



System Change Investing and the Sustainable Development Goals

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Abstract

The UN Sustainable Development Goals (SDGs) are one of the most important milestones of the sustainability movement. Broad embrace of the goals by companies and governments shows growing awareness of the need to effectively address major environmental, social and economic problems. In his 2019 letter to CEOs, Larry Fink, CEO of Blackrock, the world's largest asset manager (\$6 trillion in assets), said that companies should expand their purpose from narrowly benefiting shareholders to broadly benefiting society. Over 8,000 companies are striving to do this by voluntarily adopting a B-Corp (Benefit Corporation) structure that seeks to benefit all stakeholders. Voluntary efforts such as these provide many benefits, but cannot come close to achieving the SDGs. Economic and political systems often place shareholders before all other stakeholders and do not hold companies fully responsible for negative environmental and social impacts. These systems compel all companies to degrade the environment and society. They are the root causes of the environmental, social and economic problems addressed by the SDGs. System change is the most important action needed to achieve the goals. This article provides a big picture view of system change and discusses practical options for achieving it. System Change Investing (SCI), a high-leverage, short-term system change strategy, is emphasized.

1. The Big Picture

The big picture has space and time dimensions. A space or geographic perspective shows that the economy is a sub-element of human society, which is a sub-element of the whole Earth system. This system includes immutable physical and nonphysical laws of nature, such as equality. A big picture time perspective shows that all human systems which violate the laws of nature change, usually by collapsing.

This perspective also shows similarities between past and modern systems. To illustrate, current economic and political systems are similar to slave-owning societies in ways that are not obvious without this higher perspective. Plantation owners in the early southern US, for example, grew up in a society where slavery was broadly accepted and promoted. Many slave owners saw themselves as good people who treated their family, friends, neighbors and sometimes slaves well.

Preachers assured them that slavery was divinely ordained. Their sense of self-worth often was tied to their slaves and other property holdings. Slave owners who tried to free their

slaves or treat them more kindly frequently were criticized and pressured to conform with current systems. Voices opposing slavery increasingly were heard in the southern US. But slave owners were supported by their families, communities and society. Rationalizations and close-mindedness often were used to block out dissenting voices.

During a typical conversation, one might have heard slave owners discussing good deals at slave markets or the most effective ways to punish runaway slaves. If people today could go back in time and hear these conversations, nearly everyone would be horrified. Many would exclaim, you're insane! I don't even know where to begin to explain how wrong you are.

The same situation exists today. Nearly all future people will look back in horror at many of our actions and systems. This is not obvious to most people for many of the same reasons that the horrors of slavery often were not obvious in the early southern US (except to slaves).

People grow up in current economic and political systems. Their lives frequently depend on them. Benefits of current systems are taught in school and heavily promoted. Business and political leaders usually are admired by their families, friends and communities. Young people often strive to emulate them. Like many slave owners, modern business and political leaders are good people who frequently believe they are doing God's will. They strongly intend to benefit, not harm society.

And yet like slave owners, they are unintentionally causing massive harm. Humans are taking far more resources from nature than it can sustainably provide, and dumping far more waste into nature than it can sustainably process. This has placed every major environmental life support system in rapid decline, with some regional exceptions.

Inappropriate government influence enables those at the top of society to unfairly concentrate public wealth. Sixty-three people own as much wealth as the bottom 50 percent of humanity (3.8 billion people). Forty-three percent of citizens in the US cannot afford to meet basic needs. Billions of people suffer and struggle to survive while a small group at the top has far more wealth than they could reasonably spend.

Media and vested interest deception divides people and prevents them from working together on their many common interests, such as protecting life support systems and using the public wealth to equally and fairly benefit all citizens. Experts have been raising awareness about environmental and social degradation for over 20 years. But business and political leaders who attempt to address these problems often face strong pressure to abide by current systems and continue harmful actions.

Like slavery, modern economic and political systems grossly violate the laws of nature. They inevitably will change, probably soon given the massive degradation and suffering they are causing. The Roman Empire and other civilizations collapsed in large part because the people controlling society were insulated from the suffering of average citizens. They resisted change until flawed systems finally collapsed, usually quickly, as occurred with the end of slavery in the US and fall of communism in the Soviet Union.

Big picture space and time perspectives show that this is the trajectory of modern society and our flawed economic and political systems. These well-meaning, but shortsighted systems not only allow massive environmental and social degradation. They compel it. Modern systems will change through voluntary or involuntary means. Involuntary change (collapse) would cause unprecedented suffering and disruption, due to the large, interconnected nature of modern society and the many environmental and social tipping points that we are near or beyond.

“Our myopic systems make the increasingly incorrect assumption that maximizing economic growth will maximize the well-being of society.”

Voluntarily changing economic and political systems can seem impossible, like ending slavery often did in the early US. But slavery changed, and we will too. Humanity is hugely talented, creative and resourceful. Through technology, we are more networked and interconnected than ever before. Millions of individuals, organizations, communities and countries are pioneering sustainable lifestyles and approaches.

A big picture perspective shows that the technology, sophistication and coordination of nature are nearly infinitely greater than that of humanity. But we are parts of nature. We can be vastly more sustainable and truly prosperous than we are now. We can evolve our systems before nature and reality evolve them through collapse. We can do this if we devote the time, attention and resources needed to make system change happen.

