

Systemic Crisis and Systemic Change in the United States in the 21st Century

Framing the challenges of a next system after fossil fuels

September 2016

*Gar Alperovitz,
James Gustave Speth,
Ted Howard,
and Joe Guinan*

The challenge of mounting an adequate response to climate change has to be understood within the context of the larger systemic crisis facing the United States. The perpetuation of generalized austerity and the continued reliance on traditional—and manifestly insufficient—policy solutions which do not address the underlying drivers of inequality, poverty, and ecological overshoot is especially wrongheaded given the historically unprecedented productive capacity our nation enjoys, and the growing consensus on the fundamentals of post-scarcity monetary theory. As the ecological rift widens, we must recognize the incompatibility of core features of the current corporate capitalist system with a sustainable, just, and equitable future. We identify five key problematic drivers embedded in the current system—namely, the growth imperative; the centrality of consumerism; the reliance on extractivism; the dominant role played by corporations; and the weakening of democratic political control. Furthermore, the pronounced US tendency towards extremely unsustainable spatial patterns of development exacerbates these ecological and economic problems.

Thus, there is an urgent need for a “next system”—a pluralist vision of a new economy centered around the values lacking in the current system. Such a vision can draw upon a myriad of local experiments in democratized ownership, community control, and revitalized local economies—a base of practical experience in new “laboratories of democracy” that can help clarify the contours of larger scale solutions. At the same time, the window during which we must act to address climate change and curb emissions is a narrow one, and more drastic action—including the use of new monetary policy to decisively curtail continued fossil fuel extraction by unwinding the corporations driving the extractive economy—may be necessary in order to forestall disaster and create the space in which such systemic alternatives may grow and flourish.



This working paper was prepared for the "After Fossil Fuels: The Next Economy" conference in Oberlin, Ohio, on October 6-8, 2016.

The contours of long-term systemic crisis

Evidence is mounting that the United States faces a systemic crisis, not simply political and economic difficulties. The economy is stagnating. The political system is stalemated. Communities are in decay. The lives of millions are compromised by economic and social pain. Violence is endemic among individuals, communities, and nations. Civil liberties are eroding. Near-record numbers of citizens remain incarcerated. Underemployment, inequality, and ecological despoliation deepen day by day. The planet itself is threatened by climate change. A generation of young people expects to be worse off than their parents.¹ The very idea of building a cooperative community of caring responsibility has largely faded from public discourse and common understanding.

Traditional strategies to achieve equitable and sustainable social, economic, and ecological outcomes seemingly no longer work, certainly not well enough. The fiscal transfers required for large public expenditures on jobs and housing have become politically impossible. Income and wealth disparities have become severe, spiraling to levels not seen since the Gilded Age.² The government no longer has the capacity to truly regulate corporations effectively or to use progressive taxation to restore a semblance of equity. Corporate power dominates decision-making through lobbying, uncontrolled political contributions, and political advertising. Publicly

listed, large-scale corporations are subject to Wall Street's first commandment—grow or die! This drive towards ever-expanding growth—and the increasing carbon emissions it demands—functions both as an economic imperative and a political mandate, with opposition to anything that adds costs part and parcel of the basic corporate dynamic.

The results are plain for all to see. Across a range of socio-economic indicators, the US data make for grim reading. Real wages for around eighty percent of American workers have been virtually flat for at least three decades.³ The share of income taken by the top one per cent has jumped from ten per cent in 1980 to more than twenty-two per cent today—their largest share since 1928.⁴ Moreover, this vastly inequitable income distribution looks positively egalitarian when compared to the distribution of wealth, with the top ten per cent now claiming ownership over three quarters of the total.⁵ Together, the richest *four hundred individuals* now have more wealth than the bottom 186 million Americans combined.⁶ For decades virtually all our national economic gains have been captured by the very rich, with the vast majority receiving a declining share of the returns of increasing productivity.⁷ Over forty percent of families are living from paycheck to paycheck, with almost no savings to fall back on in the event of job loss or other economic emergency.⁸ For more than forty years there has been

virtually no change in the percentage of Americans in poverty. In fact, if trends hold, poverty may actually be worsening. Poverty has increased from a historic low of 11.1 percent in 1973 to 13.5 percent in 2015.⁹ 14.5 percent of Americans remain below poverty line.

Nor is this the extent of our difficulties. Gender discrimination remains intractable: progress on narrowing the gender pay gap has been basically stalled for more than a decade.¹⁰ Health inequality is on the rise, with the life expectancy gap between rich and poor people born in 1950 up significantly over those born in 1920.¹¹ The labor force participation rate has fallen steadily for the better part of two decades and is projected to decrease further.¹² Young people are saddled with ever-growing debt—including, but by no means limited to, a staggering \$1 trillion in student loans.¹³ The wake of the financial crisis, for many, has brought a recovery-less recovery.

These deep-seated trends in our political economy have been more than thirty years in the making. Ultimately they are traceable to massive worldwide economic forces—financialization, the “great doubling” of global labor markets, and corporate downsizing and restructuring—unleashed with the breakdown of the postwar international economic order and the ascent of a neoliberal policy framework intent on deregulation, privatization, and de-unionization. The upshot has been a cycle of boom-and-bust leading eventually to secular stagnation in the longer-term, with real wages stalling and deep cutbacks in social provision, in no small part due to steep decline in the strength of unions, whose organized political weight once served as the “countervailing power” to capital, buttressing social priorities across Europe and North America. Union density in the United States has fallen from a postwar high of 34.7 percent in 1954 to just 11.1 percent in 2015—and a mere 6.7 percent in the private sector.¹⁴ Organized labor may still win occasional battles, but the overall trajectory is clear: down and down and down.

As has become painfully clear, we face a systemic crisis not only in connection with the economy, but also in connection with structural and institutional racism. Looming behind murderous police brutality and the discriminatory policies which enable it (“stop and frisk,” “zero tolerance,” “broken windows”), is our peculiar racialized regime of mass incarceration, the “American Gulag.” The proportion of the population in federal and state prisons has more than quintupled over the past four decades, from 93 per hundred thousand in 1973 to almost 500 per hundred thousand in 2014.¹⁵ The United States now criminalizes more conduct than most other countries in the world. At the same time, the percentages of African Americans and Hispanic Americans under the poverty line are almost double the national average of 14.5 percent, at 26.2 and 23.6 percent respectively, and the African American portion of national wealth as a whole stands at a meager three percent today.¹⁶

The wake of the financial crisis, for many, has brought a recovery-less recovery.

Unsurprisingly, a growing number of Americans have begun to ask ever more penetrating questions about the direction in which the country is headed. Washington is broken. Serious decisions capable of dealing with real problems cannot be made. Gestures and posturing fill the airwaves. Politics no longer even attempts to confront the issues that matter most. A man named Donald Trump is now contending seriously for the Presidency. Polling data on everything from Congress to the media to the Supreme Court shows a dramatic fall in public trust—a fully-fledged legitimation crisis in the making.¹⁷ These are the contours of long-term systemic crisis.

The nature of the problem

Viewed from another perspective, however, our problems can look very different—and far less intractable and inevitable. Last year the US economy produced the equivalent of \$223,639 for every family of four in the country.¹⁸ The productive forces we have at our disposal are already immense—and moreover, all things being equal, productivity increases over time are set to augment still further the resources at our command. Per capita production in the United States increased more than sevenfold (from around \$6,740 in 1900 to \$49,930 in 2000, in 2016 dollars) during the course of the twentieth century—even though the economy was rocked by two World Wars and the Great Depression.¹⁹ Although the gains might well have been greater had these costly events not intervened, we may take the (relatively weak) twentieth-century economic performance as an initial rough baseline.

The upshot—usually absent from current discussions—is this: *We do not have an economic problem in the United States*. As a society, we are already well within range of overcoming the age-old economic challenge of scarcity and moving to confront—as John Maynard Keynes famously put it, considering the possibilities for his grandchildren—“[our] real, [our] permanent problem—how to use [our] freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for [us], to live wisely and agreeably and well.”²⁰ What we face is not an economic problem but the *political problem* of managing the most powerful economy on earth—and of doing so on a timetable set by the bounded ecological limits of the planet.

We are living in the richest political economy in human history. We do not tend to view our problems in this manner. Too often, confronted by major challenges—the need for massive investment in new green infrastructure, say, or other measures for large-scale social or environmental provision—we are warned that there isn’t enough money, that we simply can’t afford what we know we need to do. But recent experience suggests otherwise: the actual monetary operations of central bankers around the world in the wake of the 2007-2008 financial crisis point to some powerful prospective paths forward.

What we face is not an economic problem but the political problem of managing the most powerful economy on earth—and of doing so on a timetable set by the bounded ecological limits of the planet.

Even as public budgets were being slashed, central banks were pumping staggering sums of new money—the equivalent of \$12.3 trillion worldwide, including \$3.7 trillion by the Federal Reserve alone—into the global financial system to repair the balance sheets of commercial banks through bailouts and quantitative easing (QE).²¹ These central bank operations are not new, but their scale is unprecedented—central bank balance sheets are now five times their pre-crisis levels—and none of the expenditures were “paid for” through taxes or borrowing.²² “It’s not tax money,” as former Federal

Reserve Chairman Ben Bernanke explained in a TV interview: “The banks have accounts with the Fed, much the same way that you have an account in a commercial bank. So, to lend to a bank, we simply use the computer to mark up the size of the account that they have with the Fed.”²³

Modern money—as a growing number of scholars point out—while also a unit of account, a medium of exchange, and a means of payment, originates as debt and is a creation of public policy, not some fixed and limited stock of gold-like substance. Unlike the commodity-based money of the past, today’s government fiat money offers extraordinary financial power to sovereign currency issuers, as not only US policy during the Recession and thereafter but modern European central bank policies also demonstrate. To all intents and purposes we have already achieved the flexible ‘people’s currency’—cheap, elastic, expandable with the growth of population and commerce, and controllable in the public interest—for which the nineteenth-century agrarian Populists struggled. Put another way, the fact is that since Richard Nixon unilaterally terminated the convertibility of the US dollar to gold, bringing to an end the Bretton Woods regime of fixed exchange rates, there has been no rigid financial limit to the spending power of a monetarily sovereign government like that of the United States. Once money has been put back in its place, a matter of keystrokes and photons emitted by computer screens, the astounding truth, long understood by bankers, emerges that—within the physical limits of nature and our own human resources—“we can afford what we can do.”²⁴

Unlike the commodity-based money of the past, today’s government fiat money offers extraordinary financial power to sovereign currency issuers.

