruction of society center around the problem of social continuity in a world where individuals are born naked, destitute, helpless, ignorant, and untrained, and must spend a third of their lives in acquiring the prerequisites of free contractual existence. The distribution of control, of personal power, position, and opportunity, of the burden of labor and of uncertainty, and of the material produce of social industry cannot easily be radically altered, whatever we think ideally ought to be done. The fundamental

fact about society as a going concern is that it is made up of individuals who are born and die and give place to others; and the fundamental fact about modern civilization is that it is dependent upon the utilization of three great accumulating funds of inheritance from the past, material goods and appliances, knowledge and skill, and morale. Besides the torch of life itself, the material wealth of the world, a technological system of vast and increasing intricacy and the habitations, which fit men for social life must in some manner, be carried forward to new individuals born devoid of all these things as older individuals pass out. The existing order, with the institutions of the private family and private property (in self as well as goods), inheritance and bequest and parental responsibility, affords one way for securing more or less tolerable results in grappling with this problem.

Frank H. Knight (1921). *Risk, Uncertainty, and Profit* Boston: Houghton-Mifflin, pp. 374-75. Also, quoted in Nerlove, Razin, and Sadka (1987, p. 1).

Knight points out that for a society to be successful and keep on flourishing on both individual and social levels, it must continue to improve its material goods, education standards, labor skills, its moral principles, and we may add continuity of industrial waves.

(For example, China, although with long history of innovations that 'slept' after a thousand years, has joined other industrial countries on steps: first prepared itself in 1980 in Zhang time, then started industrial development in 1992, then joined the World Trade Organization, and now joined the latest digital wave of innovations. Also, every year, MIT celebrates 35 innovations under the age of 35 that not only introduce new technologists, researchers, and entrepreneurs, but also enhance competition around the world)

These additions over Knight are the accumulated funds developed by the current generation to be inherited by the next generation with the purpose of social continuity. Also, accumulated power that every generation uses, in order to regulate and correct deficiencies in society, in order to compete successfully with other societies, otherwise, it becomes a continuity that get weaker as time passes. But what getting weaker is not the machine. It is the human. It is the ability to reproduce, live and die. As Knight put it, human have successful 'global' continuity, but if it is people that create the burden of reproduction, it is

also population that develop artificial intelligence leading to early ending of humanity, as Stephen Hawking pointed out.

(Physicist Professor Stephen Hawking spoke at a press conference in London on December 2, 2014, about artificial intelligence and the end of humanity, also discussion in Part Three)

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# Part Three

# The Future of Humanity: Begin or End?

**I**t is now appropriate to return to the start of the Essay, which through the end attempts to follow the story of Humanity's journey through change. Up to this point, the Essay attempts to capture roles of various fundamentals of interrelated change. The interrelated roles include theology, science, government, environment, population, modern biology and waves of digital technology that display the interrelated roles in the Essay. The case of digital technology created concerns between technology, society and policy, and, as the previous discussion indicates that human could be lost in both rights and wrongs.

The earlier analysis attempted to understand the future as a process. It found that knowing the future requires knowledge both past and present with the present is a continuation of the past while society is divided into the two groups, the few controlling group, and the rest of society. These divisions between the few and the rest are apparently unchanging although Human has been changing and growing two types of change. The first is the 'controller' of the 'few' with rules to be obeyed by the rest of humanity. But, the Global Society, divided into classes, is controlled beyond the role of nature with rigid rules. The control as mentioned earlier, minimizes the ability of almost the whole population that is controlled, and being turned into senseless tools that are bound to abandon higher aspirations, and ignore difficult and distant goals. Human start living in the brutal nihilistic phase that aims to destroy all standards including values, beliefs, and scientific rules, that leaves only the few considered "to be-all and end-

all of human rules and activities." In this current Age, it is evident that the global society has become, on the one hand, part of the Brutal Nihilistic Global Society, and, on the other hand, part of the Ending Human. The ending of survival is not an obvious conclusion. <sup>38</sup> (Changing contemporary science)

It is not only apparent knowledge and action that are essential for the survival of humanity it is also feelings and emotions that are required for human survival. Feelings start and end, just as human thought begin, both feeling and thought are in the center of the human journey. But, in the present analysis, the human journey has been moving to a disasters course. If human continue the same journey, then humanity will end earlier than expected -- a pessimistic view, although life is full of optimistic views:

**"The vast majority of the human society is being turned into senseless tools that are bound to abandon higher aspiration and ignore difficult and distant goals. In the phase of Moral nihilism, humanity is distanced from its basic values and beliefs. Moral nihilism then moves toward Brutal nihilism, a phase that aims to destroy all standards and restructure society with only a few considered the 'be-all and end all of human activity.' In essence, the vast majority of the global society is reduced to Serf or Bland followers at best. But the issues are more complex since destruction leads to instability, social decay, and at the end every part of society become full of vice, and the whole social**

order become self-destruction. But, since the future is unknown, then the central question continues: What is the prospect for humanity to survive, and if it does, will human change into different types of homo-sapiens?

At this point of the analysis we examine the effect of 'optimism' and 'pessimism' on these findings (Part One); review the role of practical science (Part Two), and ending by the status of the 'future' of humanity (Part Three).

### **Part One: Optimism, Pessimism and their Effect**

There are optimists and pessimists everywhere and their presence or absence influence their actions either good or bad. Optimists feel that human societies are increasing their ability to chart and follow a purposeful course of change towards a better life for all, although a better life for all does not exist. Such life is limited to the few, while the rest are left out. Optimists, are balanced by equal or larger number of pessimists, who believe that "the inexorable laws of 'nature and evolution' will eventually override purpose and cause the human species to decline and disappear, as other animal species have done in the past." Furthermore, pessimists point out that, as the earth capacity is filled to capacity humans will limit accessible rooms. For example, as the density of population intensifies and jobs become unavailable or unusable, humans attempt to invent new paradigms that legitimize unjust actions and behavior. But even in the present case, with teleological explanations, and with un-working technology and other negative consequences, leading managers end-up developing policies with evident harmful behaviors and actions. (Teleological views of nature, whether the type of Hegelian or Rousseauian or Aristotle's final-cause, when used to justify economic or political ends it need to be clarified and assessed. See Sirageldin 2003)

There are examples of views of pessimism that lead to the hate of society. The following are examples of violent events that occurred in the twentieth century:

**As the 20th century dawned, in 1907 to be precise, Governor von Gotzen concluded that a famine would flush out the rebels in his Province of occupied Tanganyika as only hunger and want could**

**bring about a final submission. It was done. Three German columns advanced through what was then the German East African Colony, pursuing a scorched-earth policy that left famine in its wake. People were forced from their homes, villages were burned to the ground and food crops that could not be taken away or given to loyal groups were destroyed. Testimonies and evidence brought to light in the 1960s suggest that most of the 250,000 to 300,000 people—about one-third of the total population—who died as a result of this policy succumbed to starvation. They were not, however, considered victims. They were viewed as savages, in keeping with the conviction of the time. (Similar violence was done during the French Revolution, World War One, World War Two, and other violence in the same society or even in the same family. See also the Chapter on the structure and purpose of war in the present Essay.**

This type of violence, and its associated classification into higher and lower orders, continued unabashed throughout the twentieth and the twenty-first century, with World-Wars, regional and local brutal conflicts that include inhumane crimes, atrocities, and intimidation. The inner motive behind such exposed aggressions, include fighting for the earth's strategic resources and the control of global society by the few. But it is not practical to consider the Human Society as a single family having the same type of life. It is true that humanity in general, has been able to survive and even to consider life a paradise, although living in the midst of 'Injustice and Vice' that will end lacking confidence and full of instability and injustice.

The metaphysical schemes that were prevalent in previous times were mainly preoccupied with the need to please Gods associated with various types of cycles, e.g., ancient Middle Eastern metaphysics, the Chinese belief in cyclical cosmology, or the Hindu system of cycles within cycles of very long duration. Some of these schemes portrayed a "God" as wholly other than and beyond the physical universe, whether a form of "deism" in which God is posited as independent of time and who starts off the universe only to sit back

to watch the unfolding of “his” perfect creation, or a form of “theism” in which God is perceived as the creator of the universe who continues to be involved in the day-to-day running of the world. The latter view leads to the *ex nihilo* view of creation—God alone is necessary for sustaining the universe in existence at all times. In other views, whether “pantheism,” or “panentheism,” there is no separation between God and nature—God is identified with nature itself although panentheism assumes that the universe is in God but not in all of God. These schemes generated the known debate of whether the Laws of Nature are dictated by God—a view adopted by Judaism, Christianity and Islam, or is it based on a partner relationship as in the Greek ‘pantheon’ doctrine? (Davies 1992: 74-7. See also Sirageldin 2003). Or is it possible to keep the various Gods with their various beliefs. (See for example the development of the ‘European Parliament Directorate, Government for Internal Policies: Justice, Freedom and Security’ Religions practice and observance in the EU Member States)

These views of Gods, of Science, and of Nature had developed, over the course of history, into important social and political implications, some could be irrational and others with disturbing thought, especially in the context of Industrial Waves and focus on maximum global profit for the few. But, the presence of irrationality, serves as a reminder of how fragile is the dictum of Einstein, namely: “God is subtle (elusive) but not malicious (not cruel)” The fragility of Einstein’s dictum is evident in his ‘views of nature’ adopted by those who ruled the world over the course of history but with the opposite views that characterized God: “God is malicious but not subtle.” As G.G. Simpson aptly put it more than half a century ago: The present chaotic stage of humanity is not, as some wishfully maintain, caused by lack of faith but by too much unreasoning faith and too many conflicting faiths within these boundaries where such faith should have no place. (Simpson 1949: page 194) Apparently, the present system with its conflicting faith is reducing the need for faith and ending unnecessary use of spirit, while questioning the fragility of the system.

