INTRODUCTION

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It is always a pleasure to reread Joseph Schumpeter's monumental work, *Capitalism, Socialism, and Democracy*, a work that is as relevant today as when it was first published sixty five years ago. It has become a classic not only in economics but in political science. Terms like *Schumpeterian competition* and *creative destruction* have entered the lexicon, and there is an International Joseph A. Schumpeter Society promoting his ideas. The republication of his book is a good occasion to reflect on why his ideas have had such influence—and why perhaps they have not had the influence that they should.

Within the realm of economics, he argued *against* the competitive equilibrium model that prevailed then—and prevails today. This model, often referred to as the Walrasian model, after the French economist Leon Walras, who first gave it a mathematical articulation, or the Arrow–Debreu model, after the two American Nobel prize winners, who established the conditions under which an equilibrium existed in such a model, and in which the equilibrium was Pareto efficient (efficient in the sense that no one could be made better off without making someone else worse off). It is the familiar demand and supply model taught in every economics principle course. And in this model, monopoly is the scourge—monopolies constrain output and raise prices.

To Schumpeter, the heart of capitalism was innovation, and innovation required some degree of monopoly power. Schumpeterian competition replaced competition in the market with competition for the market. If competition were perfect, innovators would not be able to appropriate any returns to their innovations, and without innovations, economies would stagnate. Writing after a period in which the capitalist economies' performance was less than stellar—the Great Depression in which large fractions of

the capital and human resources had been left idle, at greater human suffering, for an extended period of time—he could still look at the great sweep of history. Such fluctuations had happened repeatedly, and even taking the loss in output during such episodes into account, he noted the huge increases in living standards which capitalism had brought about, and which it was likely to continue to bring about. He was even optimistic about the elimination of poverty: with little evidence of an increase in inequality, as average incomes were increased, so too was it likely that those at the bottom would see new found prosperity. In spite of these long term successes, he was not sanguine about capitalism winning the political (or ideological) battle with socialism. One can see the book as his contribution to the intellectual battle that he saw as looming.

In a sense, Schumpeter won the day. No one today thinks of "socialism" as superior to capitalism as a way of organizing the production of goods and services. The increases in standards of living brought about by the market economy were beyond anything envisioned sixty years ago. The pace of innovation has been even faster than he expected. We talk today of the "innovation" economy.

Yet, in another sense, Schumpeter today is as much an outsider to the mainstream of the economics profession as he was three-quarters of a century ago. The "equilibrium" approach which he criticized so forcefully is still the dominant paradigm. And there is a new threat to capitalism, not from socialism, but from the right, from the capitalists themselves: Today, the issue is very much saving capitalism from the capitalists, from a form of statism that is far worse in some ways than socialism, something I have called "corporate welfarism" in which the power of the state is used to protect the rich and powerful, rather than the poor and society more generally. It is a failure borne out of limitations of the kind of competitive democracy that he trumpeted.

My own Principles textbook was, for instance, the first principles textbook to devote a chapter to the issues of innovation which Schumpeter thought were central to capitalism. In most graduate programs in economics, a little time is devoted to "endogenous growth theory," the notion that the pace of innovation is determined by economic decisions—but it a small fraction of the time that is devoted to the equilibrium theories based on models of perfect competition. The link between industrial structure and the pace of innovation—the focus of Schumpeter's concerns—is given scant attention.[1]

[1] It was some thirty five years after Schumpeter's work that economists gave serious theoretical attention to the issue. See, for instance, P. Dasgupta and J. E. Stiglitz, "Industrial Structure and the Nature of Innovative Activity," *Economic Journal*, 90(358), June 1980, pp. 266–293 and "Uncertainty, Market Structure and the Speed of R&D," *Bell Journal of Economics*, 11(1), Spring 1980, pp. 1–28.

