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The CADMUS Journal

The acronym of the South-East European Division of The World Academy of Art and Science—SEED—prompted us to initiate a journal devoted to seed ideas—to leadership in thought that leads to action. Cadmus (or Kadmos in Greek and Phoenician mythology) was a son of King Agenor and Queen Telephassa of Tyre, and brother of Cilix, Phoenix and Europa. Cadmus is credited with introducing the original alphabet—the Phoenician alphabet, with “the invention” of agriculture, and with founding the city of Thebes. His marriage to Harmonia represents the symbolic coupling of Eastern learning and Western love of beauty. The youngest son of Cadmus and Harmonia is Illyrius. The city of Zagreb, which is the formal seat of SEED, was once a part of Illyria, a region including what is today referred to as the Western Balkans and even more. Cadmus will be a journal for fresh thinking and new perspectives that integrates knowledge from all fields of science, arts and humanities to address real-life issues, inform policy and decision-making, and enhance our collective response to the challenges and opportunities facing the world today.

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Viable Solutions for seemingly Intractable Problems

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Abstract

Life is filled with seemingly intractable problems. But life wisdom affirms that if there is a problem, there must be a solution. Or better yet, the solution to the problem lies within the problem itself. Problems have their roots in disharmony. Disharmony arises when a part separates itself from the whole and acts independently of the wider reality of which it is a part, as financial markets have separated themselves from the real economy and economy has detached itself from social and ecological consequences. Insistence on out-moded approaches under new conditions generates intractable problems, as when the framework of a heterogeneous nation-state is employed for the dominance of a single ethnic or religious group. Knowledge and culture are the supreme values of a society and core element of its capacity for accomplishment and development, yet both tend to be exclusively possessed by elites for their own benefit, rather than freely distributed to maximize their impact on society as a whole. Society evolves by the transformation of ignorance into knowledge. Life evolves by organization. The linking and integration of social organizations spur development. Mind itself is an organization and powerful force for development. Energy makes organization more efficient. Any problem can be solved by raising the effectiveness of energy by converting it into skill or capacity and transforming it into power through organization. What one person sees as a problem is an opportunity for another with wider vision. The difference in perception accounts for the difference in levels of accomplishment. So, those with the right perspective see opportunities where others see insolvable problems. Current problems are the result of irrationality, refusal to benefit from past experience and insistence on repeating past errors. Modern science, which was born to fight the superstition of religion, has become a source of superstition. Fully availing of the latest advances for the widest benefit of humanity is a simple and effective principle for solving apparently intractable problems. Problems exist at various levels; what works on one level may not work for the other. Solutions are possible for any problem because man is always free to draw on solutions from a higher plane.

Life is filled with problems. Rare are the few wise people who look at problems as disguised opportunities. The Adwaitic philosophy of India looks at life as something illusory and consequently feels problems are illusory too. When work refuses to progress and stagnates we feel there is a problem. European settlers seeking freedom immigrated to America and found there an unrestricted atmosphere free of social restrictions and mental superstitions. They came to feel that *if there is a problem there must be a solution*. In the 1860s the citizens of Chicago realized that they had built their nascent city on low lying areas

subject to flooding and decided to raise it. In one notable incident they were able to raise a four-story hotel five feet above the ground when the hotel was functioning. A century later their descendants sent a man to the moon and safely back again. Such achievements are not possible without a glimpse of the infinity in life.

“The creation of 70,000 nuclear weapons by the superpowers in pursuit of increasing levels of national security and the perpetuation of the veto power by the P5 at the UN are some inexplicable instances of thought divorced from logic and rationality.”

Life is arranged in such a way that what is considered a problem to one person is not a problem for another. Spiritual philosophy has declared that *“all problems of life are problems of harmony.”* Ironically, marriage which is sought after by men and women as a means to increase their happiness becomes a source of disharmony and unhappiness for many. One loses harmony when mind is divorced from the body or from external reality, or when thought is divorced from logic or rationality. For example, the science of Economics is part of the larger society and is meant to operate for the welfare of society. But over the years it has become disconnected from the rest of society and functions independently and to some extent detrimentally. Economics advocates growth for growth’s sake even when it results in widening levels of inequality and ecological damage. Financial markets in pursuit of short term speculative profits function in a manner that is increasingly divorced from the real economy that undermines real economic development, human welfare and social stability. The creation of 70,000 nuclear weapons by the superpowers in pursuit of increasing levels of national security and the perpetuation of the veto power by the P5 at the UN are some inexplicable instances of thought divorced from logic and rationality.

Life has moved away from its primitive origins and has become civilized and sophisticated. Still the inherent tendency of man is not to change. He insistently seeks to handle new problems in the old ways that created them as if nothing had changed, like the Boxers who, convinced of their invulnerability, faced modern armies with primitive weapons. Such an approach unnecessarily prolongs problems or converts them into situations that defy solution. Insistence on out-moded approaches makes the problem even more intractable.

A modern state is a political entity founded for political reasons and intended to accommodate heterogeneous populations. When religion is made the primary basis for its inception, its very birth is likely to be attended with social strife and prolonged military conflict. The problem results from the initial conception and defies solution without correcting the original premise.

Marx predicted a violent working class revolution. Industrialized England seemed the logical place for it to surface. The world became alarmed and tried to prevent it as far as possible. Instead, the response came from agrarian Russia which was still in the grips of serfdom and did not meet any of the conditions Marx had envisioned for launching a

proletarian revolution. Though the call was for freeing the proletariat from his fetters and turning him into a free individual, the way the revolution was implemented in the Soviet Union exchanged one form of serfdom for another, leading to the very liquidation of the individual. The natural solution would have been to remove the fetters of serfdom and allow the people to develop naturally in an atmosphere of freedom rather than trying to develop them violently.

Society has developed knowledge and culture into supreme values. They represent the highest achievements of civilization and their gradual extension to the entire society is the assured path for continued social progress. It is the responsibility of those who have acquired these treasures to extend them to others. But the tendency of elites—the aristocracies of class, caste, wealth, military and political power—is to retain these values exclusively for themselves. When the part refuses to raise the whole society to a higher level, what follows is a violent reaction that leads to beheading a few thousand individuals or a general decline of the whole society. Though the immediate source of trouble may be removed, as it was in revolutionary France in 1789 and revolutionary Egypt a few years ago, the society which has lost its old leadership typically resorts to restoring the lost social order and monopoly on power under a new label. Thus, communism supplanted Czarism in Russia and plutocracy supplanted monarchy in the West.

Life is characterized by many important principles: One is that *one moves down in order to rise to a greater height*. Division and conflict are endemic characteristics of life based on the tendency of mind to view reality in terms of mutually exclusive opposites and contradictions. Life progresses through mild struggle that takes on the appearance of strife. *Life validates desire which aims at delight*. Society evolves by the transformation of ignorance into knowledge.

One of the most instructive of these principles is that *Life evolves by organisation*. There used to be times when history was described as the history of kings. Later it changed into the history of people. Studying life as the history of organization will show how at each stage humanity has resolved its problems by greater organization. Organizations are formed from the interrelationship of systems. Systems come into being by the organization of acts into chains of activities. When two organizations merge, they become all the more powerful, as in the merging of transport and communication to create the modern air transport industry or the merging of education and printing. Thus, the principle for solving problems is to raise the effectiveness of energy by converting it into skill or capacity and transforming it into power through organization. The Bengal Famine of 1943 resulted from a breakdown in the organization of food distribution. A military general became the Viceroy and solved that problem by improving the organization.

Generally, it can be said that Europe where logical mind is developed does not face the same type of problems that confront Asia where logical mind is less developed but spiritual mind is more developed. Mind itself is an organization and therefore problems created by superstitions will be absent where mind prevails. Though railways are present in both places, the mental value of punctuality that is appreciated in Europe ensures that trains come on

time, while the same is not true of India where punctuality is not valued. Deficiency in a host of other related values explains the difference between a developed country and a developing one. USA saw the value of delivering letters overnight and developed FedEx, which became a multi-billion dollar corporation and founded a whole new industry.

It can be said that *the efficiency of a nation is decided by the energy of the population*. The energy is generated by freedom, education, individuality and initiative, etc. Where a village youth perceives a problem, the same problem may be perceived as an opportunity by an urban youth. *This is true of nations, populations and organizations*.

This difference in perception can account for the difference between an upper-middle class and a lower-middle class family. The former sees the situation as a great opportunity, while the latter sees the same situation as an intractable problem. *What matters is one's mental equipment and attitude with respect to the circumstances.*

In the last 70 years or so the world has been largely free of hot wars and since 1991 of Cold War as well. As a result, the fighting energies of war have been converted into productive energies geared towards prosperity. Almost simultaneously, the world witnessed the rapid development of higher types of organizations, for air travel, global communications, international financial transactions etc. The advent of Visa, credit card and the internet organized the energies of global society and infinitely multiplied the world's wealth. But what has been the response of society? It has created job less growth, tax evasion, rampant speculation, unseemly accumulation of wealth and widening inequalities. Disconnecting money from the economy, it turned a surplus of productive wealth into a destructive force. It converted opportunities into seemingly insoluble problems. The opportunities were great occasions to lift emotional man to the level of mental man who can lead a life of leisure and culture. Therefore, *those who have the right view are able to see viable solutions to these situations*. The essence of what has been said above is that Man is the center of his life. It is up to him to choose to lead a heavenly life or choose to lead a life of problems, which unfortunately he seems to prefer.

A state should be political in origin and not based on religion. A theocratic state will have all its energies diverted to support fundamental beliefs as a result of which it will degenerate into poverty, violence and superstitions and many other things. The one meaningful solution to this problem would be to abolish the religious basis on which the state is founded.

Theoretically, *current problems are no different from problems in the past. They come mainly due to disharmony, irrationality, refusal to learn from past experience and insistence on repeating past errors*. When an attempt is made to solve problems of a higher plane through methods of a lower plane, the problems only get more complicated. One common experience is that the man who tries to eradicate evil very often succumbs to it. *Modern science was born to fight the superstition of religion. Now we find that it has generated its own superstition*. Its respect for the social status of a scientist only reinforces such superstition. It regards

“Modern science was born to fight the superstition of religion. Now we find that it has generated its own superstition.”

every university professor of Philosophy as a real philosopher, making a mockery of the term. *The capacity to develop a total blindness to events is a crude primitive mental attitude.* A truly scientific attitude is to not ignore any event however singular or inconsistent with currently prevailing theory.

“There are no insoluble problems in the world.”

The Greek state has developed a financial crisis and the Greek people are asking for a better alternative. They vehemently oppose the proposal to solve the problem through greater austerity measures. The IMF and a growing number of international experts support the view that further austerity will only aggravate the problem and result in a further default. Yet the Eurozone insists on imposing a solution which is sure to fail.

Since the end of World War II the world has demonstrated its capacity to raise production 30 or 50 times. *Global per capita income has increased 84 fold since 1800.* This multiplication is not confined to income generation alone. Similar progress has occurred in every field. Wealth created by the general progress of society belongs to the society, not to any particular individual. Equality was long ago recognized as an essential principle in politics, where democratic values now rule. The same equality is valid for economy as well, without which true political equality is unattainable. Indeed, economic equality is the precursor to political equality. *Only when both of these prevail at the same time does social equality become real.* Beyond that lies psychological equality which comes from inner growth and education. While monarchical regimes came to an end with the arrival of democracy, *economic equality can come only when prosperity is equally shared by all in the society.* While each man must earn his income by work, technological progress is something owned by society at large. Technical progress is not the property of corporations. *Guaranteed employment ensures economic democracy.* Speculation is ruinous for economic health and must be banned while the right to employment must be made compulsory. There should be no restriction to extending educational benefits to lower income groups.

When problems arise, they can be solved by resorting to first principles. Surely the world cannot be oblivious to its past successes. It is folly to keep repeating past errors. Twenty-five years ago Yugoslavia suffered from run-away inflation and a top World Bank economist was consulted for a solution. He had a certain solution and was made head of Yugoslav Central Bank. He implemented it and brought down hyperinflation to single digits in ten days. His method was to activate the local economy. Greece can multiply its wealth by even fifty times if it wants. The local people are right to demand that the austerity measures be scrapped. The USSR was dismantled from the inside. A sincere appreciation of the situation led to her demise. A long history of clever diplomacy has led to her public life becoming hypocritical and something of a sham. Similarly, science is fostering its own superstitions. There are no insoluble problems in the world.

A simple and effective principle for solving apparently intractable problems is to fully avail of the latest advances for the widest benefit of humanity. When there is severe food scarcity, it is possible to respond to it in a way that benefits the farmer who produces the

crops. India's Green Revolution can best be understood from this perspective. The principle applied was to utilize the latest advances fully for the benefit of farmers. The advances were new agricultural production technology based on hybrid varieties of wheat and rice and introduction of a national organization for procurement and marketing of surplus production. The benefits were to ensure a higher profit to the farmer even in times of surplus production by introduction of a minimum floor price. Today the threat of nuclear weapons still remains very real and great. Now we have the internet, which did not exist until after the end of the Cold War. The damaging effects of radiation are now well documented and we now have a system by which the real facts about those dangers can be widely disseminated to inform the general public everywhere. If done, public opinion would make it very difficult even to store nuclear weapons anywhere. This is a viable simple solution for a problem of great magnitude.

The world of finance has been in a great upheaval since 2008 and wrought great suffering on countless millions. There ought to be a solution. The solution is to produce much more wealth and distribute it equitably. It is not like there is only one way to multiply wealth. Nothing prevents us from using all available methods. An organization called "GameChangers 500" is promoting the value of B-corps, 'for-benefit' corporations, which are now legally permissible in 23 states of USA. GameChangers 500 has introduced a new measurement system to assess the commitment of companies to socially beneficial goals such as ecological conservation, full employment, education and community development. They cite studies to show that *corporations promoting socially beneficial objectives actually outperform other corporations in terms of growth and profitability and are more successful in attracting and retaining loyal employees and customers than those which pursue profit as their one and only goal*. Their success is based on the principle of self-giving. Underlying it is another principle, the more one gives, the more one will receive.

