

Sustainable Capitalism: Our Best Hope for the Futureⁱ

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We are in the midst of a great transition. Our economy, our society, and our natural environment are going through a period of fundamental change. This transition is at least as great as the industrial revolution and possibly as important as “the enlightenment” – the beginning of science. Contrary to popular belief, this is not a technological revolution, although new electronic and biological technologies are certainly relevant to the transition. It is a philosophical revolution, a revolution in thinking about the nature of reality, about how the world works and our place within it. Ways of thinking that seemed adequate in the past are incapable of meeting the challenges of today and of the future. To complete the transition, we must rethink virtually every aspect of our lives.

The industrial era brought many material benefits to humanity, and none of us would choose to return to a pre-industrial agrarian society. Capitalism has proven to be the most efficient economic system and no alternative system has proven capable of meeting the material needs and wants of society. However, the industrial era of development is inherently dependent on natural and human resources that are rapidly being depleted. And today's capitalist economies, being inherently dependent on those resources, quite simply are not *sustainable*. The mechanistic worldview that dominates scientific thinking today is incapable of resolving the most pressing ecological and social challenges of tomorrow. New electronic and biological technologies will simply create more problems that we cannot solve and deplete more resources that we cannot replace, unless we use them in ways that reflect a new understanding of the world and our place within it.

There is a growing realization among an increasing number of people that the things we are doing to address today's challenges aren't working, and are not going to work in the future. The unending military conflicts in the Middle East, the inevitable decline in fossil energy production, and the climate changes triggered by global warming are but symptoms of deeper, more fundamental problems within all modern industrial societies. Capitalist economies are very efficient and tremendously productive but they are using up the resources upon which they must depend for their future productivity – they are not sustainable.¹

This is not a matter of personal opinion; it is rooted in the most fundamental laws of science. Sustainability ultimately is a matter of energy. Everything that is of use to humanity – our houses, clothes, food – requires energy to make, energy to use, and in fact, is made of energy. All useful human activities – working, thinking, managing – also require energy. And equally important, the usefulness of human energy is a product of society. We are not born as productive

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mature adults but as helpless little babies. We have to be nurtured, socialized, and educated by society before we are capable of being useful to society, and that requires *social* energy.

According to the first law of thermodynamics, energy can be used and reused but can never be created or destroyed. However, the second law of thermodynamics – the law of entropy – states, whenever energy is used or reused some of its *usefulness* is lost. When energy is used, it is always transformed from more concentrated, organized forms to more dispersed, less concentrated forms, as when we burn fuel in an automobile or fuel our bodies with food. In fact, the usefulness of energy arises from its natural tendency to disperse. Even though no energy is lost when it is dispersed, it must be collected, reorganized, reconcentrated, and re-stored before it can be reused. All of this requires energy – energy which is no longer available to do anything else. This is the essence of the law of entropy and entropy is inevitable.

The only source of energy available to offset entropy is the daily inflow of solar energy. The fundamental problem is that capitalist economies provide powerful incentives to use and reuse energy but provide no incentives to collect and store solar energy for the purpose of offsetting the energy lost to entropy. Even the solar energy captured through agriculture and forestry is put in the marketplace for consumption rather than used to regenerate and renew energy resources for future use. The basic problem is that economic value is inherently individualistic in nature; it accrues to the individual and thus must be expected to accrue during an individual's lifetime. It makes no *economic* sense to invest anything for the sole benefit of someone else, certainly not an unknown someone of some future generation. An economy driven by economic self-interest, as is increasingly the case in all modern capitalist economies, actually accelerates the process of entropy. Such economies are not *physically* sustainable.

Less appreciated but no less important, capitalist economies also dissipate *social* energy because they weaken human relationships. Economic efficiency requires that people relate to each other *impartially*, which means *impersonally*. People must compete rather than cooperate, if markets are to work efficiently, and competition degrades personal relationships. Economic efficiency encourages people to work away from their homes and shop outside of their local communities. They make more money but they have less time and energy to spend sustaining their families and communities. Modern capitalist economies turn human relationships into economic transactions, depleting the social energy needed to create productive people, thus accelerating the depletion of social energy. Such economies are not *socially* sustainable.