2. System Change

Modern economic and political systems were developed from a narrow, reductionistic perspective that ignores many relevant factors. As a result, these systems produce unintended consequences, such as widespread environmental and social degradation. As Einstein said, we must think at a higher level to solve our most complex challenges. That higher level is whole system thinking. It is based on the reality that human society is an interconnected part of the whole Earth system. Effective whole system approaches take all relevant factors into account and eliminate unintended consequences. They have the potential to manifest in human society the nearly infinite sophistication, coordination and prosperity already present in nature.

Shortsighted economic and political systems compel all companies to degrade the environment and society, mainly by not holding them fully responsible for negative environmental and social impacts. These systems usually compel companies to place shareholder returns before the environment, labor, customers and all other stakeholders. If there are conflicts between shareholder returns and any other factor (as there often are), shareholders usually take priority. When companies are not held fully responsible, it is impossible to voluntarily eliminate all negative impacts (i.e. stop harming society) and remain in business.

There are many economic and political system flaws that fail to hold companies fully responsible. These include time value of money, externalities, limited liability, inadequate measurement of social well-being, overemphasis on economic growth and shareholder returns, and inappropriate government influence driving extensive corporate welfare and concentration of wealth. Time value of money devalues future generations and resources, and thereby often compels companies to harm and degrade them. As discussed under limited liability below, not holding companies responsible for the costs and negative impacts they impose on society (externalities) increases total societal costs and compels businesses to cause harm.

What gets measured gets managed. Our myopic systems make the increasingly incorrect assumption that maximizing economic growth will maximize the well-being of society. Economic growth is a means to the end of social well-being. Focusing measurement and management on the means makes it the end goal. Economic growth obviously provides benefits. But it also drives growing environmental and social problems. Putting economic growth and shareholder returns before all else is unintentionally destructive and ultimately suicidal. A rational, enlightened society would focus measurement and management on maximizing the long-term well-being of society.

Economic growth mainly measures business sales growth. Most business assets are owned by a small group of wealthy investors. Focusing the measurement and management of society on economic growth places financial returns to wealthy citizens ahead of all else, including the survival of humanity. This myopic focus harms everyone, including wealthy investors because it degrades the world in which they and their children must survive.

The requirement to provide ever-increasing shareholder returns eventually pushes everything else aside. To illustrate, for many years, a substantial share of profits was used to increase wages, develop new products, invest in property, plant and equipment, and take other actions that broadly benefit society. However, more recently, extensive profits, often over 95 percent, are used to buy back shares. This action was illegal in the US for much of the 1900s. It was seen as stock market manipulation. But business influence of government drove deregulation beginning in the 1980s. As a result, many illegal actions were made legal, including stock buybacks. This contributed to flat wages, concentration of wealth, extensive financial speculation and the 2008 financial crash.

Under our myopic, unintentionally destructive systems, very generally speaking, companies can voluntarily mitigate about 20 percent of short-term and long-term, tangible and intangible, negative environmental and social impacts in a profit-neutral or profit-enhancing manner. Beyond this point, mitigation often increases costs. If companies continue voluntarily reducing negative impacts, they will put themselves out of business long before reaching full impact mitigation.

Modern economic and political systems grossly violate the rule of law. This principle says that individuals and companies should be free to do what they want, provided that they do not harm others. The rule of law usually is applied well to individuals. They are held responsible

through many criminal and other laws. However, the principle is applied poorly to companies in the US and many other countries. Businesses are allowed to cause extensive harm.

“Limited liability is a deceptive term. Liability does not disappear. It is transferred, mostly to taxpayers.”

Laws and regulations usually prohibit immediate and obvious types of harm, such as selling products with ingredients that quickly sicken or kill people. However, extensive, less obvious harm is allowed by economic and political systems. Many types of harm occur over the longer-term and are difficult to quantify or attribute to particular businesses. Intangible harm is real, but often impossible to quantify, such as the divorce, depression, crime and other problems that frequently result from laying off employees in small towns. Companies often are compelled to cause harm when it is not immediate and obvious, no cost-effective alternatives are available, and the probability of being held responsible is low, for example, due to inappropriate influence of government.

If the choice is benefiting shareholders in the short-term or protecting other stakeholders from nebulous, longer-term harm, business leaders frequently put shareholders first. If they do not, they might lose their jobs or put their companies out of business.

Failing to hold business responsible is one of the most important aspects of current systems that future generations will look back on with horror and disbelief. As they attempt to survive in a severely degraded world, they often will think, how could past generations have been stupid enough to not only allow, but compel companies to cause massive environmental and social harm and degradation.

Of course, we are not stupid, as slave owners were not. We simply are not looking at the big picture. Enough of us do not see the massive, often life extinguishing harm we are causing. Once we better understand this, we will do whatever it takes to stop destroying ourselves, as we finally did whatever was necessary to end the horror of slavery.

Limited liability illustrates the destructive aspects of current systems. People in the future will look back on it the way we look back on slavery. We frequently take limited liability for granted because it is a major part of our economic system. Students often are taught the benefits, but not the harm it causes.

Individuals and small business owners are held fully responsible. If they cause harm, their personal assets can be taken to pay for it. There would be no corporations without investors. Therefore, investors are the ultimate responsible parties for harm caused by corporations. But corporate owners are not held to the same responsibility standards as individuals and small business owners. They receive all of the financial upside, but their downside is limited, usually to the amount of their investment.

Limited liability is a deceptive term. Liability does not disappear. It is transferred, mostly to taxpayers. A more accurate name would be transferred liability or taxpayer liability. For

example, if a limited liability company with \$1 million of equity investment caused \$100 million of harm, investors might lose some or all of their investment if the value of the company declines. But they usually could not be compelled to pay for the harm. Insurance might cover some of the cost. But taxpayers often would be required to pay for most of the harm, or suffer reduced quality of life.