These principles are true and applicable to all subtle forces. As wealth is a subtle force, it too responds to this approach. People in Germany and Netherlands seem to believe that helping Greece out of their financial crisis will be at their expense. Therefore, they oppose any bailout. But the method we are advocating is to create more wealth inside the Greek national economy. This is an initiative that will make all the countries richer and eliminate opposition. A former UNESCO chief regretted that on a daily basis some \$3000 billion is being wasted on arms purchases at a time when millions of people are dying of hunger. All sane voices would say that those funds should go to feeding the poor. But the fact is that *all poor nations can create more wealth than they need*. This they can achieve through a policy of self-help which will hurt no one.

All nations without exception have passed through a phase of corruption on their way to prosperity. Prosperity is a physical value which is achieved by hard work. But integrity is a mental value which requires centuries to develop and it comes out of cultural restraint. *Corruption has been prevalent in all developing countries for several decades*. The more a leader tries to eradicate it, the greater is its growth. Here we have to understand the truth about corruption as a phenomenon of social development. *When thus viewed, the regret vanishes*. Anand Dairy in India was well-known for its corrupt ways before V. Kurien took

charge in 1949. Within a short time he converted Anand into the most efficient cooperative in the country. In 1965 Kurien was appointed head of the National Dairy Development Board and he extended the Anand model throughout India to usher in the White Revolution. Corruption in England, other European countries and USA was eliminated in a century by a natural process that *occurred unconsciously by the growth of these societies*. Rising levels of education, the self-respect which education engenders, and greater organization of the whole society gradually eliminated corruption. Today it can be abolished much more quickly by incorruptible leadership. What took a century in the course of the 17th, 18th or 19th century may be accomplished in a few years in the 21st century. Why it should be so can also be explained. Even corrupt societies have certain pockets that are free of corruption. We can start with that as the basis and begin working from there. The process will be greatly facilitated if procedures are made transparent. Transparency eliminates corruption. A question may be asked about what to do with countries that lack honest leadership. It is possible to create a small core of honest leadership, as was done in India during the last decade. *When corruption saturated the body politic, it produced its very opposite as a natural consequence.*

A truth of human nature is that man enjoys confusion and chaos and the intensity generated in coping with the problems. In philosophy this is referred to as the taste of ignorance. This was understandable so long as only a small portion of humanity was educated. But now when the majority of the world's population is literate, social evolution can move from ignorance to knowledge. It is worthwhile examining the history of humanity over the past thousand years to understand how in each century humanity improved its ways and to *beneficially apply that knowledge to life in the 21st century*. We will discover that no longer need we rely primarily on physical means where social, psychological and mental methods are now possible, more rapid and more effective. Any approach that is not based on rationality should be discounted.

Problems and solutions exist in a scale from physical and vital to mental and spiritual. *Solutions based on the same plane will work. Solutions from a higher plane will be far more effective.* Solutions drawn from a lower plane will not solve any problem; they will only aggravate the problem. US President Franklin Roosevelt stopped the panic that had closed 6000 American banks in 1933 by appealing psychologically to the American people, when all economic solutions had failed. Churchill led Britain's successful defense against the Nazi invasion by appealing to the patriotism, pride and love of freedom of the English people when the rest of Europe had surrendered to Germany's military might. *Solutions are possible for any problem because man is always free to draw on solutions from a higher plane.*

Morris Goodman was critically injured in a plane crash and was completely paralyzed by multiple fractures of his cervical vertebrae so that he could neither move, breathe, nor even speak. Physicians said he would not survive a week. Goodman indicated his intention to survive and recovery by blinking his eyelashes in response to questions posed. Within a year he walked out of the hospital on his own strength. In another well-documented case, an editor of *Life* went into shock after receiving a penicillin injection and his vital signs indicated imminent death. He later reported feeling the cells of his body dying one after another. When the sensation of disintegration reached his heart, he made a conscious decision not to die and

the process began to reverse. To the amazement of the attending physicians, he recovered and was able to narrate his experiences to the press.

“The behavior of Greece needs to generate political authority commensurate with the monetary power that thus emerges. Should this occur, Greece can once again become a leader of the world.”

The problem of famine and the challenge of increasing food production are physical, but they were addressed by C. Subramaniam, India’s Food Minister, at social, psychological, organizational and mental levels. He instituted organizational arrangements to ensure dissemination and demonstration of new technologies, purchasing and distribution of food surpluses, education and training of farmers and extension staff, and revamping of agricultural research. Psychologically he appealed to the vital interest of farmers, providing them with incentives to maximize output. Moreover, he appealed to the individuality of the farmers, saying the nation’s honor demanded that the country become self-sufficient in food production. Green Revolution succeeded in doubling India’s food production within a decade, because it was based on a psychological solution instead of a physical one.

A similar situation exists in the field of education in India and many other countries, where the methodology is still largely physical. The process relies on age-old methods of repetition, rote memorization that predate the printing press and much less on the exercise of mental understanding. It still relies on the physical delivery of lectures to passive students which also predates the wide availability of books and today’s instantaneous access to information. Experimentation with on-line educational methods has amply demonstrated the superior speed and quality of learning that can be achieved by a shift in method from passive learning through lectures to active classroom interactions between students and teachers. The encyclopedia of information now easily accessible over the internet has relieved the necessity of burdening memory with the exponentially expanding body of information, freeing up mental energy for higher forms of activity and vastly enhancing the quality and effectiveness of education. Education can now evolve reliance of physical methods based on memorization to mental methods of higher understanding.

FDR solved the US banking crisis by resorting to first principles. Churchill solved the problem of defending Britain against Nazi Germany by appealing to the patriotic sentiments of the people, which was a psychological approach. *India used the spiritual principle of non-violence instead of an armed uprising to win freedom from the British through a peaceful transfer of power by the House of Commons.* Solutions can be found to seemingly intractable problems by applying the latest tools and principles and acting from the highest plane.

Generally, problems do not assail a person who marches in step with the world that is evolving. Problems come to those who refuse to march along and, even more, to those who insist on reversing the march. Arresting the march is a fertile breeding ground for fresh

problems. Reversing the march makes those problems intractable. If we stop the reversal and take a look around, we find solutions to what appeared to be intractable problems.

Thought was born in Greece and spread all over the world from there. Now she is in big trouble. She has been asked to accept austerities but has refused to do so and made her intentions known through a referendum. The fact of the matter is that Greece does not need Europe but Europe needs Greece. It can make a very good contribution to the wealth of the EU and motivate other economies to pull the EU out of the present crisis. The behavior of Greece needs to generate political authority commensurate with the monetary power that thus emerges. Should this occur, Greece can once again become a leader of the world.

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Conference on Science, Technology, Innovation & Social Responsibility



**Organized by CERN & the World Academy of Art & Science
under the auspices of United Nations Office in Geneva**

AT CERN on November 11, 2015 – 09:00-17:30

Science, Technology and Innovation are among the most powerful forces driving social change and development today. In the past they have been the source of both remarkable civilizational advances and threats to civilization. Some aspects of scientific development and application such as nuclear technology, pharmaceuticals, agricultural chemicals and food additives are strictly monitored and controlled by governments and law. Other areas such as computerization of financial transactions, automation, biological research and telecommunications have been left primarily to the self-government of scientific institutions and business entities. Today the rate of scientific and technological development, dissemination and application far outpaces the capacity of society, institutions and individuals to adapt, contributing to increasing social imbalances, stress, upheavals, displacement and disruption. The challenge before humanity is to arrive at the most effective blend of governance and self-management to maximize both the freedom for scientific creativity and technological innovation and the welfare of present and future generations.

This symposium is being organized by CERN and the World Academy of Art & Science under the auspices of United Nations Office at Geneva. It will survey the potential impact of scientific and technological innovation in different fields on the progress of humanity in the 21st century and the alternative mechanisms available to ensure socially responsible management of these activities by the research community, business and governments.

[Click here](#) for more information.

The Greek Financial Crisis: Theoretical Implications

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Abstract

The world we live in is a product of the way we think. Our conception of reality determines what we see and what we achieve. The Greek crisis is not simply a case of high public debt, economic mismanagement or weak political will in Greece or the Eurozone. It is underpinned by economic premises, constructs and resulting practices that promote exactly the type of dilemma Greece faces today. Without addressing these conceptual issues, no lasting solution is possible. Rather it can be expected to repeat and spread to other countries and regions. This article is based on views presented by participants in a WAAS webinar examining the Greek financial crisis in the light of economic theory and practice. Wherever there are unmet social needs and underutilized social resources, such as high levels of unemployment, the potential exists to stimulate economic activity, enhance human welfare and promote resilience and sustainable entrepreneurship. Both conditions prevail in Greece today, but neither current nor anticipated policies are likely to result in near term benefits to the Greek people and the local economy nor for Europe and the world economy. It supports the view that a permanent and effective win-win solution can be found to the Greek crisis, compatible with the financial stability of the country and the welfare of its citizens within the framework of the Eurozone, but that such a solution will require a rethinking of fundamental theoretical issues and adoption of innovative policy instruments beyond those presently being contemplated.

For the past five years, the Greek financial crisis has loomed as a recurring threat to the integrity and future of the Eurozone, as a dire reminder of what might occur in other Eurozone countries, and as a powerful and persistent downward drag on employment, real incomes, public services and human welfare in Greece. Whatever the final outcome of the recent measures to prevent default and keep Greece within the Eurozone, none of the plans now on the table offer a permanent solution to the Greek problem, to the long-term viability of the Eurozone, and to the prospects for other successful currency unions in future. At best the current settlement will alleviate immediate pressure on the Greek financial system, while severely aggravating efforts to reignite the Greek economy, create jobs, raise incomes, and expand the Eurozone in future.

A real and permanent solution relevant specifically to Greece and in general to the Eurozone requires a deeper examination of fundamental premises on which the current international economy and European banking system are founded. It must include inquiry into the role and responsibilities of commercial banks, central banks and national governments in promoting both financial stability and human welfare. It must also consider the relationship between the prevailing financial system and the underlying social forces and productive potentials, which alone can ensure a continuous rise in living standards, job growth and economic welfare for people.

The World Academy of Art & Science is engaged in an in-depth inquiry into economic theory, institutions and public policies in order to evolve more effective theoretical and practical solutions to the challenges confronted by Greece and other nations. Following the highly successful XII International Economics Colloquium at the University of Florida this May, WAAS and World University Consortium constituted the NET (New Economic Theory) Working Group to engage a wide range of scholars, policy-makers and partner institutions in examination of the fundamental premises on which current economic theory is based, the urgent need for a new theoretical formulation, and identification of core principles and perspectives of NET. The project team presently includes nineteen institutional partners and more than forty individual scholars.

Our research supports the view that a permanent and effective win-win solution can be found to the Greek crisis, compatible with the financial stability of the country and the welfare of its citizens within the framework of the Eurozone, but that such a solution will require a rethinking of fundamental theoretical issues and adoption of innovative policy instruments beyond those presently being contemplated. Fresh thinking and innovative action are urgently required. On September 15, 2015, WAAS conducted a webinar exploring the theoretical and practical implications of the Greek Financial Crisis. The objective of the webinar was to examine the Greek Crisis for insights into fundamental deficiencies in current economic theory, to identify principles on which a more stable, resilient and equitable international financial system can be founded, and to explore potential solutions to the Greek crisis and related problems based on a wider political, economic and social perspective of European and global society in the 21st century.

The Greek crisis is not simply a case of high public debt, economic mismanagement or weak political will in Greece or the Eurozone. It is underpinned by economic premises, constructs and resulting practices that promote exactly the type of dilemma Greece faces today. Without addressing these conceptual issues, no lasting solution is possible. Rather they can be expected to repeat and spread. Indeed, many developing countries have experienced similar crises in recent decades after the same economic principles were applied via the IMF/World Bank structural adjustment programmes. One objective of the webinar was to identify and examine the theoretical premises that impede or obstruct effective solutions to the problem in Greece and similar problems elsewhere and formulate more valid theoretical perspectives.

Wherever there are unmet social needs and underutilized social resources, such as high levels of unemployment, the potential exists to stimulate economic activity, enhance human

welfare and promote resilience and sustainable entrepreneurship. Both conditions prevail in Greece today, but neither current nor anticipated policies are likely to result in near term benefits to the Greek people and the local economy nor for Europe and the world economy. Therefore, the webinar also sought to identify key issues that need to be addressed in order to activate the economy by mobilizing the unemployed and other underutilized social resources to alleviate the downward momentum and hardship imposed on the Greek people.

1. An Inquiry into the Greek Crisis

The keynote address was delivered by Hungarian Economist Zoltan Pogatsa, author of *The Political Economy of the Greek Crisis*, who presented compelling evidence to debunk many of the common misconceptions regarding the real cause of the Greek crisis. His analysis shows that contrary to the view put forth by lenders, the Greeks are not lazy, prone to indebtedness, more corrupt or more heavily dependent on government subsidies than other European countries. On the contrary, the average Greek worked 30% more hours than his German counterpart and household debt in Greece from 2007-2009 was 20% lower than the European average. Greece scored comparably to South Korea, Czech Republic and Slovakia on transparency and significantly better than Poland. Social spending was considerably below the Eurozone average as a percent of GDP prior to 2008.

Pogatsa traces the roots of the debt crisis back three decades to the time when Greece entered the EU. From 1960 to 1980 the Greek economy grew considerably faster than the EU average. According to entry conditions, Greece was compelled to open up its vulnerable economy to European manufacturers and to give up essential tax revenues in exchange for massive subsidies to its small farmers whom it was very difficult to tax. Deceptive accounting practices by earlier governments with the aid of leading international investment banks disguised the debt problem for two decades leading up to 2008. The public debt problem arose not because of excessive wages or high expenditure on the welfare state, but due to the government's incapacity to collect sufficient taxes from a largely agrarian economy. Therefore, austerity programs designed to weaken labor and cut welfare expenses could never hope to solve the problem.

Pogatsa concludes by pointing out inherent weaknesses in the Eurozone, which is not an optimal currency area. Marked differences in economic cycles between its northern and southern members make it impossible to adapt a uniform economic policy suited to the needs of all its members at any given time. The inability of Greece to allow its own currency to depreciate relative to the rest of Europe prevented wages from reaching competitive levels after the 2008 crisis. Its inability to erect tariff barriers to protect its highly vulnerable, but very large small business sector, resulted in a massive hollowing out of domestic industry and increasing dependence on imported goods.

The remedy adopted by the European Bank, IMF and lending banks consisted of massive interest payments to bail out the four biggest banks, without penalty for their reckless lending. At the same time it nearly doubled Greece's debt to GDP level. The demand for new taxes will only further suppress the growth of the Greek economy and severely undermine social

welfare. It will further weaken the negotiating position of collective bargaining on wages, which is practiced by 12 EU member states.