We must break free of the stifling restrictions of orthodox thinking to look deeply and afresh at the underlying institutions and relationships of our economy.

Nothing could be further from the guiding political assumptions that patrol the cramped and impoverished policy horizons of the present. Austerity, the proclaimed need to cut back government spending to balance the budget and pay down the debt, remains the dominant frame of mainstream politics everywhere, exerting a powerful hold over governments of all political persuasions. “Free money” was made readily available to the banks and financial institutions that caused the economic crisis in the first place, but not to the vast majority who continue to suffer its consequences. The only reason governments have been able to get away with this is because of public ignorance, fostered by politicians of all stripes, of the basics of finance and money creation. “It is well enough that the people of the nation do not understand our banking and monetary system,” Henry Ford once said, “for, if they did, I believe there would be a revolution before tomorrow morning.”²⁵

We must break free of the stifling restrictions of orthodox thinking to look deeply and afresh at the underlying institutions and relationships of our economy with a view to actually addressing the fundamental social and ecological challenges we are facing.

When long, long trends get steadily worse, year in and year out, it is clear that something profound is at work. When big problems erupt across the entire spectrum of national life, it is not for small reasons. At the heart of today’s economy is a set of institutional relationships—private credit creation

by banks, capital markets, the vast, publicly traded corporation—that together form the most powerful engine for the extraction of value the world has ever seen. “Its purpose,” as Marjorie Kelly observes, “is manufacturing financial wealth in endlessly growing quantity.”²⁶ It is this set of relationships, this basic institutional design, that drives the outcomes we are seeing in terms of labor arbitrage, compounding inequality, social atomization, and environmental destruction.

For a time, it was possible to offset such outcomes using economic growth combined with regulation and redistribution—even though the US never committed to these latter elements to the extent that the European social democracies did. But the institutional underpinnings of the postwar consensus—strong organized labor movements, mass political parties, a national Keynesian economic framework—are long gone, and patterns evident in the previous, Victorian era of globalization have resumed, along with policies designed to reverse the gains made during the middle decades of the 20th century by concentrating income and wealth upwards.

If powerful underlying trends are to be altered, it is no longer possible to sidestep fundamental questions of ownership and control. The inherent fragility of ‘after-the-fact’ redistributive strategies means that it is past time to revisit basic questions about the fundamentals of the economy and to develop a new set of institutional arrangements capable of delivering radically improved outcomes as a matter of course.

If we are serious about addressing the challenges we face, we need to think through and then build a new system of political economy.

Systemic problems require systemic solutions. A sustainable and just future demands the invention of new solutions adequate to the new challenges we face.

A political economy is a system, and today’s system is programmed not to meet basic needs but to prioritize the generation of corporate profits, the growth of GDP, and the projection of national power. It follows that if we are serious about addressing the challenges we face, we need to think through and then build a new system of political economy, however difficult the task, and however long it may take. *Systemic problems require systemic solutions.* Moreover, such solutions will not be found in the outdated ideological prescriptions of traditional state socialist alternatives. On the contrary, a sustainable and just future demands the invention of new solutions adequate to the new challenges we face.

Viewed in this light, a restructured American system, harnessing current economic possibilities, could produce very different outcomes. It could move rapidly toward a reduced work week, along with measures to alter the patterns of ownership that underpin current radically unequal distributions of income and wealth. Alternatively, individuals might continue to work long hours, but take the equivalent amount of free time in concentrated breaks, during which they could study, learn new skills, take up creative arts, or just vacation. Equality, freedom, democracy, and community: what prevent us from realizing these values are not insoluble technical problems, but political problems that a serious systemic effort could undertake to resolve if the structures of power that currently block solutions were altered.

Capitalism's ecological rift

Although the economic dimensions of the present crisis may, with determination, be resolvable on the basis of the enormous productive powers already at our disposal, a far more troublesome challenge is presented by climate change—and by increasing constraints around energy, mineral resources, clean water, arable land, and other limits to unending growth. The problem is well understood. Planetary limits are rapidly being reached, prompting an ecological reckoning that has been long in the making: “The repo girl is at the door.”²⁷ According to Climate Central, “the incidence of major hurricanes has essentially doubled across the Atlantic basin since 1970, potentially linked to rising sea surface temperatures there.”²⁸ As a result of greenhouse gas emissions *that have already occurred* it is now already too late to avoid “a cascade of local and regional ‘natural’ disasters in the medium term.”²⁹ Our future is one of price shocks, supply disruptions, population dislocations, and the rising costs of urban coastal infrastructure and remediation efforts. Superstorm Sandy—a direct hit on the world’s financial and media capital at an estimated cost of nearly \$70 billion—is the shape of things to come.³⁰

The consequences of the enormous complacency intrinsic to production systems predicated on unending growth are rapidly bearing down upon us.

Of course, political economists have long recognized the potential for ecological rift, whether it be the degradation of the soils or other forms of alienation from natural systems that have accompanied the transformation of production under the sway of capital. But this process is now sufficiently far advanced as to have leapt to an entirely different level, beyond localized ecological disasters to geophysical change on a planetary scale: “The Anthropocene is a series of metabolic rifts, where one molecule after another is extracted by labor and technique to make things for humans, but the waste products don’t return so that the cycle can renew itself. The soils deplete, the seas recede, the climate alters, the gyre widens: a world on fire.”³¹

The consequences of the enormous complacency intrinsic to production systems predicated on unending growth are rapidly bearing down upon us. Anthropogenic climate change, the mother of all metabolic rifts, is a game-changer, transforming our previously self-correcting and self-balancing relationship with planetary ecosystems in irreversible ways that call for similarly huge shifts in our economics, politics, and culture. From the Prometheanism of the growth-based systems of the twentieth century we now find ourselves propelled abruptly into an era in which there are radical limits to the boundless commodification of everything.

Climate change changes everything.³² A key provision of the Paris Agreement is the goal to limit global average temperature increase “to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial

WORKING PAPER: Framing the challenges of a next system after fossil fuels

levels,” language initiated in the Copenhagen Accord.³³ We are all familiar with the numbers—the “Terrifying New Math” of global warming, as Bill McKibben has famously put it.³⁴ The worrying thing is the speed with which this math is being realized in the atmosphere. Analysis by Carbon Brief using IPCC carbon budgets and the latest data from the Global Carbon Project suggests that we have *just five more years* of CO₂ emissions at current levels before we use up the carbon budget for a good chance—a 66 percent probability—of keeping global temperature rise below 1.5 °C.³⁵

We have not yet come to grips with the implications of what a goal of keeping warming below 2 °C actually demands of the global community—and of the United States in particular.

The consequences should we fail are unfathomably dire. Unless we dramatically change course, we may well be on track for a 560 parts per million (ppm) concentration of CO₂ in the atmosphere, amounting to a 4 °C increase in global average temperature over pre-industrial levels.³⁶ UNEP estimates that even with the Paris agreement in place, we are looking at only a greater than 66 percent chance of keeping the Earth on track for an increase in temperature of below 3.5 °C.³⁷ Warming at these levels—anything beyond the recognized threshold of below 2 °C which would “prevent dangerous anthropogenic interference with the climate system”—is of course, catastrophic.³⁸

Our future is likely to feature more intense and more frequent extreme weather events, dramatically rising sea levels, and the devastation of coastal cities and island nations. Ocean acidification would threaten the livelihoods of marine species and the fishing communities that depend upon them. Agricultural production would be hit hard, undermining food security: increased temperatures and precipitation

extremes would mean reduced food and water availability, with changing patterns of infectious agents and vast swathes of inhabitable land crippled by drought. We could face the extinction of plant and animal species on a gargantuan scale—as much as 50 percent of all species by some accounts, a Sixth Extinction Era.³⁹ Population displacement would occur on a massive scale as conflict over shrinking availability of land and resources would likely cause intense social, racial, and ethnic strife, the collapse of vulnerable nation-states, the rise of violent extremist movements, and the destabilization of entire regions, generating hundreds of millions of climate refugees.⁴⁰ All in all, such scenarios would prove catastrophic for human health and wellbeing, an existential threat to civilization as we know it. According to Kevin Anderson, the United Kingdom’s premier climate scientist, “a 4 °C future is incompatible with any reasonable characterisation of an organised, equitable and civilised global community.”⁴¹

We have not yet come to grips with the implications of what a goal of keeping warming below 2 °C (and an ambition of 1.5 °C) actually demands of the global community—and of the United States in particular. This goal will never be achieved if core features of the current system that led to the climate crisis remain the dominant institutions of our political-economic system. These features create ongoing obstacles to a necessary transformation and undermine progress towards net-zero emissions, which is what is required by the mid-twenty-first century.

What is it about today’s corporate capitalism that is incompatible with climate safety? At the most fundamental level, there is an evident mismatch between a political economy predicated on endless growth and a planetary ecosystem capable of sustaining only a finite amount of physical throughput. More particularly, how on earth do we reconcile an economy centered on quarterly earnings statements and a property ownership regime that operates in a

timespan measured in milliseconds with the need to put in place a carbon management regime that will have to operate on a timescale of “indefinitely/forever”? The answer is that we can’t. The current system is at the heart of the present ecological crisis and continuously works against sustainable solutions. Five key problematic features of this system that are driving the climate crisis are (i) the growth imperative; (ii) consumerism; (iii) extractivism; (iv) corporate power; and (v) political control.