## Part Two: Practical Science

Continuity of science, in producing applications and understanding their outcomes, with

their prices acceptable in the market, makes applications to be a practical use of science. The use of Science is different from that of Theology and Nature (See Chapter 14). Historically, change in Nature is done by two forces: theology, and science. In the case of theology, it does not only follow how human ought to act and behave, according to god’s command, but also produce different names for gods. But, change in the names of Gods, confuse the word “God” and its functions, especially, given the presence of large number of religions, their orders and the belief that each ‘god’ is the only ‘god’ to have faith-in. Furthermore, ‘Religions and Gods,’ although perplexing in rules and reigns, they have taken high ranks in the history of Religions although seem to decline as time paces, thus continuing the struggle between Religious Belief and Practical Science.

Note on Practical Science: The reader may consider the number of living religions and their related divisions that continue to be active up to the present [A New Handbook of Living Religions, Edited by J. R. Hinnells, Penguin Bks. 1997]. Also noted above at 2013, European rules and public laws, do not allow religions to act. On the science side, the impact of deadly effects of practical science, on human life mentioned earlier, is apparent and creating serious effects.

Science was developed early with the rise of Greece between 600 and 200 BC. But, early science did not develop as a practical science. It took more than a thousand years to develop practical science from the time of the Greek. It was Johannes Gutenberg in the fifteen’s century who produced the Printing Machine, a technological wonder, that became a practical science (Not surprisingly that the impact of Greek science started much later in time.

The printing machine started a new method of science that demanded different change in economic and social organizations. It facilitated communication and the spread of knowledge. It replaced the slow technologies of the word of mouth and of handwriting that was reaching just a few privileged groups. The printing machine started a rational public and private system of democratic participation that is also transparent in its behavior and action. It was the beginning of the industrial and digital age of the twentieth century.

The impact of Gutenberg invention on human development brought a notable statement

by Adam Smith about the future of the Printing Machine:

**Nature is not aimless, its parts are in continuous motion, every part is free in its movement but related to all other parts and has its destined role precisely set and timed. Thus, although the relation between the parts and the whole looks random, since every part is free to decide its own movement independently, but in reality, these movements if left to its own nature is destined to move toward an optimal whole with just and optimal totality. (This is similar to Newton's view on the impact of the printing machine and the beginning of the industrial society)**

The statement of Adam Smith points toward three interrelated issues: The meaning of nature, destined role precisely set and timed; Justify change of the global society since every part is free to decide; and move toward an optimal whole. The first issue is to understand what Adam Smith meant by nature. Underlying the notion of nature is the word justice with its meaning being part of Smith's moral theory: To defend justice means to punish injustice; and the punishment of injustice is based upon the unsocial passion of resentment, the desire to return evil for evil, the command of "the sacred and necessary law of retaliation" that "seems to be the great law of which is dictated to us by Nature." But jealousy is not far from retaliation as implied by Smith in his *Theory of Moral Sentiment*:

**The love of our own country seems not to be derived from the love of mankind. The former sentiment is altogether independent of the latter, and seems sometimes even to dispose us to act inconsistently with it. ... We do not love our country merely as a part of the great society of mankind: we love it for its own sake, and independently of any such consideration (*Theory of Moral Sentiment*: pp. 202, 203-4; Joseph Cropsey on Adam Smith, 635-658).**

This view of 'justice' presented by Adam Smith, although somewhat complex, has reduced human behavior to a mechanical form with its parts being collected, not randomly but through hostility among managers, owners and workers, thus

providing the state to judge in order to minimize hostility, accordingly provide the state its purpose and existence. But, the meaning of nature as being understood in the present Essay, as input-output and human-nature relations seem to be forgotten! (J. Cropsey *Ibid*, and beyond)

The second issue is to justify the major change that has been occurring in the patterns and behavior of work, its impact on progress, and the extent and type of negative externalities it produces. These are basic changes in behavior as for example the movement of production from the farm to the factory, from the country-side to towns and cities and their rise and declines, from management of land-lords to that of capital owners, from capital payment to global finance, to the management of social production, and redistribution of power, wealth and capabilities that lead to the rise and growth of the Neo-Industrial Age, and the increase and escalation of inequality. There is no apparent solution for the concerns of Adam Smith about the negative externalities that arise as the outcome of new and changing patterns of work.

The third issue implied in the statement of Adam Smith, is how to balance the purpose and functions of Theology, Science, and Governance, as the industrial Era started its rise. The 18th and 19th centuries produced vast material wealth and growth, but it also produced severe injustice. Managements accepted inequality as a necessary outcome of production, while theology did not see it as a necessity and attempted to reduce inequality in its behavior. However, the rise of injustice was considered by almost all concerned, as inevitable that will adjust itself away from injustice in time. Injustice is viewed as temporary. Accordingly, the socioeconomic society must endure injustice, until the presence of a better life, even if the present includes the suffering of women, abuse of children, and the majority living below subsistent wages, with indifference to social injustice, increased serfdom, poverty, and slavery around the world, continuing through the 21st Century as put by Oswald De Rivero: *Poverty and Serfdom are the Non-viable economies of the 21st century.* (Many writers wrote on the subject of colonialism and slavery. [CF, Russell, 1934. *Freedom versus Organization 1814-1914*]) Also, in the opening of Russell's Book, Milton said: "Chaos umpire sits -- And by decision more embroils the fray -- By which he reigns: next him high arbiter -- Chance governs all."

As negative externalities and wars increased in Capitalistic societies, other systems such as Socialism, Communism, Islamic systems, among others started to question the future of Capitalism. (See International Association for Islamic Economics) In the 19th and 20th Century, other systems started the development of different structures and organizations. These societies produced negative externalities themselves. The focus however is on the dynamic role of Darwinism. It was the contribution of Darwin that provided the framework for a different approach to human society with different principles. (C. Darwin 1809-1882, *On the Origin of the Species*, 1872)

Charles Darwin may best be considered as a 'historian of life,' who went beyond the knowledge of fossils to the display of pertinent facts from other fields such as earth and life sciences, and weaves them all into an integral interpretation of what the world of natural life history is like and how it came to be about. Darwinism is not only about natural life history, it also acts as one of the key objects and interest in social thought and economics, as suggested by J. Schumpeter and others. (FN: 4; Joseph Schumpeter, *History of Economic Analysis*, 1942, page 444. Also, by Schumpeter: *Capitalism, Socialism, and Democracy*, 1951; *Ten Great Economists from Marx to Keynes*, 1959; Richard Fortey on *Nature and Darwin*, 1997; G. Ledyard Stebbins on *Darwin to DNA, Molecules to Humanity*, 1982)

There are different interpretations of Darwin's findings and analysis, especially in providing answers to the question: Is the evolutionary process purposeful, directional and moving towards perfection, or is it random and subject to chance, accordingly aimless? The question is important, since if it is the former, the implied view of nature provides justification for social and political ills, including negative externalities of the capitalistic system and leading to teleological interpretations. But if the question is the latter, that is, the process is random and subject to chance, then there is no justification to view differentials in human populations and perceive them as a result of Nature's design. Accordingly, differentials in values and behavior need to be searched in the functioning of the socioeconomic and political system, not in random act. Indeed, views of nature, once agreed-to, especially when self-serving, become opinionated, deep-rooted, and difficult to change, even with new evidence to the contrary.

However, none of the students of evolution whether believing in chance or in design imagined that by the end of the 20th century the scientific insights and technological know-how would be in place to make real a vision of a commercial genetic civilization. As Rifkin (1998) put it:

The mapping of the human genome, the increasing ability to screen for genetic diseases and disorders, the new reproductive technologies, and the new techniques of human genetic manipulation ... establish the technological foundation for a commercial eugenics civilization.

This 'genetic' civilization, as being named, mixes genetics with digital engineering and human behavior, is born in the market place, with the system developed for survival, and for maximizing profit, for years to come.

