A new paradigm for a humane and ecological civilization

We have entered the era of broken systems. A broken public health system allowed a new virus to turn into a pandemic, a broken political system resulted in a would-be dictator in the White House, a broken policing system has led to national rage, a broken economic system is immiserating millions of people needlessly. And we haven’t even dealt with a broken energy-manufacturing-agricultural system that will lead to ecological and climate chaos.

As John Feffer wrote recently:

“The global economy remains market-centered, even though the evidence has been mounting that these markets are failing us and the planet. Tweaking this model isn’t good enough. We need a new Copernicus who will provide a new theory that fits our unfolding reality, a new environment-centered economics that can maximize not profit but the well-being of living things.”

Copernicus, the 16th century astronomer who first proposed a framework for understanding that the planets revolve around the sun, not the earth, was the main subject of the philosopher Thomas Kuhn’s groundbreaking book, “The Structure of Scientific Revolutions”, in which he unleashed upon the world the now much misused term ‘paradigm’. There are many definitions of this term, but I saw him give a lecture in which he explained it to mean something akin to a systematic network of ideas that have an internal coherence. Most people stick with particular paradigms, even when there are ‘anomalies’, as Kuhn calls them, which usually leads to what Feffer referred to as ‘tweaking’.

But we can’t tweak our way out of the current situation. John Kenneth Galbraith, writing during the same time as Kuhn, penned a classic essay ‘on conventional wisdom’, in which he noted that it took major crises to convince enough people that the comfortable and socially shared understanding of the world would need a fundamental change, that is, a new paradigm. Perhaps we have enough crises, including the biggest one of all, climate change, to set off a search for a new way of organizing economies.

Neoclassical economics holds the lofty position of being the central paradigm for understanding economics. It has failed miserably at the job of indicating to the public which direction the economy should go in order to avoid the many calamities that clearly await us. But mainstream economics has accomplished what it has been constructed to do: back up Ronald Reagan’s claim that ‘the government is not the solution, the government is the problem’. This has suited the short-term needs of multinational corporations and the very rich very well.

This ‘laissez-faire’ attitude, roughly translated as ‘let do’, as in let business do whatever it wants to do, kept leading to worse and worse economic depressions, leading eventually to the ‘Great Depression’ of the 1930s, and changes in conventional wisdom that the government could not do anything about what was called the ‘economic cycle’.

Instead, as historians of every stripe try to make clear, economies have always been a mix between the state and the market. The economy is too complex for the state to control everything, and the market is too chaotic to give it free reign. But just saying the economy is ‘mixed’ is too vague. This is where a different paradigm is important.

The state can be viewed as the *active steward* of the economy, in the same way that the park service is the active steward of the parks it oversees. In fact, the state has often completely transformed the ‘ecosystem’ that is the human economy, and a full-scale reconstruction of the economy, under state supervision, which is what is called for today.

To understand how this would work, we have to shift from the neoclassical world-view, that the economy is made up of an uncountable number of firms, who collectively act like a system of gas or liquids, to understanding the economy as an ecosystem, made up of different sectors, each with a necessary function to play in the economy – a structure that the government must maintain.

A natural ecosystem generally consists of plant life forms in what is called, in ecological studies, first, the producer level; then, second, herbivores eat the plant life and form the primary consumption level; third, carnivores that keep a check on herbivores form a secondary consumer level. Detritivores recycle all dead life back into the inputs for the plant life, and together these four ‘trophic’ levels are the basic building blocks of an ecosystem.

In a human economic ecosystem, the levels are different but the effect is the same, the formation of a system of production and consumption. At the outer level are the goods and services that people *consume*; the goods in this layer are *produced* in factories, using production machinery, thus we have a production machinery level; and this production machinery is *produced* at a central level, which I call the reproduction machinery level, that is, there are certain kinds of machinery that can be used to produce more of themselves and the production machinery that is then used to produce the goods and services that people consume. Machine tools are a good example of the kinds of machinery that are the center of a modern industrial economy, but you may not be familiar with them – they produce all the metal parts for all other machinery, including more machine tools – but we won’t go into the details here.

