Journal of Economic Perspectives—Volume 31, Number 1—Winter 2017—Pages 245–256

Retrospectives
Do Productive Recessions Show the Recuperative Powers of Capitalism? Schumpeter's Analysis of the Cleansing Effect

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This feature addresses the history of economic terms and ideas. The hope is to deepen the workaday dialogue of economists, while perhaps also casting new light on ongoing questions. If you have suggestions for future topics or authors, please contact Joseph Persky, Professor of Economics, University of Illinois, Chicago, at jpersky@uic.edu.

Introduction

The process of "creative destruction," which Joseph A. Schumpeter (1942, p. 82) considered to be "the essential fact about capitalism" since the Industrial Revolution, involves large reallocations of labor and capital from shrinking to growing sectors of the economy. Schumpeter believed that the process of liquidation and reallocation of productive resources which took place in the recession and the depression phases of cyclical fluctuations was not only an essential and unavoidable characteristic of capitalist evolution, but also was necessary, and ultimately beneficial, for long-run development. As a result, Schumpeter has often been interpreted, especially, but not only, by modern economists (such as De Long 1990; Caballero

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https://doi.org/10.1257/jep.31.1.245 doi=10.1257/jep.31.1.245

2008) as a ”liquidationist.” The term does not have a precise definition, but liquidationists are usually considered in the literature as convinced that economic crises are necessary and unavoidable and thus that government noninterventionism in such crises is a sound policy. As one example of a complaint of this nature levied against Schumpeter, Paul Samuelson (2015, p. 33) wrote that Schumpeter “was such a bad depression macroeconomist. … At the prime age of 51, in the ludicrous book by several Harvard senior professors Schumpeter praised the great depression as a ‘healthy catharsis’ of the economic system. This was a garish ‘uncreative’ version of what 1942 Schumpeter later called ‘creative destruction.’ ”

The first two sections of this paper discuss Schumpeter’s views in greater detail, and suggest that categorizing him as a “liquidationist” is an oversimplification and as an unrepentant “noninterventionist” is incorrect. Although Schumpeter was certainly not a strong supporter of public interventions, he did see a role for public expenditure programs in particular circumstances. During periods of recession, Schumpeter (1934b [1989 p. 110]) believed firmly in what he described as the “recuperative powers of capitalism.” However, when a depression becomes “*pathological*” (Schumpeter 1941, pp. 349–50), there could be a role for government to intervene. In order to understand the overall picture of Schumpeter’s message, we will first try to explain Schumpeter’s analysis of recessions, depressions, and the other stages of business cycles. We will also discuss how Schumpeter perceived the recuperative powers of capitalism, a core concept in Schumpeter’s analysis that allows him to distinguish between physiological and pathological recessions.

We then investigate the similarities and differences between Schumpeter’s analysis and modern contributions on these issues. In the 1990s, an active line of research examined the possibility that recessions may have a productive character along with their more obvious negative outcomes, because recessions in some way might hasten the process of reallocating economic recourses from slower-growth to faster-growth sectors. Such models were sometimes referred to as “neo-Schumpeterian,” but given our analysis of Schumpeter’s work, we will question whether this label is appropriate.

The Wavelike Movement of Capitalist Development

Schumpeter believed that a theory of economic development (which, as Hagemann 2008 explains, he later took to calling “economic evolution”) had to be constructed as a theory of business cycles, and this belief is apparent in his early writings. His 1911 [1926] book *The Theory of Economic Development*, originally published in German, held that progress occurs in waves, and crises are considered as “turning points of economic development” (p. 425; see also Schumpeter 1910, p. 294). These waves are both an unavoidable consequence of the preceding prosperity and necessary for the process of re-equilibration and long-run development. “The Wavelike Movement of Economic Life” (1914–15) provided the title of a paper in which Schumpeter summarized for an American audience his vision of the cyclical nature of the evolution of a capitalist economy, as described in greater length in *The Theory of Economic Development*. This paper was originally presented at a Harvard seminar in January 1914.

After working on-and-off for three decades on the subject, Schumpeter (1939) presented a three-cycle schema in *Business Cycles*. Short-term 3–5 year Kitchin cycles (drawing from Kitchin 1923) were based on variations in psychological factors and crop yields. Medium-run Juglar cycles (Juglar 1862) were based on fluctuations in levels of fixed investment, often stemming from waves of innovation. Long-run Kondratieff cycles (Kondratieff 1925 [1935]) happened every 45–60 years, and were based on major technological shifts. Schumpeter also considered including additional cycles, like the Kuznets cycle (Kuznets 1930) based on construction swings, but he ultimately focused on the first three.