I. The growth imperative

The growth imperative is perhaps the most problematic feature of the present system. Any ecologically serious strategy will have to confront the basic fact that, under the current system, most capitalist firms—particularly large publicly-traded corporations beholden to capital markets—must grow or die. Basic economic models show that the uncertainties of profit under a no-growth economy are enough to make the prospects for any firm “highly unattractive in finite time and bankruptcy practically certain in the long run.”⁴² As the capitalist firm is the core institution of our economy—organizing labor and technology and producing the goods and services that are the essence of growth—a positive mean growth rate over time is necessary for firms, and the overall economy, to survive.

The “grow or die” imperative inherent in the current economic system cannot be wished or regulated away.

To the degree that enterprises are subject to intense market competition, they must attempt to expand sales, profits, and growth. If they do not, either they will be punished by the markets or competitors will find ways to achieve gains at their expense. They must also externalize costs whenever possible, including the costs of dealing responsibly with the environment and curbing their pollutant and greenhouse gas emissions.

The “grow or die” imperative inherent in the current economic system cannot be wished or regulated away. The growth imperative is linked to private credit creation by commercial banks—credit expansion is the source of the vast majority of the money in circulation in the economy—which many firms rely upon. Growth is necessary for firms to repay these loans and generate profits.

Despite our ongoing systemic commitment to growth, all indications are that in the United States we have already arrived at “uneconomic growth”—the point at which growth brings static or declining social benefits and creates more problems than it solves. This is particularly true from an ecological perspective, where growth has been a massive driver of environmental destruction and climate change. Because it depends on the extraction and utilization of natural resources, for the economy to grow exponentially means that resource availability must follow the same trajectory—a physical impossibility. Indeed, the opposite is happening, with precipitous declines in the availability of non-renewable resources and the overexploitation of renewable resources beyond their regenerative capacity. In the words of Pope Francis, “The exploitation of the planet has already exceeded acceptable limits and we still have not solved the problem of poverty.”⁴³ The large-scale institutions we build to support a more democratic and sustainable future will have to transcend the Wall Street-driven growth imperative. We also need new indicators that can serve as accurate measures of social and environmental health and quality of life. Gross Domestic Product (GDP), our most important economic indicator, singularly fails to account for environmental values.

II. Consumerism

Related to the growth imperative is the problem of consumerism. A growth-dependent economic model cannot rely solely on meeting *needs*—it must also increase demand by generating *wants*. We have thus turned our citizens into consumers, and insisted on

their civic duty—urged explicitly by President George W. Bush immediately following 9/11—to shop in order to sustain a growing economy.⁴⁴ Given the imbalances in the world economy, the US consumer has also been assigned the role of global consumer of last resort.

This constant need to generate new demand is behind planned obsolescence, conspicuous consumption, fashion, and modern advertising—the diminishing returns of which are encapsulated in the perpetual frenetic addition of ever-more-hyped “new blue whiteners” to already perfectly adequate laundry detergents. More problematically, consumer products are marketed as desirable by cynically connecting them to human feelings of success, self-gratification, happiness, and meaning, but above the level of satisfaction of certain basic needs they often just serve to propagate unhappiness, ennui, and malaise. To step off this soul-destroying treadmill, the consumption patterns of the future should be ones based on a shift away from “affluenza” and in the direction of sufficiency and mindful consumption. At some point, a society like that of the United States must ask when enough is enough. As Juliet Schor has argued, one important step is to shift the economy to encourage less material consumption and more leisure time.⁴⁵ A number of policy measures could help facilitate this shift, such as reforming unemployment insurance policy to encourage work sharing, changing government hiring practices to model shorter working hours, and changing labor policies to discourage excessive overtime.

III. Extractivism

Directly related to the growth imperative and consumerism is the problem of the extractive nature of capitalism. Because natural resources are necessary for the production of goods and services, and because the continuous production of goods and services is necessary to sustain growth, natural resources have been overexploited for years.

The decades between 1980 and 2005, for example, saw average global increases of 23 percent in energy

Given the imbalances in the world economy, the US consumer has also been assigned the role of global consumer of last resort.

use, 41 percent in that of paper and paper products, 41 percent in the harvesting of fish, 37 percent in the consumption of meat, 18 percent in that of grain, 16 percent in water withdrawals, and on and on.⁴⁶ Nor can this increased consumption be laid at the door of the developing world. The United States, with less than 5 percent of global population, consumes 22 percent of the world’s oil, 13 percent of the world’s coal, and 21 percent of the world’s natural gas.⁴⁷ In the brief period 1940-1976, Americans used up as large a share of the earth’s mineral resources *as did everyone in all previous history*.⁴⁸ At current global consumption rates, we will well before mid-century have reached the point when “it would take 1.5 Earths to produce the renewable ecological resources necessary to support humanity’s current footprint [and] the biocapacity of three planets.”⁴⁹ Even with a transition to renewable energy and vastly increased energy efficiency, on our current course we could see the resulting environmental benefits swallowed up by the rate of increase of extraction and consumption.

A 2013 study called *Natural Capital At Risk* by Trucost aimed to quantify the extent to which corporate profitability is dependent upon extraction. Their conclusion: very few—if any—US Fortune 500 companies would be profitable if they were forced to bear the true environmental costs of their activities.⁵⁰

IV. Corporate power

We must also contend with the particular difficulties posed by the most important institution of modern capitalism—the large for-profit limited liability corporation. It is the corporation that brings together the growth imperative, consumerism, and

extractivism, and serves as the primary engine of production driven by profit maximization under the sign of shareholder value. In addition to climate change, countless studies have documented the looming limits of energy, mineral, water, and other resources demanded by unending growth—limits corporations desperately try to avoid in ways that are often environmentally destructive.

There is the enduring problem of monopoly. Many of our most significant corporate actors have a massively disruptive and costly impact on the economy in general and the environment in particular—and if experience suggests that regulation and anti-trust laws in important areas are likely to be largely subverted by these corporations, a public takeover becomes the only logical answer. This general argument was, in fact, put forward most forcefully not by liberals, but by the founders of the Chicago school of economics. Conservative Nobel Laureate George Stigler repeatedly observed that regulatory strategies were “designed and operated primarily for [the corporation’s] benefit.”⁵¹ Henry C. Simons, Milton Friedman’s teacher and one of the most important Chicago school thinkers, was even more forceful. “Turned loose with inordinate powers, corporations have vastly over-organized most industries,” Simons held. The state “should face the necessity of actually taking over, owning, and managing directly [...] industries in which it is impossible to maintain effectively competitive conditions.”⁵²

The challenge is particularly important in the case of the big fossil fuel companies, many of which consistently and continually spend vast sums to block and sabotage any attempts to regulate their activities. From Exxon-Mobil’s high profile efforts to deny the science and obstruct the politics of climate change mitigation (while its own scientists knew virtually all there was to know about anthropogenic climate change for decades) to BP’s donations to prominent climate-deniers in the US Senate and the corporate-backed Western States Petroleum Association’s high-profile fight against California’s innovative climate

initiatives, the examples of corporate malfeasance on this issue are legion.⁵³

Looking ahead, there is the particular problem of fossil fuel “stranded assets,” a \$20 trillion bubble of “unburnable carbon” inside the global financial system that will require—if the planet is to be saved—deliberate capital destruction on a scale roughly twice that of what emancipation accomplished at the end of the US Civil War.⁵⁴ (We offer a possible solution to this problem of the “carbon bubble” below.)

V. Political control

The power that flows from the existing concentrations of corporate and elite wealth has resulted not just in private decisions against the public interest, but also in the privatization of the public sphere itself. Government regularly provides corporations with supportive policies and legislation to help them boost their profits, from deregulation, lowering of tax rates and increasing subsidies—including the ability of companies to deduct environmental cleanup costs—to the watering-down of binding provisions related to emissions reductions and finance and the adoption of market-based climate mitigation schemes. The Supreme Court’s 2010 *Citizens United* decision allowing an unrestricted flow of corporate money into politics has added enormously to the corporate dominated system’s capacity to block solutions to a number of critical social, economic and environmental problems.

Throughout history, control of wealth has played a large role in establishing control of politics, and, as a result, in making critical decisions about the future. If we want to truly come to terms with the challenge posed by climate change, we’ll eventually have to deal with the problem of the giant corporation, because it is corporate power that has warped the political system. It has been all but impossible to regulate greenhouse gas emissions: corporations make the argument, particularly as the economy worsens, that they can’t sustain the cost of regulation. And so politics fail in this respect; emissions continue to expand.

Carbon costs of a broken development model

The United States faces a special challenge given future population projections and the uniquely carbon-costly patterns of US urban development. In all likelihood there will be well over 400 million people living in the United States in 2050, and possibly nearly 900 million by the year 2100.⁵⁵ Where will those people live? And how can a nation of that size live in a sustainable manner, given that the United States already has a grotesquely disproportionate carbon footprint and has not made any serious progress towards reducing it?

Although climate change will—indeed, already does—impact every society in the world, no other country has precisely this dilemma, or this degree of moral responsibility. Compared to Europe or Japan, per capita carbon emissions are inordinately high, in substantial part because of the sprawling way we organize our metropolitan areas and our high reliance on the automobile for transportation. Moreover, unlike most other developed countries, population in the United States continues to steadily grow, and there is little reason to think that trend will subside in the years to come.

US public officials are only now beginning to seriously come to terms with the vast ecological challenge facing the United States over the next generation. The recent explosion of interest in “green jobs” is a positive step, but almost none of the academic and policy discussion has taken seriously how American capitalism as practiced over the past fifty years undermines serious aspirations to build sustainable communities. A community that is not economically sustainable cannot be ecologically sustainable: when a

community is at the mercy of the investment decisions made by corporations concerned only with their bottom line, that community can neither be certain of its economic future nor self-confident enough to undertake aggressive local sustainability initiatives. Some of the greenest cities in America are both state capitals and play host to major state universities, both of which anchor and stabilize the local economy in a manner that is not readily available elsewhere. Critically, policymakers in such cities do not have to spend much time worrying about whether their economic base will disappear. Many other localities are not so fortunate.