### Prospect

Thus far, the analysis conveys a pessimistic view of human possibilities: weak stability and increasing artificial intelligence leading to ending life as being told by Stephen Hawking (Mentioned earlier) who warned that the development of artificial intelligence means the end of humanity. But, there is room for optimism since population is declining, negative trends are slowing down and are checked, Hawking warning is not necessarily evident, and technological advances provide promises for better health and reduced environmental mistreatment. However, for the majority of humanity, the central question remains unanswered, namely: how to establish a global government that promotes justice and the rule of law and facilitate a sustainable level of development, while balancing population, the environment, and the industrial waves? The answer is beyond Leibniz who is famous but with shallow solutions: 'ever optimistic Dr. Pangloss.' (Leibniz, a German philosopher is probably a supreme intellect of all time. But there are two Leibniz. One "which he proclaimed, was optimistic, orthodox, fantastic, and shallow; the other, still the same person, has been slowly unearthed from his manuscripts ... was profound, coherent, largely Spinozistic, and an amazingly logical. It was the popular Leibniz who we referred to and whom Voltaire caricatured as Dr. Pangloss. CF, Bertrand Russell 1945/1972: 581)

As the discussion continues, the global system is having destabilizing forces. These forces include the competitive power of the market, the



influence of advertisement and customer's choice to buy applications. Although marketing is based on sales, it is not easy for customers to choose a product based on business requirements or on personal needs since advertisement does not provide adequate or correct recommendations for buyers. As Kenneth Galbraith reminds us, the competitive market model is not necessarily the right model, since earlier buyers are polluted by misinformation, mostly through advertisements. Accordingly, advertisements need standards that may reduce customer confusion and may increase their knowledge.

It is not applied science to blame for confused customers; it is rather the methods of controlling production and allocation, and the type for the type of controlling buyers that is to blame. The strict control of buyers and workers has been evident. In the case of workers, managers attempt to convince workers that their behavior, their families behavior, and their work, and their leisure time, is the best time workers could have, or hope to have. But, as workers discover their present way of life, they find that the path planned by managers for them is based on deception, lack of freedoms, and increasingly inequitable.

Two forces lead to escalating the impact of inequality and inequity, mainly, greed and maximizing profit and own allocation. For most people Greed is becoming good and has become the dominant moral code of market behavior, especially in the case of finance: Greed is built into the institutional genome of the financial market. (CF. Woo, Wing Thye, 2008. "The Emerging Global Stagflation: A Different Malaise from the 1970s." *The Arab Bank Review*, Volume 10 June, 2008; Shemer, Michael, 2008, "The Mind of the Market," *Scientific American*: 35-36)

The greed model is built into the ethical behavior of the vast majority of humanity, but it is the few, very rich and powerful, who are able to continuously override the "Don't Be Evil" and focus on the "Unethical Greed Mode." The result of focusing on greed and maximize profit is to create the most tension, hostility and divisiveness that relates to all parts of society, rich and poor. As pointed earlier by Adam Smith in the present Essay, the rise of inequality and poverty leads to corruption and moral decline while the humans worship the rich and despise the poor. Technically speaking, inequality does its mischief in various ways. On the one hand, it creates conflict and tension in

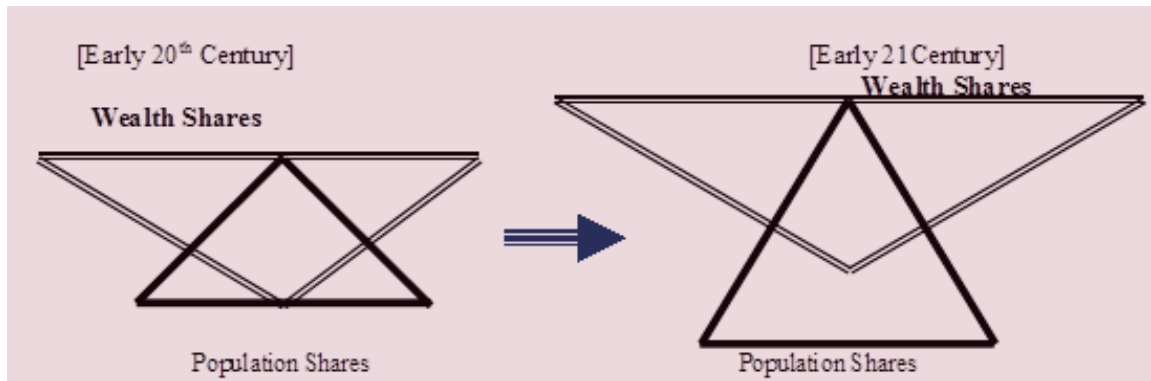
human communities with negative implications to the socioeconomic system. In the economic sphere, inequality reduces aggregate demand that is further affected by a multiplier effect by which increases or decreases in aggregate purchasing power that are either spent or stopped. In the case of inequality, purchasing power will certainly be stopped since a substantial fraction of the national income goes to individuals in amounts far beyond what they can spend while corporations do not find attractive new investment opportunities to spend at home. As a result, aggregate demand falls and unemployment increases. The rise of inequality and poverty could be enormous even in developed countries (Figure 17.1), while solutions to deal with such idle money as, for example, the government sharing it through taxes or other ways, are not easy to materialize politically.

There are many reasons that cause aggregate-demand to fall. Returning to the case of the 2007 Credit Crisis, is an evident example that deserves some repetition. In the case of the Credit Crisis – 2007, both inequality and inequity have been acting negatively:

**In the case of inequality, between 1967 and 1997, the USA annual after tax average income of the top 1 percent households increased from \$175,000 to \$600,000 while average income of the middle and poorest 40% did not change during the whole period. In the case of inequity, the share of household wealth of the top one percent more than doubled from 19.9 to 40.1 during the same period. In the latter case, very few people if any were willing to talk about the profound effects – economic, social and political – of that widening gap. (Kevin Philips 2002, *Wealth and Democracy: A political history of the American rich*. New York: Broadway Books; Sirageldin 2009; Paul Krugman 2002. "For Richer: The Disappearing Middle Class," *The New York Times*, 10/21/2002)**

The difficulty of controlling aggregate demand through the Fed and or the government has been the case for a long time, since the presence of powerful global corporations and rich and influential individuals were able to cause aggregate demand to fall or rise as they so desire. As Russell's Paradox illustrates, 'evils persist' and the strict solutions of Antonio Gramsci whose system controls

**Figure 17.1**  
**Change in Wealth Distributions and Population Shares in the 20th Century**



*Notes on Income, Wealth Distribution and Inequality:*

Graphs are illustrative. For reference, see UN data, and UNDP Human Development Reports. As the Graph illustrates, the number of those with wealth shares had declined greatly and those with nothing increased in the late twentieth century. This pattern continued in the Twenty-first century in the U.S. and the rest of the world.

□ Shift in US Income and Wealth distributions in the late 20th century and early 21st century, reported by U.S. Federal Reserve Data in 2014 and Paul Krugman (For Richer, *The New York Times*, 10/21/02) is instructive: "The net worth of Americans rose 14% in 2013 to \$80.7 trillion, the highest on records. However, the increase have gone disproportionately to the America's affluent, almost none went to the middle and lower-income Americans, generating extreme and increasing wealth inequality, and as a result not much increase in consumer spending. Thus, in such circumstances, consumers continue to be hampered (Neil Shah, *WSJ* 7-3-2014: 1-2)".

"Glimpses of the lifestyles of the rich and tasteless don't necessarily add up in people's mind to a clear picture of the tectonic shifts that have taken place in the distribution of income and wealth in this country," although "the census data understate inequality, because data tend to undercount very high incomes."

"Over the past 30 years, the average salary in America (in 1998 US \$) increased by 10%, from \$32,522 to 35,864, the top 20 percent had bigger percentage increases than families near the middle, the top 5 percent done better than the next 15, the top 1 percent better than the next 4," a highly regressive trend. The big winners are "the very, very rich, the top 0.01 percent with average income of \$17 million: The compensation of the top 100 C.E.O's went from \$1.3 million (39 times the average) to \$37.5 million (1,000 times the average)". Analysis by Piketty and Saez indicates that the 13,000 richest families in America had almost as much income as the 20 million poorest households.

After reviewing the various explanations, "Globalization hypothesis, Skill-biased technological change hypothesis, the 'superstar' hypothesis, or the competition for talent hypothesis, the highly paid C.E.O's are worth it," none stand the test. According to Krugman the changing role of social norms that used to set limits to inequality but are no longer operative with a new ethical motto "If it feels good do it."

□ According to the US Budget Office, over 60 percent of major US Corporations did not pay taxes during the boom period of 1996-2000, while the rest paid minimal taxes. Total Corporate tax receipts fell to its lowest level since the depression, while profits soared. (*WSJ* 4/6/04).

□ the present Essay investigates the hypothesis that this new US ethical development is reflected into global economic and political policies with significant adverse outcomes. Global opportunities, wealth and income distributions are becoming increasingly unequal with competition being managed to serve the interest of multinational corporations.