In addition, all economic value comes either from nature or society. An economy creates nothing; it is simply a means of facilitating our individual relationships with each other and with the earth. If we continue to extract from nature and to exploit society for our short-run, individual benefit, eventually there will be no remaining sources of economic value. Capitalist economies take from nature and society but give nothing back to sustain either nature or society. Today's capitalist economies are accelerating the tendency toward economic entropy and quite simply are not *economically* sustainable.

Obviously, many economists do not agree with this conclusion. While ignoring the law of entropy, they profess a profound faith in the ability of humans to find an alternative for any energy resource we might deplete. However, the diminishing time-value of economic benefits is

clearly reflected in market rates of interest, which heavily discount the value of future events. For example, economic benefits expected to accrue a decade in the future are worth less than fifty cents today for each dollar expected later. Potentially cataclysmic events such as fossil energy depletion and global climate change are of little *economic* importance today because their ultimate impacts are still beyond the five-to-ten year planning horizons of most corporations. Economic events expected 70 years in the future are worth only a penny on the dollar today. From everything we know about the basic nature of natural ecosystems and human societies, today's economic planning horizons are simply too short to allow economics to ensure the long run sustainability of humanity. Still, many economists proclaim that free markets somehow will allocate scarce resources to meet the needs of future generations. While such beliefs provide a convenient defense of our narcissistic society, they are beliefs without basis in fact.

Other economists recognize the risks to sustainability inherent in relying on markets. Various political strategies and public policies have been proposed for creating markets that fully reflect ecological and social costs and benefits, both within and across generations. Markets would be allowed to allocate natural and social resources among alternative uses over time, once economic values were assigned to ecological and social *externalities*. However, attempts to internalize non-economic externalities inevitably lead to misallocation of ecological and social resources.

Society and nature both provide *direct* intrinsic values, in addition to their *derived* economic values.² People benefit *directly* from their personal relationships with other people and from relating to their natural environment. These direct ecological and social benefits provide the necessary motivations for *sustainability*. If these direct non-economic benefits are ignored or denied, the value of sustaining the long-run health and productivity of society and nature will be grossly underestimated. In addition, social and ethical values cannot be converted into dollars and cents nor efficiently allocated by markets.

The economics of sustainability requires a fundamentally different way of thinking. As Albert Einstein once pointed out, "We cannot solve our problems with the same thinking we used when we created them." Industrial economic development, which has dominated thinking for the past two centuries, is based on a mechanistic view of the world. We humans are but cogs in a giant, complex machine. Sustainable economic development must respect the fact that the world is actually a natural living ecosystem, of which we humans are a part and within which we are integrally connected.

A sustainable economy must then mimic the natural processes of living, biological systems. Living plants have the capacity to capture and store solar energy to offset the usefulness of energy lost to entropy. They have the capacity to be useful to other species – to be productive – and at the same time to devote a significant portion of their energy to renewal and regeneration. Obviously, an individual life is not sustainable because every living thing eventually dies. But living communities clearly have the capacity to be productive while devoting a significant part of their life's energy to conceiving and nurturing the next generation. Even we humans are capable of capturing and storing solar energy; we just do it with windmills, dams, and photovoltaic cells. We also have an inherent tendency to produce and reproduce, even when we have no economic incentive to do so. Otherwise, few of us would choose to raise children.

To achieve sustainability, we must respect this basic human tendency by diverting a significant portion of our energy and the earth's energy from individual economic uses to renewal and regeneration for use in the future. It will take energy to rebuild and redesign the windmills, dams, photovoltaic, and other solar collection systems needed to sustain future generations. And perhaps most important, it will take human energy to renew and regenerate the healthy families, communities, and civil societies needed to ensure that whatever energy is available in the future is put to constructive rather than destructive uses. Sustainable economies must function according to the principles of regenerative, living systems.