Dimitrios Kyriakou, Chief Economist, European Commission's Institute for Prospective Technological Studies, described the Greek crisis as a perfect storm. Greece was lured into the crisis by the promise of rising levels of prosperity through liberalization. Entry into the Eurozone meant sacrificing the exchange rate instrument and monetary policy instrument. From a very low debt level until the mid-1970s, it resulted in rising levels of debt in the 1980s when it reached 68% of GDP. Four years later it crossed 100%.

Recent experience with bubble-driven growth raises serious doubts about the sustainability of ever-higher indebtedness driving decreasing rates of growth. Sluggish growth combined with rising inequality calls into question the role of financial markets as well as the validity of the traditional trade-off between equality and growth. We have reached a point where the two need to move in tandem. The trap which Greece fell into was easy borrowing and cheap credit coupled with a Greenspanesque belief in a brave new Goldilocks economy, where hard landings were a thing of the past, and where, as a consequence, heavy borrowing was condoned, if not outright encouraged. The agreement reached includes tough fiscal measures, along the lines of the previous IMF-inspired loan packages since 2010. However this one includes two potential countervailing elements, which may justify a modicum of optimism, provided they are upheld in practice: a large investment package from EU sources and a debt restructuring deal over the next few months. Finally, it is noteworthy that the negotiations for this new loan package were carried out at the highest political level with the other Eurozone member states within the context of the Euro Group (composed of Eurozone countries finance ministers), and summits of heads of governments. Of course, the IMF, European Central Bank, European Commission, European Stability Mechanism played a key role in implementation issues.

Aldo Martinez, Professor at St. Peter's University and former Vice President of Market Surveillance at the New York Stock Exchange, emphasized that current international efforts seek only to address the symptoms rather than the real source of the problem in Greece. He argued that the Greek economy has lost its national autonomy and has become subject to the dictates of international financial forces. He also concluded that the strong dealings with Greece, which is a very small economy, may be intended as an example to other countries that consider rebelling against the dictates of the unbridled application of prevailing neoliberal economic dogma. Governments and financial institutions should be careful to ensure that the prescribed medication dosage addresses the cause of the illness to restore health without killing the patient in the process.

Hazel Henderson, founder of Ethical Markets, called for a concerted effort to downsize the unbridled financial markets that are skimming off all the rewards of labor productivity into the capital and banking sector. She referred to the implications of the adoption by the UN of the Sustainable Development Goals that call explicitly for a "transformed world". By recognizing the need for what the SDG documents refers to the "people-prosperity-planet-peace-partnership" approach, the SDGs are effectively a rallying call to develop a new economic theory that does not prioritize prosperity over people, planet and peace.

As Robert Hoffman stressed, the Greek crisis represents an egregious failure of conventional economic theory and the prescriptions of austerity, deregulation, and the sell-off of state-owned assets. The sell-off of state-owned assets will lead to flows of income to oligarchs and international financial institutions to the detriment of the well-being of Greek citizens. As was the case with the crisis of 2007-08, macro-economic theory, with its focus on equilibrium and flows of purchasing power, was blind to financial bubbles associated with asset stocks and prices. Because of membership in the Eurozone and the policies of the European Central Bank, the instrument of quantitative easing available to the US government (though misused in that case) was not available to the Greek government. The current crisis is the practical outcome of a bankrupt theory applied in a manner that is fatal to the patient. We need a new paradigmatic framework of thinking in transdisciplinary terms about the economy, which means treating people as an integral component of the earth system. The Greek crisis represents in a profound way the bankruptcy of a particular paradigm.

“The Greek crisis represents in a profound way the bankruptcy of a particular paradigm.”

2. Theoretical Perspectives

The webinar illustrated and reinforced several fundamental perspectives that have emerged from the work of the New Economic Theory Project thus far:

1. *Resurgence of Neo-liberalism following the End of the Cold War:* The present crisis in Greece and the global recessionary trends that have spread to China, Brazil and other nations cannot be viewed in isolation. They are only the most recent consequences of a fundamental shift in economic theory and policy that gained dominance following the end of the Cold War, but originating in the rise of the neo-conservative movement in the USA during 1970s inspired by the theories of Hayek and Friedman. The orthodoxy of extreme free-market liberalism prevalent in the 1920s and largely displaced by the rise of public intervention in the economy during and following the New Deal gained a new lease of life during the period of rapid globalization that followed the Fall of the Berlin Wall, the founding of the WTO and the global spread of the Internet. The dismantling of tariff barriers facilitated a tripling of world trade in current dollar terms from 1990 to 2008. During the same period daily financial transactions multiplied more than six-fold. In the absence of effective international regulation, a virtual Wild West of global finance emerged. Under the pressure of increasing international competition, financial institutions in the USA, Europe and elsewhere lobbied for the dismantling of domestic regulatory constraints which had effectively insulated commercial banks from the speculative financial markets for seven decades. Unconstrained global financial markets coupled with computerized trading led in turn to growing instability, precipitating the Argentine crisis of 1989, the structural collapse of most African economies during the 1990s, the East Asian financial crisis in 1998 and the much broader global crisis in 2008. Effectively addressing the problem at the national level necessitates urgent efforts to stringently regulate the rapid movement of short term, speculative investments at the international level.

2. *Divorce of Financial Markets from the Real Economy:*

A recurring theme of the Academy's work resurfaced during the webinar. Financial markets, which originally evolved as a means to pool the resources needed for large industrial investments and commercial enterprises in previous centuries, have now become a world apart and are increasingly divorced from the real economy they are, in theory, intended to serve. Public policies designed to attract and retain high-frequency speculative funds have been a major source of instability, undermining the environment for medium and longer term investments in real productive assets and inflating nominal GDP, while contributing only nominally or negatively to human welfare. Financial markets

“Society is the true source of wealth creation, not the liquid flows of finance that get reported via the news bulletins of the world.”

must be reoriented and incentivized to serve the real economy and society. Re-embedding the market within society is the single-most important policy measure needed to revive growth of employment, reduce inequality and promote ecologically sound investments.

3. *Austerity and Wealth Creation:* The Greek crisis is only the most recent in a long list of compelling instances that demonstrate the poverty of current theory and the destructive impact of austerity programs. The only difference in this case is that even many key players within the Eurozone, the IMF and leading economists internationally are predicting that the latest round of austerity measures will prove as flawed and ineffective as the earlier ones. And yet they have not come with an alternative, because this would mean breaking from their own conceptual assumptions about the nature of the economy. The source of the problem lies not merely in the policy itself, but more deeply in the theoretical framework on which it is based. Society is the true source of wealth creation, not the liquid flows of finance that get reported via the news bulletins of the world. Creative relationships and organized interactions between people for invention, production, distribution and consumption generate real wealth and enhance human welfare. Austerity programs have the opposite effect of squeezing and stifling productive initiatives and reducing the entire economy and society to equilibrium at a lower level. Economics has become divorced from the society. Economic theory is divorced from the wider theory of society of which it is a subset.

4. *Development, Self-reliance and Political Will:* The rapid expansion of the EU and Eurozone has revived the mentality of dependence generated in Europe by the Marshall Plan after World War II and throughout the developing world during the heydays of foreign aid dependent development strategies prevalent during the lost development decades of the 20th century. Development is a human process. Real development is self-development. Foreign lending and investment can play a positive role when they come in response to domestic aspirations and commitment, never when they try to act as a substitute. The promise of instantaneous benefit has been an irresistible lure for the recent expansion of the EU and one of the reasons for the Ukraine crisis. Pogatsa documents the original entry of Greece into the European Economic Community came

at a time when it had the fastest growing economy in Europe. Kyriakou suggested that this was probably more strongly motivated by a desire for political integration than economic benefits. But the recent negotiations with the ECB were dominated by the aid mentality of both donors and recipient. The refusal of the government and people of Greece to go begging was an encouraging sign that Greece was recovering the sense of self-reliance and self-respect it demonstrated before joining the European Community. That and that alone can turn around the country. Anything less is doomed to failure.

The Eurozone prospered for a decade after its establishment by generating trust and confidence among smaller economies and facilitating more efficient large scale exchange and cooperation. It now suffers from the lack of political commitment to the welfare of its own members. The petty accusations and infighting have undermined precious social capital in the region. Restoring that trust, confidence and cooperative spirit should be the highest priority. The current crisis should be mobilized to develop the political will needed to assume responsibility for promoting the welfare of all members of the currency union, combined with a determination of each member country to exhaust the potentials for its own self-development. It is true that the Greek crisis can only be resolved by international cooperation. It is equally true that the starting point must be commitment to self-reliance at the national level. The two are complementary rather than contradictory elements of a solution.

5. *Economy, Governance and Society are inseparable*: Social aspiration and social capacity generate the potential for wealth creation and human welfare. Political institutions and political will generate the power for collective action. Economy provides the instrumentation to make them effective. It is time to restore the Political term to Political Economy and add the Social dimension without which neither the one nor the other can accomplish anything. A solution to the Greek crisis is plausible, possible and achievable. But it must begin with a change of thinking and a rejection of the outmoded ideas and policies which have failed in the past and offer no hope for the future.
6. *Towards greater resource efficiency and sustainability*: It is now widely recognized, as expressed now in the SDGs, that we live in a carbon- and resource-constrained world. This means that economic growth as we know it can no longer assume the unlimited availability of natural resources (especially metals, fossils), ecosystem services (such as soils, water, fisheries, bees/pollination) and carbon space. As the New Climate Economy Report of 2015 made clear, a fundamental structural transformation of the global economy is required. Even mainstream bodies like the OECD and World Economic Forum have echoed this view. What we mean by economic growth will need to be completely redefined. Austerity is regarded as a non-solution for Greece without a ready alternative because the pursuit of economic growth in an infinite world remains the yardstick for measuring progress. If GDP is replaced with a well-being indicator, the result will be policies that simultaneously protect the resources people depend on for their well-being and which prioritize human needs rather than speculative investments and shareholder profits. Resolving the Greek crisis by replacing austerity economics with another theory

of growth that ignores planetary boundaries will run into the same problems, especially given that Greece is not a resource-rich economy. African economies went through what Greece is going through now, but Chinese demand for African resources became the driver of growth, thus saving African economies from the Greek syndrome. Now that this demand is dropping, the fundamental structural weakness of African economies will be exposed. Ultimately, a new economics of well-being will have to be post-extractivist, resource efficient and sustainable.

“Unless an alternative economic theory is proposed as the basis for viable pragmatic policy alternatives, resistance may be heroic but it will remain quixotic.”

3. Conclusion

The Greek Crisis is more than just another national economic crisis, following those that have come before in Latin America, Africa and Asia and since 2008 globally. It has, in effect, become a symbol of the failure of a particular economic theory and policy prescription. Its irresolvability on terms dictated by the ECB and IMF starkly exposes the bankruptcy of these policy frameworks. It also exposes how disrespectful of democratic autonomy the major debt holders of this world can really be. Today’s extractive institutions are the powerful lenders of gigantic amounts of debt to those who everyone knows cannot possibly repay their loans. The result is increasing concentration of power in the hands of an unaccountable few with devastating consequences for the majority of the world’s population. How the Greeks resist occupation of their lives by these powerful institutions will set an example for the rest of the world. However, resisting will not be enough. Unless an alternative economic theory is proposed as the basis for viable pragmatic policy alternatives, resistance may be heroic but it will remain quixotic. Those who have opposed neo-liberalism for so long now need to collaborate to ensure they have more to say than merely rejection of what clearly does not work. Another world *is* possible, but only if we do the hard work rather than assume it will emerge spontaneously from the ashes of the old.

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New Humanism and Sustainable Development

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Abstract

The call for a new humanism in the 21st century roots in the conviction that the moral, intellectual and political foundations of globalization and international cooperation have to be rethought. Whilst the historic humanism was set out to resolve tensions between tradition and modernity and to reconcile individual rights with newly emerging duties of citizenship, the new humanism approach goes beyond the level of the nation state in seeking to unite the process of globalization with its complex and sometimes contradictory manifestations. The new humanism therefore advocates the social inclusion of every human being at all levels of society and underlines the transformative power of education, sciences, culture and communications. Therefore, humanism today needs to be perceived as a collective effort that holds governments, civil society, the private sector and human individuals equally responsible to realize its values and to design creatively and implement a humanist approach to a sustainable society, based on economic, social and environmental development. New humanism describes the only way forward for a world that accounts for the diversity of identities and the heterogeneity of interests and which is based on inclusive, democratic, and, indeed, humanist values.

Humanism did evolve into the grand movement of human spiritual and creative liberation, which enabled an unparalleled acceleration of prosperity and transformation of civilizations. In line with humanist ethics, the material growth was understood as a collective good, which was to serve all participants of a community and meant to enable the socio-economic progress of society. The exact definition of humanism has historically fluctuated in accordance with successive and diverse strands of intellectual thought. The underlying concept rests on the universal ideas of human emancipation, independence and social justice. Humanism can hence be understood as a moral inspiration for critical reflection and positive action, aiming to establish a society based on peace, justice, democracy and human rights.

The moral foundations implied by humanism have universal claim and encompass all periods and times of human development. The realization of such humanist values is not a given, but a continuous task; it is not static or predetermined, but dynamic in nature, constantly striving to adapt to changing societal conditions. Today's unprecedented and unpredictable global problems put to test the progress of human civilization and the very core of the humanist idea.

All these aspects constitute a crucial turning point, which demands a profound restart of reflection on purely neoliberal approaches to development. Scholars as well as practitioners have started to examine the negative influences of globalization, neoliberalism, and of

the attempts to reproduce the industrial countries' development experiences in countries trying to find their own strategy to and their particular form of development. It has been in this context that the concepts of sustainability and of a new humanism have penetrated the international discourse, pushing for a critical reflection and inclusive reorientation of developmental policies.

Thus the need for an inclusive, sustainable development concept has never been so critical. Sustainable development with its three pillars—economic, social, and environmental—has come to become the central plank of the post-2015 sustainable development agenda to be adopted in September 2015 by the UN summit. Arguably, at the heart of this agenda lies the notion of a new humanism.