Schumpeter further distinguished four phases of economic fluctuations: prosperity, recession, depression, and recovery, which include two movements away from equilibrium (prosperity and depression) and two movements towards it (recession and recovery). It may seem odd to modern economists to consider "prosperity" as a movement away from equilibrium, and recession as a movement toward equilibrium. But one can readily imagine a macroeconomy fluctuating around equilibrium in which upward movements can be categorized into returning to equilibrium through "recovery" and then going beyond equilibrium into "prosperity," while downward movements are categorized into "recession," which is a decline back to equilibrium, and "depression," which is a further decline past equilibrium. In seeking to understand Schumpeter, one needs to be cognizant of his terminology.

Schumpeter (1931a, p. 6) attributed to Clement Juglar (1862) "the discovery that … crises are nothing but turning points from prosperity into depression, and it is the alternation between prosperity and depression which is the really interesting phenomenon." Concerning Schumpeter's own approach, the decisive element in his assessment is Juglar's diagnosis of the nature of depression, namely that "'the only cause of depression is prosperity'" (Schumpeter 1954, p. 1124). (It should be mentioned that despite intensive research, nobody has found what Schumpeter called this "famous sentence" in Juglar's actual writings.) In *History of Economic Analysis* (1954, p. 1123), Schumpeter elevated the work of Juglar into the pantheon of economics, praising him time and again for identifying the cyclical character of economic development and for having been seminal in combining theoretical, statistical, and historical analysis. For a detailed comparison of the analysis of business cycles in Juglar and Schumpeter, see Dal Pont Legrand and Hagemann (2007).

In Schumpeter's vision, economic development was initiated by the introduction of innovations by pioneering entrepreneurs and fostered by bank credit, which implies that divergences from macroeconomic equilibrium should often be viewed as endogenous disturbances. His argument was that exogenous impulses, like harvests or wars, would not explain the regularity of the phenomenon and the permanent "struggle for a new equilibrium" (Schumpeter 1931a, p. 15).

Later discussions of Schumpeter's multiple cycles point out that they are conceptually related to different types of capital goods as the main causal factor.

For example, the short-term Kitchin cycles mainly involve fluctuations in inventories: medium-term Juglar cycles are more related to fluctuations in fixed capital investment; Kuznets cycles involved fluctuations in construction investment; and Kondratieff cycles involved fluctuations in basic capital goods as a result of fundamental innovations. However, Schumpeter did not want to veer from his initial vision established in *The Theory of Economic Development* (1911), and continued to adhere to a monocausal argument focused on innovations. "Innovations, their immediate and ulterior effects and the response to them by the system, are the common 'cause' of them all, although different types of innovation and different kinds of effects may play different roles in each" (Schumpeter 1939, p. 172).

In his discussion of "the secondary wave" in the chapter "The Contours of Economic Evolution," Schumpeter (1939, chap. 4, p. 146) deplores that "the element of innovation has been so much neglected by the traditional analysis of the business cycle." Innovations take the system out of equilibrium. However, "[a]ny prosperity … induces a period of liquidation which, besides eliminating firms that have become obsolete beyond the possibility of adaptation, also involves a painful process of readjustment of prices, quantities, and values as the contours of the new equilibrium system emerge" (p. 148). Schumpeter had already expressed this idea in the concluding nine theses summarizing his fundamental ideas in "On the Nature of Economic Crises," his first article on the subject in 1910 (pp. 324–5 [2005, p. 50]).

For Schumpeter (1939), the notion of balanced economic growth was self-contradictory. In his view, capitalist development is characterized by recurrent disequilibria which cannot be absorbed smoothly but only through a painful process of creative destruction. While an economy is in a recession, a mechanism is at work that "cleans out" the excesses of the boom and draws the economy towards equilibrium, whereas an economy in a depression moves away from equilibrium and opens up the possibility of "abnormal liquidation" (p. 149). However, "depressions are not simply evils, which we might attempt to suppress, but—perhaps undesirable—forms of something which has to be done, namely adjustment to previous economic change" (Schumpeter 1934b [1989, p. 115]).

