

Philippe Aghion's "Schumpeterian Paradigm" in the Light of Ludwig von Mises and Friedrich Hayek

Renaud Fillieule

`renaud.fillieule@univ-lille.fr`

Université de Lille

Research Article

Keywords: Creative destruction, Philippe Aghion, Austrian School, Economic growth, Flexicurity

Posted Date: October 9th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-11194516/v1>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: No competing interests reported.

Philippe Aghion’s “Schumpeterian Paradigm” in the Light of Ludwig von Mises and Friedrich Hayek

Abstract: This paper compares Philippe Aghion’s “Schumpeterian paradigm,” as expounded in his comprehensive book *The Power of Creative Destruction* (2021), with the works of prominent Austrian economists Ludwig von Mises and Friedrich A. Hayek. The analysis covers economic growth, the explanation of major growth-related phenomena, the external effects of creative destruction, and the issue of social security. It argues that Aghion’s core theoretical insights largely complement rather than challenge the Austrian tradition, which already provides a convincing market-process theory of innovation and creative destruction. From an Austrian perspective, Aghion’s main contribution lies instead in his empirical analysis of the effects of creative destruction on skill obsolescence, health, and happiness.

Keywords: Creative destruction; Philippe Aghion; Austrian School; Economic growth; Flexicurity

French economist Philippe Aghion was awarded the Nobel Prize in Economics in 2025, along with his coauthor Peter Howitt, “for the theory of sustained growth through creative destruction” (according to the press release issued by the Royal Swedish Academy of Sciences). The 2025 Prize was shared with economic historian Joel Mokyr, “for having identified the prerequisites for sustained growth through technological progress.” Over more than three decades, Aghion has developed what he calls a “Schumpeterian paradigm,” which analyzes economic systems through the lens of three major interrelated phenomena: *innovation, creative destruction, and growth*. We will not examine his mathematical models here but rather the broad vision presented in his non-technical 2021 book, *The Power of Creative Destruction*, which synthesizes some thirty years of research. Since his seminal paper with Howitt, published in 1992, Aghion has pursued and further developed this vision with remarkable consistency and perseverance, focusing on the nature, sources, and consequences of his own version of Joseph Schumpeter’s (1942) concept of creative destruction.

The expression “creative destruction” is never used in the main works of the leading authors of the Austrian School, such as Ludwig von Mises (1998 [1949]), Friedrich A. Hayek

(1960, 2014), and Murray N. Rothbard (2009 [1962]). However, the Austrian approach is centered on the entrepreneurial market process and is therefore closely related to Schumpeter's concept of creative destruction. Despite this shared core concept, no systematic comparison has been made between the Austrian paradigm and Aghion's "Schumpeterian" paradigm. We found no mention of Aghion in the Austrian literature (although our search cannot claim to be exhaustive), and Aghion (2021) never mentions the Austrian School. He refers to Hayek only briefly, in connection with constitutionalism (Aghion et al. 2021, p. 293). In this paper, written from an Austrian perspective, we examine whether the Austrian paradigm can be enriched in any way by Aghion's contribution. Do Austrian economists have anything to learn from Aghion's decades-long research program, and if so, what? This article argues that Aghion's principal contribution is not a new theory of creative destruction but an extensive empirical research program that complements the Austrian market-process tradition.

The comparison presented in this paper proceeds in four stages. Section 1 compares Aghion's basic theory of economic growth with Mises's theory. Section 2 turns to a series of "enigmas" that Aghion's "Schumpeterian paradigm" seeks to explain, such as the economic takeoff of the early nineteenth century in the United Kingdom, the "middle-income trap" exemplified by Argentina, and the surprising absence of unemployment during periods of technological revolution. This section provides an opportunity to compare how the two paradigms address these important questions. Section 3 reviews Aghion's studies on the effects of creative destruction on several important aspects of social life, including inequality, unemployment, skill obsolescence, health, and happiness. Finally, Section 4 examines Aghion's policy recommendations for mitigating the adverse effects of the process of creative destruction on society. As a caveat, Aghion's 2021 book covers a very wide range of issues, and it is impossible to address all of them within a single paper.

1. The Basic Explanation of Economic Growth

1.1 Innovation and Capital

The first and main goal of Aghion's Schumpeterian paradigm is to explain economic growth. He summarizes his approach to this issue with three propositions (2021, Chapter 1):

- “The first idea is that innovation and the diffusion of knowledge are at the heart of the growth process.”
- “The second idea is that innovation relies on incentives and protection of property rights” (by which Aghion essentially means patents).
- “The third idea is creative destruction: new innovations render former innovations obsolete.”

The key concepts here are innovation, incentives, and creative destruction. The basic scenario is straightforward: entrepreneurs innovate, earn monopolistic rents thanks to intellectual property rights (patents), and drive out of the market firms that provide less useful goods or use less efficient methods of production.