□ Data on global income and wealth distribution are based on the World Bank Development Indicators, the OECD, and Global Finance. The territories predicted to be the most and least wealthy by 2015 are as follows, based on 2006 SASI Group (University of Sheffield and University of Michigan), based on US\$ of Gross Domestic Product in purchasing power parity per person in 1990:

Most Wealthy Rank: 1. Taiwan: \$64519. 2. Hong Kong (China): \$51470. 3. Singapore: \$48645. 4. Malta: \$42407. 5. Luxembourg: \$38526. 6. Republic of Korea: \$38249. 7. United States: \$38063. 8. Norway: 36830. 9. Japan: \$35694. 10. Ireland: \$34677

Lowest Rank: 191. Comoros: \$533. 192. Dem Republic Congo: \$525. 193. Chad: \$493. 194. Central African Republic: \$485. 195. Zambia: \$480. 196. Djibouti: \$446. 197. Sierra Leone: \$443. 198. Afghanistan: \$423. 199. Tajikistan: \$361. 200. Niger: \$348.

□ Asia's rise is the economic event of the age. If it proceed as it did in the last few decades for the coming few decades, it will bring to an end the domination of Europe and North America to an end.

□ Wealth distribution and income inequality are two different concepts, in that wealth distribution looks at how the ownership of assets in a given society is shared among its members while income inequality focuses exclusively on the income side of the equation. However, both measures help chart the economic gap within a country's wealthiest and poorest citizens. Over the last ten years, economic inequality has been growing, particularly in the developed countries where, historically, it had been more contained.

[Read more: [Http://www.gfmag.com/tools/global-database/economic-data/11944-wealth-distribution-income-inequality.htm13ixzz2u6Xqsrsv](http://www.gfmag.com/tools/global-database/economic-data/11944-wealth-distribution-income-inequality.htm13ixzz2u6Xqsrsv)] [The GINI coefficient "measures the extent to which the distribution of income or consumption expenditure among individual households within an economy deviates from a perfectly equal distribution." Therefore it is used as an indication of income inequality within countries. Particularly, it measures the area between the Lorenz curve, a standard indicator of the distribution of income within a community, and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. In this index, 0 represent perfect equality, while the maximum area under the line, while 100 perfect inequality] [Http://www.gfmag.com/tools/global-database/economic-data/11944-wealth-distribution-income-inequality.htm1#ixzz2u6eSMYVf]

the government and the banking system. Thus, judiciary solutions will not complete the role of demand; accordingly the power of people is reduced if not eliminated. Nevertheless, the statement requires clarity, especially since society has changed the role of criminalization between companies and the state, from national to global, and the cost to the banks from millions to billions. The idea that a company could be criminalized was alien to the American law till the beginning of the twentieth century (1909). At that time, Corporations were viewed to have neither bodies to be punished nor souls to be condemned. In other words, Corporations were incapable of being "guilty". However, serious change occurred later in the mid twentieth century. Since the 1960s, expensive "class-action suits" has developed and have been increasingly expensive. It taught managers the wisdom of seeking rapid, discreet settlements to avoid long, expensive and embarrassing trials. The drawbacks of American's civil tort system became well known. What became new is the way that regulators and prosecutors are in effect conducting closed-door trials. (For example the criminalization of American business – *The Economist* August 30, 2014, p.9, 21-24) But fines are not everything. It is what is between companies and the state and how they are adjusting. For example what role the state should play? It is direct or indirect role depending on the required rehabilitation of the corporations in the 21st century. According to Brandon Garret, it is Prosecutor-Corporate change that is happening: The big story of the 21st century is not corporate fines or corporate convictions, but prosecutors changing the ways that corporations are managed. (Brandon N. Garrett, 2014 Harvard University Press)

### **Part Three: Future and End**

In the present Era, fines are not the key issues used for punishment to manage society as it has been the case to manage corporations. There is various ways to manage different cases. For example as mentioned earlier, there are two opposite forces that drive the modern technique: one that leads via science improvements and abides by values and ethics, and the second developed from the very womb of the previous source but flow the opposite direction and undo much of the good that the first force does. In the Brutal Society, applications were produced for human advance-

ment but ended for the decline of humanity. What is required, aside from the end of humanity, is to develop strict rules of conduct as mentioned in the improved first that leads to control the laws of equity and equality. These rules could be controlled if respected by members of society and illustrating how essential is maintaining the rules for the social cause. For example, there is in America's history an example of maintaining rules, effort and struggle for respecting and controlling them (CF, J. Perkins 2006):

**Our nation's history is rife with examples of citizens coming together to enact change: "Never was a cause more important or glorious than that which you are engaged in; not only your wives, your children, and distant posterity, but humanity at large, the world of mankind, are interested in it; for if tyranny should prevail in this great country, we may expect liberty will expire throughout the world. Therefore, more human glory and happiness may depend upon your exertions than ever yet depended upon any of the sons of man." This message seems very timely. Yet it first appeared in the *New England Chronicle* in 1775, at a time when Americans were terribly divided over how to deal with an oppressive empire. [Perkins, John, 2006/2004. *Confession of an Economic Hit Man (EHM)*, New York: A Plume Book, Published by Penguin Group. ISBN: 978-0-452-28708-2 (303 pages) Pages 266-282]**

The presence of Ethics is basic for a meaningful society as discussed before. For example the American founders of the Constitution who has answers to almost any questions, even the type of questions of wrong turns: getting simple answers to complex questions. (Larry Schweikart, 2011, *What Would the Founders Say?* Penguin Group) But the present case is different being behavior of a bird, not a human. As Ben Franklin (American Founder) put it in a different form, in a letter to his daughter about the role of the Bald Eagle and the National Symbol:

**For my own part, I wish the Bald Eagle had not been chosen the Representation of our Country. He is a Bird of bad moral character. He does not get his living honestly. You may have seen him perched on**

some dead tree near the river, where too lazy to fish for himself, he watches the labor of the Fishing Hawk, and when that diligent Bird has at length taken a Fish and is bearing it to his Nest for the support of his Mate and young Ones, the Bald Eagle pursues him and take it from him. [Carol Ekariur, 2007, *Stories illustrated Guide to Poultry Breads*. Story Publisher, Printed in China]

Although the concern of Ben Franklin is about the behavior of a different species, it has the same concern as the present case: a character that does not change for its own good and prepare others to work for the same purpose. The case raises the same questions and implications of whether humanity will continue to be the same being with same morals or is it the end of the present being? The question is basic especially after reviewing the previous Chapters and tracking down other sources, to reach the future prospect of humanity.

### The End

Is this the end of life on planet earth and related planets? Or is it the beginning of a different new Homo sapiens starting a different global system? These are the outcomes of long and complex reviews viewed in the Essay. As Schrödinger put it early in the first Chapter that humanity includes both, hope of survival and end of life: "The very survival, let alone the continued progress of man are no longer regarded as certain." The concern of Schrödinger is similar to other concerns in the rest of the Essay mostly with negative implications, in that 'the vast majority of the human society is being turned into senseless tools that are bound to abandon higher aspiration and ignore difficult and distant goals.' We also remember the law of development of human history discovered by Karl Marx, and Darwin's discovery of the law of development of organic nature, combined with the rising waves of the industrial and biological revolution.

As a result, the present has been increasing in complexity with taking over of non-human, and asking what happened in the journey of the Fables of the Bees: "Human has been reduced to serfs or bland followers at best, with destruction leading to instability and social decay." But even then,

the story is not totally about losing humanity. It continues to include hope for survival, need for revival, and the return to a better Being.

The present Neo-industrial system, although a totalitarian by design, is totally controlling the behavioral elements of the system even if it rules with consent rather than by force in order to provide a free arrangement for workers controlled by the ruling power. But the purpose of the ruling power, with its commitment to 'Greed is Good' and its control of finance and business seems to continue having control of the global system without apparent use of force. And even if the goal is to redress harm and create disincentives for bad behavior, a better understanding of how to apply justice even in the present system, is required. But if freedom is limited to the few, the rest of humanity will feel being under a totalitarian control, and will continue to search for real freedoms. The result will not be satisfactory and will lead to the Schrödinger future. (See Chapter 2-3: "Although Gramsci's strategy may produce abundant innovations, outputs, riches and power for the few, it also creates widespread injustice, distrust, inequality, unrest, and vice that require costly control and adjustments - a control that may put an end to the whole system." See also Carl Icahn in Time Magazine, 16-12-2013; The Economist, 8-31-2014, Briefing Criminalizing the American Company).

A long and peaceful life does not exist if the path of its apparent survival is based on ruthless and inhumane life, and the path itself is full of defects. The case is complex but seems similar to that of the Bald Eagle that apparently lost the meaning of its own existence, thus, it ended the value of its presence. Not only the behavior of the Bald Eagle and that of human behavior have some similarities in their actions, but the case of human is apparently confused, since the thought to change should occur before not after the occurrence of change, otherwise present behavior and action, and the search for the future, become confused, especially since the present behavior and action of humanity leads to mechanistic roles, while the societal path is yet to be reconstructed and reformed.

It is in this domain of behavior and action that change is required for all parts and parties, whether ending in freedom or serfdom. But change is continuous and apparently endless in the Neo-Industrial Age. It is endless in applications, endless in change of behavior, endless in production

and allocation, endless in escalating inequity and inequality, and evidently lack adequate organization of the size and quality of populations. Furthermore as discussed in the various parts of the processes, there are two types of change that are holding social and political change, the first is by the few that control the change, and the second is available for the rest of humanity that obey what the few decide: plan and order. For how long control be controlled?