1. Humanism: The New Relevance of an Old Modus Vivendi

“The fellowship between man and man which has been the principle of development, social and moral [...], is the ideal of goodness entirely human”.¹ This citation of the Victorian novelist Mary Ann Evans, known under the male pseudonym George Eliot, reflects an early definition of a concept that marks one of mankind’s most influential philosophical strands of thought and a crucial turning point within the history and the development of human civilization: the concept of humanism. As an intellectual and ethical stance, humanism stresses the significance and the normative value of human beings both with respect to the individual as well as to the community and overall society. As such, the concept of humanism involves a critical reflection of the constitution of society and of the manner social interactions between human beings proceed. Regarding the concept’s origins within the framework of the era of Enlightenment, humanism was cast as a moral rationale to address fundamental questions relating to humanity and human nature, which sought to facilitate mankind’s progress in science, knowledge and technology. Rooted in the notion of a free and resourceful human existence, humanism evolved into the grand movement of human spiritual and creative liberation, which enabled an unparalleled acceleration of prosperity and transformation of civilizations. In line with humanist ethics, the material growth was understood as a collective good, which was to serve all participants of a community and meant to enable the socio-economic progress of society. Thus, although the exact definition of humanism has historically fluctuated in accordance with successive and diverse strands of intellectual thought, the underlying concept rests on the universal ideas of human emancipation, independence and social justice. To put it in Spinoza’s words, humanism proposes a free and fruitful society, in which not conflict, but peace presents the prevalent status quo, describing not only “an absence of war” but “a virtue, a state of mind, a disposition for benevolence, confidence [and] justice”.^{*} Humanism can hence be understood as a moral inspiration for critical reflection and positive action, aiming to establish a society based on peace, justice, democracy and human rights.

The moral foundations implied by humanism have universal claim and encompass all periods and times of human development. However, the realization of such humanist values is not a given, but a continuous task; it is not static or predetermined, but dynamic in

^{*} See <http://plato.stanford.edu/entries/spinoza/>

nature, constantly striving to adapt to changing societal conditions. In the light of a rapidly progressing globalization, the contemporary world faces a myriad of unprecedented and unpredictable challenges, risking the well-being of millions of people who desire to live their lives in safety, dignity, self-determination and happiness. Global problems like climate change, environmental degradation, shortages of natural resources, the pollution of the ocean and the loss of biodiversity, growing social inequalities and lack of inclusion, economic uncertainty, shrinking cultural diversity and disappearing languages, social upheaval and new forms of conflict and war put to test the progress of human civilization and the very core of the humanist idea. As an intrinsic part of an increasingly interconnected world, these challenges mirror the somewhat paradoxical and ambivalent nature of the process of globalization and the one-dimensional way it has been structured and conducted thus far by political leaders and economic elites. Hence, in order to implement the societal vision of humanism in today's socio-political and economic systems, one has to adjust and tailor the humanist claim to the present circumstances of today's interconnected world. As UNESCO Director-General, Irina Bokova, postulated in her speech on the occasion of the award ceremony for the Honorary Diploma in European and International Politics in Milan 2010, "[b]eing humanist today means adapting the strength of an age-old message to the contours of the modern world. By definition, this work is an ongoing effort that knows no end". It is an effort that essentially lies at the heart of UNESCO's mandate, an effort which is dialectical, steeped in dialogue and open-ended, which is innovative, inclusive and holistic. It is the quest for a *New Humanism*.

"Rising social unrest, social movements and civil wars draw attention to the narrowness and the limitations of prevalent one-sided development models."

2. The Globalizing World – Oscillating between Unprecedented Opportunities and Drawbacks

The phenomenon of globalization, defined as the global interweaving of economic, financial, social, political and cultural spheres, has brought about unprecedented opportunities for countries, regions and the global community, private businesses and individuals. Arguably, globalization has created tremendous material prosperity and wealth and has lifted many developing countries from the thralls of absolute poverty. As envisaged by the neoliberal approach, the world's developed countries have gained mammoth profits through the deregulation of markets and unconstrained flows of capital, goods and labor. Being at the top of the league of countries benefitting significantly from globalization, today's industrial countries have sought to transform the international trade environment from a rules-based system to one dominated by self-regulating approaches. In this framework, economic development practices have mostly been inspired by the theories of neoliberalism,

the modernization theory, the dependency theory or the institutional theory of development, the Marxist theory of development, the developmental state theory based on East Asian development models or post-modernism theory. Most of those theories—regardless of how different their substance and political implications may be—stem from scholars and writers residing in developed countries as they were the first to experience and witness a rapid economic development according to the neoliberal pattern. On the international level, this led to the application of an equally one-sided approach to development largely embraced by the Bretton Woods institutions, the United Nations and its special agencies—all committed to a liberal market economy and their perceived benefits. The neoliberal credo thus became institutionalized and accepted as the universal development model.

“The U.S. subprime mortgage crisis of 2008, which ushered in a financial crisis across the entire developed world, served a harsh reminder that a predominantly growth-oriented approach to globalization was about to run its course.”

The generation of wealth and power in the process was accompanied also by costs and sacrifices at levels hitherto unimagined. As the political theorist David Harvey elaborates in his book *A Brief History of Neoliberalism*, “[t]he theoretical utopianism of the neoliberal argument has [...] primarily worked as a system of justification and legitimation for whatever needed to be done to achieve this goal”, irrespective of its political, social and environmental cost. Increasingly, an economic and social divide opened up and deepened, not only between different regions of the world, but also within individual countries themselves. This has exacerbated social inequalities and injustice, thereby jeopardising social inclusion and the evolution of a peaceful and sustainable society and international system.

3. The Critical Turn – Moving from a Purely Growth-oriented Approach to True Development

Slowly, but truly, the global community has begun to comprehend this downside of globalization and started to grasp its causes, implications and repercussions, which put the successful building of a world society and the effective preservation of our planet at stake. In addition to a growing global uncertainty in economic terms, the world faces more and more natural catastrophes with tremendous socioeconomic consequences for millions of individuals and whole regions. It can no longer hide from a swelling ecological and environmental destruction, resulting from a growth-only strategic orientation of development efforts at large. In an equally drastic way, rising social unrest, social movements and civil wars draw attention to the narrowness and the limitations of prevalent one-sided development models. All these aspects constitute a crucial turning point, which demands a profound restart of reflection on purely neoliberal approaches to development. As a consequence and in contrast to the predominantly neoliberal discourse of development theory and policy,

NGOs and social movements have emphasized more and more the relevance and the role of civil society and have put forward a more comprehensive understanding of development as a participatory process, involving social equality and equity as motors for a more inclusive economic growth. In similar lines, scholars as well as practitioners have started to examine the negative influences of globalization, neoliberalism, and of the blind attempts to reproduce the industrial countries' development experiences in countries trying to find their own strategy and their particular form of development. It has been in this context that the concepts of sustainability and of a New Humanism have penetrated the international discourse, pushing for a critical reflection and inclusive reorientation of developmental policies.

“The socio-economic defects inherent in the neoliberal market model have been transferred to the world’s developing and transitioning states.”

In this connection, the U.S. subprime mortgage crisis of 2008, which ushered in a financial crisis across the entire developed world, served as a harsh reminder that a predominantly growth-oriented approach to globalization was about to run its course. It not only led the financial crisis to a stagnation of economic development in both the United States and the European Union, but it also had a highly negative impact on those regions' long-term prospects in the political and social realms. The socio-economic defects inherent in the neoliberal market model have been transferred to the world's developing and transitioning states.

“In order to support a continuous and resilient economic growth, the world has to distance itself from a short-sided and unstable form of neoliberal economics.”

In many developing countries, an economic standstill provoked political instability and social upheaval. In addition, countries undergoing an economic transition were faced with the problem of a “middle income trap”. Such a phenomenon describes a situation, where transitioning countries like Brazil, South Africa or Malaysia that have attained a certain level of economic and social development, are beginning to lose their competitive edge with respect to production and export of manufactured goods, in light of rising wages and costs. As they are at the same time not yet capable of keeping pace with the more developed industrial economies, these countries are at a risk of getting stuck at what the World Bank describes as the so-called “middle-income range”.^{*} Among other aspects, they consequently have to deal with stagnating growth, poor investment opportunities, inadequate diversification of industries and critical social conditions. Another problematic aspect of a purely growth-driven development strategy can be followed by the examples of China and India. Both developing countries have been highly regarded as effective models for successful and rapid economic advancement. However, their economic accomplishments have partly been

^{*} See <http://documents.worldbank.org/curated/en/2013/09/18220959/middle-income-traps-conceptual-empirical-survey>

achieved at the expense of ecological and cultural life. Environmental deterioration, exploitation of natural and human resources, a rapidly progressing climate change, menaces to cultural diversity, increasing social inequality and so forth are testimony of the unsustainable nature and the negative consequences of a narrow-minded approach to

economic development. And, contrasting the general intuition, a purely neoliberal approach to growth has even started to undermine its own economic premises: After almost 30 years of having obtained an annual growth rate of ten percent or more, China's economy seems to have phased out, settling at first at an annual rate of seven+ per cent,² before settling in 2015 at the level of 7 per cent as the "new normal". Therefore, in order to support a continuous and resilient economic growth, the world has to distance itself from a short-sided and unstable form of neoliberal economics. The call for a sustainable, equal and participatory economic development has gained momentum.

"What unites humanity is stronger than its differences."

4. The Quest for Sustainable Development and Growth

The question as to what would constitute sustainable development and sustainable economic growth soon began to dominate the international debate. No longer was globalization an exclusively economic web of linkages, but its paradigm had mutated into an all-encompassing phenomenon, comprising almost every sphere of life—from politics and technology through to education, science, communications, media and culture. These trends did not only proceed at the macro-level, but also at the micro-cosmos of societal living. The transnational flow of capital, labour, technology, people and information seemed to supersede all obstacles and appeared to overcome both political and cultural boundaries. All such transnational flows and interactions entailed a confluence of various cultural elements and components, ranging from material goods of consumption over symbolic meanings to sets of ideas and values. Hence, the recognition of culture as a key dimension of globalization and as an enabler and driver of sustainable development. It also brings to bear culture's potential to bolster economic and social resilience, reduce poverty, and foster sustainable development, especially in the urban environment. Culture, the arts and creativity are at the core of the emerging creative economy in all countries, generating income, creating decent jobs and improving livelihoods.

The fact of intercultural and inter-ethnic exchanges increasingly gains importance in both the political and the social realms of society, putting aside the notion of pure and demarcated cultures as an artificial illusion. A dangerous illusion indeed, which finds its strongest formulation in Samuel Huntington's over-simplified and somewhat banal thesis of a clash of cultures and civilizations. According to Huntington, the increasing intensity of inter-cultural contact will inevitably lead to profound cultural conflicts, social turmoil and the destabilization of whole regions. UNESCO has strongly opposed such a theory and instead upheld human civilization as a historical development characterized by constant exchange and mutual enrichment between different cultural groups. The idea of cultural fluidity and hybridity, inter alia put forward by scholars such as Homi Bhabha, Stuart Hall or Mikhail Bakhtin, has thus always played a vital part in the history of mankind. Within the context

of a progressing globalization, such intercultural processes now experience an unprecedented acceleration and intensification. Although UNESCO clearly believes in the essentially humanist nature of cultural diversity and in the inspiring potential of intercultural discourses, one nonetheless needs to be aware that such processes need to be consciously strengthened in order to counter possible cultural stereotyping, prejudices, and intercultural misunderstandings. People must be committed to the safeguarding and promotion of cultural and natural heritage in all their forms and to draw on the bridge-building capacities of culture in reconciliation processes among communities and countries. Only when people from all around the world and from all levels of society enter into an inclusive and equal dialogue, can they sharpen their conscience with regard to the potential of a world based on peace, democracy, justice, mutual respect and human rights. It is vital to understand that what unites humanity is stronger than its differences.

“Only if we follow a holistic approach to human development, will we be able to create a sustainable and indeed a humanist global society.”

Thus, in the light of today’s unprecedented and unpredictable challenges, the need for an inclusive, sustainable development concept, which comprises not only the economic, but also social, cultural and environmental dimensions, has never been so critical. Only if we follow a holistic approach to human development, will we be able to create a sustainable and indeed a humanist global society.

“The notion of new humanism entails a holistic approach to human progress focusing on both the search for the full realization and emancipation of the individual as well as of his or her feeling of belonging to a single human community, superseding differences of origin, ethnicity, culture, religion or gender.”

5. New Humanism as the Central Component of the New Sustainable Development Agenda

In the light of the above, the past 70 years of global development theory and policy have begun to be reviewed and rethought. Establishing political and normative frameworks towards an authentic sustainable development, which roots in peace, democracy and the genuine rapprochement of cultures, is intrinsically linked to human development, education and poverty alleviation. Sustainable development with its three pillars—economic, social, and environmental—as highlighted by the Rio+20 UN Conference* in June 2012 and by the Sustainable Development Goals designed to become an integral part of the post-2015 development agenda,† now represents the central plank in the ongoing negotiations among

* See <http://www.un.org/en/sustainablefuture/>

† See <http://www.un.org/en/ecosoc/about/mdg.shtml>

governments to yield the post-2015 sustainable development agenda. Arguably, at the political and normative heart of all these efforts lies the notion of a new humanism.

The notion of new humanism entails a holistic approach to human progress focusing on both the search for the full realization and emancipation of the individual as well as of his or her feeling of belonging to a single human community, superseding differences of origin, ethnicity, culture, religion or gender. A concrete implementation of such ideals can only be achieved through a strong and sincere commitment to international cooperation and multilateralism, which cannot be attained without reintroducing humanism as an inclusive feature. Therefore, new humanism's societal vision is essentially based on the promotion of education for all, of a democratic participation of all and an economic development including and benefitting all. In order to achieve a more just, equal and prosperous society, international politics has to concentrate on widening and deepening collective efforts in the fields of education, science, culture and access to information.

5.1. First Pillar – Social Development

First, it is a significant achievement that the UN Millennium Development Goals (MDGs)* or Education For All (EFA)† initiatives have been translated into real and concrete measures and progress. Today, more people are educated than ever before in the history of human civilization and millions of people have as a result been enabled to lift themselves out of poverty, pursuing a life in greater freedom and self-determination. Moreover, a growing number of countries are now consciously and firmly fighting against discrimination in education, be it against women or ethnic and cultural minorities. The international community must hence ensure that every human being has access to quality education, to the benefits of science and to the capacity of participating in the sociocultural life of his or her community, at both the local and global scales. Gender equality constitutes a crucial component of new humanism and of sustainable development. Within the context of globalization, new technological innovations have established a global public sphere previously unknown. Thereby, they offer new forms and tools for creating participatory knowledge societies. Vast online libraries like the World Library of Science,‡ Open Data access§ and online learning opportunities like MOOCs (Massive Open Online Courses)¶ reshape prevalent systems of education and, by even reaching marginalized and excluded populations, establish new forward-looking prospects of what education for all can mean.