Limited liability is an unfair form of socialism. Taxpayers/citizens are compelled to act as the owners of business on the downside (by paying for negative impacts) while receiving none of the financial upside. A limited liability corporation is not a private entity. It is a grossly unfair quasi-public structure.

Limited liability drives substantial environmental and social degradation, while greatly increasing total costs to society. High risk activities often provide high financial returns. Flawed systems usually compel companies to pursue the profit-maximizing strategy. High financial risk frequently limits investment in harmful areas. Transferring the downside to taxpayers improves the risk/return profile for investors and often compels companies to engage in the riskiest activities. This can increase costs to society by compelling citizens to pay to clean up problems caused by business. Preventing problems usually is far less expensive than cleaning up or resolving them. Major problems, such as cleaning the oceans and atmosphere, often cannot be resolved. Citizens will suffer degraded life support systems or not survive.

Many private sector activities would not exist in their current forms if taxpayers were not covering most of the downside, such as nuclear power and many genetically engineered crops, synthetic chemicals and nanotechnology food ingredients. If companies were held fully responsible for the burdens, risks and costs they impose on society, they would be compelled to provide products and services in a nondestructive manner. This would vastly lower total costs to society while substantially improving quality of life.

SUVs provide another example of how future generations might view us differently than we see ourselves. If we are unable to significantly reduce greenhouse gas emissions and predictions of substantial negative climate change impacts occur, future generations will be living in a world that is severely degraded by our actions. They might be angry that we drove unnecessarily large, polluting, fuel-inefficient vehicles when we had the technology to develop far more efficient vehicles, transportation systems and community layouts.

Those owning SUVs in the future might be strongly condemned. But criticizing people today for owning them could seem inappropriate. In the same way, anyone attempting to own slaves today would be severely condemned. But owning slaves in the early southern US was seen as normal and acceptable, as owning an SUV is today. A big picture perspective clarifies our unintentionally harmful actions and the systemic changes needed to improve them.

3. The Sustainable Development Goals

The SDGs are a large step in the right direction. Many countries and companies are striving to achieve them. Wide embrace of the goals shows humanity's rapidly growing awareness of the vast harm we are causing and the need to stop it as quickly as possible.

System change is the most important action needed to achieve the SDGs. The 2030 targets in particular cannot be met without it. Flawed systems are the root causes of the environmental, social and economic problems addressed by the SDGs. The goals largely are focused on symptoms (problems), instead of causes (economic and political systems). National, corporate, NGO and other efforts to achieve the SDGs provide many benefits, and therefore should be greatly expanded. However, voluntary, symptom-focused efforts cannot come close to achieving the goals. Focusing on symptoms instead of causes is like trying to put out a fire while simultaneously throwing gasoline on it. Complementary system change work is needed.

“The root cause of human-induced climate change is not greenhouse gas emissions. It largely is the flawed economic and political systems that compel companies to emit these gases.”

Several reports have identified extensive business opportunities related to the SDGs. But companies only can achieve about 20 percent of the goals under current systems before they violate the obligation to maximize shareholder returns or run up against other systemic barriers to sustainability. System change will greatly accelerate and facilitate SDG achievement.

System change is implied in the SDGs. Discussion of inclusive societies and institutions implies democracy and sustainable political systems. Discussion of sustainable infrastructure, production and economic growth implies sustainable economic systems. As companies strive to achieve the SDGs, they might seek mid-level (sector-level) system changes, such as incorporating a particular externalized cost into prices. But it seems unlikely that the SDGs will drive high-level (economic and political level) system change at the pace and scale needed to achieve the 2030 targets and avoid system collapse.

High-level system change probably represents at least 80 percent of the sustainability solution. One of the most important overarching high-level system changes is to hold companies fully responsible for negative environmental and social impacts (i.e. effectively apply the rule of law to business). Flawed, myopic systems unintentionally place business in systemically-mandated conflict with society. Holding companies fully responsible for harm removes these conflicts. It makes acting in a fully responsible manner (by eliminating all negative impacts) the profit-maximizing strategy. This important system change is implied in SDG target 16.3 (Promote the rule of law).

System change can make SDG work far more effectively. The 17 SDGs and 169 targets in them can produce counterproductive or redundant efforts as companies, governments and other parties spread their work across many different goals. The SDGs have a common root cause—reductionistic thinking and resulting flawed systems. Therefore, they have a common solution—using whole system thinking to evolve economic and political systems into sustainable forms. System change can drive substantial or complete achievement of many SDGs with little or no issue specific work.

To illustrate, the root cause of human-induced climate change is not greenhouse gas emissions. It largely is the flawed economic and political systems that compel companies to emit these gases. Holding businesses fully responsible for these emissions could substantially resolve climate change with little climate specific work. System change is highly efficient because the same high-level system change strategies used to address climate change (i.e. holding companies fully responsible) will significantly resolve many other environmental, social and economic problems.

The SDGs can facilitate system change by providing a partial vision of sustainable society. This helps to identify the system changes and other actions needed to achieve the vision. It appears that the goals sought to balance addressing major sustainability issues with maximizing national and corporate participation. For example, key issues, such as democracy, a global bill of rights, religious freedom, population stabilization and limits to growth, are not adequately or specifically addressed. Doing so might have limited participation from countries that suppress democracy, violate human rights, favor particular religions or have high projected population growth rates.

Making the goals voluntary and emphasizing sustainable economic growth, and high economic growth in the least developed countries, can increase corporate participation. It enables companies to address growing environmental and social concerns, while maintaining their systemically-mandated focus on maximizing shareholder returns.