Part of Schumpeter's problem was one of language: he wrote in words, but the language of modern economics is mathematics. His ideas had to be translated, and as is often the case, much is lost in the process of translation. And yet, sometimes, something is gained. Mathematics allows greater precision in the articulation of the assumptions and the conclusions. Schumpeter talks of the virtues of capitalism in promoting innovation. He seems less concerned about monopolies—they would, in any case, be temporary, as innovation leads one monopolist to be replaced by another. But economics is about the scarcity of resources, and the natural question for an economist is: does it allocate resources to innovation in an efficient way?

It is not a criticism of Schumpeter that he did not fully answer such a question, or that the answers his discussion suggests may not be fully correct: he was laying out a markedly different "model" of capitalism than the equilibrium model that had prevailed for so long. His contribution was to urge the economics profession to go down a different path. And the few that have have found interesting, if still, tentative answers. Monopolies can be far less temporary than Schumpeter thought; while in some cases the threat of entry can be an important impetus to innovation, in other cases, to maintain their monopoly power, firms devote considerable resources to the creation of socially unproductive entry barriers. In doing so, incumbents can discourage the overall pace of innovation. Microsoft has become the poster child of how an incumbent can discourage innovation. These and other firms have become highly innovative—in creating new forms of entry barriers and in extracting rents out of their monopoly power.

The drive for increased profits provides the incentives for innovation, and accordingly, it is not a surprise that if private returns are not well aligned with social returns, innovation itself gets distorted. The distinction between private and social returns had already been highlighted by the work of A.C. Pigou at Cambridge, but it had not attained the prominence that modern sensibilities over environmental externalities, for instance, have given it. I alluded to one example in the previous paragraph: innovations in the ability to use monopoly power to create new barriers to entry. The cigarette companies used innovation to create more addictive products; the financial industry to create products that would better exploit the ignorance of their customers and their human foibles. The drug industry devoted itself to creating profitable me-too drugs or those that would enhance hair growth, but did little research on the diseases affecting the poor around the world. With carbon having no price, it is no wonder that there were no incentives to find new ways to reduce carbon emissions.

The fact that private and social profitability may differ markedly also helps explain why naïve arguments about the positive benefits of evolutionary processes are wrong. Schumpeter was right to focus on the long run benefits

of innovation, as opposed to the short run benefits of "static efficiency" that are central to the equilibrium theory approach. Most of the increases in standards of living are a result of innovations. And he was right to emphasize the trade-off between short run efficiency and long run dynamic benefits: a patent system means that knowledge is temporarily used less efficiently—there is a loss of static efficiency from that as well as from the exercise of monopoly power. But if a patent system generates more innovation, then the long term benefits may well exceed the short run costs. This is a message that policymakers in developing countries and at the international financial institutions (the World Bank and the IMF) that advise them need to take to heart: industrial policies, such as those undertaken by Korea, may lead to some short run inefficiencies, but these are overwhelmed by the dynamic gains.

But the notion that evolutionary processes will necessarily lead to ever increasing standards of living is not persuasive. Indeed, the recent crisis has cast further doubt on the validity of these perspectives. For instance, financial institutions that had understood better the nature of risk and undertaken more prudent actions (e.g., not undertaken excessive leverage) would not have survived. Investors would have seen their seemingly lower returns, and demanded that management be replaced. To be sure, those who argued for greater prudence can say, "I told you so." But firms (and their management) that were wiped out in the "creative destruction" of the process of irrational optimism and deficient risk analysis are not easily brought back to life. Indeed, reward structures have allowed those who led the economy to the abyss to walk away with billions and billions—less than they would have had if their flawed analyses had been right, but far more than they deserve, given the costs that they have imposed on the rest of society.

