Complexity science—made possible by modern analytical and computational advances—is changing the way we think about social systems and social theory. Unfortunately, economists' policy models have not kept up and are stuck in either a market fundamentalist or government control narrative. While these standard narratives are useful in some cases, they are damaging in others, directing thinking away from creative, innovative policy solutions. Complexity and the Art of Public Policy outlines a new, more flexible policy narrative, which envisions society as a complex evolving system that is uncontrollable but can be influenced. David Colander and Roland Kupers describe how economists and society became locked into the current policy framework, and lay out fresh alternatives for framing policy questions. Offering original solutions to stubborn problems, the complexity narrative builds on broader philosophical traditions, such as those in the work of John Stuart Mill, to suggest initiatives that the authors call "activist laissez-faire" policies. Colander and Kupers develop innovative bottom-up solutions that, through new institutional structures such as for-benefit corporations, channel individuals' social instincts into solving societal problems, making profits a tool for change rather than a goal. They argue that a central role for government in this complexity framework is to foster an ecostructure within which diverse forms of social entrepreneurship can emerge and blossom.

I want to begin my review of this marvelous and compelling book by outlining what economists have known concerning public policy for at least fifty years. This is a prelude to discussing what is wrong with this received wisdom, and what is new in the complexity approach to modeling the market economy that is advocated and explained in this book. I was taught public economics by Richard Musgrave, who in 1959 wrote the classic textbook on the subject, The Theory of Public Finance. Surprisingly, many prominent figures and public intellectuals today profess an understanding of the economy yet know nothing about public economics. They regularly assert the truth of principles that have been discredited for half a century. Colander and Kupers have very important corrections to the standard theory, but one must first recognize the status of standard public economics as the foundation stone on which complexity theory does, and must, rest. Public economics analyzes the conditions under which market exchange leads to imperfect outcomes that might be corrected by non-market institutions and policies. Complexity theory has, to my knowledge, no quarrel with these principles. Rather, complexity theory alters our understanding of what forms of non-market economic interventions are likely to be effective in improving economic efficiency and promoting economic growth. There are two distinct roles for economic policy: regulating market dynamics (e.g., stabilizing business fluctuations and preventing catastrophic breakdowns) and influencing the equilibrium allocation of economic resources (e.g., financing social infrastructure, providing public goods, and regulating industrial effluents). The analysis of market...
absence of extensive intervention is simply an article of faith unsupported by theory or weakness of the neoclassical policy framework was its assumption, maintained to this recall asking the famous Keynesian Nobel prize-winning economist James Tobin, at a
goods. Some goods are non-exclusionary---they are consumed equally by many or all
nonlinear dynamic adaptive system, no one can prove that automatic stabilizers work,
economic efficiency was worked out in the post World War II period, and remain valid
Walras' auctioneer in setting prices to induce market clearing in the market economy.
state failure was not recognized by economists until the mid-1970's, with the collapse
question. But the question was a fair and important one. State failure was stressed by
standards for hotels (perhaps rated by one to five stars, or some such) that prevent
there is market failure, so there is state failure, which means that the regulating
There is simply no room for multiple firms to compete, so the service is supplied by
size is so large that competition is precluded. For instance, water to a city may be
appreciate how unrealistic is this key assumption of neoclassical economics, I might
increasing returns, such as railroad tracks or an electric grid. Market Failure II: Public
in the great continental "Sozialismus debatte" (socialism debates) of the
Merit goods: There are some goods that are not permitted to be bought and sold on
market socialists Enrico Barone, Fred M. Taylor, Oskar Lange, Abba
newer technologies, financial speculation, and socio-political turmoil. For a discussion of the
point out that in the great continental "Sozialismus debatte" (socialism debates) of the
interminably over exactly who will bear the burdens and benefits of the changes, and
the government has at its disposal all the information concerning the
Similar, professionals may be licensed (e.g., medical and legal services), and
Lerner and others used the neoclassical general equililbrium model to argue that a
regulation and liberals blame the crisis on under-regulation. The notion that the
operation of the economy that is available to private agents. In particular, the price
expectations models) are incapable of handling the problem because the financial
Lerner and others used the neoclassical general equililbrium model to argue that a
basic question of when free markets are the most effective instruments of
The state could then simply own all the property, hire managers to run firms, and
which all markets clear. However, economists have been quite unable to develop a
advanced economies, and the standard economic models (Keynesian and rational
production outputs (consumption and investment goods) is much more successful.
to an adequate model is developed. It is unlikely, for reasons
If the traditional theory of business cycle
economic dynamics have dealt with the business cycle. Every market economy has
to another phase. But Friedman was a pariah at that time in Cambridge
The state could then simply own all the property, hire managers to run firms, and instruct these managers to maximize profits. The return to capital could then be used by the state on behalf of its workers and citizens in an egalitarian and just manner.