Stating all of the requirements for sustainable society, including applying the rule of law to business, limiting population and economic growth, and effectively enforcing a global bill of rights, could substantially limit national and corporate participation. It seems that the framers of the SDGs wisely downplayed these issues and made compliance voluntary. Bringing many countries and companies to the SDG table enables humanity to more effectively collaborate and resolve longer-term, complex challenges, such as high-level system change and the major sustainability issues not specifically addressed by the SDGs.

4. Current System Change Efforts

Growing awareness that system change is the most important action needed to achieve the SDGs and sustainability in general is driving increased system change efforts. Academic experts have been studying systems theory, system dynamics, systems thinking, economic reform and similar system change-related topics for decades. A growing number of organizations use this and other research to provide system change services to companies, governments, communities, NGOs and foundations.

Most of this work focuses on system change process, rather than content. Vendors often advocate system change principles and specific processes for implementing them. System change work frequently is focused on the company, sector or community level. The goal often is to model smaller scale approaches that can be scaled up to higher levels and applications. Complex models identify detailed linkages and feedback loops that frequently are difficult for average citizens to understand.

The growing number of economic reform efforts reflects a broader approach to system change. But this work often does not take the whole system into account, and thereby does not adequately address relevant root causes, systemic barriers, key leverage points and optimal solutions. In addition, the emphasis frequently is on encouraging companies to voluntarily implement circular economy and other sustainable economy principles in their own organizations, rather than collaboratively change the overarching economic and political systems that largely constrain and control corporate behavior.

A Putnam Investments article¹ discussed several aspects of corporate and financial sector system thinking. These include considering how corporate activities impact the environment and society, expanding the corporate purpose beyond attaining superior investment returns, striving to achieve the SDGs, and adopting longer-term investment horizons.

All of these activities are important components of system change. Like SDG efforts, the above system change actions provide many benefits, and therefore should be greatly expanded. Also like the SDGs, the above system change work is a large step in the right direction. But broader, complementary system change efforts are needed to achieve the SDGs and evolve economic and political systems into sustainable forms.

System change content (i.e. identifying system flaws and providing practical, specific strategies for resolving them) is just as important as system change process. It can greatly accelerate and facilitate collaborative system change efforts. Current economic and political systems severely constrain the ability of companies to voluntarily reduce negative impacts. The most important system change work is improving these unintentionally destructive systems.

Scaling up smaller efforts sometimes is not practical or relevant to larger scale issues. Economic and political systems largely are controlled nationally. Even with the global financial system, the power to constrain the destructive aspects of it mainly resides at the national level. As a result, large-scale national system change efforts are essential.

Citizens collectively are the most powerful force in society. They could quickly change any government or business. However, they cannot protect their common interests unless systemic problems and solutions are made comprehensible. Economic reform is important. But political reform is more important because the government/political realm largely controls the economy, even with laissez-faire government. Timely, effective economic and political reform only can be achieved through a whole system approach that addresses and links all relevant factors.

5. Whole System Approaches

These strategies apply whole system thinking to the whole Earth system and its sub-element human society. They take all relevant physical and nonphysical aspects of society into account. All actions begin in the mind. Modern society and its many challenges are a reflection of our limited, reductionistic thinking. This thinking is based on the illusion of separation from nature and each other. For example, the dominant view of business (companies are independent entities that should focus mainly on their own well-being) is an

irrational, reality-ignoring, unintentionally destructive position. In reality, businesses and the economy cannot exist without the environment and society.

Whole system thinking shows that it is not logical to consider the well-being of business apart from the well-being of society. A new business approach, called purpose-driven business, is based on this idea. It helps leaders to expand the purpose of their companies from narrowly benefiting shareholders to broadly benefiting society.

The book *Global System Change: A Whole System Approach to Achieving Sustainability and Real Prosperity* uses whole system thinking to provide practical, integrated, systemic solutions to the major challenges facing humanity. It addresses and links all major physical and non-physical aspects of society, including environmental, social, political, economic, psychological, spiritual and religious. The approach empowers people by describing complex issues in ways that non-expert citizens can easily understand. *Global System Change* describes the many economic and political system flaws that compel companies to degrade the environment and society, the specific types of harm caused by businesses, and the numerous deception techniques used by vested interests to mislead the public and avoid being held responsible for negative impacts.

Whole system thinking represents a higher level of consciousness and awareness. Individuals recognize that they are parts of larger systems and ultimately cannot prosper apart from them. Lower levels of consciousness and the illusion of separation create fear and belief in the need for competition. Whole system thinking shows the importance of emulating the nearly infinitely greater implied intelligence all around us in nature. The overwhelming force in healthy natural systems and nature overall is cooperation, not competition. Limited competition occurs at the individual level. But when the overwhelming force is competition, as in a body with terminal cancer, the system is dying. Whole system thinking shows that increased cooperation in human systems and society is essential for achieving sustainability.

Non-judgment is a critical system change principle discussed in *Global System Change*. Yelling at slave owners, or calling them insane or stupid, would not have been an effective way to engage them in transitioning the economy away from slavery. It also would not be an effective way to engage modern business and political leaders in ending the extensive harm caused by business. As noted, these leaders intend to benefit society. The unintentional harm they cause is compelled by flawed systems. As a result, judgment and criticism often are inappropriate and counterproductive.

We do not view current business and political leaders the way we see historical slave owners. But many future people probably will. If they do, their judgment largely would be misplaced. The enemy is not our well-intentioned leaders. It is the flawed systems that compel good people to do bad things.