We may ask: Is there an end to this complex but endless game? The answer is yes: Keep the game going. It is ending faster than imagination.

39 (End of Game)

## Notes

1. Between H.A.A.R.P and Planet upheavals. Human and H.A.A.R.P (High-Frequency Active Auroral Program) is a scientific endeavor sponsored by the US Air Force aimed at studying the properties and behavior of the ionosphere, with emphasis on being able to understand and use it to enhance communications and surveillance systems for both civilian and defense purpose. When HAARP is built to its full power level, it could create weather effects over entire hemispheres. What isn't mentioned above is the fact that the earth has its own magnetic field. So, HAARP directs enormous amounts of energy at the ionosphere that is bounced back towards Earth. This disrupts the magnetic field and can also trigger floods, droughts, hurricanes, and massive earthquake similar to recent ones that occurred in Chile and Japan. This makes it of interest to the military as a potentially devastating weapon and one that may change the global power structure. According to Michel Chossudovsky, H.A.A.R.P is fully operational, and, that knowledge of this potentially catastrophic weapon is public. (For details, visit the Websites of High Frequency Active Auroral Research Program; People Powered News, 5/5/2010; and the H.A.A.R.P article by M. Chossudovsky in [www.FromTheWilderness.com](http://www.FromTheWilderness.com)). Moreover, upheavals may exist between Planets and Earthly Kings (God King Scenario, GKS: [gks.uk.com](http://gks.uk.com), by Gary Gilligan): In the 1950s, Immanuel Velikovsky, a Russian psychologists (1895-1979) wrote a book called 'World in Collision.' Although a bestseller, Velikevsky's theories were rejected or ignored by the academic community. Why was that? Velikovsky stated that Venus was a new planet recently born from Jupiter and that along with Mars, Venus entered into encounters with Earth causing vast upheavals in early history. These questioned cosmic wars still affected the lives and beliefs of early mankind.)
2. Breaking Science, Paul Feyerabend, in Harwood - 2010: 176-77. See also John Rawls in Harwood, *ibid*: 172-173 and Freeman Dyson in John Cornwell (ED: 1995: 1-11).
3. (Schumpeter on Adam Smith and Mandeville) Joseph Schumpeter's note on Mandeville poem and Adam Smith's reaction to it is of interest and worth presenting in full: "Bernard de Mandeville published a didactic poem entitled *The Grumbling Hive* (1705; better known under the later title, *The Fable of the Bees; or Private Vice, Public Benefits*, 1714), in which he endeavored to show that the individual motives that produce socially desirable actions are not unlikely to be morally objectionable. Adam Smith, like other virtuous people, was hard on this piece of work. It contained a eulogy on spending and an indictment of saving, as well as certain 'mercantilist errors' that must have displeased him. But there was more than that to his hostility. Smith cannot have failed to perceive that Mandeville's argument was an argument for Smith's own pure National Liberty couched in a particular form. The reader will have no difficulty in realizing how this fact must have shocked the respectable professor—particularly if it should be the case that he learned something from the offending pamphlet." (Schumpeter 1984: p, 184; also more later)
4. (Social Decay) Probing these issues lead to the central question of the present Essay. For example in a recent analysis, Francis Fukuyama wrote an Article in *Foreign Affairs* (September/October 2014) on America in Decay followed by a forthcoming book (*Political Order and Political Decay: From the French Revolution to the Present*) on the same subject (America in Decay: The Sources of Political Dysfunction, September / October 2014 – *Foreign Affairs* (Essay by Francis Fukuyama, Senior Fellow at the Center on Democracy, Development, and the Rule of Law at Stanford University. This essay is adapted from his forthcoming book, *Political Order and Political Decay: From the French Revolution to the Present* (Farrar, Straus and Giroux, 2014). Copyright @ 2014 by Francis Fukuyama. In the case of Freedom or Serfdom, being part of social decay, Serfdom relate to a person in a condition of servitude required to render services to a lord, commonly attached to the lord's land (terrain) and transferred with it to similar ground.
5. (Army in power leads to financial ruin) [Plotinus (A.D. 204-270), the founder of Neoplatinism, is the last of the great philosophers of

antiquity. His life essentially was overlying with one of the most disastrous periods in Roman history. Shortly before his birth, the army had become conscious of its power, and had adopted the practice of choosing emperors in return for monetary rewards and assassinating them afterwards to give occasion for a renewed sale of the Empire. These preoccupations unfitted the soldiers for the defence of the frontier and permitted vigorous incursions of Germans from the north and Persians from the East. War and pestilence diminished the population of the Empire by about a third while increased taxation and diminished resources caused financial ruin]. (Russell 1945: 284, on Plotinus and Christianity. See also the 'Structure of War' in Chapter 15-2)

6. (Short review of Bertrand Russell history, and analysis in 1945: 493-5). Bertrand Russell is a leading philosopher and scientist. His well-known Book: *History of Western Philosophy* has received both high praise (Cf. Schrödinger and Albert Einstein) and disapproval (Cf. Leo Roberts), both listed below along with Russell's own remarks. Einstein started: "A precious book ... a work that is in the highest degree pedagogical which stands above the conflicts of parties and opinions". Schrödinger: "Indeed, within the short period of one or two years several books had been published, whose authors were not classical scholars but were primarily interested in the scientific and philosophic thought of today; yet they had devoted a very substantial part of the scholarly labor embodied in their books to expounding and scrutinizing the earliest roots of modern thought in ancient writings. ...There is the marvelous *History of Western Philosophy* by Bertrand Russell, on whose manifold merits I need not and cannot enlarge here..." Leo Roberts: "Mr. Russell's qualities as a writer and thinker ... are of a high order: deftness of wit, vigor of mind and suppleness of style. Yet their presence ... does not save the book ... from being perhaps the worst that Mr. Russell has written.... As one would expect, the author is at his best when dealing with present day ideas, if for no other reason than his large share in their inception.... By contrast, his treatment of ancient and medieval doctrines is nearly worthless." Russell himself had something to say

about the book: "I regarded the early part of my *History of Western Philosophy* as a history of culture, but in the latter parts, where science becomes important, it is more difficult to fit into this framework. I did my best, but I am not all sure that I succeeded. I was sometimes accused by reviewers of writing not a true history but a biased account of the events that I arbitrarily chose to write off, But to my mind, a man without bias cannot write interesting history – if, indeed, such man exists."

7. [Nihilism has both a metaphysical and a moral meaning. There is nothing eternal or 'unchanging' to preserve values and judgment as Western tradition learned from Plato. In the metaphysical meaning all things are constantly changing and leading to historical relativism in which, on the one hand, results in mild nihilism individuals and groups who abandon all higher aspirations that is—a banal hedonism that pursues the path of least resistance. On the other hand, 'brutal' nihilism—nihilism as the will to power—asserts itself as the be-all and end-all of human activity that aims to conquest nature in the case of science and technology, and subjugate mankind in the case of politics of power. But nihilism need not act only as a negative phenomenon. It is possible that 'obliteration of standards and values' could open the prospect for a new start: Thus, Nihilism could be the greatest ethical and political disaster. Also, in 1936, Heidegger gave a lecture on Nietzsche who gave his condemnation of the 'present' age around the year 1882 as follows: "Our age is an agitated one, and precisely for that reason, not an age of passion; it hearts itself up continuously, because it feels that it is not warm – basically it is freezing." Heidegger agrees: "There is no longer any goal in and through which all the forces of the historical existence of peoples can cohere and in the direction of which they can develop." (Gillespie on Heidegger 1987: 888-893; Dreyfus, Hubert L. 1999/1993. Also, *Heidegger on the Connection between nihilism, art, technology, and politics*, in Charles Guignon ED. *Cambridge Companion to Heidegger*, 1962: 290--292)
8. (Short memory - losers pay the guilty!) [Professor Larry Klein, a well-known Economist and I were flying from the USA to a meeting in Pakistan in the winter of 1991, at the

time when the US started its vicious attack on Iraq with heavy bombarding. Professor Klein noticed my concern about the ethical consequences of a war that, in my opinion, lacks the requisite foundation. To support my feelings, he said, there is no need for concern since both sides especially the one being attacked have short memories. This is similar to the case of the '2007 Credit Crisis' in which the guilty gained greatly, while the innocents who lost their jobs and savings end-up paying even more to the guilty. Both have short memories of 2007 and previous financial crises] (Cf. Sirageldin 2009).

