

Chapter 5

Business Cycles: Understanding the Ebbs and Flows of the Economy

Capitalism is essentially a process of (endogenous) economic change ... The atmosphere of industrial revolutions—of “progress”—is the only one in which capitalism can survive ... In this sense stabilized capitalism is a contradiction in terms.

Joseph A. Schumpeter (1939), *Business Cycles*: 405.

The recurring periods of prosperity of the cyclical movement are the form progress takes in capitalistic society.

Joseph A. Schumpeter (1927), The Explanation of the Business Cycle: 30.

As was the case with many of Schumpeter’s contemporaries, he showed great interest in understanding the nature and causes of business cycles, that is, the ebb and flow of the economy from expansion and prosperity to recession, and at times, economic crisis and depression. Schumpeter’s work in the *Theory of Economic Development* (TED) coupled with his later two-volume masterpiece *Business Cycles* (BCI) focused on the broad issue of how and why economies progress. One of the many contributions of Schumpeter’s work in the field of business cycles was the introduction of innovation as a causal explanation.⁹ A subtle aspect of his argument, but one that needs to be recognized, is that the business cycle or the fluctuation between expansion and contraction is natural or, as Schumpeter put it “like the beat of the heart” (BCI: v).

9. For more information on Schumpeter’s view of the interconnectedness between progress and business cycles as caused by entrepreneurial innovation, please see Rosenberg and Frischtak (1983).

This evolutionary approach to understanding business cycles and their role in the general upward progress of economies placed Schumpeter in contrast to many of his peers during this time who believed economic fluctuations could and should be managed by the government. Schumpeter's views also put him at odds with the broad Austrian School of Economics, within which much of his training took place.

To understand Schumpeter's conception of the business cycle, we need to first recall his definition of innovation as given in *The Explanation of the Business Cycle* (EBC) :

... primarily changes in methods of production and transportation, or in changes in industrial organization, or in the production of a new article, or in the opening up of new markets or of new sources of material.
(EBC: 30)

Schumpeter's explanation for business cycles, which again was rooted in his analysis of economic history and experience, starts with a major innovation by entrepreneurs. The initial innovation and the potential for monopoly profits spurs investment in factories, machinery, equipment, and perhaps additional research. It is critical for Schumpeter, however, that these investments and economic activity will cluster within the single branch of the economy in which the innovation occurs (EBC: 30). In other words, in the first phase of the expansion, the prosperity or economic development does not occur broadly in the economy but rather in one specific sector.

The investments and expanded economic activity in the sector have two important effects. One, it pulls resources into the sector from other parts of the economy. This includes raw materials, capital, labour, and—critically for Schumpeter—entrepreneurs begin to shift their attention and resources into this sector. As Schumpeter explained:

Why do entrepreneurs appear, not continuously, that is singly in every appropriately chosen interval, but in clusters? Exclusively because the appearance of one or a few entrepreneurs facilitates the appearance of others, and these the appearance of more in ever-increasing numbers.
(TED: 228).

As more and more resources are reallocated to the sector experiencing expansion, the prices for resources, again including raw materials, capital, and labour begin to rise. Schumpeter described it as follows:

the swarm-like appearance of new combinations easily and necessarily explains the fundamental features of periods of boom. It explains why increasing capital investment is the very first symptom of the coming boom, why industries producing means of production are the first to show supernormal stimulation ... It explains the appearance of new purchasing power in bulk, thereby the characteristic rise in prices during booms, which obviously no reference to increased need or increased costs alone can explain. (TED: 230)

As the sector with the initial innovation expands and draws resources to it, prices outside the sector also begin to rise. Specifically, firms and entrepreneurs begin to invest in the additional sectors experiencing expansion because of the increase in demand from the sector that initially experienced the innovation breakthrough. These can include, for instance, providers of raw materials and suppliers of intermediate goods and services. As more and more firms, both within the sector initially affected by the innovation as well as those in other sectors of the economy affected by the expansion, bid on resources, including labour, and compete for investment, prices generally start to rise. During this phase, unemployment declines while wages increase, explaining the general prosperity experienced across the economy during expansions.

Another insight from Schumpeter that was well ahead of his time was the recognition of the role of diffusion of the initial innovation. Schumpeter envisioned a process whereby the initial innovation was replicated by other entrepreneurs within the sector but, during the course of the expansion, the benefits of the innovation begin to be diffused within the broader economy.¹⁰

To summarize, the expansionary phase of the business cycle for Schumpeter starts with an initial innovation that pulls resources, particularly entrepreneurs, into the sector within which the innovation occurs. As resources are pulled into

10. For more on the role of diffusion in Schumpeter's concept of the business cycle, which is a key factor in his conception of the expansionary phase of economic cycles, please see Aghion, Akcigit, and Howitt (2013).

this sector and new firms develop, economic activity in related sectors also begins to expand. Ultimately, the prosperity in these directly and indirectly affected sectors drives economic expansion, lowering unemployment, increasing wages, and driving investment. As Schumpeter described it: “the release of secondary waves—the spread of prosperity over the whole economic system” (TED: 230).