6. System Change Implementation

System change could take many forms. Work is needed on several levels. Excellent system change work already is being done at the company and community levels. Many organizations are involved in collaborative sector-level (mid-level) system change. But

evolving economic and political systems into sustainable forms (high-level system change) is the most important and complex work needed.

Two critical aspects of high-level system change are awareness raising and collaboration. Extensive media efforts are needed to raise public awareness about the essential need for economic and political reform and the huge benefits that will accrue from it. Growing public pressure will encourage business and government to effectively work for system change.

Helping people to think at a higher, broader level facilitates system change. We tolerated slavery 200 years ago. But we would not tolerate it today, because we understand the horrible, evil nature of slavery. We now are in the process of extinguishing vast amounts of life on this planet, including human life to a growing degree. Lack of awareness and failure to think from a whole system perspective are causing us to act like a cancer on this planet. Once enough people understand this, we will end our unintentionally destructive ways. Vested interests will no longer be able to mislead people into supporting current systems, and thereby block beneficial systemic change.

High-level system change only can be achieved through collaboration. These efforts could be launched and managed by combinations of NGOs, academia, business, government and international organizations, such as the UN. Many groups already are engaged in economic reform and other system change activities. For example, the Wellbeing Economy Alliance is a collaboration of over 50 organizations focused on implementing a sustainable economy. Using whole system approaches, these groups could strongly facilitate high-level system change.

Initial collaborative work should include establishing a vision of sustainable society. The SDGs would be a major component of this. With the vision clear, at least at a broad level, practical, integrated strategies for achieving it can be developed.

At the business and economic level, a primary system change theme should be holding businesses fully responsible for negative impacts (i.e. effectively applying the rule of law). This relates to the Wrong Perspective and Wrong Reference Point deception techniques discussed in *Global System Change*. Synthetic chemicals and many other substances regularly are used in the US and most other countries without independent safety testing. The implied position is that these materials are safe until proven unsafe. But this is the wrong perspective. Anything that threatens life and the environmental systems that sustain life should be considered unsafe until proven safe with independent research at a high level of certainty.

Having routinely violated the first standard, we compound the problem by violating the second. Materials that never should have been used in the first place without independent safety testing continue to be used when independent research shows them to be harmful. To protect shareholder returns, vested interests often argue that products or processes should not be restricted unless there are high levels of certainty that they are causing harm. But this is the wrong reference point. The priority is protecting human life and well-being, not shareholder returns. Parents would not wait for high levels of certainty that children were at risk before protecting them. Once independent, peer-reviewed research indicates potential

harm (perhaps in the 10 to 20 percent certainty range), risky products and processes should be restricted.

“Emphasis should be placed on expanding economic reform efforts that already are being implemented around the world, such as using more accurate measures of social well-being than GDP.”

To protect financial returns, vested interests frequently will argue that limiting potentially harmful activities will threaten jobs and the economy. The implication is that we cannot have good jobs and a stable economy unless we degrade life support systems and society. Obviously this is incorrect. Holding companies to a higher standard (full responsibility) will compel them to achieve it.

Another vested interest deception involves arguing that harm should not be prohibited until it can be accurately quantified. But as noted, some intangible and other impacts cannot be specifically quantified. To protect returns, vested interests essentially argue that they should be allowed to continue harming the environment and society until we know exactly how much harm is occurring. This is not rational. Again, the priority is protecting life and well-being, not financial returns.

There are several ways to hold companies responsible for uncertain levels of harm. For example, panels of independent experts could estimate tangible and intangible harm. To ensure that we err on the side of protecting society, harm estimates could be increased by a significant percentage. As new information becomes available, more accurate estimates could be used. Following expert estimation, companies could be held responsible through tax, fee and other mechanisms. Responsibility could be phased in to minimize disruption. But the phase in should not be unnecessarily extended. Ending the current disruption caused by massive environmental and social degradation takes priority over disrupting business operations.

Effective high-level system change would include a suite of well-coordinated, short-term, mid-term and long-term actions. It is impossible to anticipate all critical work needed for effective system change. As a result, whole system strategies would evolve based on experience and new information.

To build commitment to system change, collaborative groups should identify low hanging fruit—relatively easy, low cost system change actions that provide substantial benefits. These could include tax and regulatory changes that incentivize sustainable corporate behavior. This combined with media and awareness-raising campaigns will accelerate system change.

Political reform is another critical aspect of high-level system change, in large part because substantial economic reform cannot occur without it. A whole system perspective shows that companies must be held responsible for all significant harm. In competitive markets,

this is the only way that they can act in a fully responsible manner and remain in business. Only government can hold business fully responsible for negative environmental and social impacts. This is a main reason why political reform is more important than economic reform.

*System Change Investing and Political Reform*² summarizes many aspects of political reform. One of the most important is establishing true democracy. Many system change efforts focus on implementing sustainable capitalism. But the economy is the servant of society. The emphasis should be on democracy, not capitalism or any other economic form. Once the people control their government and society, they can use rational, whole system thinking to select the economic structures that objectively provide the greatest benefits for the least cost in each situation. For-profit companies will play a major role in sustainable society. However, additional structures, such as employee-owned, cooperative, non-profit and public, would be used in cases where they objectively maximize social well-being.