9. (Assassinations and assassination attempts of US Presidents) There have been four assassinations of US Presidents, namely: Abraham Lincoln April 14, 1865, James Garfield July 2, 1881, William McKinley September 6, 1901, and John F. Kennedy November 22, 1963. Also, there have been serious assassination attempts of US presidents, namely: Andrew Jackson 1835, Theodore Roosevelt 1912, Franklin Roosevelt 1933, Harry Truman 1950, Gerald Ford 1975, and Ronald Regan 1981. More recently, Gawker from the Huff Post Politics reported that Andrew Adler, Publisher of the Atlanta Jewish Times, has written in early January of 2012 describing: "*the urgency in protecting the Israeli people from threats such as Hamas and Hezbollah and argues that there are only three options available to Israel: 1. Attack Hezbollah and Hamas (done in February 2012); 2. 'Order the destruction of Iran's nuclear facilities at all costs'; 3. Assassinate Obama.* (Published in the Huff Post Politics, the Internet News Paper, Jan. 2012) These assassinations and attempts to assassinate Presidents of one of the top democratic countries of the world are probably an indication that more is lacking in the system of democracy and governance, as discussed later.
10. (Nature's control) [The present discussion excludes the views of those who believe that nature controls human destiny or, put in a different way, humans may not exist without the presence of nature's design; and this design not being limited simply to the basics of water, air, and correct temperature but also including the equally essential presence of known and unknown living entities (creatures) that are an interlocked parts of human

existence both external and internal as for example the case of mitochondria. These are little separate and independent creatures with their own DNA and RNA that occupy human cells forever. Without their presence, according to Thomas: "human would not move a muscle, drum a finger, or think a thought" (Lewis Thomas 1974/1981. *The Lives of a Cell: Notes of Biology Watcher*. New York: The Viking Press, Inc. 4; Penguin Dictionary of Biology, M. Thain and M. Hickman, 1954/1994, Penguin Reference). The presence of a dangerous form such as the one mentioned above may not be adjusted or controlled by human systems and capabilities since it may be considered part of nature's design. Baron D'Holbach, an Eighteen Century French philosopher, believed that nature 'as a whole,' is an eternal being: 'All that passes in man, all that is done by him, as well as all that happens in nature, or that is attributed to her, is derived from necessary flow. Fatality is the eternal, the immutable, the necessary order established in nature, or the indispensable connection of causes that act with the effects they operate.'" Holbach argued that, "Both reason and experience lead to the conclusion that nature, as a whole is an eternal, infinite being." {Baron D'Holbach, *System of Nature* 1770/1999/2007, Also, Penguin Dictionary of Philosophy 1996/2005: 280. (Thanks to Hana N. Sirageldin for introducing Holbach, *System of Nature*). In a different epoch and background, Lewis Thomas an accomplished physician, and some biologists and medical researchers are thinking of the earth as an organism with its own behavior. But as Lewis Thomas explained, this is no go: "I cannot think of it this way. It is too big, too complex, with too many working parts including visible connections. But if not like an organism, what is it like, what is it most like? Then satisfactorily for that moment, it came to me: it is most like a single cell." (Thomas, *ibid*: 3-5). It seems according to Thomas that humans can only adjust for a changing nature, not redesign it].

11. (Determinism and human values) [Isaiah Berlin didn't claim that the thesis of determinism is demonstrably false. He only stated that "if it is true, and if its validity becomes widely accepted by men, reflecting itself not only in



their theoretical professions but in their daily thought and practice, then this will entail a radical revision, or even the final demise, of some of the basic categories in terms men have conceived of themselves as human; that words like freedom, choice, responsibility, moral deserts, praise, blame, remorse, regret, and many more besides, would either take on a wholly novel meaning, or else be emptied of significance altogether ... it is the very fear that the categories and methods of the categories and methods of the empirical, quantitative sciences can be, and have in fact been, extended into the sphere of what had hitherto been supposed to be properly and uniquely human forms of experience, often with a disquieting degree of success and with results that are difficult to describe and evaluate ... do we proceed to do this, in the name of truth or in the name of efficiency or organization? But these are not autonomous ends]. (Roger Hausheer on: Isaiah Berlin, 1955/1997. *Against the Current: Essays in the History of Ideas*. Princeton: Princeton University Press. P. 23)

12. (Theology versus Metaphysics) [Mythology: metaphysics and theology. Theology made a distinction between the power of nature and nature itself, separated the two, made the power of nature prior to nature, and called it God. Thus man was left with abstract and chimerical being on one side and a despoiled inert nature, destitute of power, on the other. In Holbach's critique the point at which theology split off from mythology marks the moment of nature's alienation from itself and paves the way for man's alienation from nature.]
13. (Historicist doctrine) [Historicism is the doctrine that specific evolutionary or historical laws control history. The discovery of these laws would enable us to prophesy the destiny of man. The doctrine may be illustrated by one of the simplest and oldest of its forms, the doctrine of the chosen people]. (Popper 1971/1962, Volume 1: 7-10)
14. (Ontology, the presence of God, and the influence on Knowledge) [Ontology indicates that even 'Nothing' could exist. Ontology is an argument for the existence of an object such as an Idea or God by defining the object as the greatest possible 'existence', thus proving

that the object, even if is 'Nothing' could exist as a definite reality. The ontological argument depends upon the distinction between the essence of the object and its existence - the essence of a finite substance does not necessarily imply its existence since 'thought' and 'understanding' are required for many as a base for belief. Anselm, for example, who invented the ontological proof of the existence of God, stated that knowledge was the primary object of his search: 'I believe in order to understand.' He thought along with Leibniz and Thomas Aquinas that God is not expected to act contrary to the laws of logic. (Not all theologians agree with this view or with Anselm ontological proof of God's existence (Leibniz did not wholly accept Anselm argument. He added his own proof that the idea of God is possible). For example, the God of the Old Testament is a God of power, the God of the New Testament is a God of love, neither are God of intellect, although to the theologians, from Aristotle to Calvin, God is one whose appeal is intellectual (cf. Russell 1945: 585-6). It is of interest that the opening of the Islamic Koran starts with 'read,' thus encourages the acquiring of knowledge (Cf. Maurice Bucaille 2003). The influence of belief (theology) on human values and behavior persist up to the present time. In October 2008, for example, Senator Inhofe indicated that the reason for the unexpected snowstorm in Tulsa, USA that caused extensive losses to farmers is that God changed his mind (Senator Inhofe is a member of the United States Senate Committee on Environment). Aside from confirming the influence of belief on values and behavior, Senator Inhofe basically ignored centuries of scientific knowledge and analysis. Others of that scientific and powerful cohort say that they consult the Gospels on future incidences of flooding! Inhofe's statement and other similar ones may have been accepted two centuries ago as testimonial statements, if it weren't a charade meant to protect Tulsa's economy and its voters that have been their real religion (Steven Stoll, Harper's Magazine/November 2009: 7-10). Furthermore, a poll by the Pew research center, following Senator Inhofe statement, 38 percent of those polled and 49 percent of white Evangelicals believe that either that

- climate change is a hoax or that humans are not responsible for it. (Ibid: 7) Indeed, what human believe in is a GOD beyond Senators and Kings, it is a deep belief in a true God that even Darwin and Wallace believed in. [Alfred Russell Wallace, 1914, "The World of Life – a manifest of creative power, directive mind and ultimate purpose." A Wallace Publisher - London.
15. On Democracy, Isonomy and Freedom. In his book "The Political Ideal of the Rule of Law," Hayek explored the impact of the changing role and meaning of democracy, on Isonomy and Freedom. The following is a brief introduction. The Rule of Law and the respect for human freedoms are mostly found in early democratic societies. In essence, there is no necessary connection between Democracy on the one hand, and the Rule of Law and Freedom on the other. Democracy, since the time of Plato, when the Rule of Law (Isonomy) lost its privileged status and started its decline, got a bad reputation, on another ground. Democracy was led to tyranny as the rule of the many (majority rule) replaced the rule of law; while individual freedom with ups and downs was eventually reduced. (F. A. Hayek, 1955; Penguin Dictionary of Philosophy, 2005: 144; Amartya Sen 1999)
  16. (Risky thought) [That there is an area of "dangerous thought" is scarcely debatable. While we recognize that what is dangerous to think about may differ from country to country and from epoch to epoch, on the whole, subjects marked with the danger signal are those that the society or the controlling elements in it believe to be so vital and hence so sacred that they will not tolerate their profanation by discussion]. (Mannheim 1936: xiv)
  17. On Pragmatism: [Charles S. Pierce (1839-1914) and William James (1842-1910) were the founders of Pragmatism. However there is a difference in approach between the two authorities: Pierce has advocated pragmatism as a theory of meaning; James, on the other hand, postulated that it was a theory of truth: "By definition, all knowledge must be pragmatic; therefore, by applying the principles of pragmatic reasoning, it will be possible to determine which parts of it were true." (Cf. Harwood: 113-115; the Oxford Companion to Philosophy, ED. Honderich) The present interest however is not to analyze Pragmatism, but rather to follow on Rorty's idea of the human evolution towards maturity.]
  18. -
  19. On Objective and Subjective Philosophy. Theories may relate to more than one kind of judgment as, for example: objective, i.e. pertain to objects, or subjective, i.e. pertain to subjects. For example: (1) 'Fish have fins' is an objective claim: its truth or falsity is independent of what anyone thinks or feels about the matter. (2) 'Raw fish is delicious' is a subjective claim: its truth or falsity is not thus independent, and, indeed arguably, it is neither true nor false even though taste can be sophisticated, discriminating, insensitive, etc. (The Oxford Companion to Philosophy, ED Ted Honderich, Oxford University Press 1995: 630 / A.J.L)
  20. Controlling the Internet. The control of the Internet is in shambles although its presence is central to the modern world. It encouraged innovations and proved to be hard to censor. Governments around the world are uncomfortable with the current setup: "There is a growing sense—and not just among the usual authoritarian suspects—that the internet is too important, politically as well as economically, to continue to operate beyond the remit of governments (The Economist October 1st 2011: 16, 63). Some governments are pushing to be more than mere stakeholders. Others (China and Russia) want the United Nations General Assembly to adopt an "International Code of Conduct for Information Security". Others called for a "new global body" to control the Internet. Governments have a role that is yet to be clarified along with their evolving role in the global technical age. Meanwhile, new innovations are changing the structure of the Internet.
  21. On Man and Nature. Man is not the stupendous force that he pictures, and the earth and nature are neither delicate nor fragile. Lewis Thomas (see FN. 10) phrased it with lucidity: "We are told that the trouble with Modern Man is that he has been trying to detach himself from nature. He sits in the topmost tiers of polymer, glass, and steel, dangling his pulsing legs, surveying at a distance the writhing life of the planet. In this scenario, Man comes on as a stupendous lethal force, and the earth