Schumpeter and the Great Depression

Schumpeter viewed the severity of the Great Depression that started in 1929 as a combination of the downswing of the short-run, medium-run, and long wave cycles. He expresses this view in a number of places: for example, in a January 8, 1931, letter to the German economist Arthur Spiethoff (reprinted in Schumpeter 2000), and in his Tokyo lecture in that same month (Schumpeter 1931a; see also Schumpeter 1931b [1989, pp. 96–97]). The problem of many simultaneous waves led Schumpeter (1939) to the idea of *superposition* (pp. 212ff.), meaning the composite of three cycles of various durations: "[I]f innovations are at the root of cyclical fluctuations, these cannot be expected to form a single wavelike movement" (p. 166).

For this reason, Schumpeter did not perceive the Great Depression of 1929–1933 as unique: instead, he viewed it as similar in severity to the depressions that occurred in Britain in 1825 and in the United States in 1873, events with which he makes comparisons. He later wrote: "[D]epressions of such severity have repeatedly occurred—roughly once in fifty-five years" (Schumpeter 1942, p. 64). Schumpeter recognized that special historical circumstances can aggravate a crisis which otherwise is endogenous to the capitalist system: "that what we are faced with is never simply a depression but always a depression *moulded and made worse by forces not inherent to the working of the economic engine as such*" (Schumpeter 1934b [1989, p. 114]). Among the noneconomic causes, great wars —like the Napoleonic wars, the US Civil War, and World War I—loom large in his telling. Thus, Schumpeter (1941 [1991, p. 351]) argued: "There was nothing unprecedented in this breakdown in 1929–1932 … the intensity of the depression will be in some way proportional to the intensity of the preceding progress."

Whereas a recession is a process leading to equilibrium which Schumpeter (1941 [1991]) considered as "the normal working of the evolutionary mechanism," "the excesses of speculation and loose banking methods make the thing much worse than it otherwise would be" (1991, p. 350). These factors are at the root of the pathological processes in an overshooting boom which cause the depression, leading the economy away from an equilibrium position. In Schumpeter's view, the main function of the economic cycle in capitalist development is that movements away from equilibrium—that is, prosperity and depression—are parts of an evolutionary perspective that overall has positive effects. In the decade after the outbreak of the Great Depression, Schumpeter continued to emphasize "that in the breakdown there was promise of a harvest" (1991, p. 351). Schumpeter argued that the crisis was a precondition for a recovery.

Schumpeter (1946, p. 8) would later criticize the common indictment of economists' "alleged inability to offer a satisfactory explanation of the world crisis of 1929–32" as "without foundation." He argued that it is important "to distinguish between facts that explain why there should have been a 'depression' and facts that turned this 'depression' into a 'disaster.'" In other words, it was important to distinguish between a *normal* depression and an *abnormal* or pathological depression.

Schumpeter also spelled out a mechanism through which recession and depression periods, despite their negative concomitants, exert a selective function in the process of creative destruction. During boom periods, almost every business could make a profit, or as Schumpeter (1934b [1989, p. 113]) put it, "errors and misbehaviour should be abnormally frequent in prosperity." However, "everything that is unsound for either reason shows up when prices break and credit ceases to expand in response to decreased demand for it." Thus, he viewed economic development as intrinsically interrelated with the ebb and flow of innovations and the process of setting up new production functions. In this perspective, a normal recession in the direction of equilibrium and the process of overshooting into depression indicates the functioning of the capitalist engine in which, through a painful process, outdated and ill-adjusted firms and activities are eliminated. According to Schumpeter, a functioning capitalism does not need a government stabilization policy. He believed that it would be better to adopt a prophylactic policy that would minimize the chance of severe economic crises by adhering to clear rules—by which he meant a gold standard for monetary stability, a productivity-oriented wage policy, and other elements—rather than to intervene in a way that would be likely to hinder this economic evolution.

However, the situation changes when the away-from-equilibrium depression becomes "abnormal" or "pathological" destroying "many things which could and would have survived without it" (Schumpeter 1939, p. 149). As decisive factors causing the downward vicious spiral or the disaster of the Great Depression, Schumpeter (1946, pp. 9–10) diagnosed the wild speculative excesses in the preceding years, the weakness of the United States banking system, and the mortgage situation due to reckless borrowing and lending. This distinction between normal and abnormal liquidation was part of Schumpeter's thinking before the Great Depression arrived. For example, it appears already at the end of the second German edition of his *The Theory of Economic Development* (1926, pp. 386–89 [English translation 1934a, pp. 254-55]).