The international flow of knowledge, creativity and experiences feeds itself back into defining and upholding new humanism as a synergy of peoples' minds, aspirations and ideas. New actors stemming from civil society, especially in the form of social youth movements, invent and represent new concepts of solidarity, cultural resistance and social action. In the new digital age, today's youth can as never before build on an almost unlimited fundus of human thought, raising hopes of a new humanism to be adjusted to the challenges of our

* See <http://www.un.org/millenniumgoals/>

† See <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-all/the-efa-movement/>

‡ See http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_Forum_2012/C7%20World%20Library%20Wsis%20presentation.pdf

§ See <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-access-to-scientific-information/>

¶ See <http://iite.unesco.org/publications/3214722/>

times. Thus, new humanism signifies not only a goal of human cooperation, but also marks a strategy, seeking to enable people to create their own future. In this connection, education serves as a multiplier as it empowers people in all spheres of life, thereby enabling them to partake in the creation of knowledge, community development and cultural life. Education evokes intercultural dialogue, mutual understanding and enrichment and thus serves as a basis for establishing a global culture of humanism. Today, no single country has the solutions to all global challenges. No culture holds a universal monopoly. New humanism is therefore specifically not a mere culture for the social and intellectual elites, but it is inherently participatory and inclusive, reflecting a universal resource for all individuals and communities to follow their own approach to progress and development. Hence, education as one of the three pillars of sustainable development is highly interconnected with the idea and the realization of a new humanist approach.

“Along with an increase in access to education, there needs to be a change of mentality, which overcomes selfish, egoistic and indeed unsustainable approaches of consumption and instead focuses on the preservation of our planet and the well-being of the overarching global society.”

5.2. Second Pillar – Environmental Development

New humanism is also linked to the second pillar of sustainable development, the environmental dimension. By promoting quality education for all, new humanism lays the basis for technological innovation, creativity and knowledge creation that is equipped to tackle today’s daunting environmental challenges. Therefore, the normative principles underpinning the post-2015 sustainable development agenda need to be “crisis-sensitive and actively contribute to the global public good”.* Support to future-oriented learning and research helps to deepen the cooperation between science and political decision-makers in finding sustainable solutions to environmental deterioration. However, reducing the pollution of the oceans, stopping climate change and protecting global biodiversity require more than firm global education efforts and a substantial promotion of science and research. Along with an increase in access to education, there needs to be a change of mentality, which overcomes selfish, egoistic and indeed unsustainable approaches of consumption and instead focuses on the preservation of our planet and the well-being of the overarching global society. Following a sustainable lifestyle is of elementary importance for overcoming poverty and protecting the world’s natural resources as a basis for all forms of life. The increasingly dramatic extent of today’s environmental challenges puts to test human society and requires a strong revival of the humanist ideals. New humanism thus reflects a strategy of sustainable development, shaping new ways of thinking and acting and striving towards the building of societies, which are able to adapt to change and challenges.

* See <https://en.unesco.org/post2015/sites/post2015/files/UNESCOPrinciplesonEducationforDevelopmentBeyond2015.pdf>

5.3. Third Pillar – Economic Sustainability

In the hierarchy of human necessities, material and economic needs are fundamental. However, an individual's longing for equality, human dignity, education and knowledge, identity, participation, and access to cultural and religious life cannot simply be obtained through economic development alone. Social inequalities in non-economic areas risk to aggravate and deepen inequalities in the economic field as well. Nonetheless, a sustainable and equitable economic development remains crucial for establishing a prosperous, peaceful and just society. We cannot rely on the self-managing qualities of an unleashed and purely growth-oriented liberal market approach, but have to recognize today's new socio-economic discrepancies. These new realities urgently call for revisiting socio-economic policies and for extended global collaboration in the social, environmental and economic realms. New humanism reflects such a call for action and helps shape today's economic reality into a more responsible direction. With respect to the field of economics, a humanist anticipation of a better world implies a more equal, more just and more socially-oriented distribution of growth and wealth. Today, we not only face increasing economic gaps between different countries and regions of the world, but we also have to deal with deep domestic ruptures of socio-economic inequality.

“A humanist anticipation of a better world implies a more equal, more just and more socially-oriented distribution of growth and wealth.”

An important tool for an adaptation of economic policies is the concept of Social Protection Floors. Social Protection Floors aim at assisting an economic development which is more equitable in its distribution and more comprehensive in its reach. A Social Protection Floor puts forward a firm and resilient basis for economic growth and promotes a comprehensive societal insurance against exclusion, poverty and the repercussions of economic and financial crises. The implementation of Social Protection Floors is crucial to ensure that the benefits of growth accrue to all. They encourage countries to define a universal set of standards of social service coverage. The concept of a Social Protection Floor is flexible and can be adjusted to specific country contexts. It encourages a more coordinated and comprehensive formulation and an implementation of labor and social policies. The overarching goal of such floors is to induce governments to tackle extreme socio-economic inequalities and to provide for measurements like the promotion of women's rights and women's economic equality, apply fair and equal tax burdens, equitable access to healthcare.* A global coalition of UN specialized agencies, international NGOs, development banks, public-private partnerships and civil society organizations has been formed to assist countries in the creation and expansion of national Social Protection Floors.

It is precisely the collaborative and participatory nature of the Social Protection Floor concept that reflects the fundamental values and implications of a new humanism. First, in recognizing economic development not as a stand-alone goal, but as an objective that needs to be embedded in a strong and solid social framework, the conceptualization of Social

* See <http://www.ilo.org/secsoc/areas-of-work/policy-development-and-applied-research/social-protection-floor/lang--en/index.htm>

Protection Floors represents a comprehensive and interdisciplinary approach to sustainable development. Second, the particular rights and measurements comprised by the establishment of Social Protection Floors are specifically aimed at mitigating socio-economic discrepancies and articulate an inclusive and participatory approach to economic and political decision-making. Economic marginalization is highly interlinked with corresponding cultural, symbolical and socio-political forms of exclusion. Seen through the lens of a new humanist vision, it is therefore exactly the cooperative approach of the Social Protection Floors, which makes them a sustainable instrument for pursuing a more inclusive, democratic and diversified development.

6. Conclusion: New Humanism – The Way Forward

The call for a new humanism in the 21st century roots in the conviction that the moral, intellectual and political foundations of globalization and international cooperation have to be rethought. Whilst the historic humanism was set out to resolve tensions between tradition and modernity and to reconcile individual rights with newly emerging duties of citizenship, the new humanism approach goes beyond the level of the nation state in seeking to unite the process of globalization with its complex and sometimes contradictory manifestations. As Irina Bokova postulated in her installation speech as UNESCO Director-General (November 2009), the new humanism constitutes “a universal vision, open to the entire human community and embracing each and every continent [...] it is to give fresh impetus to solidarity, to bring people together and awaken their conscience”. The new humanism approach therefore advocates the social inclusion of every human being at all levels of society and underlines the transformative power of education, sciences, culture and communications. Therefore, humanism today needs to be perceived as a collective effort that holds governments, civil society, the private sector and human individuals equally responsible to realize its values and to design creatively and implement a humanist approach to a sustainable society, based on economic, social and environmental development. This “conscience of humanity”, to put it in the visionary words of Jawaharlal Nehru, reflects UNESCO’s normative principles and political mandate and indicates the way forward to multilateral strategies for sustainable development, “releasing a political energy that can deliver us right to the heart of contemporary thinking about cosmopolitan democracy”.³ In fact, new humanism describes the only way forward, if we want to live in a world that accounts for the diversity of identities and the heterogeneity of interests and which is based on inclusive, democratic, and, indeed, humanist values.

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Notes

1. Mart Laanemets, *Three Aspects of the Humanism in Buddhism* (Münster: Ugarit-Verlag, 2012) http://www.academia.edu/3189399/Three_Aspects_of_the_Humanism_in_Buddhism
2. “China economic growth rate stabilises at 7.7%,” 20 January 2014 *BBC* <http://www.bbc.com/news/business-25805227>
3. P. Gilroy, *Against Race – Imagining Political Culture beyond the Color Line* (Cambridge: The Belknap Press of Harvard University Press, 2000), 243.

The Politics of the Solar Age: 1975-2015

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Abstract

A global transition is manifesting in sustainable technologies, policies and investment tools. We are moving beyond the Industrial Era. Crises in energy, water, food and ecosystem services are being met with many forms of renewable energy; United Nations, NGOs, World Bank and other global programs; and with creative investment opportunities such as green bonds. Paradigm shifts in science, academia, governance, leadership, finance, business, social norms, media, communications and network structures as well as the role of Earth-observing satellites have led to a greater focus on earth systems science. Stress is a basic tool of evolution, and breakdowns drive breakthroughs. While mainstream media operates on the commercial formula of “if it bleeds it leads,” growing consciousness is accelerating the green transition to more equitable, peaceful, sustainable, knowledge-rich societies. This article explores key drivers of this transformation and the standards being developed to guide us into the Solar Age.

The global transition to sustainability is fundamentally based on the current transition from the fossil-fueled Industrial Era to the low-carbon, knowledge-richer, more inclusive economies, “green” technologies and infrastructure now underway worldwide as Ethical Markets tracks. I published *The Politics of the Solar Age* in 1981, outlining the struggle observed as a science policy advisor from 1975 through 1980* as incumbent industries in fossilized sectors fought to retain their tax advantages, subsidies and legislated rent-taking. I witnessed how the many viable technologies in solar, wind, geothermal, ocean systems as well as organic, low-till and halophyte agriculture were suppressed by money in political processes, lobbying, regulatory capture and cognitive capture of compliant commercial media. I reviewed these political processes in the USA, Brazil and worldwide in *Mapping the Global Transition to the Solar Age*.†

2015 is the year when all the issues of global sustainability are now mainstream and becoming key agendas in the politics of most of the 193 United Nations (UN) member countries. The global transition from fossil fuels and nuclear power to efficient use of renewable energy and materials is now accelerating, as we expected when Ethical Markets launched our Green Transition Scoreboard® (GTS) in 2009.

* From 1975-1980, the author served on the Technology Assessment Advisory Council to Congress and the US Office of Technology Assessment (OTA); the National Science Foundation’s Research Applied to National Needs (RANN) and the Committee on Public Engineering Policy (COPEP) of the National Academy of Engineering of NAS.

† Hazel Henderson, *Mapping the Global Transition to the Solar Age*. ICAEW and Tomorrow’s Company, 2014. Available for free download at <http://www.ethicalmarkets.com/wp-content/uploads/2014/02/tecpn12453-solarage-web.pdf> Foreword by Dennis Bushnell, NASA Chief Scientist, Langley, Virginia, co-published by the Institute of Chartered Accountants of England and Wales and Tomorrow’s Company (London, 2014)

Anticipating the disappointments of the UN Climate Summit in Copenhagen, we identified the trends in private sector investing in all the new companies and technologies in solar, wind, efficiency, storage as well as geothermal, wave power and research in the \$1.2 trillion total worldwide in 2009. We projected that if the pace of at least \$1 trillion annually continues until 2020, the world's economies would shift into the more sustainable, cleaner, knowledge-rich technologies of the next era as described in the aforementioned *Mapping the Global Transition to the Solar Age*. This transition is well underway as evidenced by numerous reports from Financing the Transition, Long Finance;¹ Fiscal Policies and the Green Economy Transition,* and Greening China's Financial System.² Even the fall in oil prices is not derailing the transition to renewable energy and efficiency, especially in developing countries where solar is growing and oil accounts for only 1.5% of electricity generation in the key markets where solar is growing.³ These trends can address the needs of the 1.3 billion people lacking electricity, particularly when combined with information technologies like mobile phones and virtual financial services.⁴ Even the natural gas from shale in the USA can no longer change the direction of the transition to renewables, while its current role usurping coal in electric utilities' fuel mixes is leading to new risks and vulnerabilities.⁵

So far, the drivers of this global transition have been the 1) growing risks of fossil fuels and nuclear energy, unaccounted rising costs of resource-degradation, waste, pollution and health impacts (still "externalized" from company and government accounts); 2) pressure on water supplies, collapsing fish stocks, spreading desertification and loss of forests and biodiversity; and 3) the growing recognition of the benefits of the green transition to sustainability in public health and safety, environmental quality, more equitable decentralized technologies—all of which are available and when scaled could provide unlimited sustainable energy for all countries.[†] *Better Growth Better Climate*, the Synthesis Report of the Global Commission on the Economy and Climate, a global consortium of eight research institutes, documents that this green transition will also provide opportunities for jobs and boost sustainable global development.[‡]

Since 2009, the rising awareness of these new global possibilities grew worldwide among the grass roots, in academia and at last reached politicians and traditional financial centers. These crises of unsustainability humanity faces were seen more clearly as caused by limited perception of planetary processes and our place in its living biosphere. As we humans began accepting our role in these crises, including climate change, many became empowered to take responsibility to act in this new Age of the Anthropocene. Scarcities of water, arable land and forests which had fueled "resource grabbing" by multinationals and government sovereign wealth funds increasingly meet with local resistance. A report by *The Guardian* demonstrated the failure of such privatization models.⁶

* "Fiscal Policies and the Green Economy Transition: Generating Knowledge – Creating Impact," OECD Green Growth Knowledge Platform Third Annual Conference Report, Ca' Foscari University of Venice, The Energy and Resources Institute, United Nations Environment Programme, the Government of Switzerland, the Government of the Netherlands http://www.greengrowthknowledge.org/sites/default/files/Conference_report_design2.pdf.

† See for example the Green Transition Scoreboard® reports from 2012 and 2013.

‡ *Better Growth Better Climate*, Global Commission on the Economy and Climate, World Resources Institute, EDRI, Tsinghua University, Climate Policy Initiative, Global Green Growth Institute, Stockholm Environment Institute, CRIER, LSE Cities, September 2014.