So too, Schumpeter's optimism that all (or most) citizens would benefit from dynamic capitalism appears unwarranted. Without using these words, he seems to have believed in trickled down economics. Of course, if abusive capitalism does not lead to increased inequality, then if average incomes increase, so too will poverty be reduced. But twenty-first century capitalism illustrates that inequality can increase so much that most individuals can be worse off: median household income has been falling, and is lower today (adjusted for inflation) than it was a decade ago. And this does not take into account the decreased sense of well-being from increased insecurity and environmental degradation. Those who are losing their homes and their life savings as a result of the "innovations" of America's financial system may take little comfort in the notion that *perhaps* their grandchildren will be better off. (The realization that, say, median income of male workers in their thirties is lower today than it was thirty years ago may also diminish confidence in trickle down economics.)

One of Schumpeter's important contributions was to generate deeper thinking about innovation systems. Today, there is much more recognition of the central role of the government in promoting basic science. But government has ever played a critical role in promoting technology, and had done so long before Schumpeter wrote his treatise. Today, we think of the role of government in helping create the most transformative innovations of the twentieth century, including the Internet; but even in the nineteenth century, government financed the first telegraph line, and not only supported the research that provided the foundations of America's increase in agricultural productivity, but provided the extension services that brought that knowledge to farmers. More controversial is Schumpeter's seeming emphasis on the role of large, often monopolistic, enterprises in promoting innovation; there is an important strand of research which argues that a large fraction of modern and key innovations originate in new and smaller firms. While some aspects of the innovation process can be routinized, real creativity can't be, and if large enterprises stifle opportunities for new entrants, innovation may suffer.

Recent discussions of innovation have also paid a great deal of attention to the role of intellectual property rights, and it is striking how little attention Schumpeter seems to pay to the issue. But the issue illustrates the shift in the debate: everyone agrees on the central role of private firms; the debate over socialism is over. The question is, what kind of capitalism best promotes innovation? Earlier, I suggested that there needs to be an important role for government in basic research, and even in certain aspects of applied R&D. Government needs to set the "rules of the game." It is increasingly becoming recognized that poorly designed (excessively strong) intellectual property rights can inhibit innovation. Special corporate interests have worked to "enclose the commons" of knowledge, making access to knowledge—the most important input for the advancement of science and technology—more difficult. Patent thickets (competing claims over intellectual property) may inhibit innovation. And monopolies often have attenuated incentives for innovation. The result is that the intellectual property regime can actually reduce the pace of innovation—and there is some worry that that may be the case in the United States today.

The intellectual property regime, like the other rules and regulations that govern the economy, is the result of the political process. And in his analysis of political processes, Schumpeter again makes a seminal contribution. He again focuses on the role of competition—in this case, competition for political leadership. He is as aware of the imperfections in the process of political competition as in market competition. I have suggested that he may be too sanguine about the virtues of imperfect market competition, paying too little attention to its adverse effects. So too in the realm of political competition.

Recent years have seen how political parties use their political power to limit competition and to distort the outcomes, e.g., through gerrymandering and, in some cases, making it more difficult for those likely to oppose them to vote. Campaign contributions and lobbying too have distorted the political process, with consequences evident in the current crisis: the financial sector first succeeded in "buying" deregulation, and then a massive bailout.

Most importantly, Schumpeter saw the interplay between economics and politics. He was, perhaps, worried that in the aftermath of the Great Depression and the disappointment with the performance of the market economy, the true virtues of the market economy—its innovativeness—would be ignored. He was rightly critical of the economics profession, whose analysis was based on a particular model of the market economy, an equilibrium model, in which innovation played no role. In this model, perfect competition was the ideal, and when that ideal was achieved, the market was fully efficient. But in his zeal to make sure that the virtues of capitalism based on imperfect markets were not overlooked, he himself overlooked its limitations.

Social innovations are as important as technological innovations. Without an understanding of those limitations, we cannot improve our market economy. The concern today is not that it live up to some economists ideal. The problem is that the growth that has been achieved may not be sustainable and that the benefits of the growth that has occurred are accruing to but a fraction of the population. But by giving us an alternative way of seeing how our economic and political system works, Schumpeter provided us some of the essential tools with which to continue this never ending quest for a better society.

Part I

The Marxian Doc