For example, the development of sustainable communities must be guided by the principles of healthy, productive natural ecosystems, including *holism*, *diversity*, and *interdependence*. Ecosystems are more than collections of individual physical and biological elements. They are holistic – relationships matter. Diversity also is essential in sustaining natural ecosystems, for renewal, resilience and resistance, regeneration and adaptation. Interdependence transforms the potential benefits of holism and diversity into positive ecological reality. Interdependent relationships are neither extractive nor exploitative but are mutually beneficial.

The guiding social principles for sustainable communities, including *trust*, *kindness*, and *courage*, arise from a set of common core values, which transcend religion, philosophy, race, nation, and culture.³ Trusting relationships are built on the core values of honesty, fairness, and responsibility. When trusts are validated, relationships grow stronger, and when violated, they grow weaker. Relationships of kindness are built on the core values of empathy, compassion, and respect. Sustainable relationships sometimes require mercy rather than justice. Finally, trust and kindness accomplish little without the courage to act. It takes courage to reject deception, inequity, irresponsibility, ruthlessness, and disrespect – to be trusting and kind.

The guiding economic principles of sustainability include *value*, *efficiency*, and *sovereignty*. Economic value is determined by scarcity, meaning there is less of something available than people need or want. Things of great intrinsic value, such as air, may be of no economic value if they are not scarce. Sustainable communities and societies must produce things of economic value. Economic efficiency reflects economic value relative to the economic costs of the things used to produce it. Sustainable communities and societies must make efficient use of their land, people, intellect, energy, and money. Economic sovereignty is the freedom to make informed choices. In sustainable communities, people must be free to make their own decisions and must accept responsibility for their choices.

The integrity of a community, meaning its completeness, strength, and soundness, depends on the extent to which the principles of sustainability permeate all aspects of the community. The social community, for example, must be more than a collection of people. The relationships among individuals must be holistic, diverse, and interdependent. Its social and cultural resources must be used wisely, not just to create economic value but to create things of intrinsic social value. Social integrity depends on ecological and economic integrity.

Sustainable relationships between a community and its natural environment can be derived directly from the principles of social relationships. Environmental pollution and degradation violate the principles of kindness or trustworthiness in relationships among people, both within

or among generations. And natural resources must be used not just to create economic value but also maintain the intrinsic value of living in a clean and healthy natural environment. Ecological integrity depends on social and economic integrity.

Finally, a sustainable local economy also must be holistic, diverse, and interdependent. A degree of specialization and standardization may be necessary for efficiency, but a sustainable economy must maintain a measure of diversity and its economic relationships must be mutually beneficial, rather than extractive or exploitative. Economic relationships must be based on trust, not just contracts and laws, and must reflect a sense of kindness toward others, including those of the future. Economic integrity is inseparable from ecological and social integrity.

A number of specific programs are available to guide communities through the sustainable economic development process. The Natural Step is a nonprofit organization founded in 1989 by Swedish scientist, Karl-Henrik Robèrt. A number of rural *eco-municipalities* across Canada and the United States are working to develop “ecologically, economically, and socially healthy communities for the long term” by using the Natural Step framework.⁴ The Natural Step seeks to minimize the accumulation of wastes from both naturally occurring and manufactured substances while maintaining the productivity of natural ecosystems and sustaining a healthy, productive local society.

The Business Alliance for Local Living Economies is an international alliance of more than 50 independently operated local business networks dedicated to building local living economies.⁵ A *living economy* is defined as one in which economic power resides locally, for the purpose of sustaining healthy community life and natural life as well as long-term economic viability. There is no shortage of programs to guide sustainable economic development. The key to success, however, is widespread local commitment to the purpose and principles of sustainable economic development.

Many individuals, businesses, nonprofit organizations, municipalities, and informal communities are taking the initiative to live, work, and govern by the principles of sustainability. The fundamental question confronting humanity, however, is whether people in general will be willing to forego some level of individual economic self-interest to ensure the long run sustainability of humanity. If we continue to behave like non-thinking animals, following our most basic instincts and urges, our species will suffer the same fate as any other non-thinking species that finds itself in a position of dominance in its ecological environment. We will continue to expand our population and consumption until we degrade and deplete the resources that must sustain us. Humans are not exempt from the fundamental laws of nature, regardless of how much we think we know or how technologically advanced we may become. Unfortunately, the ecosystem dominated by we humans today includes the entire biosphere of the earth.