The emphasis on political reform does not mean that economic reform is not important or should not be addressed until political reform is achieved. Replacing plutocracy (control of government by the wealthy, as in the US), totalitarian democracy (citizens vote but have little control of government, as in China), and other unjust forms of government with democracy (citizens equally control government) is a longer-term issue. A whole system approach to sustainability and the SDGs would include many simultaneous economic and political reform activities. Emphasis should be placed on expanding economic reform efforts that already are being implemented around the world, such as using more accurate measures of social well-being than GDP.

Ultimately, holding companies fully responsible for negative impacts is the only way to achieve the SDGs and sustainability. Governments that are heavily influenced or controlled by business, such as the US government, obviously cannot do this, in the same way that a person accused of a crime could not reliably serve as their own judge and jury. Only governments that are truly controlled by the people (democracy) can effectively hold business responsible and protect citizens' short-term and long-term well-being.

Key political reform leverage points include internal government change, public pressure, and influence from the corporate and financial sectors. Governments that are heavily influenced by vested interests are unlikely to change on their own. Uniting and empowering citizens to work together on their many common interests, such as compelling government to apply the rule of law to business, is a longer-term issue.

The most effective short-term economic and political reform strategy is to engage the corporate and financial sectors in system change through System Change Investing. Companies and wealthy investors already heavily influence government, often in negative ways that allow more harm and thereby increase shareholder returns. SCI encourages companies to work for systemic changes that hold them fully responsible, and thereby make acting responsibly the profit-maximizing strategy.

Companies and investors frequently will resist changing systems that provide short-term financial benefits, as they originally resisted the sustainability movement. Twenty years

ago, many companies believed that implementing sustainability strategies would reduce profitability. But environmental and social issues are increasingly financially relevant. Therefore, effectively addressing them can enhance profitability, like effectively addressing any other financially relevant issue would. As this was better understood over the past 20 years, sustainability became mainstream in the corporate and financial sectors.

The same will happen with system change. Flawed systems increasingly harm companies by compelling them to degrade the environmental and social systems that sustain business. System change is the most important action needed to eliminate negative impacts, and thereby protect and enhance business and society.

The next section summarizes how investing was used to engage the corporate sector in sustainability. This lays the foundation for the following section, which summarizes how investing can be used to engage the corporate and financial sectors in timely, effective system change.

7. Sustainable/Responsible Investing

In the late 1990s and early 2000s, Innovest Strategic Value Advisers pioneered a new approach to Sustainable/Responsible Investing (SRI). Up to that point, nearly all SRI involved negative or ethical screening (i.e. not investing in sectors to which one is ethically opposed). This often reduces portfolio diversity, which can increase risk and lower returns.

Innovest was one of the first organizations to argue that environmental, social and governance (ESG) issues are increasingly financially relevant. Therefore, taking them into account could increase investment returns. The company advocated positive screening (i.e. remaining in sectors and shifting investments toward ESG leaders). This can increase returns by maintaining portfolio diversity while investing in presumably better managed companies.

Some studies found that ESG funds underperform and irrationally concluded that ESG investing (SRI) reduces returns. With most asset classes, some funds outperform while others underperform. The key SRI performance question is: Are ESG issues financially relevant? Obviously they are. Attracting and retaining a high-quality workforce, reducing waste, energy and materials costs, making safe, appealing products, improving relations with suppliers, governments, communities and other stakeholders, establishing a reputation as a responsible company, and nearly all other ESG-related actions can provide substantial financial and competitive benefits.

Using compelling research and logic, Innovest strongly made the case that failing to adequately address ESG issues violates the fiduciary obligation to maximize returns, as ignoring any other financially relevant issue would. If an ESG fund underperforms, it is not because taking ESG issues into account generally lowers returns. As with many other underperforming funds, the primary cause is suboptimal research, construction and management.

Innovest's Managing Director of Research, Frank Dixon (the author of this article), developed or substantially modified its ESG rating models. He also developed the company's

research and rating processes and materials, including scoring guidelines, analyst training materials, and company, sector and ESG issue report templates. He oversaw the ESG analysis and rating of the world's 2,000 largest companies. The primary focus was on determining how ESG issues add financial and competitive value for companies and investors. Dixon used extensive ESG research experience and business judgment to determine which ESG metrics were financially relevant in each sector and assign metric and model weightings.

The approach was highly successful. Without considering financial metrics or performance, Innovest was able to consistently identify financial leaders and add alpha for investors. Splitting sector lists of rated companies in half, ESG leaders outperformed laggards by 300 to 3000 basis points per year over nearly any time period in all high impact sectors and nearly all other sectors.

Innovest's ratings accurately predicted superior financial performance for two general reasons. They accurately assessed the extent to which companies were effectively managing financially relevant ESG-related risks and opportunities. And their ratings were strong indicators of management quality. Nearly any financial analyst would say that management quality is the primary determinant of superior financial returns, because it affects virtually every aspect of business operations. But management quality is intangible. It cannot be measured directly.

ESG ratings are strong indicators of management quality because sustainability is a complex challenge. There are high levels of technical, regulatory and market uncertainty as well as many stakeholders, complex issues and intangible factors to address. Leading sustainability performance strongly indicates sophisticated management that will perform well in other business areas, and thereby earn superior financial and stock market returns.

Innovest sold their research to large pension funds and other institutional investors around the world. The company was purchased by MSCI in 2010. The business case arguments and positive screening methodologies pioneered by Innovest are now mainstream. Many academic, business and financial sector leaders regularly use the same arguments that Innovest first made in the 1990s. Innovest and other companies provided the research that investors needed to take ESG performance into account. Financial community interest was a main factor compelling nearly all large companies to implement sustainability strategies.

