

Foundations of Post-Schumpeterian Economics: Innovation, Institutions and Finance by Beniamino Callegri, 270 pp., Routledge (2020), £96.00

The COVID-19 pandemic was feared to unleash waves of bankruptcies globally, which was largely prevented through counter-pandemic policy stimulus. The pandemic also created opportunities for start-ups to proliferate and scale up as unicorns through innovations. This has brought to the fore the significance of Schumpeterian creative destruction to the post-COVID world. The book offers a reconstructed narrative of Schumpeterian economic thoughts that could be viewed as relevant to the contemporary works. The book tries to link Schumpeter's economic theory to philosophy, drawing insights from works by Henry Bergson, a French philosopher and Georgescu-Roegen, an economist. The book gives a comprehensive review of Schumpeter's major economic contributions including his theory of economic development and capitalist crisis, thereby highlighting how reviving Schumpeter's original contributions can be integrated into the ongoing academic debates.

This book is divided into three sections. In the first section, the author explores Schumpeter's theory from a philosophical perspective. The second section describes in detail the economic theory propounded by Schumpeter, including his theory of economic development, capitalist crisis and business cycle. The last section attempts to link Schumpeter's theory of development to economics of evolution.

The first chapter explains how Schumpeter visualized social science. According to Schumpeter, 'the object of study of social science is one indivisible whole', wherein society, culture and economy are all connected and cannot be separated from each other. The author highlights the monism in Schumpeter's study of social science by discussing the connection between social and natural process. The author supports this unified interpretation of social science by citing Bergson's and Roegen's philosophies. For instance, Roegen's intuitive continuum refers to a seamless whole in which nature, space and time cannot be separated from each other. When this intuitive continuum is applied to Schumpeter's indivisible whole, it strengthens its

monist interpretation. In the second chapter, the author explores Schumpeter's concept of rationality in social science. He discusses the various meanings of rationality distinguished by Schumpeter, including subjective and objective rationality. The former refers to the established social norm, and the latter refers to the independent free will which is detached from the social norm. Innovation and creative action emerges from the individual free will. The author then links Schumpeter's innovation to Bergson's creative evolution, which relates life with creation. Bergson argued that it is intelligence which leads to the creation of new things, whereas instinct finds solution based on old existing knowledge perceived by the mind. The author argues that Schumpeter's rationality is analogous to Bergson's instinct and intelligence. The author further argues that Schumpeter introduced a social component within rationality leading to the rejection of an individualist view of social process.

In the second section, the author highlights the key contributions of Schumpeter to social science. Schumpeter's theory of development discusses how innovation originates and is financed in capitalist economies. This is explained in the book through four components of economic development - circular flow, innovation, novelty and money. The book explains how the process of economic development encounters cycles of prosperity, recession and depression and provides a detailed analysis of Schumpeter's model of business cycle through three approximations. In the first approximation, development is introduced into the circular flow as an exceptional single event to which the economic system adapts physiologically. This model illustrates how development leads to an alternative cycle of prosperity and recession. In a perfectly competitive market with full employment of resources, the entrepreneur borrows money to introduce innovation and purchase productive services. Since resources are fully employed, this leads to a rise in price of productive services, thereby generating windfall profits for old firms. Once the innovative output is introduced into the market, entrepreneurial profits also emerge for the new firms. This refers to the prosperity phase. Eventually, competitiveness among the older firms increases, which in turn puts a downward pressure on prices leading to the phase of recession. Overtime, the system adapts to innovation, leading to a new circular flow identical to