Many people today question whether a capitalist economy can ever be sustainable. Admittedly, the ecological and social risks of capitalism are real. However, no other economic system has been found that can rival its efficiency and productivity in decisions and activities that are legitimately private, personal, or individual in nature. Societies that have tried communism, socialism, and religious theocracies have never been able to meet the physical and material needs of their people. They are ultimately rejected by their people because they are not

economically sustainable. Most individual economic decisions do not deprive anyone of their basic social rights or violate any moral imperative. These decisions legitimately belong in the individual, private economy, where there is no logical alternative to capitalism. Capitalism, with all of its inherent risks, is still humanity's best hope for sustainability. Fortunately, sustainable capitalism does not require some radical, new-age value system; it only requires that we return to the foundational principles of classical capitalism and grass-roots democracy.

We already have the necessary political and institutional structures in place to create a sustainable economy. We have the means of ensuring the renewal and regeneration of ecological and social capital needed to sustain the development of economic capital because we have a constitution that could be amended to ensure the rights of all people, including both current and future generations, to a healthy and productive natural environment. The U.S. constitution was designed to be changed, as is spelled out in Article V. The Founding Fathers anticipated such changes would be necessary to maintain the “consent of the governed.” The United States today is in desperate need of a new “bill of rights” to ensure the sustainability of this great nation.

However, constitutional changes cannot be imposed upon the governed, but instead must reflect the consent of the governed. We must have a national discussion to reach a new consensus regarding ecological, social, and economic justice. Eventually, we Americans must abandon our pursuit of individual material wealth for the pursuit of a more enlightened concept of self-interest. We are material beings and we need to be concerned about our individual, economic well-being. But we are also social beings; we need other people. We need interpersonal relationships that are not predicated on the expectation of economic benefits. We also are ethical and moral beings. We need to feel a sense of rightness and goodness in the things we do to give purpose and meaning to our lives. Sustainability requires only that we seek a *more enlightened* self-interest. This is not some radical, new idea. In the early 1800s, in his classic book, *Democracy in America*, Alex De Tocqueville referred to it as sense of “self-interest rightly understood”⁶ and deemed it a necessity of democracy.

Sustainability ultimately is a matter of ethics and morality. We must be willing to treat other people as we would like to be treated if we were in their situation and they were in ours. We must be willing to practice the Golden rule both within and across generations by doing for those of future generations as we would have them do for us, if we were of their generation and they were of ours. We must come to common understanding that it is not a sacrifice to care for other people or to take care of the earth because these things make our lives better. We must reflect our common sense of rightness and goodness in our relationships with each other and our relationships with the earth.

Ironically, *classical* capitalism was built upon a strong moral and ethical foundation. Classical economists, including Adam Smith, David Ricardo, and Thomas Malthus, were very much concerned with well-being of society and humanity. Adam Smith wrote in his 1776 classic, *Wealth of Nations*, “improvement in the circumstances of the lower ranks” should never be regarded as “an inconvenience to the society... what improves the circumstances of the greater part can never be regarded as an inconvenience to the whole.”⁷ He also wrote that *land*, meaning natural resources, “constitutes by far the greatest, the most important, and the most durable part of the wealth of every extensive country,”⁸ suggesting that the *public* must accept responsibility

for protecting their common wealth. Classical economists understood that a capitalistic economy must function within the social and ethical bounds of a moral and just society, if it is to function for the well-being of people in general.

However, neoclassical economists, who appeared around the turn of the 20th century, wanted to be true scientists. They eventually abandoned the social and ethical foundations of classical economics in their pursuit of impersonal scientific objectivity. Over time, market economies were allowed to drift away from the necessary conditions of competitive capitalism, in the pursuit of greater economies of scale from large, industrial organizations. Competitive capitalism requires a larger number of buyers and sellers, freedom of entry and exit, accurate information, and consumer sovereignty.