As with the expansionary phase, Schumpeter explains the contraction or recessionary stage based on the initial innovation. Economic contractions and recessions were seen by Schumpeter as the economy’s reaction and adaptation to the innovation. As noted economist Alvin Hansen put it when assessing Schumpeter’s contributions to our understanding of business cycles, “depression is a process of adaptation to the change conditions ushered in by the boom” (Hansen, 1951: 129). The adaptation at the heart of Schumpeter’s concept of economic contraction relates to the competition between new and existing firms both within the sector initially affected by the innovation as well as the other sectors of the economy affected by it. Firms are forced to adapt to compete with new products, new processes, new markets, and other innovations. Such adaptation includes firms going out of business or perhaps being absorbed by more efficient firms, layoffs, and massive adjustments to new product and service markets.

It is the “creative destruction” of entrepreneurial innovation that Schumpeter saw as the fundamental characteristic of entrepreneurial capitalism. Specifically,

[t]he effect of the appearance of new enterprises *en masse* upon the old firms and upon the established economic situation, having regard to the fact ... that as a rule the new does not grow out of the old but appears alongside of it and eliminates it competitively, is so to change all the conditions that a special process of adaptation becomes necessary. (TED: 216)

More specifically, Schumpeter observed a number of factors that coalesced to explain the transition from an expansionary phase to contraction.¹¹ First, as noted above, many firms fail as their products and services are replaced as a result of the emerging products and services from the innovation. Second, the successes of the boom phase cause increases in prices of raw materials and potentially of

11. For a thorough discussion of Schumpeter’s concept of the reason for recession, please see Dal-Pont Legrand and Hagemann (2007).

labour that dampen profitability expectations and thus investment. Third, the emergence of new firms and more competition in the sector originally affected by the innovation decreases the prices of the new products and services made available by the innovation, which again dampens additional investment. Fourth, Schumpeter observed that entrepreneurs could “overshoot” the opportunities in the sector and thus potentially overinvest. This last point is important as it is often overlooked but Schumpeter did in fact allow for entrepreneurs to make errors.

A real-world example may help to illustrate the dynamics Schumpeter envisioned as explaining the boom of the economy. A major entrepreneurial innovation along the lines that interested Schumpeter, such as the railway or electricity, is the development of the computer chip. It took a significant amount of investment and time for this technological innovation to influence the economy. In typical Schumpeterian style, investment and entrepreneurs flowed first to the technology sector. Many new firms were created to try to capitalize on the new technology. It attracted additional resources and skilled labour. Major clusters of activity formed in places like Silicon Valley, Boston, Massachusetts, and parts of Texas.

This cycle was amplified as the personal computer market began to emerge. Successful firms were pulling resources from other sectors of the economy. For instance, this portion of the technological sector was attracting more and more engineers and programmers. In addition, it was driving demand for the various inputs required to produce computers, including plastics, aluminum, wiring, screens, and so on. Eventually, however, there was a culling of the firms in the sector. Many firms failed while many others were absorbed by more successful firms. The expansionary aspects of this example of how an entrepreneurial innovation can facilitate or, as Schumpeter would argue, cause economic expansion, fits well historically. Indeed, a number of economists have noted how “persuasive” Schumpeter’s analysis is with respect to the expansionary phase of a business cycle (Hansen, 1951: 132).

A subject related to Schumpeter’s work on business cycles that was also quite popular at the time is the idea of long-wave economic growth. A number of high-profile economists were working on the idea that economies experience economic growth in waves. While not a critical insight in the same league as Schumpeter’s work on entrepreneurship, business cycles, or competition, it is nonetheless helpful to briefly survey his work in this area since it is an extension of his scholarship on business cycles.

At the time, there were several competing theories about waves of economic growth: Joseph Kitchin, a British Statistician, hypothesized that the waves were roughly three to five years and focused on inventory changes; a French economist, Clément Juglar, thought the waves were longer and explained by changes in fixed investment; noted American economist Simon Kuznets believed the waves were much longer, ranging between 15 and 25 years, and linked with infrastructure investment; and finally Nikolai Kondratiev, a Russian economist, envisioned even longer waves lasting between 45 and 60 years that were rooted in technological innovations (De Groot and Franses, 2005: 7–8). Schumpeter's contribution to the work on long-wave theory of economic growth was to synthesize the work of these major economists into one overarching theory. Essentially, Schumpeter argued that all four waves existed within each other and that the larger process was rooted, as Kondratiev argued, in technological innovation. The shorter waves occurred within the longer Schumpeter-Kondratiev wave of long-term growth.

Using the previous example of the emergence of the computer chip as an entrepreneurial innovation, Schumpeter would have explained the following forty-plus years of economic growth as having been grounded in the original innovation of the computer chip. Shorter waves of growth within the larger, long-wave growth would have been based on building supply chains and the emergence of additional innovations based on the original computer chip, such as smart phones. In addition, the emergence and demise of competing firms within each of the shorter waves of growth would have been part of the ongoing adaptation process Schumpeter envisioned as both explaining part of the forces in the contraction but also key to the evolution of the economy.

While the accuracy and usefulness of conceptualizing long-wave growth is arguable, it is nonetheless illustrative of the central, fundamental position in which Schumpeter places entrepreneurial innovation in explaining economic progress. According to Schumpeter, economic growth and progress more generally occur when the benefits of new innovations such as the computer chip are diffused throughout the economy. However, he also explains contractions based on innovations, since they inevitably, or perhaps more accurately naturally, lead to the replacement of previously existing products and services and the firms that provided them by new products and services, and new firms. Schumpeter's key insight that the economy expands and contracts in response to entrepreneurial innovation is an idea that continues to shape and influence modern economists and our understanding of progress.