1. Countries “grabbing” land outside their borders⁷

The tipping point was in 2012 where 50,000 civic leaders met with leaders of 193 UN member countries and many enlightened businesses and investor groups at the UN Summit Rio+20 in Rio de Janeiro, Brazil.* Our GTS was presented at this summit in many venues with our 2012 total at \$3.3 trillion. Corporations and institutional investors signed The Natural Capital Declaration and Roadmap which has since then added hundreds of organizations.† Pension funds, particularly in Europe, joined the transition.⁸

The alarming weather events and natural disasters of 2013 and 2014 finally brought widespread recognition of anthropogenic climate change and the growing debate about mitigation and inevitable adaptation to rising sea levels and security risks. Global Insights on ESG in Alternative Investing were provided by Mercer and LGT Capital Partners. Many pension fund managers who formerly cited financial risks in divesting from fossil fuels now cite the risks of “stranded assets.”

Thus, defensive, rearview mirror responses gave way to more proactive approaches. Forward-looking financial groups promoted the wide range of new investments and the need to shift portfolios from fossil fuels and “stranded assets” to market reforms, including carbon taxes and writing down “proven reserves” which clearly could not be exploited without increasing global warming beyond 2°C. While solar PV and thermal CSP, wind and efficiency became increasingly attractive and prices, particularly of solar PV, continue to fall, even *The Economist* acknowledged the new circumstances in their special report “Let There Be Light”. All this was made even more attractive by the drop in oil prices below \$50 a barrel by January 2015, allowing governments to withdraw costly subsidies to consumers. Unfortunately, subsidies to producers have largely stayed in place. However, London’s FTSE launched its ex-Fossil Fuels Index series, and the UN’s \$53 billion Joint Staff Pension Fund has seeded two low-carbon exchange-traded funds (ETFs).⁹ As carbon assets are downgraded in portfolios, we recommend that these be repriced as “*in situ* chemical feedstocks reserves” to soften the blow.

Looking ahead, this acceleration of the green transition is powered by fundamental shifts in human perspectives leading to paradigm shifts in science, academia, governance, leadership, finance, business, social norms, media, communications and network structures. The role of space and Earth-observing satellites led to a greater focus on exploration of earth systems science.[‡] The computerized digital revolution and social networking underlie all these shifts as efficiency in energy, manufacturing, urban redesign, transport, healthcare, finance and many other sectors of post-industrial societies are digitized and dis-intermediated. Harvard physicist Mara Prentiss links efficiency advances and renewable energy to show how the USA can be 100% powered by these cleaner, healthier systems in *Energy Revolution* (2015).¹⁰

While we are seeing ourselves anew as one confused, troubled human family, trying to adjust to each other’s differing experiences, beliefs and cultural practices, we are also

* Report of the United Nations Conference on Sustainable Development, UNCSD, Rio de Janeiro, Brazil, June 2012. Available at <http://www.uncsd2012.org/>

† The Natural Capital Declaration and Roadmap, UNEP and GCP, 2014.

‡ NASA at <http://science.nasa.gov/earth-science/> and EthicalMarkets.com at <http://www.ethicalmarkets.com/category/earth-systems-science/>

acknowledging the globalization and technologies we have created which we must now address and manage if we are to survive. As we deal with the resulting conflicts, inequality, social fragmentation and mindless violence, humans are learning and survival strategies are emerging. We recall that stress has been a basic tool of evolution in all species, including our own.

Breakdowns drive breakthroughs. There is much good news, submerged in mainstream media, still operating on the old commercial formula: violence, sex, scandal as weapons of mass distraction—“if it bleeds, it leads.” In *The Better Angels of Our Nature* (2011), Harvard psychologist Steven Pinker tells the more hopeful story based on millennial historical trends including the feminization of societies, “gentle commerce”, expanding reason and sympathy and social order. Charles Johnston, MD, sees these trends as leading toward cultural maturity in *Hope and the Future* (2014). Even in the face of rising sectarian conflicts in the Mid-East, similar reports from *Business Week* and *New Scientist* document how humans are “changing the juice we use to run our civilization” and “witnessing a complete transformation of the world.”^{11,12} Even US populations are beginning to see climate change as a threat and surveys now show bipartisan support for government regulation of greenhouse gases and majorities now favor solar energy.*.†

Key drivers in 2015 accelerating the green transition to more equitable, peaceful, sustainable societies are knowledge-intensive, paradigm shifts—new source codes now steering social, political, financial, corporate and academic decisions and changes:

- Beyond quantitative economic models to qualitative growth, systems approaches to human development, wellbeing and happiness
- Beyond short-term gain to long-term sustainability
- Beyond competition to collaboration and cooperation

These more inclusive systemic paradigms are re-shaping:

- Markets and commons in new global agreements
- MOOCs revolutionizing academic-based learning¹³
- Beyond scarcity economics to abundance and embracing earth systems science
- Beyond mining the Earth for energy to harvesting the Sun’s free photons—that safely sited nuclear power 93 million miles from Earth

These new source codes are now pervading our organizations, new strands of cultural DNA deep in our operational hard drives, leading to new strategies, assumptions and decisions:

- Accounting and internalizing all social and environmental costs into public and private balance sheets (beyond GDP and “externalizing,” toward full-spectrum, truthful accountability and circular economies).¹⁴

* Polling the American Public on Climate Change, Environment and Energy Study Institute, April 2015.

† U.S. Homeowners on Clean Energy: A National Survey, SolarCity, Clean Edge and Zogby Analytics, March 2015.

- Transforming finance beyond short-term, money-based fossilized asset allocation still mispricing energy and risk¹⁵ to long-term value creation standards based on use of six forms of capital: human, intellectual, financial, social, built and natural (IIRC, SASB, GRI and Ethical Markets' Principles of Ethical Biomimicry Finance[®])*.
- Market-based reforms—pollution taxes (including carbon);¹⁶ democratizing financial services; reforming electronic markets and trading;¹⁷ crowdfunding,[†] cellular phone banking, revival of public banks, time banking, credit unions, cooperatives, worker-owned companies, hybrid social enterprises and the rise of shareeconomies and the circular economy.¹⁸
- Focus on inequality, technology-based unemployment and the globalized power-law race-to-the-bottom; new forms of distribution of purchasing power, aggregate demand, guaranteeing minimum basic security, incomes, contingent cash transfers.^{19, 20}
- Focusing on technological threats—artificial intelligence (AI), cybercrime and terrorism, synthetic biology, geo-engineering, nanotechnologies, space race for helium-3 and other minerals, gene driving;²¹ beyond the unsustainable animal protein diets to plant protein, more insect-based foods for energy and resource efficiency and human health.
- Designing and financing urbanization, efficient infrastructure,²² focusing more on “infostructure” (broadband, expanding internet access, online education, tele-democracy),[‡] public goods and services, mobility, food, cultural and environmental amenities.
- Beyond fresh water intensive glycophyte agriculture to salt-loving halophyte-plant foods, fiber and fuels (based on four underutilized, abundant resources: 40% desert lands, 97% seawater, 10,000 halophyte varieties and free photons).²³

These broadened approaches to sustainability are tracked in our GTS under our section: Life Systems, including technologies protecting nature, human wellbeing, food, water, education and quality of life. We continue to cover green infrastructure finance by green bonds²⁴ and purposes to which such funds are applied. Long-term sustainability requires redesign of major infrastructure from past eras—now no longer fit for purpose: from national electricity grids, urban infrastructure, obsolete dams, crumbling bridges, over-investments in roads and private vehicles versus rail, public transit, bike lanes and pedestrian malls to the massive global fossil fuels apparatus and trade facilities for shipping material goods in our increasingly digitized 21st century Information Age. All these system-wide transitions toward efficiency, information and communications technologies (ICT) are now digitizing many sectors of economies worldwide.

* IIRC at <http://integratedreporting.org/>; SASB at <http://www.sasb.org/>; GRI at www.globalreporting.org; Principles of Ethical Biomimicry Finance at www.ethicalbiomimicryfinance.com

† For more information see <http://www.ethicalmarkets.com/category/crowd-funding/>

‡ See for example, Hazel Henderson, Global Infrastructure Fund Conference, Tokyo, Japan, 1998.

2. System-wide Transitions

Systemic awareness of vital interconnections is now crucial, such as between energy, water, food and other tightly coupled systems of agriculture, forestry, ecosystem services, financial speculation and climatic changes (all monitored daily by 120 Earth-observing satellites of many countries cooperating through GEO and the International Space Station). For example, the Inter-American Development Bank is financing smart transportation solutions through new public-private partnerships.* Even California's drought is producing new approaches such as generating the electricity to run water and waste water system with solar energy.²⁵

The Global Infrastructure Basel conference has revealed its first selection of sustainable infrastructure between \$5 and \$400 million on May 27, 2015, allowing investors to connect with partners and opportunities including wind farms in Vietnam and Senegal, energy and water-saving projects in China, Tanzania; public transit projects in Accra, Mexico City and Fortaleza, Brazil.†

The rapid digitization of legacy industries, manufacturing, retail, traditional banking toward mobile-payments systems like Kenya's M-PESA, crowdfunding sites like Kickstarter and crypto-currencies like Bitcoin are now spreading to healthcare, legal services and the new "shareconomy" hybrids like Uber, airbnb, Couchsurfer and employment sites like Elance and TaskRabbit. While these new ICT services help consumers' budgets and provide casual work for struggling people in developed economies, they can also exacerbate inequality in countries applying austerity, cuts to public services, pensions and healthcare. In addition, electricity-gulping, inefficient server farms are at last being addressed by a consortium of IT industry leaders formed in 2007 in their Green Grid initiative²⁶ and a Power Usage Effectiveness (PUE) effort with EPA's Energy Star program.²⁷

The International Telecommunications Union (ITU) has tracked these trends in ICT and how different countries provide infostructure: internet, broadband, fiber-optic cables, WiFi, phone services and how communications networks are provided and under what standards. For example, Scandinavian countries rank highest in providing standard access to this ICT infostructure while Finland defines such access as a human right. The World Economic Forum (WEF) in Davos, Switzerland, since 2001, has produced its Global Information Technology Report comparing progress in ICT across 143 countries because "ICTs have become key enablers of business and employment creation and of productivity growth." While "ICTs have significant potential for supporting inclusive grow... paradoxically, ICTs have opened up new digital divides."²⁸ This is seen both within and between countries, largely due to different standards and politics. ICTs can exacerbate inequality of access, condemning many rural and poor communities to structural poverty and unemployment.

In the USA, for example, access to internet and broadband falls behind many countries, where small cities can be stranded without minimum broadband speed for their

* Public-private partnerships offer smart transportation solutions for Latin America and the Caribbean, Economist Intelligence Unit, Inter-American Development Bank and the Multilateral Investment Fund, April 15, 2015.

† First Infrastructure Projects Announced, Global Infrastructure Basel, April 15, 2015.

small businesses and job creation. Left to the private market, large telecom and cable companies have duopoly or monopoly power and simply will not provide access. The Financial Times reported on how these policies deny service to millions of consumers and small businesses, and which US neighborhoods, small cities and rural areas do not have broadband connections.²⁹ The WEF report ranks the USA 7th behind Singapore, Finland, Sweden, Netherlands, Norway and Switzerland for networked readiness; 14th in access standards behind New Zealand, Britain, Canada and the United Arab Emirates (UAE); 12th on infrastructure and affordability and only 10th on business usage.³⁰

According to the US Federal Communications Commission, “High-speed Internet access has become fundamental to modern life. Broadband connectivity can overcome geographic isolation and put a world of information and economic opportunity at the fingertips of citizens... Forty-one percent of America’s rural schools couldn’t get a high-speed connection if they tried... Connectivity is only available at an unreasonably high price.” Yet, the Connect America Fund will invest \$20 billion in broadband through 2020, paid by small fees on consumer bills.³¹ Google, Facebook and new entrants into providing internet and broadband connectivity to all humanity are gearing up with new technologies. Google is developing globe-girdling balloons; Facebook has launched its internet.org and will provide access to basic services in tandem with several governments in Africa and hopes to develop solar-powered drones. OneWeb, a Florida-based start-up, aims to provide fast connectivity to all with swarms of cheap, low-flying satellites.³² However, these innovations are unproven and years away. This huge underlying transition enabling smarter energy, water, cities, online education, waste recycling and more inclusive green growth is tracked in our GTS, currently totaling over \$876 billion.

This array of deeper issues is now emerging in thousands of top-level, global scientific conferences and is the subject of at least three major UN summits in 2015: 1) Financing for Development in Addis Ababa, Ethiopia, July 2015; 2) the UN General Assembly, New York, September 2015, to debate and ratify the new Sustainable Development Goals (SDGs) which build on the Millennium Development Goals (MDGs) which succeeded in advancing education, women’s and all human rights and reducing poverty; and 3) the Climate Change Summit in Paris, France, December 2015. The SDGs, launched in 2012 at Rio+20 placed all human goals within the framework of ecological sustainability and inclusive, equitable, low-carbon green economies in member countries and supported open working groups (OWG) in all these countries. A global Stakeholder Forum was initiated to review the goals. Its report on achieving a better balance between economic, social and environmental dimensions produced deeper research and clarification in a systems-based synthesis (OWG Outcome Document).³³ An inter-governmental negotiating session at the UN, New York, January 19-21, 2015, conducted a “stocktaking” in preparation for adoption of the final SDGs at the September General Assembly.³⁴

The report, “Sustainable Development Goals and Integration,” Stakeholder Forum 2015, by Amy Cutter, et al.,³⁵ identified cross-cutting issues and where some goals could be focused and integrated with others, for example, how **Goal 7**: “Ensure access to affordable, reliable, sustainable and modern energy for all” was related to **Goal 12**: “Sustainable consumption

and production patterns” (closely followed in our GTS). All the SDGs are related and may be further integrated into a smaller group as advocated by some economists and politicians. However, we agree with those who take a systems view beyond economics and money-based measures, such as Secretary-General Ban Ki-moon, Bill and Melinda Gates and others.³⁶ We have reported on **Goal 2**: “Promote sustainable agriculture”; **Goal 6**: “Ensure availability and sustainable management of water and sanitation”; **Goal 8**: “Promote inclusive and sustainable economic growth, full productive employment and decent work for all”; **Goal 9**: “Build resilient infrastructure, promote inclusive, sustainable industrialization and foster innovation”; **Goal 11**: “Make cities and human settlements inclusive, safe, resilient and sustainable”; **Goal 14**: “Conserve and sustainably use the oceans, seas, marine resources for sustainable development”; **Goal 15**: “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss”.