Likewise, although the social underpinnings of sprawl are well documented, among environmental activists the challenge these socially embedded structures pose to building sustainable urban American communities are rarely fully acknowledged. The automobile, federal housing subsidies, growing affluence, and widespread racial distrust led to the classic pattern of the American metropolis: that of a disproportionately poor and minority city with substandard schools and other public institutions surrounded by more affluent suburbs with better schools and more safety. Suburbs themselves are getting more diverse (as is the country as a whole), and suburban areas can also be impoverished. But in general, the social relationships generated by the sprawling twentieth century metropolis—namely the popular view of suburbs as the favored home of successful, “normal” Americans, and cities as the place where we dump social problems—are perhaps the most critical impediment to a restoration of health of all American cities. So long as poverty remains

disproportionately concentrated in cities, a core cause of sprawl and its related ecologically harmful consequences will persist. Dealing with that problem requires, at bottom, a serious strategy to provide stable and remunerative employment to every community and every neighborhood in the country.

Re-shaping our metropolitan areas for a low-carbon footprint over the coming decades will require a comprehensive strategy to stabilize the economic basis of American cities.

Related to this is the link between community stability and greenhouse gas emissions. Community stability is required to help deal with climate change. But it is impossible to do serious local “sustainability planning” that reduces a community’s carbon footprint if such planning is disrupted and destabilized by economic turmoil. We cannot afford the carbon costs—not to mention the capital and human costs—of the current US policy of literally “throwing away cities”—Detroit, Cleveland, St. Louis, and many more—all of which have lost hundreds of thousands of residents in recent decades. Unplanned corporate decision-making results in the elimination of jobs in one community, leaving behind empty houses, half-empty schools, roads, hospitals, public buildings, etc., only to make it necessary to rebuild them in a different location, with all the associated carbon costs. Any serious approach to achieving ecological sustainability in the nation’s communities by reducing their carbon footprint requires a system of planning sufficiently robust to stabilize communities. It also requires altering the locational priorities of large corporations—something that has not been possible, given current political power relationships.

Re-shaping our metropolitan areas for a low-carbon footprint over the coming decades will require a comprehensive strategy to stabilize the economic basis of American cities. This in turn requires changing the

rules of the American political economy. We must make a break with the past not only with respect to energy and land use or transportation and agricultural practices, but also with the policies and priorities that treat cities as disposable items that can be abandoned when conditions change.

These problematic features of America’s political-economic system make the challenge of climate change mitigation, if not impossible, then terribly difficult—something like trying to go down a very fast escalator heading in the opposite direction. At the heart of any new approach must be strategies for tackling the growth and locational imperatives underlying the dynamics driving climate change. Just as we desperately need an energy transformation—one that focuses on decentralized renewables, energy efficiency, and conservation—we also need a political-economic transformation that gives space to the emergence of a new system that adequately responds to social need and is capable of truly delivering climate solutions.

Preparing more fully developed, coherent plans for the systemic interventions necessary to truly deal with climate change is now an urgent task: a coherent alternative systemic strategy must be available given the volatility of the current political and economic situation and the possibility that a crisis opportunity may permit (even demand!) its consideration. A secondary goal is to build public support for such a new direction anyway—even if volatility does not generate a crisis sufficient to achieve major changes quickly. A clear new direction for a sustainable and equitable economy must be developed no matter what.

Climate change represents a historic challenge and opportunity to develop a new system, one whose values are centered on environment, place, community, common good, justice, and democracy. The goal of this next system should be to provide broadly shared prosperity that meets human needs while preserving nature’s biodiversity, ecological integrity, and beauty—in short, a flourishing people and a flourishing environment.

An explosion of institutional innovation

In all likelihood we must look for a potential exit from the climate crisis based on cooperation, ecology, resilience, democratic ownership and participation, socially useful production, and the need to rethink work and employment in the face of the radical labor-displacing dimensions of new technologies. Continuing through the current tunnel of pain, the hope should be to quickly emerge from the other end with a new political economy and a system design truly capable of sustaining democracy, equality, and community, while meeting head on the challenges of concentrated ownership and power and ecological meltdown.

The good news is that the inability of traditional politics and policies to address fundamental challenges has fueled an extraordinary amount of experimentation in communities across the United States and around the world. It has also generated increasing numbers of sophisticated and thoughtful proposals that build from the bottom and begin to suggest new systemic possibilities beyond the failed systems of the past and present. It is becoming possible to bring together and extend elements of innovative thinking and real-world practice in key areas to define the underlying structural building blocks of a range of alternatives capable of rebuilding the basis for democracy, liberty, equality, sustainability, and community in the United States in the twenty-first century.

Unbeknownst to many, literally thousands of on-the-ground efforts have been developing. These include cooperatives, worker-owned companies, neighborhood corporations, and many little known municipal, state, and regional efforts. These emerging

economic alternatives suggest different ways in which capital can be held in common by small and large publics. They include nonprofit community corporations and land trusts that develop low-income housing, as well as community development financial institutions (CDFIs) that have over \$108 billion in assets under their management.⁵⁶ Employee ownership is also on the rise, involving three million more workers than are members of private sector unions.⁵⁷ A third of Americans belong to cooperatives, including credit unions that serve 107 million people and manage \$1.3 trillion in assets, almost as much as is managed by Citi.⁵⁸

In the public sector, local government economic development programs invest in local businesses, while municipal enterprises build infrastructure and provide services, raising revenue and creating employment, diversifying the base of locally controlled capital. Public utilities, together with co-ops, make up nearly 90 percent of all electricity providers and generate over 20 percent of America's electricity.⁵⁹ From California to Alabama, public pension assets are being channeled into job creation and community development.⁶⁰ Cities and states are looking to the creation of public banking systems like that of North Dakota. Trusts that allow for public ownership and management of natural resources provide revenue streams from capital, recalling the unjustly neglected ideas of James Meade.⁶¹ From parks and blood banks to libraries and the internet, commons management systems can provide an expanding zone of decommodification to buffer against the market. Public trusts can be extended into additional domains, from dry land to

the electromagnetic spectrum, underwriting public services or issuing a citizen dividend. Community land trusts can ensure affordable housing and prevent disruptive gentrification and speculative real estate bubbles. New public strategies encompass both democratic public ownership and new planning capacities and functions.

Even experts working on such matters rarely appreciate the sheer range of activity. Practical and policy foundations have been established that offer a solid basis for future expansion. A body of hard-won expertise is now available in each area, along with support organizations, and technical and other experts who have accumulated a great deal of direct problem-solving knowledge.

The idea that we need a “new economy”—that the entire economic system must be radically restructured if critical social and environmental goals are to be met—runs directly counter to the American creed that capitalism as we know it is the best, and only possible, option.

The idea that we need a “new economy”—that the entire economic system must be radically restructured if critical social and environmental goals are to be met—runs directly counter to the American creed that capitalism as we know it is the best, and only possible, option. Most of the new projects, ideas, and research efforts have thus gained traction slowly and with little national attention. But in the wake of the financial crisis, they have proliferated and earned a surprising amount of support—and not only among advocates on the left. New terms have begun to gain currency in diverse areas with activist groups and constituencies, an indication that the domination of traditional thinking may be starting to weaken.

Thus we encounter the sharing economy, the caring economy, the provisioning economy, the restorative economy, the regenerative economy, the sustaining economy, the collaborative economy, the solidarity economy, the gift economy, the resilient economy, the steady state economy, the new economy, and many, many more. There are calls for a Great Transition, or for a reclamation of the Commons. Creative thinking by researchers and engaged scholars is also contributing to the ferment, and policies at the state and local level can help move projects to much more powerful scale and community-wide impact. Larger scale strategic options that build on what is being learned locally are beginning to be sketched as the basis for longer-term national strategies.

The press covers very little of this, but the various institutional efforts have begun to develop new strategies that suggest broader possibilities for change. One promising model builds on work in Cleveland, Ohio, where a linked group of worker-owned companies has developed, supported in part by the massive purchasing power of local hospitals and universities. These cooperative firms include a solar installation and weatherization company, an industrial scale ecologically advanced laundry, and a greenhouse capable of producing over three million heads of lettuce and 300,000 pounds of herbs a year.⁶²

This effort, modeled in part on the 74,000-person Mondragón cooperative network in the Basque region of Spain, will create new businesses, as time goes on.⁶³ However, its goal is not simply worker ownership, but the democratization of wealth and sustainable community building in general in an extremely poor neighborhood of what was once a thriving industrial city. Linked by a community-serving non-profit corporation and a revolving fund, the companies cannot be sold outside the network; they also return ten percent of their profits to help develop additional worker-owned firms and grow the network. Cities across the United States—and overseas as well—are looking to the Cleveland Model as an inspiration for their own community wealth building efforts.

WORKING PAPER: Framing the challenges of a next system after fossil fuels

A critical element of the overall sustainability strategy points to what is essentially a quasi-public community stabilizing planning model. Hospitals and universities in the area currently spend \$3 billion a year on goods and services—none, until recently, purchased from the immediately surrounding neighborhood. The Cleveland Model is supported in part by decisions of these substantially publicly financed institutions to allocate part of their procurement to the worker-co-ops in support of a larger community-building agenda. The taxpayer funds that support institutions of this kind thereby do double duty by helping to support the broader community through the new localized purchasing arrangements. The same is true for a range of municipal, state, and other federal policies available to local businesses, including employee-owned firms. Note carefully that such stabilization also undercuts the growth imperative—and suggests principles that can also be applied at higher levels.

Such approaches cannot claim to provide all the answers. But a number of exploratory efforts emphasize fundamental changes in underlying political-economic institutions. Developing detailed and sophisticated alternatives that can be refined over time is a prerequisite if we are to stimulate a serious and wide-ranging debate around a broader menu of institutional possibilities for future development than the narrow range of choices commonly discussed. The need for a major change of direction is increasingly obvious. Efforts to cobble together “solutions” to today’s challenges commonly draw upon the very same institutional arrangements and practices that gave rise to the problems in the first place. What is required is a self-conscious effort to face the fact that the system itself has to be changed and a different kind of political economy created.