the old one but with new lower prices. The lower prices reflect the rise in real incomes brought by innovations. The second approximation shows how development leads to booms and depression. The phase of prosperity and recession in the first approximation gives rise to a secondary wave. In the prosperity phase, the windfall profit is used to increase consumption. The economic agents adapt to higher profits and as demand increases permanently, firms increase their investments to increase supply. This leads to a temporary self-sustaining boom accompanied by rising prices. Eventually, competition breaks the spell leading to losses and putting a sudden end to the boom, which in turn can also lead to a crisis and subsequent slowdown in economic activity. Finally, in the third approximation model, instead of a single developmental process, there are multiple development processes occurring simultaneously in different economic sectors. The book concludes this section by discussing the causes and consequences of a crisis. The author argues that Schumpeter considers crisis as capitalist in nature and assumes it as the capitalist variant of the process of development. Although development in itself can follow a linear trajectory, capitalism is inherently cyclical. The ultimate driver of a crisis is the decentralized capitalistic planning, and that crisis is destructive in nature. It implicates the people who have nothing to do with the crisis such as workers and leads to wastages, necessitating the need for state intervention to manage the booms, recession, and crisis. The book also discusses the role of institutions in managing a crisis and describes the inability of Schumpeter's competitive capitalism to find a permanent solution to a crisis. This occurs because under competitive capitalism, the adaptive, creative and speculative activities are operationalised by different agents leading to inconsistent planning. Hence, the interactions between these agents give rise to booms, recession and depressions. The author discusses an alternative institution proposed by Schumpeter, which is trustified capitalism where all the activities are confined to a single entity: the oligopolistic innovative firm. This, in turn, creates a condition for co-respective competition, which is defined as the market configuration in which there is complete coordination among competitors to minimise the destructive effect of development at all the stages. Trustification reduces instability and eventually eliminates inconsistent and decentralised planning. This alternative institution, if fully realised, can provide a permanent solution to the capitalistic business cycle.

The last section summarises some of the ongoing Schumpeterian debates. It provides a historical review of the trajectory of Schumpeterian economics since his demise, illustrating the scope of his legacy and the corresponding opportunities offered by the post-Schumpeterian synthesis. The author argues that Schumpeter influenced the theoretical discourse on growth, development and innovation, and sheds light on the sustained efforts made during 1950s to integrate Schumpeter's thoughts into the mainstream economics. The subsequent rise of neo-classical, neo-Keynesian and neo-Schumpeterian school of thought during the 1960s, and the decline of Schumpeter's influence is ascribed to its lack of interest in capital theory and concern for policy, complexity of concepts and the assumption of instability. The book then revisits the revival of Schumpeter during the 1980s and 1990s. During these decades the focus of Schumpeterian debate shifted to the evolutionary premise of his theory that the economic process evolves and is determined by both individuals and the society. The author tries to link neo-Schumpeter's meso level analysis of economic development to Schumpeter's original approach. According to the meso level analysis, development comprises three stages: origination, diffusion and retention. During the origination phase, the agent develops a new rule and assembles resources needed for its realization. In the diffusion phase, this rule gets adapted throughout the economic system. In the retention phase, the rule is enforced and identically replicated. The author argues that the origination phase is similar to Schumpeter's idea of leadership in which free will leads to the emergence of a new ideas. The diffusion phase refers to the rest of Schumpeter's development process in which a new idea is integrated into the economic system. Therefore, the author argues that the meso approach is strongly Schumpeterian, pointing to the evolutionary nature of Schumpeter's theory. The author then elaborates on the evolutionary framework by discussing the theory of General Darwinism (GD), which refers to the study of evolution of all living systems including the social system. The author establishes compatibility of Schumpeter's evolutionary perspective with GD by showing that Schumpeter's theory satisfies the conditions which are relevant for any evolutionary theory to remain compatible with GD. The author, thus, argues that Schumpeter's theory is Darwinian in nature. The last chapter concludes the book by providing a scope for hybridization of Schumpeterian and Keynesian economics. It gives a detailed discussion on

Schumpeter meeting Keynes (S+K) family of agent-based models and agent-based stock flow consistent models (AB-SFC), offering a cross fertilization between the two. These models highlight the dependence of Schumpeter's engine of economic growth on Keynesian demand management, and show that any drain in demand becomes an obstacle for investments by firms. The book highlights the role of demand management for economic development and the limitation of exclusive supply side focus as done by Schumpeter.

The author has lucidly narrated the philosophical stance inherent in Schumpeter's work. The main aim of this book is to delineate the philosophy underpinning Schumpeterian theory; however, it is found vividly only in the first section of this book. In the second and third sections of the book, the author focuses on Schumpeter's core economic theory where the philosophical interpretation is largely missing. The stated purpose of the book is also to set the ground for post-Schumpeterian economics to take the centre stage, but there is hardly any mention of what constitutes this school of thought and how the post-Schumpeterian economics is different from that of Schumpeter. Nonetheless, the book is an important contribution to the literature on Schumpeterian economics and can meet the expectations of students and scholars of evolutionary economics. Given the lingering uncertainty surrounding the post-COVID permanent scarring effects on economies, the evolutionary approach highlighted in this book could help in exploring the possibilities for durable recovery in growth and the role of policy interventions for managing the shape and speed of recovery.

Shruti Joshi*

* Shruti Joshi is a Manager in Department of Economic Policy and Research, Reserve Bank of India.