- is pictured as something delicate, like rising bubbles at the surface of a country pond, or flights of fragile birds. But it is illusion to think that there is anything fragile about the life of earth; surely this is the toughest membrane imaginable in the universe, opaque to probability, impermeable to death. We are the delicate part, transient and vulnerable as cilia ... Man is embedded in nature." (Ibid: 3)
22. Reductionism. In philosophy, reductionism is the "belief that mental descriptions are made true purely by facts about behavior (behaviorism), that statements about the external world are made true by facts about the structure of experience (phenomenalism), or that statements about moral issues are really statements about natural facts (naturalism) [Blackburn: 322]. In science, reductionism is the analytical belief in the unity of all sciences.
  23. Broader Economics. To emphasize the point, a digression is called for. At joining the Economic Department at Johns Hopkins University in the mid 1960's, the Department, since its inception more than a century earlier, was named Political Economy, thus with wider interest. By the early 1970's, 'Political' disappeared from its title. The change was unfortunate, at least for some faculty members including myself. The scope of economics has been viewed by the early fathers of the subject such as Adam Smith, Karl Marx, Alfred Marshall, and John Maynard Keynes and, some broad minded political philosophers, physicists, and economists such as Bertrand Russell, Martin Heidegger, Erwin Schrödinger, Kenneth Boulding, Kenneth Galbraith, Jim Morgan, among others, as more than just a technical, analytical or accounting tool. In the case of Keynes, Keynes was thought by some readers that economics should be a technical profession, based on the quotation: "If economists could manage to get themselves thought of as humble, competent people on a level with dentists ... that would be splendid!" (Quote by the Economist Special Report 2007: 8). But reading Keynes as a whole, or rereading the Economist quote with care, presents a different Keynes' view of economics than the narrow one implied in The Economist quote, since a good dentist should go far beyond pulling teeth into the full human structure, its makeup and its environment].
  24. On Education Technology and Control. [In 2005-2007, education in Information Technology (IT) has been losing popularity in the USA: Interest in computer science dropped by 25 per cent in some schools. According to one corporate research chief, "As a nation we need scientists and engineers if we are going to be successful. All the new business is built around that." (Fortune, July 23, 2007: 68). The decline is partly linked to competition abroad and reduced American students' ability to compete, but also the repetitive/standardized nature of technical and controlled jobs once the learning process is complete, similar to the earlier case of Fordism].
  25. State and Nation. [State or a Country is a legal entity, e.g., a member of the United Nations. A country may include a number of states each with their own local government. But, a nation is defined more by a sentiment of similarity and instinct of solidarity. For example, the previous Soviet Union included many nations that ended up as independent states, while the nation of Armenians is spread across many states or countries. It is common that 'national' feelings include elements of hostility to foreigners and that reconciliation of freedom and order is more successful in a nation than in a diverse state or a country. The distinction between nation and state is relevant for understanding the difficulty in developing a global government, although the name, United Nations may cause some confusion.]
  26. Money Does-not exist. To understand these statements, we need to know the process by which money is created. We must consider banks and other financial intermediaries as the business of money. Suppose someone puts an amount of money in that business, say \$1000 as a new reserve that is injected into the bank portfolio. The bank will treat the added reserve as part of its business operation. It will market it as loans or investments, within the rules of the Banking System. There are about five such rules that include setting aside a minimum reserve requirement as security for business operation, say 10 percent of the new deposits, which is not to be used as loans or investment. The remaining 90 percent of the initial deposit becomes available for sale as loans minus the 10 percent reserve,

and so on. The final expansion of the money-supply multiplier, becomes,  $\$1000 + \$900 + \$800 + \dots = \$1000 + \$9000 = \$10,000$ . The  $\$1000$  is the minimum reserve requirement, while the  $\$9000$  is the newly created money. This added 'money,' although used as money it does not exist in actuality. It exists in the future when the 'basic' loan is fully returned to the Bank that includes a return. It is evident that, in this transaction, the potential for error and fraud is considerable and occurred often. To sum up: money is essential for growth and progress, but leads to waste and decline if uncontrolled or misused. In this case: money, not only does not exist, but creates economic and sociopolitical chaos and disorder, if not adequately controlled at each step (Cf., Sirageldin 2009, "The 2007 Credit Crisis: A long-term view" and references cited).

27. Hedge Funds [As of 2008, hedge funds (unlike mutual funds) are unregulated because they cater to sophisticated investors and may be viewed as mutual funds for the super-rich. In that respect, they are similar to mutual funds in that investments are pooled and professionally managed, but differ in that the fund has far more flexibility in its investment strategies. The goal of most hedge funds is to maximize return on investment, and nowadays hedge funds use dozens of different strategies. Therefore, it is not accurate to say that hedge funds just "hedge risk". In fact, because hedge fund managers make speculative investments, these funds can carry more risk than the overall market.]
28. Role of Alan Greenspan) Greenspan served as Chair of the U.S. Federal Reserve Bank from 1987 to 2006. The article dated November/December 2013. Never Saw It Coming: Why the Financial Crisis Took Economists by Surprise, Foreign Affairs. It is based on his recent Book: *The Map and the Territory: Risk, Human Nature, and the Future of Forecasting*. The penguin Press, 2013)
29. Note on Population - Change in population size and structure could have a considerable effect on the economy and the social system (For details, see Sirageldin 1984, and references cited).
30. On survival of Fertility and Mortality. Fertility and mortality are structured and timed to survive as Homo sapiens. There are many reasons that fertility births exceed that of mortality and visa-versa. A fast rise of fertility that exceeds the decline of mortality will survive if fertility is able to survive disease, nourishment for subsistence, and social liability. It is the structure of fertility and mortality that set the basics for the structure of the Book. The continuity of their existence is simple to find out, but it is the continuity of their presence that requires careful understanding and knowledge. For example, the Birth rate defined as the average number of life births per 1000 of population per year, although birth and death are part of the Neo-industrial Age, they seem to be declining in both the advanced and declining societies. The following is some information about the structure of humanity: National Center for Health Statistics; Reports on Population 2012, Population Reference Bureau; Sirageldin 1984; Sirageldin 1991; W. Robinson & D. Horlacher, 1971, Population Growth and Economic Welfare; Reports on Population/Family Planning Population Council; United Nations, 1973. The determinants and Consequences of Population Trends: New Summary of Findings on Interaction of Demographic, Economic and Social Factors, Volume 1, Population Studies, No. 50 New York: United Nations; Birth rate analysis in The MIT Dictionary of Modern Economics (Fourth Edition, Edited By: David W. Pearce, 1992, The MIT Press, Cambridge, Massachusetts: ISBN—13 978-0262-16132-9; and references cited
31. Robinson Crusoe. Robinson Crusoe has often turned up in textbooks in economics. As long as Crusoe was all by himself working on his island, no division of labor could take place, although part of his work could be accumulated in various forms. It is when Friday and similar others join the Island that the division of labor can start. But we can remark that "Robinson Crusoe no doubt considered that the capital accumulated through the work of Friday 'and his colleagues' belonged to him alone and that he alone could decide how the products of their labor could be distributed. See: Erland Hofsten 133; MIT Dictionary of Modern Economics; and Schumpeter, History of Economic Analysis, Part IV.
32. On types of Government and Welfare Economics. Monarchy, a form of government in