8. System Change Investing

Virtually the entire corporate sustainability movement and \$23 trillion global SRI market are focused on voluntary company change—voluntarily reducing negative environmental and social impacts, for example, by lowering pollution and selling low-impact products. But as noted, system change is at least 80 percent of the sustainability solution. One could even argue that it is closer to 100 percent.

If companies are held fully responsible for negative impacts, exhortations to voluntarily reduce impacts will no longer be needed. Companies will eliminate negative impacts (i.e. stop harming the environment and society) not only because this will be the profit-maximizing approach. It also will be the only way to survive.

SCI shifts the focus from company change to system change. It is the most significant transformation in the SRI and corporate sustainability fields in 20 years.

“No company can achieve mid-level and especially high-level system change on its own. Successful system change engagement requires strong collaboration, public communication and big picture thinking skills.”

SCI is the highest-leverage short-term system change option. The approach involves rating companies on system change performance and using the research to develop SCI funds. It is based on proven, successful techniques. SRI strongly drove corporate sustainability over the past 20 years. SCI will do the same with system change.

SCI provides large financial and sustainability benefits. System change is the most important, and therefore the most financially relevant, sustainability issue. SCI adds financial value by assessing management of systemic risks and opportunities as well as providing excellent indicators of management quality.

System change is the most complex management challenge, more difficult than implementing conventional sustainability strategies. No company can achieve mid-level and especially high-level system change on its own. Successful system change engagement requires strong collaboration, public communication and big picture thinking skills. Superior system change performance strongly indicates sophisticated management that will perform well in other business areas, and thereby earn superior returns. SCI ratings can be used as an overlay on value, growth, index and nearly any other type of investment fund to significantly enhance returns.

A growing number of institutional investors, especially pension funds and other long-term focused investors, are seeking systemic approaches that provide substantial sustainability benefits. SCI is the ultimate systemic approach for the capital markets. Using whole system thinking, it effectively engages the corporate and financial sectors in evolving economic and political systems into sustainable forms. SCI can provide far greater sustainability benefits than any other type of SRI because it is focused on the most important sustainability issue—system change.

Like SRI, the key to SCI success is providing strong business cases and practical, return-enhancing models. Corporate and financial sector managers could place their jobs and companies at risk if they fail to discuss economic and political reform in an appealing and logical manner. SCI provides compelling business case arguments for system change. They clearly describe how flawed systems increasingly threaten and harm companies, in large part by placing them in systemically-mandated conflict with society.

The summary business case for system change is this—As the human economy expands in the finite Earth system, negative corporate impacts return more quickly to harm businesses,

often in the form of market rejection, lawsuits and reputation damage. Companies have increasingly strong financial incentives to reduce negative impacts. The vast majority can only be mitigated through system change. Improving flawed systems is essential for long-term, and increasingly shorter-term, business success.

In the short-term, investment returns can be enhanced by investing in system change leaders (because they virtually always will be better managed companies). Over the longer-term, as economic and political systems are evolved into forms that broadly benefit society, instead of mainly benefiting shareholders, overall returns might decline. But the goal should be to achieve this through a logical, minimally disruptive, well-managed process. Economic and political systems will be established that provide sustainable investment returns without degrading the environment and society.

The first SCI model, called Total Corporate Responsibility (TCR[®]), was developed by Frank Dixon in 2003. As the head of research at Innovest, he saw thousands of examples of flawed systems compelling companies to degrade the environment and society by preventing them from fully eliminating negative impacts. He used his ESG modeling and rating expertise to develop a new type of corporate sustainability rating model. As the name implies, Total Corporate Responsibility refers to fully eliminating negative impacts. System change is required to mitigate most impacts. Therefore, TCR is a system change-based approach.

Rating corporate system change performance is more complex than rating traditional ESG performance. The framework or context is much larger. ESG rating focuses largely on unilateral corporate efforts to voluntarily reduce negative impacts, for example, by selling sustainable products and services. The framework for system change rating ultimately is the whole Earth system and its sub-element human society. Before corporate system change performance can be assessed, necessary economic, political and social system changes must be understood. With this framework clear, the optimal corporate role in achieving these changes can be defined.

After developing TCR and advising Walmart and other companies on sustainability and system change, Dixon conducted several years of multidisciplinary research to write *Global System Change*. This provides the framework needed for effective corporate system change rating.

ESG research is used to develop SRI funds. The research needed to create SCI funds could be called ESGS (environmental, social, governance, systemic). TCR illustrates how SCI ratings and funds could be developed. The TCR model is segregated into three performance categories—traditional ESG, mid-level system change and high-level system change. It includes the rating principles, metrics, weightings, data sources and proxies needed to effectively rate corporate system change performance.

System change metric categories include public statements about system change and sustainability, media and awareness raising campaigns, engagement in system change collaborations, efforts to address specific economic and political system flaws, government influence activities including campaign finance and lobbying, and supporting NGOs, academia and other groups promoting system change.

TCR uses a best-in-class rating approach. Nearly all large companies have ESG strategies. A growing number are engaged in collaborative mid-level (sector-level) system change. But few companies are engaged in high-level system change. As a result, this performance category initially would have lower weighting in the TCR model. The performance bar also would be set lower. As more companies engage in high-level system change, performance standards and weightings would increase.

SCI defines the most advanced form of corporate sustainability. The model identifies the actions needed to achieve superior corporate system change performance. These metrics provide a system change roadmap for businesses. Many companies value and seek to maintain high ESG ratings, in large part because SRI fund inclusion can drive up stock prices. As it becomes more widely known that system change is the most important sustainability issue, effective engagement in this area will be essential for maintaining high corporate sustainability ratings.