When the depression stage becomes pathological, not so much because of the severity of the depression but when the recuperative powers do not work anymore, Schumpeter held that the abnormal overshooting of the depression would have negative consequences for long-run development, and thus was willing to advocate government intervention.[1] Schumpeter shared Keynes' position that in the depression only an expansive fiscal policy, but not an expansive monetary policy, could be an efficient remedy. "The readiness to let a budget run into a deficit in a depression by keeping up expenditures in the face of shrinking revenues is a policy which will alleviate much suffering and keep many things going which would otherwise crash" (Schumpeter 1941 [1991, p. 370]).

Schumpeter was clearly reluctant to accept the principle of government intervention, and his writings are sprinkled with warnings about the dangers of continued government borrowing. For example, in lectures given in 1941, he proposes "the ruthless principle that the budget ought to be balanced under any circumstances" (Schumpeter 1941 [1991, p. 371]). While conceding that "[a]ction on that principle makes things worse in a depression," it might nevertheless be healthier in the long run because a too large and long dose of budget deficit as a stimulant can make a country dependent like a "morphinist."

But taking Schumpeter's writings as a whole, it doesn't seem appropriate to consider him a pure noninterventionist. In 1934—that is, two years before the publication of Keynes *General Theory*—he wrote of "the pivotal importance, in crises, of government expenditure on public works, and especially on direct relief for

[1] For a more detailed discussion of Schumpeter's views on economic policy, see Dal Pont Legrand and Hagemann (forthcoming), where we point out the time-consistency of Schumpeter's position, which is characterized by a long-run perspective fostering economic growth.

the unemployed" (1934c, p. 239). Schumpeter (1934b [1989, p. 117]) concluded another article on the Great Depression in this way:

> Especially if a country has steadily improved its public finances during prosperity as the United States did in the decade which proceeded the present crisis, enough means are available, and other means can be procured, for an expenditure which will blot out the worst things without injury to the economic organism, provided only that action on this line is taken promptly and followed up by equally sound fiscal habits as soon as recovery gets under way.

Schumpeter clearly did not believe in trying to manage the fluctuations of normal business cycles, but in the case of abnormal depressions—that is, when the recuperative powers of capitalism are not abrogated—he did support expansionary fiscal policy. His views on economic policy were already an element of his approach in earlier contributions well before the Great Depression (Stolper and Seidl 1985).

The Modern Literature on Recession and Restructuring

In line with new growth theory models that emerged in the mid-1980s, neo-Schumpeterian growth models were developed which sought to operationalize Schumpeter's notion of creative destruction (Aghion, Akcigit, and Howitt 2015). Those models were built on explicit micro foundations and benefited from rich firm-level data, making empirical tests possible. The development of this literature involved a wide variety of contributions, including a subset of papers on how business cycles can affect resource allocation. Here, we focus only on research that deals with the effect that recessions can have on restructuring and growth.[2]

Characteristically, the studies in this modern literature often quote Schumpeter's statement that recessions "are but temporary. They are the means to reconstruct each time the economic system on a more efficient plan." A little oddly, the reference is typically indirect, often quoting Stiglitz (1993, p. 2), who originally presented this paper at the meeting of the International Joseph Schumpeter Society in Kyoto, August 1992, and who appears to be the only modern author to provide the complete reference to Schumpeter's (1934b [1989, p. 113]) comment.

Despite their invocation of the Schumpeterian spirit, these models have their own distinct orientation. For example, the modern literature no longer sees fluctuations as a succession of phases, so the distinctions Schumpeter introduced between toward-the-equilibrium recession and away-from-equilibrium depression, or between normal and pathological depressions, do not appear. These models treat recessions as demand shocks, not as the outcome of technology shocks. Moreover,

[2] We exclude models based on a process of creative destruction but dealing with reverse causality—that is, models examining how growth can affect fluctuations, like most of the chapters included in Aghion and Howitt (1997).

they mostly concentrate on decisions taken during recession on the rate of growth, not on decisions over the business cycle as a whole (for an exception, see Caballero and Hammour 2005).