The important point for understanding a new paradigm is to understand that manufacturing, and in particular the production machinery that is used in manufacturing (and construction), are at the center of the human economic ecosystem. When technological improvements in these classes in machinery occur, the effects ripple through all the layers of our ecosystem, and the result is economic growth. For instance, the entire internet and mobile device revolution is dependent on improvements of many kinds of machinery, particularly the equipment that makes the microchips that are the core of digital technology.

Assuming that manufacturing is central, it becomes easier to explain recent history. Manufacturing has declined precipitously in the United States since the 1960s, from 25% of the workforce and the GDP, down to about 10% now. It’s still about 20% in Germany and Japan, which happen to have thriving, large, comfortable middle classes (and interestingly are handling the pandemic much better). It should be obvious that the rise of China has been all about manufacturing, and with the pandemic people noticed that critical medical supplies come from there. Police violence is worse in communities of color that have suffered the disaster of deindustrialization longer than any other communities. Once industrial decline hit white communities, the appeal of right-wing nationalism rose, leading to the rise of Donald Trump. Workers started to be denied the constantly increasing productivity gains of a modern industrial system, starting in the 1970s, as manufacturing began its steep decline. Meanwhile, the power of unions has gone down in lockstep with the loss of factories, and thereby the dependence of the Democratic Party on corporations has increased, creating the conditions for the triumph of neoliberalism.

Neoliberalism, which has neoclassical economics at its core, is designed to distract the public from the rather straightforward argument that the decline of sectors like manufacturing and public works are leading to systemic breakdown, instead focusing on ideas like trade, deregulation or taxes as keys to economic growth. Manufacturing decline has been treated like some natural turn of the weather; instead, if we look at the economy as an ecosystem, we can explain how many of the ills that affect our modern economies can be traced back to the decline of manufacturing.

An economy-as-ecosystem view also helps us understand our wider ecological crisis. As I mentioned above, every successful natural ecosystem has a critical level, which doesn’t get much attention, called the detritivore level, that recycles outputs to inputs (somehow fungi and worms are not as cuddly as bears and deer). Much of our environmental crises can be reduced to the problem that we don’t recycle outputs back into inputs. Pollution is the most obvious example, including the generation of the greenhouse gases that cause global warming, but more insidious is the mining and extraction, including logging, that is destroying many of the world’s ecosystems. If we are to avoid global collapse, we are going to have to change out much of the production machinery used to generate our goods and services so that manufacturing is green and clean. To do this, we will need to use the government to finance and encourage this transformation.

In other words, government will have to transform the production system – including agriculture. Ideally, as I have outlined at GreenNewDealPlan.com, this means paying for the new machinery and equipment, including converting industrial agriculture to what is called regenerative agriculture. Ideally, the governments’ investment should lead to the possibility of transferring at least part of the ownership of the effected firms directly to the employees, thus encouraging the creation of a democratic economy. And if some firms don’t want the help, then they will lose in the marketplace since the government-provided machinery will allow those firms to sell cheaper goods – or the government could simply create employee-owned firms instead.

The demand for new production machinery would thereby skyrocket, thus providing a market for firms that would hire millions of people to build more equipment – but only if the government could require what is called ‘domestic content’, that is, that goods and services be produced in the home country, not imported. This in turn would require a change from the neoliberal orthodoxy of free trade.

Thus a new paradigm that puts manufacturing at the center of the economy has very powerful implications. But this paradigm becomes much more useful if we also understand the central role of the state: to create economic wealth by constructing the public works systems that tie economies together and provide essential services. It is many of these systems that are now broken and are threatening to take down the entire system-as-a-whole.