Although precisely what “changing the system” means is obviously a matter of debate, certain key points are clear. The new movements seek a cooperative, caring and community-nurturing economy that is ecologically sustainable, equitable, and socially responsible—one that is based on rethinking and

democratizing the nature of ownership at every level and, along with this, challenging the growth paradigm that is the underlying assumption of all conventional policies. In short, these movements seek an economy that gives true priority to people, place, and planet. Such an economy, so different from our own, requires a new vocabulary, beyond the narrow choice between “capitalism” and “socialism.”

Efforts to cobble together “solutions” to today’s challenges commonly draw upon the very same institutional arrangements and practices that gave rise to the problems in the first place. What is required is a self-conscious effort to face the fact that the system itself has to be changed.

It’s easy to overestimate the possibilities. Emerging ideas and institutional explorations are limited compared with the power of Wall Street banks and the other corporate giants of the American economy.

On the other hand, precisely because the existing structures of power have created enormous economic problems and fueled public anger, the opportunity for a more profound shift exists. Unexpectedly rapid change is not out of the question. We have already seen how, in moments of crisis, the nationalization of auto giants like General Motors and Chrysler can suddenly become a reality. Such crises are likely to be repeated in the future, possibly with more far reaching outcomes over time. When the next financial breakdown occurs, huge injections of public money may well lead to the breakup or de facto takeover of major financial institutions. At the same time, various forms of larger institutional experimentation—and pressure for further experimentation—are also clearly in the cards.

Few realize that the major elements of what became the New Deal were developed in the “laboratories of democracy” at the state and local level—and were applied more broadly when the crisis of the Great Depression hit and made this possible. A national program based on similar principles to those being implemented at the local level could also build public support for far-reaching mass transit and high-speed rail, with a planned effort to focus such production in ways that help stabilize local communities. The US has only a modest transit system, incurring enormous costs and generating huge greenhouse gas emissions via its extreme dependence on the automobile for both short and long-range travel. Re-orienting and restructuring our overall approach to transportation offers significant possibilities in many areas—but only if done in a coherent, system-changing fashion that undercuts growth-driven greenhouse gas emissions.

We do not have space here to develop all the elements of a systemic alternative. However, in our judgment, the emerging trajectories of institutional change and innovation make it possible to clarify the parameters of a system capable of addressing issues of political stalemate, of scale, and of ecological and resource constraints. Four critical axioms underlie a model that builds on the evolving forms and on structural principles appropriate to larger emerging challenges: [1] democratization of wealth; [2] community, both locally and in general, as a guiding theme, over and against an atomizing and unsustainable consumerism; [3] decentralization; and [4] substantial (not complete) forms of democratic planning in support of community stability and directed at economic, democracy-building, and ecological goals. At the heart of the spectrum of emerging institutional change is the principle that the ownership of capital should be subject to democratic control.

Integral to any new approach must be strategies for tackling the growth and locational imperatives underlying and driving climate change. These will

include turning some companies into public utilities. A new direction, however, cannot rely solely on policy action. It must be informed by on-the-ground practice that builds new institutions and engages the citizenry. On-the-ground experience offers hope both for new local approaches and for lessons based on these to inform new national strategies.

At the heart of the spectrum of emerging institutional change is the principle that the ownership of capital should be subject to democratic control.

Even limited crises can offer new opportunities—if we are prepared. When the next financial breakdown occurs, huge injections of public money will almost certainly lead to the breakup or de facto takeover of some major banks. The various institutions highlighted above all challenge dominant ideologies which hold that large corporate-driven enterprise offers the only possible way forward. Their steady illumination has important implications both locally and nationally, introducing new conceptions into American political dialogue in ways appropriate to American culture—and helping establish the basis for larger ideas and strategies.

It is worth underscoring that our vision for a new political-economic system is a pluralist one, in which many different institutional forms of ownership and organization can co-exist. There is plenty of room in such a vision for small, independent, privately-owned businesses and for high tech, intermediate scale firms, which are an important source of innovation and do not pose the same systemic problems as giant corporations. The critical requirement is an overall strategy that alters the underlying drivers of growth and that simultaneously helps generate a new culture of change at the local community level.

Can QE avert climate disaster?

The strategies and models indicated above point in the direction of medium term system change. However, the window during which we must act decisively to address climate change and curb emissions is a narrow one, and one that seems to be growing ever narrower with each new study. Something must be done as a matter of urgency to keep unburnable carbon in the ground—in spite of and indeed because of the political power of the fossil fuel companies. Might the same unorthodox monetary policies we reached for in the wake of the financial crisis be an instrument we can deploy in the face of the growing climate crisis?

Climate change represents an existential threat to humanity. It has the potential to claim more lives than our worst wars and cost as much as our most calamitous financial meltdowns.⁶⁴ Leading us headlong down the path to catastrophe are large fossil fuel companies that consistently and continually spend vast sums to block and sabotage any and all attempts to deal with the problem politically.⁶⁵

Two converging lines of development point to a genuine solution to this obstacle. Taken together these developing trends point to the most obvious solution: take over the companies, wind them down, and do it in a way that does not load the taxpayers with the costs. Such a bold intervention is far from impossible as it might initially sound, as long as we understand the processes that are now conventional in connection with central bank operations around the world.

The first developing trend is growing awareness among investors that the value of major oil companies

is dependent on reserves that cannot be exploited without guaranteeing climate catastrophe. The work of the award-winning Carbon Tracker Initiative has been instrumental in bringing this reality into the light.

In a landmark 2011 study CTI (using data from the Potsdam Institute) estimated that in order to reduce the likelihood of temperature rises above 2°C to 20 percent, the world's carbon budget for the years 2000 to 2050 is limited to 886 GtCO₂ (Gigatons CO₂).⁶⁶ Subtracting the amount emitted between 2000 and 2010, this leaves around 565 GtCO₂ for the next 40 years. However, if burned, the world's proven reserves of fossil fuels would dump 2,795 GtCO₂ into the atmosphere. Leaving aside the roughly two-thirds of all reserves that are held by state-owned companies, governments, private (non-listed) companies, and small listed companies and focusing solely on the top 200 private coal, oil, and gas extraction corporations that are traded on the stock market, the report found total proven reserves equivalent to 745 GtCO₂. Meaning that even if all of the reserves held by every other company and government were never used, private corporations alone would only be able to use 75 percent of their proven reserves at any point in the next 40 years (and of course could not add any new reserves—which is extremely unlikely). If the carbon budget is spread out equally across all reserves (including those held by state-owned companies and governments, etc.) then the amount that private listed corporations can use plummets to just 20 percent (149 out of 745 GtCO₂). John Fullerton of the Capital Institute has estimated that, with the total global market value of fossil fuel reserves at roughly \$27

trillion, keeping the necessary carbon in the ground implies “rounding down...a potential \$20 trillion write off.”⁶⁷ That’s a huge adjustment for global capital markets in an already fragile state—about twice the level of deliberate capital destruction that resulted from the Emancipation Proclamation and the end of slavery in the United States.⁶⁸

In 2013, CTI calculated that “[t]he scale of this carbon budget deficit poses a major risk for investors. They need to understand that 60-80% of coal, oil and gas reserves of listed firms are unburnable.” This view has subsequently been embraced by a wide variety of mainstream financial, business, and political leaders. Already in 2013, the report stated, “[a]sset owners and investment analysts have begun to investigate the implications of unburnable carbon.” One such report from the international bank HSBC estimated that even in a low-emissions scenario equity valuations could be reduced by between 40 and 60 percent and bond ratings could be subject to downgrades by ratings agencies.⁶⁹

Awareness of the carbon bubble problem will likely only increase as the calls to address climate change grow louder and climate movements grow in strength.

Awareness of the carbon bubble problem will likely only increase over time as the calls to address climate change grow louder and climate movements grow in strength. In September 2015, the Governor of the Bank of England (and Chairman of the Financial Stability Board) laid this out clearly, warning an audience at the big British bank Lloyds that efforts to combat climate change would “render the vast majority of reserves ‘stranded’—oil, gas and coal that will be literally unburnable.”⁷⁰ While most oil company executives continue to deny the existence of unburnable reserves in public, there are signs of concern throughout the industry. Oil executives in

Europe are pushing to put a price on carbon emissions, and Saudi Arabia is moving to diversify its economy, a move many analysts see as being at least partially due to concern over the effects of climate change on its dominant oil production sector.

The second developing trend is growing understanding among financial experts of the possibilities inherent in monetary sovereignty. This became evident to many when in the aftermath of the financial crisis, the United States government—through the Federal Reserve—embarked on an ambitious program to stimulate the economy by creating money. Called quantitative easing (QE), with a few keyboard strokes the Fed created roughly \$3.7 trillion between 2009 and 2014, or an average of nearly \$800 billion a year.⁷¹ The Fed used that new money to buy up bonds, treasuries, and mortgage-backed securities—many of which were owned by the same financial institutions and speculation-driven investors that had caused the crisis in the first place. Around the world, other polities—including the European Union and Japan—are still operating QE programs. Moreover, despite the truly massive and global nature of this money creation effort, the dire predictions of runaway inflation that every economics student is taught must accompany ‘money-printing’ programs has thus far failed to materialize.

The question is no longer whether money creation is an option in the face of crises, but rather how to get it into the economy in a way that would be more beneficial than simply propping up the balance sheets of commercial banks. The European Central Bank, for instance, is currently using quantitative easing to purchase bonds from the European Investment Bank, which primarily finances infrastructure projects. Milton Friedman, of course, famously floated an analogous idea, the “helicopter drop” of money directly to individuals as a way to by-pass traditional money creation mechanisms and increase prices in times of deflation. “If we have to do QE again [...],” *Daily Telegraph* International Business Editor Ambrose Evans-Pritchard has written, “it would surely be

WORKING PAPER: Framing the challenges of a next system after fossil fuels

better to inject the money directly into the veins of the real economy.”⁷²

The fact that central banks all over the world create money out of thin air all the time is difficult for most people to grasp—but it is indeed reality. This reality finds its explication in currents of economic thought such as Modern Monetary Theory (MMT). The fundamental premise of MMT is that monetarily sovereign governments can never run out of their own money; their total expense is whatever they choose it to be. Quite simply, there is “no longer any balance sheet operation,” as leading MMT theorist L. Randall Wray explains, “in which government “spends” its tax revenues.”⁷³

Armed with this understanding, there have been a variety of calls for “Green QE” in which overt monetary creation by governments could directly finance green infrastructure and establish a Green New Deal. But why not deploy this self-same tool to tackle the carbon bubble, while simultaneously knocking out the major corporate opposition to the clean energy transition we so desperately need?