This literature can be divided into two broad categories. In the first class of models, developed by Hall (1991), Aghion and Saint-Paul (1991, 1993, 1998a), and Saint Paul (1994), firms face an intertemporal trade-off between current production and restructuring activities that will increase future output, like research and development. Under certain theoretical conditions, this reallocation in favor of the productivity-improving activities is more likely during a recession, because production is less advantageous in bad times. However, this theory has difficulty in finding clear-cut empirical support. In early research, Bean (1990) and Gali and Hammour (1992) find evidence for the domination of the reallocation effects during recession over a pro-cyclical learning-by-doing effect. But other empirical literature appeared questioning that link. More recently, Barlevy (2007) finds that research and development spending does not rise during recessions as predicted by the pure allocation model: instead, it is pro-cyclical. In a discussion drawing on the concept of research and development externalities, Barlevy argues that entrepreneurs concentrate the implementation of new ideas during booms (p. 1132). François and Lloyd-Ellis (2009) have similar findings when they decompose the process of innovation into research and development, commercialization, and implementation. Finally, Aghion, Angeletos, Banerjee, and Manova (2005) suggest that because credit is procyclical, credit constraints are more likely to be binding during recessions, which means that productivity-improving activities may be pro-cyclical, too. To be clear, the analytical framework here is about reallocation within firms, not between them, and does not deal explicitly with entry or exit. But the overall evidence from this line of research suggests that viewing recessions as times when firms are more likely to engage in productivity-enhancing activities is not empirically well-founded.

In a second class of models, Caballero and Hammour (1994, 1996; for an overview, see Aghion and Saint Paul 1998b) consider technology as embodied in capital, skills, and work organization. This framework allows them to drop the assumption of a single representative firm. Instead, heterogeneous firms can react differently to variations in demand: "[T]hey can vary either the rate at which production units that embody new techniques are created or the rate at which outdated units are destroyed" (Caballero and Hammour 1994, p. 1351). "This process of growth through Schumpeterian creative destruction results in an on-going reallocation of factors of production from contracting production sites to expanding ones" (Caballero and Hammour 1996, p. 805). This model suggests that the effect of recession on productivity will depend on the rates of entry and exit during the business cycle. They evaluate a range of evidence, noting (for example) that during recessions, the rate of entry of new firms is lower, which limits the productivity-enhancing effect of phasing out less-efficient firms. Looking at the available evidence, Caballero (2008, p. 3) finds that "on the average, recessions depress restructuring."

To put older contributions into modern perspective is always a difficult exercise. Modern theories and empirical work are inevitably not part of Schumpeter's earlier conceptual framework. However, modern work has specified the mechanisms that could possibly be at work during the process of creative destruction, including restructuring within firms, resource reallocation between firms, and the exit of weak firms and entry of stronger firms. One can examine these mechanisms more closely to assess the market's efficiency and the recuperative and regenerative powers of capitalism proposed by Schumpeter. Indeed, Caballero and others both elucidate how these mechanisms work and also examine the consequences of their dysfunction, a situation that Schumpeter perhaps would have considered equivalent to the collapse of the recuperative powers of capitalism.

Modern empirical work suggests that the process of creative destruction is important for economic growth: "Over the long run, the process of creative destruction accounts for over 50 percent of productivity growth" (Caballero 2008). Nevertheless, the creativity and restructuring that happens during economic upswings is likely to be more important for this process than the destructive processes unleashed by recessions, and in addition, the reallocations of creative destruction are *hindered* by recession, not accelerated. Interestingly, in his early study concerning the empirical characteristics of long waves, Kondratieff (1925 [1935], p. 111) had reached this conclusion as well. He wrote: "During the recession of the long waves, an especially large number of important discoveries and inventions in the technique of production and communication are made, which, however, are usually applied on a large scale only at the beginning of the next long upswing."

Finally, Caballero and Hammour (2005) investigated the potential social costs of recessions from a broadly Schumpeterian perspective. Caballero (2008, p. 3) described their results in this way: "While we sided with Schumpeter and others on the view that increasing the pace of restructuring of the economy is likely to be beneficial, we provided evidence that, contrary to conventional wisdom, restructuring falls rather than rises during contractions." Aside from its empirical contribution challenging the more extreme liquidationist interpretations of recessions, in the context of this paper, the summary is interesting for another reason. It reveals an unexpected paradox: while these authors see themselves as Schumpeterian when interpreting recessions as productive episodes, they do not recognize that it is precisely when they express their more balanced views about the effect that recessions can have on growth that they actually have much more in common with Schumpeter's own analysis.

■ *We would like to express our gratitude to Timothy Taylor and the other editors for very valuable comments on an earlier draft of this paper.*

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