“We recognize that people are at the center of development and, in this regard, we strive for a world that is just, equitable and inclusive, and we commit to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all.”

– The Future We Want

Ethical Markets supports all these and the other SDGs which relate to gender equity, human rights and social justice which are fully embraced in our Transforming Finance initiative and TV series, our Principles of Ethical Biomimicry Finance[®] and our EthicMark[®] Awards raising the ethical bar for advertising, our Quality of Life Indicators and the Caring Economy Indicators of our partner the Center for Partnership Studies.* We have promoted such goals since the launch of the Earth Charter and its 16 Principles of Human Responsibility at the 1992 Earth Summit in Rio de Janeiro which I have supported ever since.† Our coverage continues with daily updates on investments in quality-of-life access to basic needs, including water, healthier agriculture and food, as well as infrastructure: internet access, broadband, electronic education and political participation.

3. United Nations Sustainable Development Goals

The UN Secretary General Ban Ki-moon’s report “The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet” synthesizes the widespread deliberations of the 193 country members of the United Nations in RIO+20, in Rio de

* Transforming Finance at <http://www.ethicalmarkets.com/category/transforming-finance/>; Ethical Markets TV Series at <http://ethicalmtv.wpengine.com/?s=transforming+finance&submit-2=go>; Ethical Biomimicry Finance at www.ethicalbiomimicryfinance.com; EthicMark Awards at www.ethicmark.org; Ethical Markets Quality of Life Indicators at www.ethicalmarketsqualityoflife.com; Caring Economy Indicators at <http://caringeconomy.org/newindicators/>

† The Earth Charter, Earth Charter International, San Jose, Costa Rica. <http://www.earthcharterinaction.org/content/>

Janeiro, Brazil in 2012, with the over 50,000 civic, business and investor groups, including us, also participating.³⁷ The global consultations since then led to these new SDGs to expand on the Millennium Development Goals' progress since 2000. The Rio Outcome document *The Future We Want* summary states, "We recognize that people are at the center of development and, in this regard, we strive for a world that is just, equitable and inclusive, and we commit to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all."

"The stresses now occurring globally are largely due to limited perspectives, ancient ideologies and defunct economic models."

Secretary General Ban Ki-Moon masterfully synthesizes all these global debates and agreements into "A Universal Call to Action to Transform Our World Beyond 2015". It contains many of the proposals and new paradigm approaches, new metrics beyond GDP, new Principles and Standards for guiding ethical businesses and investors, cooperatives, NGOs, auditors, accountants and financial firms which we have produced and advocated, both in my books and papers since the 1970s, and those of our company Ethical Markets Media (USA and Brazil), a Certified B Corporation since our founding in 2004.

Thus, we intend to continue fully supporting these unfolding transformative processes, including the United Nations Environment Programme (UNEP) Inquiry on Design of a Sustainable Financial System and its 3rd Report "Pathways To Scale",³⁸ to which we contributed and posted, and continue reporting on them in our Daily Headlines, as well as our Green Transition Scoreboard®, our Ethical Money Directory, our Quality of Life Indicators, our Principles of Ethical Biomimicry Finance®, our TV series "Transforming Finance" distributed worldwide by www.films.com to colleges and libraries (free at www.ethicalmarkets.tv) and our EthicMark® Awards for Advertising that Uplifts the Human Spirit and our Future Potentials, now accepting nominations for our 10th annual Awards at www.ethicmark.org, as well as our MOOC: the Ethical Markets Exploratorium, free to students, lifelong learners and global citizen activists.

We believe that 2015 can be a year where these transformations are truly launched in academia, public, private and civic sectors worldwide, because the stresses now occurring globally are largely due to limited perspectives, ancient ideologies and defunct economic models. These transitions show that stress is evolution's tool and that breakdowns do drive breakthroughs! We favor the "cap and dividend" policies as more equitable and carbon taxes as preferable to carbon trading.³⁹

2015 will see the December Climate Change Summit to be held in Paris, France, focus on hammering out a set of agreements succeeding the earlier Kyoto Protocols (on which I commented in "From Rigged Carbon Markets to Investing in Green Growth", 2011).⁴⁰ Hopes lie in the US Obama administration's agreements with India's Prime Minister Narendra Modi and their compact with China's President Xi Jinping to reduce emissions and shift to more renewable energy use. The GTS focuses on this key shift from fossil fuels, carbon emissions and their huge subsidies to inclusive, knowledge-richer, green economies. As we show in this

latest GTS report, private investments are still leading in financing this global transition with our new total at \$6.22 trillion. Fossil-free portfolios now outperform those with coal, gas and oil, while MSCI, a well-known financial provider is launching a family of fossil-free indexes.⁴¹

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Notes

1. Michael Mainelli and Chiara von Gunten, *Financing the Transition: Sustainable Infrastructure in Cities* (London: Z/Yen Group, 2015)
2. Zhang Chenghui, Simon Zadek and Mark Halle, *Greening China's Financial System: Synthesis Report* (Winnipeg: IISD, 2015)
3. Katie Gilbert, "The Bright Side," *Institutional Investor* March 2015
4. Peter Alstone, Gerhenson, Dimitry and Daniel Kammen, "Decentralized Energy Systems for Clean Electricity Access," *Nature Climate Change* 5, (2015):305-314
5. Jeff Deyette et al., *The Natural Gas Gamble* (Cambridge: Union of Concerned Scientists), 2015 <http://www.ucsusa.org/sites/default/files/attach/2015/03/natural-gas-gamble-full-report.pdf>
6. John Vidal, "Water privatization: a worldwide failure?," *The Guardian* January 30, 2015
7. Mark Fischetti, "This Land is My Land," *Scientific American* May 2015
8. Frances Denmark, "The Greening of European Pensions," *Institutional Investor* March 2015
9. Katie Gilbert, "Performance Anxiety," *Institutional Investor* May 2015
10. Mara Prentiss, *Energy Revolution* (Cambridge: Belknap-Harvard University Press, 2015)
11. Charles Kenny, "The Economic Power of Positive Thinking," *Bloomberg BusinessWeek* Jan. 12, 2015
12. C. Brathic, "Climate for Optimism," *New Scientist* Dec. 27, 2014
13. See for example, Kevin Carey, *The End of College* (New York: Riverhead/Penguin, 2015)
14. Fritjof Capra and Hazel Henderson, *Qualitative Growth* (London: ICAEW and Tomorrow's Company, 2009) <http://www.ethicalmarkets.com/wp-content/uploads/2009/10/Qualitative-Growth.pdf>
15. Hazel Henderson, "Fossilized Asset Allocation Still Mis-Pricing Energy And Risk," *Seeking Alpha* Jan. 22, 2015 <http://seeking-alpha.com/article/2840336-fossilized-asset-allocation-still-mis-pricing-energy-and-risk>
16. Hazel Henderson, "2015's Winning Coalition," *CSRWire* Jan. 7, 2015
17. Hazel Henderson, "Reforming Electronic Markets and Trading," *CSRWire* Nov. 19, 2014
18. Rosalinda Sanquiche, "Beyond Wall Street: the encouraging growth of new financial models," *The Guardian* Jan. 14, 2015 <http://www.theguardian.com/sustainable-business/2015/jan/14/beyond-wall-street-growth-of-new-financial-models-circular-economy>
19. Hazel Henderson, "Facing Up To Inequality: New Approaches Beyond Economism," *The Globalist*, Dec. 31, 2013
20. Hazel Henderson, "Reforming Money and Banking: Keys to Debt and Jubilee," *Tikkun* Jan. 21, 2015
21. *Global Risks 2015* 10th Edition (Geneva: World Economic Forum, 2015)
22. Hazel Henderson, Rosalinda Sanquiche and Timothy Nash, "Green Bonds Growing Green Infrastructure," Green Transition Scoreboard Update, *Ethical Markets Media* August 2014.
23. Hazel Henderson, Rosalinda Sanquiche and Timothy Nash, "Plenty of Water," Green Transition Scoreboard Report, *Ethical Markets Media* March 2014
24. Henderson, Sanquiche and Nash, Plenty of Water 2014.
25. Roy Hales, "A Partial Solution to California's Water Problems," *Sun Xtender* April 10, 2015.
26. "PUE to Become Global Standard for Data Center Efficiency," *GreenBiz* April 5, 2010.
27. Ryan Siegel, "New Server Technology Reduces the Power Required to Save Energy," *Just Means* April 9, 2015.
28. The Global Information Technology Report 2015 (Geneva: World Economic Forum, 2015).

29. David Crow, "Digital divide exacerbates US inequality," *Financial Times* October 28, 2014 <http://www.ft.com/cms/s/2/b75d095a-5d76-11e4-9753-00144feabdc0.html#axzz3bGYrXmhq>
30. *Global Information Technology Report*
31. Tom Wheeler, "Closing the Digital Divide in Rural America," *Official FCC Blog* November 20, 2014.
32. "Expanding the Internet: Sky-Fi," *The Economist* April 11, 2015
33. "Open Working Group proposal for Sustainable Development Goals," *United Nations* 2014 <https://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf>
34. "First Intergovernmental Negotiation on the Post-2015 Development Agenda," *IISD Reporting Services* January 21, 2015.
35. Amy Cutter et al., "Sustainable Development Goals and Integration," *Stakeholder Forum, German Council for Sustainable Development* 2015.
36. "Economics of optimism," *The Economist* Jan. 24, 2015.
37. Secretary-General, *The Road to Dignity by 2030* (New York: United Nations, 2014).
38. Simon Zadek and Nick Robins. "Pathways to Scale," Inquiry: Design of a Sustainable Financial System *UNEP* January 2015. <http://www.unep.org/inquiry/AboutUNEPInquiry/tabid/794621/Default.aspx>
39. See for example, Catherine Kunkel and Daniel Kammen, "Design and implementation of carbon cap and dividend policies," *Energy Policy* 39(2010):477-486; and Peter Barnes, *With Liberty and Dividends for All* (San Francisco: Berrett-Kohler, 2014).
40. Hazel Henderson, "From Rigged Carbon Markets to Investing in Green Growth," *Real-World Economics Review* no. 57 (2011) <http://www.paecon.net/PAERreview/issue57/Henderson57.pdf>
41. "Fossil-Free Portfolios Outperform Those With Coal, Gas, Oil," *SustainableBusiness.com*, April 13, 2015.

How to Finance our Sustainable Development Goals (SDGs): Socioecological Quantitative Easing (QE) as a Parallel Currency to Make the World a Better Place

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Abstract

This paper tries to find an answer to the question of how to finance the Sustainable Development Goals (SDGs) that the world has just decided to implement. I argue that besides the existing wealth of proposals, mainly along the lines of better governance and co-financing strategies, we need a complementary approach: parallel Quantitative Easing (QE) for SDGs only. Reverse pricing effects, drying out shadow economies and the impact of such a QE-SDG on the current liquidity trap and the debt trap are explained.

1. Introduction

In September 2015, the world agreed upon a map for mankind's future up to 2030. The Sustainable Development Goals (SDGs) formulated in this map with 17 targets will replace the Millennium Goals.* This consensus was reached through the UN's largest consultation and review process in history. Hundreds of surveys, expert groups, panels and hearings took place, and millions of citizens were engaged in population-based questionnaires contributing to this agenda. With the SDGs, the world has provided itself with a map charting its course for the next few years with the aim of living in a more just, more sustainable, more wealthy and more stable world. However, this commitment does not come cheap. For example, an additional 30 billion USD annually is required to finance the climate pathway over the next 15 years.† The transition towards a more cyclical economy would cost Europe some 100 billion USD over the same period. The overall costs of the SDGs are estimated at around 4-5 trillion USD per year in public spending, investments and direct aid. According to the United Nations Conference on Trade and Development (UNCTAD), there is an annual investment gap of at least 2.5 to 4 trillion USD.‡ Despite this global UN consensus, there is less clarity on how to finance this agenda towards greater "dignity, prosperity, justice, partnership, planet and people" (Ban Ki-moon 2015). However, if we fail to discuss where the money will come from, the SDGs are basically dead at birth. In short: where will the money come from to make this huge global shift?

* UN, Global Sustainable Development Report, 2015 edition

† Ellen Mac Arthur Foundation, Growth within: A Circular Economy Vision for a Competitive Europe, 2015

‡ UNCTAD, 2014, Developing countries face \$2.5 trillion annual investment gap in key sustainable development sectors, UNCTAD report estimates, 24 June 2014

2. The Fiscal and Monetary Dilemma

From a fiscal and monetary perspective, the world faces a multi-layer dilemma in coping with these challenges. First, increasing public debt is reducing states' and governments' willingness to further finance social and ecological issues.* Second, the liquidity trap prevents central banks from further stimulating the economy through Quantitative Easing (QE). At an interest rate close to or below zero the Central Banks empirically failed to provide and increase credits to the private sector.† Third, a shadow economy equaling the official world GDP in volume is in fact stabilising world economy. But, crime, human trafficking, drugs, guns, illegal financial transactions—all part of the shadow economy—are pulling the society in the opposite direction to the SDGs.‡ Fourth, an increase in income and wealth disparity§ is preventing the world economy from generating a massive demand stimulus and keeping global savings above investments. The higher the income gap, the lower the middle class and therefore the lower the mass demand.¶

“What is required is additional liquidity at a high scale, at full speed, and soundly targeted towards SDGs in a smart way that is different from what has been done in the past.”