In fact, a related proposal for coal already appeared in the *Washington Post* this June. “The Supreme Court’s decision in February to stay President Obama’s Clean Power Plan may lead to a protracted legal battle over aging, unprofitable and environmentally unsound coal plants,” Brooklyn Law School and NYU Center for Global Affairs professor Stephen Kass wrote. “But instead of litigating our way out of the problem, there is a simpler solution: The federal government could buy the plants and close them.” Kass’ proposal envisions a program that could be supported by company owners, lenders, and workers who are facing an industry in terminal decline and would be more than paid for by the accumulated public health and environmental benefits of abolishing coal.⁷⁴

Why stop at coal? Taking over and then dismantling or completely re-orienting the entire fossil fuel industry would immediately remove a powerful institutional

impediment to addressing climate change and greatly accelerate the transition to renewable energy. More importantly, such a drastic measure is perfectly legal and legitimate, especially if done for the public good and if the shareholders of major corporations are bought out at reasonable prices. Public recognition of the many ways in which the supposedly free market prevents swift, effective climate action is higher than it has ever been, and frustrated citizens are warming to the idea of countering systemic problems with systemic solutions. Even back in 2008—before the BP Gulf spill, Superstorm Sandy, the California drought, or recent record-setting waves of heat and cold—a Rasmussen poll showed 29 percent of Americans favored nationalizing oil companies and a further 24 percent were open to the idea.⁷⁵

Taking over and then dismantling the entire fossil fuel industry would immediately remove a powerful institutional impediment to addressing climate change and greatly accelerate the transition to renewable energy.

What would it take financially? At present market value, a buyout of the US fossil fuels industry would undoubtedly be expensive—perhaps costing an eye-watering \$1.1 trillion to take over the top 25 largest publicly-traded oil, gas, and coal companies.⁷⁶ But spread out over seven years, this would be a little more than \$161 billion a year, a far from impossible amount. By way of comparison, consider the price tag for the Iraq war: more than \$2 trillion between 2003 and 2014, or roughly \$200 billion a year for eleven years.⁷⁷ Surely, the US taking a globally decisive first step towards radically reducing the threat of climate catastrophe is a better use of our immense financial power than the disastrous invasion of Iraq, the consequences of which are still being felt from Syria and Turkey to the borders of Europe?

Conclusion

The time has come to think boldly about what is required to deal with the systemic difficulties we are facing. It's time to radically shift our national dialogue about the future away from narrow debates about policies that do not alter any significant decaying trends, and towards awareness that what must be changed is at the level of the basic institutional design of the political-economic system itself. It is time to begin a real conversation—locally, nationally, and at all levels—about genuine alternatives. It is time to develop thoughtful, system-building answers to system-threatening challenges.

It is time to debate what it will really take to move in a new direction capable of producing sustainable, lasting, and more democratic social, economic, and ecological outcomes. Unless plausible alternative arrangements can be developed, fleshed out via research and debate, and ultimately embraced and implemented by theorists, practitioners, policymakers, activists, and citizens at all levels, the current downward trajectory of pain, decay, and ecological catastrophe will only continue.

The ownership and control of wealth is a key determinant of power in our economic system. It is the design of economic institutions, as well as frameworks in policy, that determine who owns and controls capital, who benefits from its accumulation and flow. The current system is designed to serve a financial elite and to enable the extraction of maximum financial wealth from the economy. We need a new system, designed with human and

planetary flourishing as its core aim. Outcomes can no longer be left to regulations tacked onto the current institutional framework, nor to fragile social safety nets installed beneath it. We should be redesigning core institutional relationships in the economy such that they produce the outcomes we are looking for as a matter of course. Service to human and ecological welfare must be core values, built into the design of our economic institutions.

It is time to develop thoughtful, system-building answers to system-threatening challenges.

Today, there is a need for, and hunger for, new understanding, new clarity, and a new way forward. The time is ripe for a major wide-ranging public debate about “the system question”—leading to a search for and examination of genuine systemic alternatives, many of which already exist on the ground today, albeit in prototypical or prefigurative form, in the United States and around the world.

In a nation in which a tiny group of elites controls the lion's share of productive wealth, these new approaches are already showing considerable appeal to the young—the people who will shape the next political era. Polls show that they are clearly open to something new, whatever it may be called.⁷⁸ Non-statist, community-building, institution-changing, democratizing strategies could very well capture the imaginations of younger generations and channel

WORKING PAPER: Framing the challenges of a next system after fossil fuels

their desire to heal the world. Such strategies could open the way to a great era of renewal, even of step-by-step evolutionary systemic change—a time of ferment and explosion that could expand upon the periods of major unrest that have repeatedly occurred in the United States from the time of the Revolution onwards.

The attempt to place “the system question” firmly back on the table can build upon a number of past precedents for an ambitious opening of public debate. The Civil Rights movement, the environmental movement, the feminist movement, and the LGBTQ rights movement, all radically shifted both activist and academic directions—developing new strategies and action as the change agendas began to impact academic, organizational and other decision-making. Our goal is not to answer all the questions, a project that is indeed impossible. Rather, we seek to define sufficiently clear options for “the next system” so that we can radically expand the boundaries of political debate in the United States and help give greater clarity of long term direction to activists, researchers, and practitioners—and to millions of others, young and old, who are increasingly angered by the immorality and insecurity of the existing system and want to somehow realize America’s long unfulfilled promises of freedom and democracy.

Arising from the unforgiving logic of dead ends, the steadily building array of promising new proposals and alternative institutions and experiments in communities across the country and around the world, together with an explosion of ideas and new activism, offer a powerful basis for hope.

The current political cycle has also witnessed an extraordinary breaking open of the consensus—for good or ill—and shown the potentially explosive political energies that could be harnessed for a transformation. There is inspiration to be found in unexpected quarters. Most people forget how marginal conservative thinkers and activists were in the 1940s and 1950s—and even after the Goldwater debacle of 1964. The ideas and beliefs that currently dominate American politics were once regarded as antique and ridiculous by the mainstream press, political leadership, and most of serious academic thought. Committed conservatives worked in very difficult circumstances to self-consciously develop and propagate their ideas and practices and politics for the long haul, demonstrating what can be done against once seemingly long odds by those prepared to roll up their sleeves, get organized, and get serious.

Despite the scale of the difficulties, we believe a cautious and paradoxical optimism is warranted. There are real alternatives. Arising from the unforgiving logic of dead ends, the steadily building array of promising new proposals and alternative institutions and experiments in communities across the country and around the world, together with an explosion of ideas and new activism, offer a powerful basis for hope.