These conditions existed in the days of Adam Smith, with large numbers of small proprietorships and face-to-face transactions, and the associated *inability* to coerce, deceive, or persuade through advertising. However, today's capitalistic economies are dominated by giant multinational corporations, with entry and exit restrained by large investment requirements and patents, and with billions of dollars spent for misleading and persuasive advertising. International trade is no longer free trade among sovereign individuals who are not free to “not trade” but instead is coerced trade between rich and poor nations, many of whom feel obligated or forced to trade.

Eventually, publicly owned corporations, not sovereign individuals, came to dominate decisions made within capitalistic economies. Corporations are not human beings. They have no sense of right or wrong, good or bad, they have no capacity for ethics or morality. Today's capitalist economy may produce lots of “cheap stuff” but there is absolutely no assurance that it is producing the “right stuff,” certainly not the right stuff for future generations. We have antitrust laws in place to ensure competitive markets, but their enforcement has been largely abandoned. Perhaps we also need constitutional amendments designed expressly to limit the powers of corporations and to restore true capitalism to our economy.

However, constitutional amendments to ensure the rights of all people to a clean and healthy natural environment and to ensure equal rights for those of future generations would do more to ensure economic sustainability than any political act of the people. Only when our economy again functions competitively within the context of an equitable and just society, will we be ensured of its sustainability. This is not communism or socialism; this is fundamental capitalistic democracy.

We have the necessary legal and governmental structures and processes in place to create, interpret, and enforce laws necessary to ensure economic sustainability. We need only allow our government to do what it was designed to do. The Declaration of Independence states, “We hold these truths to be self-evident that all men are created equal, that they are endowed by their Creator with certain inalienable rights, that among these are life, liberty, and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed.”

The preamble to the U.S. Constitution states, “We the people of the of the United States, in order to form a more perfect union, establish justice, ensure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty for ourselves and our posterity, do ordain and establish this constitution of the United States of America.” Nowhere in our founding documents do we find “ensuring economic growth” identified as a primary responsibility of government. All we need to do to establish a sustainable capitalistic economy is to return to the core values of democracy and the core principles of capitalism.

We are in the midst of a great transition. We simply cannot continue doing what we have been doing because we are rapidly depleting the natural and human resources upon which the very survival of humanity ultimately depends. Today's capitalist economies are not sustainable. We must renew and regenerate our ecological and social capital if we are to sustain the economic capital necessary for a sustainable economy. A sustainable economy is not an option; it is a necessity, if there is to be a future for humanity. Together we can and must build a new sustainable economy and society, and in so doing, we will create a fundamentally better way of life for ourselves today and for those who follow in the future.

End Notes

¹ For a more complete discussion of economic sustainability, see John Ikerd, *Sustainable Capitalism: A Matter of Common Sense* (Bloomfield, CT: Kumarian Press Inc, 2005).

² V. Pareto, “Sunto di alcuni capitoli di un nuovo trattato di economia political del prof, Pareto,” *Giornale degli Economisti*, no.10, (1900): 223, translated in Luigino Bruni, *The History of Happiness in Economics* (London: Routledge, 2004).

³ Rushworth M. Kidder, *Moral Courage* (New York: William Morrow, HarperCollins Publishers, 2005), 43.

⁴ Sarah James and Torbjorn Lahti. *The Natural Step for Communities: How Cities and Towns Can Change to Sustainable Practices* (Gabriela Island, BC: New Society Publishers, Inc., 2004).

⁵ BALLE, Business Alliance for Local Living Economies, “Mission and Principles Statement,” <http://www.livingeconomies.org/aboutus/mission-and-principles-1>, (accessed December 2007).

⁶ Alexis de Tocqueville, *Democracy in America*, (New York: Bantam Books, 2000, original copyright, 1835), 646-649.

⁷ Adam Smith, 1904, original copyright 1776, *An Inquiry into the Nature and Causes of the Wealth of Nations*, fifth edition, ed. Edwin Cannan (London: Methuen and Co., Ltd), Book I, Chapter 8, paragraph 55, also available at <<http://www.econlib.org/library/Smith/smWN.html>> .

⁸ Smith, *Wealth of Nations*, I, 11, 237.