The standard portrayal of the state’s role in the economy is to cast it as a sort of referee, insuring that everyone in the market ‘play by the rules’, so that the market can work its magic. This role only exists in the minds of economists and neoliberals. Civilization began when governments were put together to create public works systems, like irrigation, that created enough production (generally of grain) to create the surplus needed to run a country. Fast forward a few thousand years, and in the United States the first Republicans helped to create the infrastructure needed for a modern economy – railroads, ports, colleges, water systems, canals and a whole slew of needed national systems. Indeed the history of the follow century was framed by the addition of new systems – electrical, transportation, safety net, public school, research and development and many more – that required governmental construction.

All of this building required manufactured goods, and so there has always been a virtuous circle between manufacturing and the building of infrastructure. In turn, advances in manufacturing lead to new kinds of infrastructure, such as most recently the internet.

However, the market, if left unchecked, will destroy this engine of economic growth as it attempts to ‘deconstruct the administrative state’, as Steve Bannon put it, and as the financial sector gains more and more power, sucking the rest of the economy into its orbit. In addition, the market will destroy the ecological foundation of society, as each firm attempts to gain an advantage on its competitors by stealing the natural assets of the planet, without recycling those assets back.

Thus we live in the age of broken systems: a public health system that could no respond to a long-predicted pandemic; a police system that has been used to replace other social services and that can dominate unchecked as communities lose economic power; education systems and housing that is too expensive; a food system that is destroying the soil, air and water that it depends on, while leading to a sicker and sicker population; a military that has been worse than useless when peoples’ lives were in danger from Covid-19; a health insurance system that denies people health services just when they need it the most; a labor system that throws tens of millions into poverty at a moment’s notice; and perhaps most of all, a production system that is threatening global climate chaos.

It will take a holistic design so that all of these systems are transformed at the same time, as daunting as this might seem. If we could build an Interstate Highway System, we can build an Interstate Renewable Electricity System, an Interstate High-Speed Rail System, and an Interstate High-Speed Internet System. We can build walkable neighborhoods that enable us to pull back from the conquest of innumerable ecosystems, and thus solve our housing crisis. We can have a single-payer health system within a healthier society, free education for the high-skilled jobs needed to build a new civilization, better care for all age levels.

The sum total of all these programs will be to remake the national labor system, such that working people will again have the power to gain the benefits of technological improvements in the production system. Because the government will offer more jobs than can even be filled by the unemployed, all other employers will be forced to increase wages and improve working conditions, lest their employees follow through on the threat ‘take this job and shove it’.

A transformation this enormous will require the enthusiastic support of a large majority of the population, because obviously this would set off a furious reaction from the corporate class (even though they could make a lot of money). That is why a program that focuses on creating good jobs, providing higher quality and cheaper goods and services, and creating a program of common purpose that can serve as a rallying cry across the political spectrum, will be necessary to attract an effective level of support.

As Ira Katznelson argues in his book about the New Deal, ‘Fear Itself’, FDR needed to offer a better alternative to both fascism and communism. Out of necessity, he turned to constructing new systems like social security and labor rights, as well as building actual physical infrastructure with programs like the WPA and CCC. Similarly today, we can use a new paradigm to help lead us to a better outcome – such as with a Green New Deal plan.

The economy is not only part of an ecosystem, it is itself an ecosystem. In order to thrive, the state must be steward of both consumption and production systems. In particular, it must ensure that the manufacturing and critical public works systems are at full strength, and it must ensure that production works as a circular system, retreating from as many ecosystems as possible. Government must create a national plan to move us from our chaotic, market-centric system, to a system in which all the parts fit together into an ecologically and economically sustainable, just system. Part of that plan should be to move the economy in a democratic direction, by encouraging employee ownership.

This blueprint for a new civilization will not automatically work correctly, as neoclassical economists fantastically promises for a market free from government intervention. It will require a well-informed electorate, a well-formed public campaign, a smart politics. It requires a program that can appeal to the 99%. It requires a new paradigm for the economy.