9. Voluntary Versus Mandatory Corporate Responsibility

Many companies are achieving near record profits. But these earnings are based on extensive externalized costs and environmental/social degradation. It is not rational, fair or sustainable to profit by degrading life support systems and society. This destructive form of business obviously will end, probably soon.

Expanding corporate purposes to broadly benefiting society, adopting B-Corp structures and other voluntary corporate sustainability efforts are highly beneficial, but not nearly enough. Voluntary corporate responsibility cannot work. Abiding by the rule of law (not harming society) must be mandatory, not voluntary. It is more important to apply the rule of law to companies than individuals. People can and usually would act responsibly if there were no requirements to do so. For example, most people would not murder anyone if murder laws were removed. But companies often cannot voluntarily stop harming the environment and society under current systems in competitive markets. That is why acting in a fully responsible manner must be mandatory.

Current leading edge corporate sustainability approaches focus on voluntarily benefiting all stakeholders. But this often is not the most effective orientation. Some argue that it is not the responsibility of business to broadly benefit society. But no one could logically argue that businesses should be allowed to harm any stakeholder group or society in general. It usually would be more effective to focus on harm instead of benefits.

People who oppose corporate sustainability because they do not think companies should be compelled to benefit more than shareholders do not understand this field. There might be no obligation to broadly benefit society. But there certainly is no right to harm stakeholders or society. The key issue and focus of corporate sustainability should not be on voluntarily benefiting stakeholders. It should be on requiring companies to end the substantial harm they are imposing on the environment and society.

Ending harm often involves providing benefits, such as when employees are paid living wages or customers receive safer products. But in public discourse, the emphasis often should

be on mandatory responsibility, not voluntary benefits. Voluntarily providing benefits could be debated. But mandating responsible behavior (i.e. prohibiting substantial, objective harm) is not debatable (within the realm of logic).

Vested interests often argue that some types of harm are an inevitable part of providing the beneficial products and services demanded by society. If we allow this standard, we will achieve it, and no better. Under current systems, companies often cannot afford to eliminate negative impacts and remain in business. If we implement systems that hold business to a higher standard (provide products and services without causing harm), they will figure out how to achieve it or cease to exist.

We have the technology and know-how to largely resolve many environmental and social problems. But it often is difficult to implement these approaches. Current systems frequently create the illusion that harmful products and services are less expensive than non-harmful ones. Flawed systems externalize extensive burdens, costs and negative impacts, and thereby greatly increase total costs to society. Under sustainable systems that take all relevant costs and impacts into account, non-harmful products and services virtually always would be the low cost, highest benefit options.

An approach called Net Positive Impact focuses on maximizing positive impacts and minimizing negative ones. It implies that negative impacts are acceptable if positive impacts are greater. But we do not allow someone to murder a few people on the weekend if they help many more people during the week. Virtually all companies have positive impacts. They would not exist if they did not. Positive impacts largely are irrelevant to negative ones. Doing good does not justify or allow doing bad. Focusing on benefiting stakeholders can seem voluntary and altruistic. It distracts attention from the far more important issue – ending the massive harm currently being done to stakeholders and society in general.

In civilized society, harm must be prevented. Instead of focusing on net positive impacts, the emphasis should be on achieving zero negative impacts. This is the focus of TCR. To achieve the SDGs and sustainability, we must switch the focus of SRI and corporate sustainability from voluntarily doing good to prohibiting causing harm. Companies cannot voluntarily end all harm under current systems and remain in business. But they can voluntarily work with others to change the systems that compel them to cause harm. Voluntary system change is the only approach that has the potential to achieve the SDGs.

Failing to adopt a whole system perspective is causing us to make the same mistakes as past civilizations. Currently, sustainability advisers and other groups usually must make the business case for sustainability to encourage companies to reduce negative impacts. Future generations will see this behavior as insane and horrible, in the same way that we view slavery. We should not have to plead with companies to stop harming children and other people. Obviously, not causing harm must be mandatory. We must begin to apply the same responsibility standards to businesses that we currently apply to individuals.

In a rational and sustainable world, the focus will be on the society case or social well-being case, not the business case. Business activities that cause significant, objective harm

will not be allowed. We do not need to make the case for not murdering someone. It simply is prohibited. Under sustainable systems, the same will be true with business harm. The business case might be needed to encourage companies to voluntarily benefit stakeholders. But it is not needed to prohibit causing harm. In sustainable society, the implied business case would be, act responsibly or cease to exist.

Many people believe that modern economic and political systems are beneficial and sustainable. The systems obviously provide benefits. But they ultimately are suicidal. In a battle between reality and perceived reality (myopic human ideas about economic and political systems), reality always ultimately wins. Reality will correct mistaken ideas about current systems.

Flawed systems will change one way or another. Companies and their investors are far better off taking a seat at the system change table and helping to manage the process in a beneficial, minimally disruptive manner, rather than suffering the consequences of system collapse.

System change will massively benefit business and society. As perceived reality inevitably aligns with this reality, system change will quickly occur. Extensive system changes are needed in all major areas of society. *Global System Change* describes these changes and how to implement them. In the shorter-term, SCI is the most effective way to drive the systemic changes needed to achieve the SDGs and maximize the long-term well-being of humanity.

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Notes

1. Katherine Collins, ESG Outlook for 2019, www.GreenMoneyJournal.com, December 2018.
2. Frank Dixon, "System Change Investing and Political Reform," *Cadmus* 3, no. 5 (2018): 9-26.