September 2016

Endnotes

- 1 Jen Wieczner, "Most Millennials Think They'll Be Worse Off Than Their Parents," *Fortune*, March 1, 2016, accessed September 20, 2016, <http://fortune.com/2016/03/01/millennials-worse-parents-retirement/>.
- 2 Emanuel Saez, "Striking it Richer: The Evolution of Top Incomes in the United States (Updated with 2012 preliminary estimates)," *University of California-Berkeley*, September 3, 2013, accessed September 26, 2016.
- 3 Economic Policy Institute, "The State of Working America, 12th Edition," May 14, 2012, accessed September 20, 2016, <http://www.stateofworkingamerica.org/chart/28559-2/>.
- 4 Facundo Alvaredo, Tony Atkinson, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, "The World Wealth and Income Database," 2015, accessed September 20, 2016, <http://www.wid.world/#Database>.
- 5 Edward N. Wolff, "Household Wealth Trends in the United States, 1962-2013: What Happened Over the Great Recession?," *National Bureau of Economic Research Working Papers*, December 2014.
- 6 Collins Chuck and Josh Hoxie, *Billionaire Bonanza Report: The Forbes 400...and the Rest of Us*, Washington, DC: Institute for Policy Studies, 2015, <http://www.ips-dc.org/wp-content/uploads/2015/12/Billionaire-Bonanza-The-Forbes-400-and-the-Rest-of-Us-Dec1.pdf>.
- 7 "The State of Working America, 12th Edition," Economic Policy Institute, May 14, 2012, accessed September 20, 2016, <http://www.stateofworkingamerica.org/charts/productivity-and-real-median-family-income-growth-1947-2009/>.
- 8 "Saving, Spending and Living Paycheck-to-Paycheck in America," *Nielson*, July 28, 2015, accessed September 20, 2016, <http://www.nielson.com/us/en/insights/news/2015/saving-spending-and-living-paycheck-to-paycheck-in-america.html>.
- 9 Bernadette D. Proctor, Jessica L. Semenga, and Melissa A. Kollar, "Income and Poverty in the United States: 2015," (Washington, D.C.: United States Census Bureau, September 2016), accessed September 21, 2016, <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf>.
- 10 "New Data Shows Little Progress in Closing the Gender Wage Gap while Policies that Could Address Pay Inequality Stall," *Institute for Women's Policy Research*, September 16, 2014, accessed September 21, 2016, <http://www.iwpr.org/press-room/press-releases/new-data-shows-little-progress-in-closing-the-gender-wage-gap-while-policies-that-could-address-pay-inequality-stall>.
- 11 Barry Bosworth, Gary Burtless, and Kan Zhang, "Later Retirement, Inequality in Old Age, and the Growing Gap in Longevity Between the Rich and Poor," *The Brookings Institute*, February 12, 2016, 61-96, accessed September 21, 2016, https://www.brookings.edu/wp-content/uploads/2016/02/BosworthBurtlessZhang_retirementinequalitylongevity_012815.pdf.
- 12 "Labor Force Statistics from the Current Population Survey," *Bureau of Labor Statistics*, August 2016, accessed September 21, 2016, <http://data.bls.gov/timeseries/LNS11300000>.
- 13 Rohit Chopra, "Student Debt Swells, Federal Loans Now Top a Trillion," *Consumer Financial Protection Bureau*, July 17, 2013, accessed September 21, 2016, <http://www.consumerfinance.gov/about-us/newsroom/student-debt-swells-federal-loans-now-top-a-trillion/>.
- 14 "Union Members Summary," (Washington, D.C.: Bureau of Labor Statistics, January 28, 2016), accessed September 22, 2016, <http://www.bls.gov/news.release/union2.nr0.htm>.
- 15 Kathleen Mauire, ed., *Source Book of Criminal Justice Statistics: 2002* (Washington, DC: Government Printing Office, 2004), p. 495, accessed September 21, 2016, <http://www.4uth.gov/usa/english/society/crime/section6.pdf>. E. Ann Carson, "Prisoners in 2014," (Washington, D.C., Bureau of Justice Statistics, September 2015), accessed September 21, 2016, <http://www.bjs.gov/content/pub/pdf/p14.pdf>.
- 16 Bernadette D. Proctor, Jessica L. Semenga, and Melissa A. Kollar, "Income and Poverty in the United States: 2015," (Washington, D.C.: United States Census Bureau, September 2016), accessed September 21, 2016, <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf>. Chuck Collins, "Wealth of 400 Billionaires = Wealth of All 41 Million African-Americans," *Institute for Policy Studies*, January 17, 2014, accessed September 22, 2016, <http://inequality.org/wealth-400-billionaires-wealth-41-million-africanamericans/>.
- 17 "Confidence in Institutions," *Gallup*, June 1-5, 2016, accessed September 26, 2016, <http://www.gallup.com/poll/1597/confidence-institutions.aspx>.
- 18 "United States Data," *The World Bank*, 2015, accessed on August 24, 2016, <http://data.worldbank.org/country/united-states>.
- 19 Louis Johnston and Samuel H. Williamson, "What Was the GDP Then?" *Measuring Worth*, 2016, accessed September 22, 2016, <https://www.measuringworth.com/datasets/usgdp/result.php>.
- 20 John Maynard Keynes, "Economic Possibilities for Our Grandchildren," in *Essays in Persuasion*, (New York: W.W. Norton & Company, 1963) 136.
- 21 Jeff Cox, "\$12 trillion of QE and the lowest rates in 5,000 years ... for this?" *CNBC Finance*, June 13, 2016, accessed September 15, 2016, <http://www.cnbc.com/2016/06/13/12-trillion-of-qe-and-the-lowest-rates-in-5000-years-for-this.html>.
- 22 Marc Labonte, "Monetary Policy and the Federal Reserve: Current Policy and Conditions," (Washington, DC: Congressional Research Service, January 28, 2016), accessed September 22, 2016, <https://www.fas.org/sgp/crs/misc/RL30354.pdf>.
- 23 Ben Bernake, interview with *CBS News*, December 2010, quoted in Ann Pettifor, *Just Money: How Society Can Break the Despotic Power of Finance*, (London: Commonwealth, 2014).
- 24 Ann Pettifor, *Just Money: How Society Can Break the Despotic Power of Finance*, (London: Commonwealth, 2014).
- 25 Henry Ford, quoted in William Greider, *Secrets of the Temple: How the Federal Reserve Runs the Country*, (New York: Simon and Schuster, 1987), 55.
- 26 Marjorie Kelly, *Owning Our Future*, (San Francisco: Berrett-Koehler, 2012), 19.
- 27 Mike Davis, "The Repo Girl is at the Door," *London Review of Books Blog*, November 3, 2012, accessed September 23, 2016, <http://www.lrb.co.uk/blog/2012/11/03/mike-davis/the-repo-girl-is-at-the-door/>.
- 28 Andrea Thompson and Brian Kahn, "Atlantic Hurricane Season is Seeing More Major Storms," *Climate Central*, September 19, 2016, accessed September 23, 2016, <http://www.climatecentral.org/news/atlantic-hurricane-season-major-storms-20682>.
- 29 William Barnes and Nils Gilman, "Green social democracy or barbarism: climate change and the end of high modernism," in *The Deepening Crisis: Governance Challenges After Neo-Liberalism*, eds. Craig Calhoun, and Georgi Derluguian, (New York: Social Science Research Council and New York University Press, 2011), 43.
- 30 "Billion-Dollar Weather and Climate Disasters: Overview," *NOAA National Centers for Environmental Information (NCEI)*, 2016, accessed September 23, 2016, <https://www.ncdc.noaa.gov/billions/>.
- 31 McKenzie Wark. *Molecular Red: Theory for the Anthropocene*, (London: Verso, 2015), xiv.
- 32 Naomi Klein, *This Changes Everything: Capitalism vs. The Climate*, (New York: Simon and Schuster, 2014).
- 33 "Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009," (Copenhagen: United Nations, 2009), 5, accessed September 23, 2016, <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>.

WORKING PAPER: Framing the challenges of a next system after fossil fuels

- 34 Bill McKibben, "Global Warming's Terrifying New Math," *Rolling Stones*, July 19, 2012, accessed September 23, 2016, <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>.
- 35 "Analysis: Only five years left before 1.5C carbon budget is blown," *Carbon Brief*, May 16, 2016, accessed September 23, 2016, <https://www.carbonbrief.org/analysis-only-five-years-left-before-one-point-five-c-budget-is-blown>.
- 36 "Climate Change 2013: The Physical Science Basis," (Bern, Switzerland: Intergovernmental Panel on Climate Change, 2013), accessed September 23, 2016, <http://www.climatechange2013.org/>.
- 37 "The Emissions Gap Report 2015" (United Nations Environment Programme, Nairobi), accessed September 29, 2016, http://uneplive.unep.org/media/docs/theme/13/EGR_2015_Technical_Report_final_version.pdf.
- 38 United Nations Framework Convention on Climate Change (1992), article 2.
- 39 University of California - Santa Barbara. "Earth In Midst Of Sixth Mass Extinction: 50% Of All Species Disappearing." *ScienceDaily*. ScienceDaily, October 21, 2008., <http://www.sciencedaily.com/releases/2008/10/081020171454.htm>.
- 40 John M. Broder, "Climate Change Seen as Threat to U.S. Security," *New York Times*, August 8, 2009, accessed 9/27/16, <http://www.nytimes.com/2009/08/09/science/earth/09climate.html?pagewanted=all>.
- 41 Kevin Anderson, "Climate Change Going Beyond Dangerous – Brutal Numbers and Tenuous Hope," *What Next?: Development Dialogue* 61 (2012): 16-40.
- 42 Myron Gordon and Jeffrey Rosenthal, "Capitalism's growth imperative," *Cambridge Journal of Economics* 27 (2003) 25-48.
- 43 Pope Francis, "Encyclical Letter Laudato Si' of the Holy Father Francis on Care for Our Common Home," *The Holy See*, June 18, 2015, accessed September 23, 2016, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
- 44 President George W. Bush, "Presidential New Conference," *C-Span*, October 11, 2001, accessed September 23, 2016, <https://www.c-span.org/video/?166622-1/presidential-news-conference>.
- 45 Juliet Schor, *Plenitude: The Economics of True Wealth*, (London: Penguin, 2010).
- 46 James Gustave Speth. *The Bridge at the Edge of the World: capitalism, the environment, and the crossing from crisis to sustainability*. (New Haven: Yale University Press, 2008).
- 47 Roddy Scheer and Doug Moss, "Use It and Lose It: The Outsize Effect of U.S. Consumption on the Environment," *Scientific American*, September 10, 2012, accessed September 23, 2016, <http://www.scientificamerican.com/article/american-consumption-habits/>.
- 48 Ralph C. Kirby and Andrew S. Prokopovitch, "Technological Insurance Against Shortages in Minerals and Metals," *Science*, 191 (February 20, 1976): 4227, 713-719.
- 49 "August 19th is Earth Overshoot Day: The date our Ecological Footprint exceeds our planet's annual budget," *Global Footprint Network*, August 19, 2014, accessed September 23, 2016, http://www.footprintnetwork.org/images/article_uploads/EarthOvershootDay_2014_PR_General.pdf.
- 50 "Natural Capital at Risk: The Top 100 Externalities of Business," *Trucost*, April 15, 2013, accessed September 23, 2016, <http://www.trucost.com/published-research/99/natural-capital-at-risk-the-top-100-externalities-of-business>.
- 51 George Stigler, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science* 2 (1971) 1: 3-21.
- 52 Henry Calvert Simons, *Economic Policy for a Free Society* (Chicago, IL: University of Chicago Press, 1948), 51.
- 53 Neela Banerjee, Lisa Song, and David Hasemyer, "Exxon: The Road Not Taken," *Inside Climate News*, September 16, 2015, accessed September 23, 2016. Kathy Mulvey and Seth Shulman, "The Climate Deception Dossiers: Internal Fossil Fuel Industry Memos Reveal Decades of Corporate Disinformation," (Washington, DC: Union of Concerned Scientists, July 2015), accessed September 23, 2016, <http://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>.
- 54 John Fullerton, "The Big Choice," *The Capital Institute*, July 19, 2011, accessed September 23, 2016, <http://capitalinstitute.org/blog/big-choice-0/>. Samuel H. Williamson, and Louis P. Cain, "Measuring slavery in \$2011," *Measuring Worth*, 2016, accessed September 23, 2016, <https://www.measuringworth.com/slavery.php>.
- 55 Sandra L. Colby and Jennifer M. Ortman, "Projections of the Size and Composition of the U.S. Population: 2014 to 2060," (Washington, DC: United States Census Bureau, 2014), accessed on September 27, 2016, <http://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>. "Table F. Population and Dependency Ratios per 100 Persons, Four Series, 1990 to 2100," (Washington, DC: United States Census Bureau, January 13, 2000), accessed September 26, 2016, <https://www.census.gov/population/www/documentation/twps0038/tabF.txt>.
- 56 Oscar Gonzales, "Snap Stat: Sizing Up Certified CDFIs," (Washington, DC: Community Development Financial Institutions Fund, June 1, 2016), accessed September 26, 2016, <https://www.cdfifund.gov/Documents/Snap%20Stat%20June%201,%202016.pdf>.
- 57 "A Statistical Profile of Employee Ownership," National Center for Employee Ownership, December 2015, accessed September 26, 2016, <https://www.nceo.org/articles/statistical-profile-employee-ownership>. "Union Members Summary," (Washington, DC: Bureau of Labor Statistics, January 28, 2016), accessed September 26, 2016, <http://www.bls.gov/news.release/union2.nr01.htm>.
- 58 "National Survey Finds Americans Rate Consumer Cooperatives More Highly Than For-Profit Businesses on Measures of Quality and Service," National Cooperative Business Association and Consumer Federation of America, May 2, 2012, accessed September 26, 2016, <http://consumerfed.org/pdfs/PR.Consumer.Cooperative.Survey.5.1.12.pdf>. "Monthly Credit Union Estimates: July 2016," (Washington, D.C.: Credit Union National Association, 2016), accessed September 26, 2016, <http://www.cuna.org/Research-And-Strategy/DownLoads/mcue/>. Steve Schaefer, "Five Biggest U.S. Banks Control Nearly Half Industry's \$15 Trillion in Assets," *Forbes*, December 3, 2014, accessed September 26, 2016,
- 59 American Public Power Association, *APPA Annual Directory and Statistical Report 2015-2016: U.S. Electric Utility Industry Statistics*, (Washington, DC: APPA, 2016), accessed August 26, 2016, <http://www.publicpower.org/files/PDFs/USElectricUtilityIndustryStatistics.pdf>.
- 60 "CalPERS Economic Impacts in California," CalPERS, accessed August 26, 2016, <https://www.calpers.ca.gov/docs/forms-publications/economic-impacts-ca-2015.pdf>; M. Keivan Deravi, "The Economics of Retirement Systems of Alabama's Investments on the State Economy and the RSA," Auburn University Montgomery, 2012, accessed 5/21/15, http://www.rsa-al.gov/uploads/files/Deravi_PowerPoint_5-2012.pdf
- 61 See: J.E. Meade, *Liberty, Equality and Efficiency: Apologia pro Agathotopia Mea*, (New York: New York University Press, 1993).
- 62 Gar Alperovitz and David Zuckerman, "Going outside the hospital walls to improve health," *The Baltimore Sun*, February 28, 2014, accessed September 26, 2016, http://articles.baltimoresun.com/2013-02-28/news/bs-ed-obamacare-poverty-20130228_1_nonprofit-hospitals-cleveland-clinic-community-health-needs-assessment.
- 63 "Annual Report 2015," (Mondragon, Spain: Mondragon Corporation, 2015), accessed September 26, 2016, <http://www.mondragon-corporation.com/eng/about-us/economic-and-financial-indicators/annual-report/>.
- 64 According to the Climate Vulnerable Forum, climate changes already causes the deaths of 400,000 individuals—mostly children—annually. See: Climate Vulnerable Forum, "Climate