Conventional strategies for financing the SDGs consist of a host of proposals, including regulatory agendas (offshore and off-sheet), different taxation schemes (progressive income tax; inheritance tax; financial stability contribution), and co-financing protocols (e.g. Global Marshall Plan Initiative), all designed to improve global governance.¶ None of the proposals is wrong. Yet, despite the intellectual scrutiny and practical heterogeneity, they all have one aspect in common: they all imply that the required liquidity will be created through the standard protocol of Quantitative Easing (QE) stewarded by central banks (CBs), where the commercial banking system eventually creates 95% of the credits loaned to the real economy.** Meaning, all the proposals consider a monetary monoculture to solve real problems. If we consider the most optimistic scenario in which the world is growing at the rate of 2% per annum over the next few years and we dedicate 1% of world GDP to SDGs, we end up with roughly 750 billion USD a year.†† Following the UN statement, financing the SDGs

* Global debt has increased by one third since 2008, totalling over 250 trillion USD, compared to world GDP; Geneva report 2014, Leveraging? What Leveraging, 16, ICMBIS

† In fact, empirically the amount of QE increased by factor 4-5 with regard to the year of financial crisis 2008; the credit to private sector however stayed the same. Richard Koo, *The Escape from Balance Sheet Recession and the QE Trap*. John Wiley & Sons, 2014

‡ Cf. Stiglitz, Josef (2012); Thomas Piketty (2014); Sir Anthony Atkinson (2015)

§ E.g.: Summers, Larry (2013): Speech at the IMF fourteenth annual research conference in honor of Stanley Fischer

¶ Radermacher, Franz J. (2011)

** IMF (2012) Jaromir Benes and Michael Kumhof, *The Chicago Plan Revisited* (IMF Working paper 12/202 (August 2012); Werner, Richard A., 2014 “Can banks individually create money out of nothing?—The theories and the empirical evidence.” *International Review of Financial Analysis* 36 (2014) 1–19

†† Agenda 21 cost around 600 billion USD annually worldwide, and the industrialised countries were supposed to contribute 100 billion USD annually, which is equivalent to 0.7% of the GDP of the rich countries at that time. The idea was to extract this amount of money from the “Peace Dividend” of disarmament after the end of the Cold War and redirect it into ecological and social projects. In actuality, most of those dividends went into tax reductions within the rich countries. See: United Nations, 1992. Agenda 21 available at: <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

however require an investment and aid strategy almost 6 to 8 times higher and we have to achieve these goals much faster than assumed.* Apparently, the conventional approach is one scale too small and one gear too low. However, withdrawing 6-7% (4-5 trillion USD) of world GDP (70 trillion USD) every year—even if done in a smooth and subtle way—from the market economy and steering it towards the SDGs would create the largest economic recession the world has seen in modern times.

We have to think of a different mechanism, both in terms of scale and speed. Clearly we are not only running out of time, we are also running out of capital to finance our common future. What is required is additional liquidity at a high scale, at full speed, and soundly targeted towards SDGs in a smart way that is different from what has been done in the past.

3. A Different View: Complementary Quantitative Easing

We could look at the matter from a different angle. Currently we are demanding economic growth in the first place in order to redistribute parts of it to co-finance SDGs, which take the second place. This is not wrong, but is relatively inefficient. If we take the 4-5 trillion USD as the rough figure required to “make the world a better place”, we have to do it differently: if the major monetary players and regulators (IMF, WB, CBs, UN, governments)[†] launch an annual 4-5 trillion USD QE that is linked directly to the SDGs,[‡] the whole situation changes. Let us call it a complementary QE (QE^{COM}) or a QE^{SDG§}, created solely to reach the SDG targets the world has just signed up for. However, a different design and purpose than the conventional mechanism (QE^{CON}) is required. This comprises at least 5 features (see graph below) and runs *in parallel* to the QE^{CON}:

1. QE^{SDG} is 100% electronic. There will be no cash available. This makes it trackable and recordable and limits access to the shadow economy for money laundering and tax fraud. Governments decide to accept this form of liquidity to pay taxes.
2. The QE^{SDG} has a “demurrage fee” in place. This means essentially that its negative interest rate encourages users to invest in SDGs. With a demurrage fee, there will be no hoarding, but investing.[¶]
3. The QE^{SDG} is bounded: in contrast to the QE^{CON} mechanism, the purpose of the QE^{COM} is investments in SDGs only. This restriction of the investment portfolio avoids the liquidity trap. Bounded liquidity is injected into the real economy directly and consequently steers society towards greater sustainability.

* Cf.: https://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html

† If governments are allowed to issue these “notes”, the design would be similar to that of the Chicago Plan (see IMF 2012). It is important to understand that the only real power and leverage that governments have in the monetary domain is the capacity to specify the kind of currency or currencies they accept in payment of fees and taxes.

‡ This amount of money reflects roughly the M0 quantity that central banks are issuing worldwide in order to stimulate the conventional economic sector. The same amount of liquidity, within the different design described above, is necessary to provide sustainable wealth for 80% of the world population.

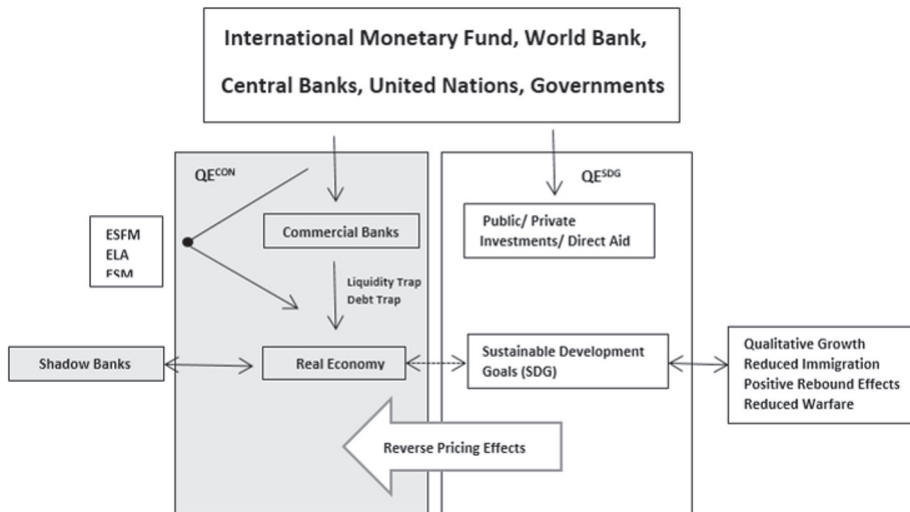
§ Werner, Richard A. (2012): How to end the European crisis—at no further cost and without the need for political changes. Southampton, GB, University of Southampton, 12pp. (Centre for Banking, Finance and Sustainable Development Policy Discussion Paper, 2-12).

¶ However, a negative interest rate has two impacts: first, it can encourage inefficient and hazardous investments that would have never been made under a positive interest rate. Second, it can stimulate long-term socioeconomic investments. The question is: bad or long term? Taking a design in which the QE^{CON} has a long-lasting perspective and is targeted towards SDGs, any investment in this field will do good or better, even if efficiency is partly reduced.

4. A “banned list” guarantees that the money is only spent on issues that are healthy, fair and sustainable. While it is difficult to identify a list of positives, it is much easier to come to a consensus on a negative list. This would, for example, exclude drugs, guns, prostitution, human trafficking and so on from expenditure.
5. The QE^{SDG} has a limited convertibility with the conventional money system of, for example, a 10-15% exchange rate. This will encourage clients, companies and states to reinvest into the SDGs or to convert money with a loss.

“We are psychologically trapped by the idea that there can be just one monetary system, providing a single, specific form of liquidity for all purposes, pretending that the power of allocative distribution is most efficient.”

Figure 1: To meet the SDGs, the world requires a parallel, complementary QE (QE^{SDG}); QE^{con}: Conventional Quantitative Easing; enhanced qualitative growth, reduced entropic sector through “inverse pricing” and consecutively drying out the shadow economy



4. Consequences and Challenges

We are psychologically trapped by the idea that there can be just one monetary system, providing a single, specific form of liquidity for all purposes, pretending that the power of allocative distribution is most efficient. Historically, this is an exception, not the rule.* The

* There is historical evidence that multiple and parallel currencies have worked throughout the centuries, providing local and regional liquidity on one side and currencies for international trade on the other. See Margit Kennedy & Bernard Lietaer. (2005)

challenges the world is facing and the SDGs humankind has imposed itself on require a different view: a parallel currency system. Such a complementary, parallel liquidity boost would have at least the following impact:

“A parallel currency system would make our world more resilient.”

1. *Ending the liquidity trap:* In a globally deflationary situation of 4-5 trillion USD, a QE^{SDG} offers additional liquidity in an intelligent design. Instead of providing liquidity through the standard protocol, which failed to provide credits to the private sector, bounded direct investments* in green and social projects (including a demurrage fee) can ensure that the liquidity hits the real market.
2. *Reducing the debt trap:* Most countries are overindebted with little or no leverage funding additional ecological or social projects. The additional liquidity ensuing from QE^{SDG} will trigger green and social investments most countries are short of.
3. *Drying out shadow-economy activities:* There is less need for people to make an income through drugs, crime, and human trafficking. Regional wars on resources and forced immigration will be reduced and employment in the ‘green sector’ would reduce attractiveness of unemployed youth joining terrorist movements.
4. *Growth:* Our conventional growth process, measured in units per GDP, will change. Long-term investments in socio-ecological projects and an increase in labour intensity are two of the most prominent impacts of a QE^{SDG}, shifting our growth paths towards a more green, balanced and healthy planet.†

There are indeed two further challenges. First, additional bounded liquidity will reduce the efficiency of any economic transaction, as there are two pathways for processing economic activities instead of one. Systems theory has shown, however, that forms of parallel processing will render systems more resilient, shock-proof, greener, safer, fairer and richer, despite the loss of efficiency.² This is known in engineering (power grid), air plane safety measures, agriculture (monocultures versus higher diversity) as well as in the human immune system. This is true for the monetary system, too. In short: there is a net gain to be derived from a parallel system to stabilize the overall system. Taking into account the number of debt (186), state banking (96) and currency crises (180) since 1975,³ a parallel currency system would make our world more resilient.

Second, we have the hazard of inflation, and indeed, a 4-5 trillion USD additional stimulus will create an inflationary pressure on price levels. However, any dollar spent through this “green” mechanism will reduce costs in the conventional economy in the so-called entropic

* With the Emergency Liquidity Assistance (ELA)-Mechanism, the ECB has several years’ experience in injecting additional liquidity into the market (<https://www.ecb.europa.eu/press/pr/date/2015/html/pr150628.en.html>). ECB would indeed become, in collaboration with UN, IMF and WB a green investment bank.

† A positive “rebound effect” will accelerate the SDGs, moving the world in the right direction.

sector.* This “reverse pricing” effect will reduce the price level in sectors nobody really wants: crime, forced immigration, human trafficking, ecological disaster management, unemployment, poverty are just some examples, as human activities are getting invested in a greener and more socially just world.

5. Final Remarks

If we start looking at the world from an SDG perspective, we can see that it is vastly deflationary, meaning there is by far not enough available liquidity to finance these unmet needs. In numbers, about 4-5 trillion USD is lacking every year to make the world a better place. However, the conventional way of creating that liquidity is restricted due to the liquidity trap and the debt trap, providing little to no future additional leverage. An additional but different design of liquidity is required, running in parallel to cope with the SDGs.

The advantage of a QE^{SDG} is that it would work on different scales: locally or regionally as well as globally. The stimulus thus created could be adjusted and scaled up according to the investment plan and unmet needs. We could start with local and regional projects identified as SDGs and scale up.

With a QE^{SDG}, we can begin to rethink the relationship between society and the money system. Money will eventually serve people and not the other way round.

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Notes

1. F. Schneider and C. Williams, *The Shadow Economy* (London: Institute of Economic Affairs, 2013).
2. Bernard Lietaer, Christian Arnsperger, Sally Goerner & Stefan Brunnhuber, *Money and Sustainability: The Missing Link. A Report from the Club of Rome – EU Chapter* (Triarchy Press, 2012).
3. Hans Werner Sinn, *The Euro Trap. On Bursting Bubbles, Budgets, and Beliefs* (Oxford University Press, 2014).

Bibliography

1. Anthony Atkinson (2015), *Inequality, What can be done*, Harvard University Press.
2. IMF (2012) Jaromir Benes and Michael Kumhof *The Chicago Plan Revisited* (IMF Working paper 12/202 (August 2012).
3. Global Financial Integrity Report 2014: 'Illicit Financial Flows from the Developing World 2003-2012'. www.gfintegrity.org/reports/
4. Kennedy, Margrit & Lietaer Bernard, A. (2005): *Regionalwährungen. Neue Wege zu nachhaltigstem Wohlstand*. München: Riemann.
5. Kjell Hausken, Mthuli Ncube, *Quantitative Easing and Its Impact in the US, Japan, the UK and Europe*, Springer Science & Business Media, 2013.
6. Nefiodow. A. Leo: *Der sechste Kondratieff. Wege zur Produktivität und Vollbeschäftigung im Zeitalter der Information*. Sankt Augustin, 2006
7. Radermacher, Franz J. (2011) *Welt mit Zukunft: Die ökosoziale Perspektive*. Hamburg: Murmann-Verlag

* The entropic sector includes investments we are forced to be engaged in, but nobody really wants: Crime protection, end of pipe technologies avoiding global warming instead of green technology to begin with, unemployment fees instead of having a real job, costs for cure due to the exposure to unhealthy environment etc. See Nefiodow. A. Leo: *Der sechste Kondratieff. Wege zur Produktivität und Vollbeschäftigung im Zeitalter der Information*. Sankt Augustin, 2006

8. Summers, Larry. (2013): Rede an der IMF fourteenth annual research conference in honor of Stanley Fischer.
9. UNCTAD, 2014, Developing countries face \$2.5 trillion annual investment gap in key sustainable development sectors, UNCTAD report estimates, 24.6.2014
10. UN General Assembly, 15-8-2014, Report of the Intergovernmental Committee of Experts on Sustainable Development Financing
11. Stiglitz, Joseph E. (2012): *The Price of Inequality: How Today's Divided Society Endangers Our Future*. New York City: W. W. Norton.
12. Piketty, Th. (2014): *Das Kapital im 21. Jahrhundert* (übersetzt von Ilse Utz und Stefan Lorenzer). München: Beck
13. Report of the UN Conference on Environment and Development, Rio de Janeiro, 3-14. June, 1992;
14. Werner, Richard A., 2014 Can banks individually create money out of nothing?—The theories and the empirical evidence; *International Review of Financial Analysis* 36 (2014) 1–19
15. Werner, Richard A. (2012): How to end the European crisis—at no further cost and without the need for political changes. Southampton, GB, University of Southampton, 12pp. (Centre for Banking, Finance and Sustainable Development Policy Discussion Paper, 2-12).
16. Werner, Richard A. (2014) Enhanced Debt Management: solving the eurozone crisis by linking debt management with fiscal and monetary policy. *Journal of International Money and Finance*, 1-27. (doi:10.1016/j.jimonfin.2014.06.007).