The opponents of the market socialists, members of the Austrian school of laissez-faire economics, led by Ludwig von Mises and Friedrich Hayek, were no match for this high-tech neoclassical-turned-socialist analysis, which convinced even so stalwart a champion of capitalism as Josef Schumpeter to predict the eventual triumph of state socialism. This indeed is the message of his famously misguided contribution Capitalism, Socialism and Democracy (1942). His defeat at the hands of the market socialists convinced Hayek that neoclassical theory must be abandoned, for it was incapable of explaining why private property and entrepreneurial initiative were superior to centralized state socialism. He published his definitive break with neoclassical economics in his famous American Economic Review paper "The Uses of Knowledge in Society" (1945). In this paper he asserted that information is extremely decentralized in a private property market economy, and a government agency simply will not have the information to perform the massive number and range of calculations necessary to run an efficient and innovatory economy. Hayek wrote (p. 519): "What is the problem we wish to solve when we try to construct a rational economic order? If we possess all the relevant information,... the problem which remains is purely one of logic.... This, however, is emphatically not the economic problem which society faces.... The problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess."

I know that this has been an unusually long preface to the review of a book, but it does teach us some important lessons. First, neoclassically inspired public economics provides a very powerful and largely correct framework for analyzing when markets work well and when they fail. Second, markets are often fragile and easily destabilized unless properly regulated. Third, markets and regulating institutes are not alternatives but rather complements. Fourth, neoclassical economics cannot model state failure, and therefore overstates the latitude for government intervention in stabilizing the economy and correcting market failures. One reason for this failure is that government is subject to political forces that lead it to favor special interests rather than the general good. What Colander and Kupers tell us is that there is a second reason: the market economy is a complex, dynamic, and adaptive system more like a natural ecology than a man-made machine. The complex economy cannot be controlled, as the planners would like, but it can be influenced by very carefully formulated and judiciously applied "rules of the game" that move market dynamics in preferred directions. In this respect, traditional planners are like the Queen of Hearts in Through the Looking Glass who cannot stand the fact that she cannot order the flowers in her garden to heed her bidding, and employs a bevy of "gardeners" to paint the flowers to her specifications. The situation is worse for an economy because there is no regulatory counterpart to painting the flowers. "The effective government does not impose norms, or even force individuals to self-regulate. Instead it attempts to encourage the development of an econstructure that encourages self-reliance and concern about others." (p. 9). Complexity theory helps us understand that the moral rules that govern everyday life cannot be imposed, but must emerge from the dynamics of everyday life. Horace long ago noted that "laws without morality are useless." Some two thousand years later Colander and Kupers similarly write "A government... must be a moral strength... not a coercive strength that attempts to control." A great example of this insight is the life-work of the great Nobel prize winner Elinor Ostrom, who has show that local community initiatives can effectively control common pool resources (e.g., the ecology of waters that provide sustenance to fishing communities, or forests to lumbering communities) where the market is no help and the central government is more often the exploiter than the preserver of such resources. The government can best achieve efficient resource use given the complexities of common pool resource management by setting conditions under which local community control can thrive. Kudos to David Colander and Roland Kupers for this fine book. Read more ›