- Vulnerability Monitor: A Guide to the Cold Calculus of a Hot Planet” accessed August 15, 2016, <http://daraint.org/wp-content/uploads/2012/09/CVM2ndEd-FrontMatter.pdf>. Research by Marshall Burke, Solomon Hsiang, and Edward Miguel suggest that if left unaddressed, climate change would reduce global incomes by approximately 23 percent in 2100, compared to a world without climate change. See: Marshall Burke, Solomon Hsiang, and Edward Miguel, “Global non-linear effect of temperature on economic production” *Nature* (2015).
- 65 For instance, Exxon Mobile has spent more than \$30 million undermining climate science. Shannon Hall, “Exxon Knew about Climate Change almost 40 years ago” *Scientific American* October 26, 2015. <http://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/>; John Schwartz “Exxon Mobil Fights Back at State Inquiries into Climate Change Research” *New York Times*, June 16, 2016., accessed August 17, 2016.
- 66 “Unburnable Carbon – Are the world’s financial markets carrying a carbon bubble” Carbon Tracker Initiative, November, 2011, accessed September 26, 2016, <http://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-Full-rev2-1.pdf>.
- 67 John Fullerton, “The Big Choice” The Capital Institute’s The Future of Finance Blog, http://capitalinstitute.org/blog/big-choice-0/#_ednref3, accessed September 26, 2016.
- 68 Christopher Hayes, “The New Abolitionism” *The Nation*, <https://www.thenation.com/article/new-abolitionism/>, April 22, 2014, accessed September 26, 2016 <https://www.thenation.com/article/new-abolitionism/>.
- 69 “Unburnable Carbon 2013: Wasted capital and stranded assets,” Carbon Tracker Initiative, April, 2013, accessed September 26, 2016, <http://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-2-Web-Version.pdf>.
- 70 Pilita Clark, “Mark Carney warns investors face ‘huge’ climate change losses” the *Financial Times*, September 29, 2015, accessed September 26, 2016, <https://www.ft.com/content/622de3da-66e6-11e5-97d0-1456a776a4f5>.
- 71 Jeff Kearns, “The Fed Eases Off,” *BloombergQuickTake*, September 16, 2015, accessed September 26, 2016, <https://www.bloomberg.com/quicktake/federal-reserve-quantitative-easing-tape>.
- 72 Ambrose Evans-Pritchard, “Jeremy Corbyn’s QE for the people is exactly what the world may soon need,” *The Telegraph*, September 16, 2015, accessed September 26, 2016, <http://www.telegraph.co.uk/finance/economics/11869701/Jeremy-Corbys-QE-for-the-people-is-exactly-what-the-world-may-soon-need.html>.
- 73 L. Randall Wray, “What are taxes for? The MMT approach,” *New Economic Perspectives*, May 5, 2014, accessed September 26, 2016, <http://neweconomicperspectives.org/2014/05/taxes-mmt-approach.html>.
- 74 Stephen Kass, “The federal government should buy coal plants, shut them down and pay to retrain their employees,” *The Washington Post*, June 3, 2016, accessed September 26, 2016, https://www.washingtonpost.com/opinions/the-federal-government-should-buy-coal-plants-shut-them-down-and-pay-to-retrain-their-employees/2016/06/03/eb08ebf4-0bdd-11e6-8ab8-9ad050f76d7d_story.html?utm_term=.9dd2a4c4eb14.
- 75 “Just 47% Oppose Nationalizing Oil Industry” Rasmussen Reports, June 16, 2008, accessed September 26, 2016, http://www.rasmussenreports.com/public_content/business/gas_oil/june_2008/just_47_oppose_nationalizing_oil_industry.
- 76 “FT 500 2015 - US 500 market value by sector” *Financial Times*, June 19, 2015, accessed September 26, 2016, <https://www.ft.com/content/a352a706-16a0-11e5-b07f-00144feabdc0>. The market value of the top 25 oil and gas producers is reported as \$1,133,849,000,000.
- 77 Neta Crawford, “U.S. Costs of Wars Through 2014: \$4.4 Trillion and Counting Summary of Costs for the U.S. Wars in Iraq, Afghanistan and Pakistan,” Boston University, accessed September 26, 2016, <http://watson.brown.edu/costsofwar/files/cow/imce/papers/2014/US%20Costs%20of%20Wars%20through%202014.pdf>; see also: Daniel Trotta, “Iraq war costs U.S. more than \$2 trillion: study” Reuters, March 14, 2013, accessed September 26, 2016, <http://www.reuters.com/article/us-iraq-war-anniversary-idUSBRE92D0PG20130314>.
- 78 William Jordan, “Democrats more divided on socialism,” YouGov, January 28, 2016, accessed September 26, 2016, <https://today.yougov.com/news/2016/01/28/democrats-remain-divided-socialism/>; “Little Change in Public’s Response to ‘Capitalism,’ ‘Socialism,’” Pew Research Center, December 28, 2011, accessed September 26, 2016, <http://www.people-press.org/2011/12/28/little-change-in-publics-response-to-capitalism-socialism/?src=prc-number>.

About the Authors

Gar Alperovitz is the founding principal of The Democracy Collaborative, where he serves as Co-Chair of The Next System Project.

James Gustave Speth is a Senior Fellow at The Democracy Collaborative, and is Co-Chair of The Next System Project.

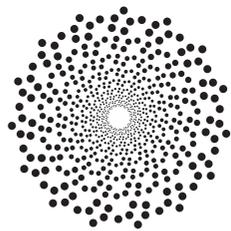
Ted Howard is the President and Co-Founder of The Democracy Collaborative.

Joe Guinan is the Executive Director of The Next System Project & a Senior Fellow at The Democracy Collaborative.

The Next System Project

The Next System Project is an ambitious multi-year initiative housed at The Democracy Collaborative which is aimed at thinking boldly about what is required to deal with the systemic challenges the United States faces now and in coming decades. Responding to real hunger for a new way forward, and building on innovative thinking and practical experience with new economic institutions and approaches being developed in communities across the country and around the world, the goal is to put the central idea of system change, and that there can be a “next system,” on the map. Working with a broad group of researchers, theorists, and activists, we seek to launch a national debate on the nature of “the next system” using the best research, understanding, and strategic thinking, on the one hand, and on-the-ground organizing and development experience, on the other, to refine and publicize comprehensive alternative political-economic system models that are different in fundamental ways from the failed systems of the past and capable of delivering superior social, economic, and ecological outcomes. By defining issues systemically, we believe we can begin to move the political conversation beyond current limits with the aim of catalyzing a substantive debate about the need for a radically different system and how we might go about its construction. Despite the scale of the difficulties, a cautious and paradoxical optimism is warranted. There are real alternatives. Arising from the unforgiving logic of dead ends, the steadily building array of promising new proposals and alternative institutions and experiments, together with an explosion of ideas and new activism, offer a powerful basis for hope.

Learn more at thenextsystem.org.



DEMOCRACY
COLLABORATIVE

democracycollaborative.org