which supreme power is absolutely or nominally lodged with an individual, who is the head of state, often for life or until abdication. A monarchy usually possesses more checks and balances than an autocracy or dictatorship. Oligarchy, a form of government in which power effectively rests with a small elite segment of society distinguished by royal, wealth, intellectual, family, military or religious hegemony. Social or People's Republic, a state run by a communist party that pretends to be following the progression from capitalism to socialism to communism, although it did not happen thus-far. Technocracy, a form of government in which engineers, scientists, and other technical experts are in control of decision making in their respective fields. Theocracy, a form of government in which a god or deity is recognized as the state's supreme civil ruler although god or deity govern but usually absent from the decision-making. Fascism: a totalitarian government under different names such as Nazism or Corporatism. In Fascism the country is a governmental system led by a dictator having complete power forcibly suppressing opposition and criticism regimenting all. Anarchy is lack of government and each individual has absolute liberty with explicit laws. Democracy refers to a broad range of types of government based upon the "content of the government." It is usually practiced in the form of a Republic, which provides check and balance and an establishment that is able to tap an unruly mob on its collective head. It is also named capitalism: a political, social and economic system in which property including property including capital assets are owned and controlled for the most part by private persons. Capitalism contrasts with Feudalism, in that it is characterized by the purchase of labor for money wage and opposed to the direct labor obtained through custom, duty or command in feudalism. It differs from Socialism principally in its prevalence of private ownership of the elements of production. We may also add that there are many forces that lead to change of governments in history, for example, Sicily, a relatively small island controlled by the Islamic rule but returned to the Italian Regime hundreds of years ago, the people of Sicily continue to adhere to the

way of life and many ideas of Islam. (John Keahey Seeking Sicily: A Cultural Journey Through Myth and Reality in the Heart of the Mediterranean, 2011, Dunne/St. Martin's, New York, ISBN: 978-0-312-59705-4. For details on the types of governments, see Rational WIKI and the MIT Dictionary of Modern Economics, Fourth Edition, Editor David W. Pearce, The New Palgrave: A Dictionary of Economics, published by the Macmillan Press in 1987; and references cited). In the second part of this Footnote, the focus in the analysis is on Welfare Economics. According to I. Little, whenever it has been found that the terminology of economics is, in this sense, normative, we have suggested that the ethical issues involved should be brought right into the open. Unless this is done, it is often not at all clear whether a dispute is one of fact, or one of value. I am suggesting that economists must try to be neutral on ethical issues and welfare economics be based on the following sufficient criterion for a desirable economic change: an economic change is desirable if (a) it would result in a good redistribution of wealth, and if (b) the potential losers could not profitably bribe the potential gainers to oppose the change. Two value judgments are presupposed by this criterion. The first is that an individual becomes better off if he has enabled to reach a position higher up on his order of choice. The second is that the community is better off if one individual becomes better off, and none worse off. I. M. D. Little A Critique of Welfare Economics. Oxford University Press 1957: 274-279.

33. Story of the Pharaohs- Information on ancient Egypt is partly based on: 'The Literature of Ancient Egypt' by William Kelley; 'Ancient Egypt' by David P. Silverman; 'The Oxford History of Ancient Egypt' by Ian Shaw; and 'Lives of the Ancient Egyptians: Pharaohs, Queens, Courtiers-Commoners by Toby Wilkinson; Chapter 2, Jill Kamil, Labib Habachib 2007; Constant De Wit, The Evangelical Quarterly; Joan Fletscher, 2002, The Egyptian Book of Living and Dying – The Illustrated Guide to Ancient Egyptian Wisdom. Chertwell Book Inc. Also, refer to Chapter one among others.
34. Mummification not Magic Mummification is based on science that is not fully understood,

and not on magic. According to Alan Unter-  
man magical practices were widely used by  
unlettered Jews for variety of purposes. Many  
magical prescriptions, known as segullor, cir-  
culated to deal with a variety of intentions  
ranging from dealing with health, lack of  
love, the evil eye, witches' spill, to visiting the  
graves of dead holy men. For that purpose, 'a  
request might be written on a piece of paper  
and deposited inside the tomb on the sight of  
the burial, or candles burnt.' The idea behind  
these and similar practices was that 'the spirit  
of the deceased should intercede on behalf of  
the visitor, or that being in the mere presence  
of the mortal remains of such a saintly and  
powerful person would be of benefit.' This  
practice is clearly spiritual. It differs from  
the technical approach of mummification al-  
though the spiritual approach may supple-  
ment the mummification by the possible  
presence of the deceased spirit. [Allan Unter-  
man on Judaism, in a *New Handbook of Liv-  
ing Religions*, 1997: 36-37]

35. Hellenistic behavior. [Russell statement (ibid: 228, above), although describes the Hellenistic society of more than a thousand years ago, and concluding that the statement 'sums up the moral character of the third century B.C., except for few exceptional men.' In our view, the truth of human behavior as stated by Russell goes far beyond that ancient time to the present time. It illustrates unchanging human behavior up to the twentieth century and beyond. For example, human behavior in the global Credit Crises of 2007 illustrates swindle behavior, lack of truthfulness and of honesty, and without care for humanity (CF. Sirageldin 2009)]
36. Dark Ages. (The term "Dark Ages" was originally intended to denote the entire period between the fall of Rome and the Renaissance; the term "Middle Ages" has a similar motivation, implying an intermediate period between Classical Antiquity and the Modern era. In the 19th century scholars began to recognize the accomplishments made during the period, thereby challenging the image of the Middle-Ages as a time of darkness and decay. The rise of archaeology and other specialties in the 20th century has shed much light on the period and offered a better understanding of its positive development. The term, Dark Ages is not used anymore by scholars to refer to the entire medieval period. When used, it is generally restricted to the Early Middle Ages. See Wikipedia)
37. Bible 'War' So far, we maintain that basic human behavior does not change. Basic needs or amenities are food, water, air or other needs that are essential for survival. Human is willing to fight other human to the last drop to get the necessary life-amenities for self, family or community. But as discussed, there are many reasons to start a war, including war as business and war for faith. Religion gets commitment for war when required and commit human as well to fight and hate. In his Book, *One World: The ethics of globalization*, Peter Singer presents an illustration of Bible War-type and its impact on humanity. Genocide is not a new phenomenon. Anyone who has read the Bible knows that. The Book of Numbers tells of a time when Israelite men were succumbing to the charm of the women.
38. Changing contemporary science - A reminder of the change in contemporary science: Some contemporary scientists maintain that scientific progress has not been based solely on the rules and morals of science. It is also the outcome of breaking all the rules in the book. It owed its progress as much to a 'mixture of subterfuge, rhetoric, conjecture, propaganda, and politics as it did to rational argument,' see FN. 2 for braking science)
39. Life Game that Ends: A Game to play, a thought that comes and goes.. Freedom or Serfdom, from these or those ... Begin or end, aware or not, all the same... Coming or not, see for what, think to blame... True or not, Heaven that came and gone... Remain, with eye or heart, essence is done!

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# About the Author

*Ismail Sirageldin is Professor Emeritus at the Johns Hopkins University, where he has been since 1967. He got his Doctorate degree in Economics from the University of Michigan in 1966 with Jim Morgan and Kenneth Boulding his Doctoral Advisers. He has been Professor of Economics, Population Dynamics, International Economics (SAIS) and International Health. During his tenure, he has been the thesis advisor to more than fifty Doctorate and Post-Doctorate students, including Economists, Public Health, Engineers, and Lawyers. He published extensively articles and books on Economics, Population and International Health. He served as Senior Advisor to many organizations countries including Egypt, Kuwait, other Middle east countries, and WHO, UN, UNESCO, and evaluating Higher Education. He also gave many Keynote Addresses. Sirageldin has been advisor to Governments and International Agencies on Economics, Manpower Planning, Education, Public Health and Agriculture. He established and edited Research in Human Capital and Development (1979-1997) and in 2002, he edited the Sustainable Human Development Theme of the Encyclopedia of Life Support Systems (EOLSS), that was published as a Two-Volume Book in 2009. Sirageldin was awarded the UN-Cairo Demographic Center Shield of Honor, and was awarded the Kuwait Prize for the Advancement of Science in 1993. Sirageldin has been a fellow and elected member of the Board of Trustees of ERF (1996-2001).*

## *Nine Publications by Sirageldin related to the subject*

- 1. Sustainable Human Development, Theme include 28 articles and authors, Edited by: Sirageldin, and published in two volumes in 2009 by EOLSS, UNESCO, Paris-France, and other publications on the subject:*
- 2. Theme Essay, "Sustainable Human Development in the 21st Century, an Evolutionary Perspective. (2001/2009).*
- 3. Diversity and Historical Processes in Human Development." Review of the historical and technological processes that led to the present state of human diversity and differentiation (2001/2009).*
- 4. Global Interdependency, Privatization of Risk and Human Insecurity." I. Sirageldin and Samia Serageldin. (2001/2009)*
- 5. Globalization: Uncertain Course?" 2003 Address to the Symposium: Globalization and the Gulf American University, UAE.*
- 6. Human Development in a Century of Population Growth and Scarcity: Prospects and Problems." 2002, Address to the Johns Hopkins Symposium: The coming crunch.*
- 7. Credit Crisis and its Human Implication. 2009, "The 2007 Credit Crisis: A Long-term View," in ARAB BANK REVIEW.*
- 8. "Non-Market Components of National Income", 1969 / 1973, published by ISR, the University of Michigan, Ann Arbor, USA.*
- 9. "Globalization, Regionalization, and Recent Trade Agreements: Impact on Arab Economies, Rapid Exogenous Change – Slow Endogenous Response. (Editor: Ahmed Al-Kawaz, 1999, Arab Planning Institute Kuwait – Oxford.*