Let us turn to Mises for a “classic” Austrian account of economic growth. In his paper “Capital Supply and American Prosperity” (1980 [1952]), Mises explains that the standard of living in the United States in 1952 was higher than elsewhere “because the per-head quota of capital invested is in America higher than in other countries.” Mises typically insists that capital accumulation is the key cause of prosperity because he considers saving and investment to be the only real constraints on the economy’s prosperity.¹ Mises’s perspective here is macroeconomic, as it relates to the aggregate supply of capital in the national economy as a whole. Aghion’s theory, by contrast, is microeconomic: it rests on the idea of monopolistic rents earned by innovative entrepreneurs. We should not be misunderstood here. Mises (1998 [1949]) develops a highly elaborated theory of entrepreneurship and profit, but here we are discussing only the authors’ basic theories of economic growth. On this narrow topic, Mises emphasizes *capital supply*, whereas Aghion emphasizes *innovation*. Interestingly, Hayek, the other prominent figure of the Austrian School in the twentieth century, develops a more balanced view. He even appears to lean somewhat more toward Aghion’s position when he writes: “though the growth of income depends in part on the accumulation of capital, more probably depends on our learning to use our resources more effectively and for new purposes” (1960, p. 43).

¹ This idea has been very succinctly formulated by John Stuart Mill as the very first of his “Fundamental Propositions Respecting Capital”: “industry is limited by capital” (1987 [1848], p. 63). Rothbard is exactly on the same line as Mises: “In practice, since resources need capital to find and develop them, since technological improvement can be applied to production only via capital investment, since entrepreneurial skills act only through investments, and since an increased labor supply is relatively independent of short-run economic considerations and can backfire in Malthusian fashion by lowering per capita output, the *only* viable way to growth is through increased saving and investment” (2009 [1962], p. 963).

Notably, Aghion distinguishes between two very different growth regimes: “investment-based” growth (through imitation) for less advanced countries and “innovation-based” growth for countries at or near the “technological frontier.” Mises implicitly makes a similar distinction when he downplays the importance of technological knowledge for poorer nations. For a less advanced country, technological knowledge is not a constraint because it is already widely available, often free of charge, for instance in textbooks and scientific articles. Mises repeatedly argues that a country is not poor because it lacks access to technological knowledge, but because it lacks capital—in other words, because it does not implement what Aghion calls “investment-based” growth. Here, too, Hayek’s perspective seems to be more in line with Aghion’s: “Although the fact that the people of the West are today so far ahead of the others in wealth is in part the consequence of a greater accumulation of capital, it is mainly the result of their more effective utilization of knowledge” (Hayek 1960, p. 46).

To sum up, although there are differences between the basic growth theories of Mises and Aghion, they are not contradictory but rather complementary. Mises identifies a general condition that makes prosperity possible (“capital supply”), whereas Aghion focuses on a specific and crucial driver of growth (“innovation”). Even at this elementary level, however, the differences are not as pronounced as they may seem. In the following passage from a 1943 monograph summarizing his position, Mises clearly incorporates technological “improvement” (innovation) into his reasoning on capital accumulation:

There is but one means to improve the economic well-being of a whole nation and of each of its individual citizens: The progressive accumulation of capital. The greater the amount of capital available, the greater the marginal productivity of labor and, therefore, the higher the wage rates. A sound economic policy is a policy that encourages savings and investment *and thereby the improvement of technical methods of production* and the productivity of labor. (Mises 2000 [1943], p. 204, emphases added)

Aghion, on the other hand, devotes an entire chapter of his book to finance (2021, Chapter 12, “Financing Creative Destruction”), in which he analyzes the role of various sources of capital. He emphasizes the importance of venture capital for innovative firms such as startups, and of institutional investors (mutual funds, pension funds, etc.) for more mature firms, such as publicly traded companies. Both authors therefore acknowledge the close relationship between capital and innovation.

1.2 Endogenous Growth

The following passage, from a high school textbook written under Aghion's supervision, perfectly encapsulates his concept of endogenous growth:

In this model, innovation lies at the heart of the growth process, and it is explained by an economic variable: the entrepreneur's pursuit of profit! Indeed, innovation allows the entrepreneur, for a certain period of time, to enjoy a monopoly position in the market and thus to earn a rent. Since he will eventually be imitated by follower entrepreneurs, he must continue to innovate in order to preserve this rent. Innovation is therefore the variable that explains technological progress, and technological progress is endogenous. (Collège de France 2020, p. 16, translated from French)

Endogenous growth proceeds here through the entrepreneurial pursuit of profit. This idea is also clearly articulated in the work of George Reisman, an author who cannot be considered an orthodox Austrian scholar but who was nevertheless strongly influenced by Mises (his PhD supervisor) and Hayek. In the section entitled "The Impetus to Continuous Economic Progress" of his 1996 economic treatise, Reisman writes:

The uniformity-of-profit principle explains how the profit motive acts to make production steadily increase in a free market. It explains how the profit motive becomes an agent of continuous economic progress.

In order to earn a rate of profit that is above average, it is necessary for businessmen to anticipate changes in consumer demand ahead of their rivals, to introduce new and/or improved products ahead of their rivals, or to cut the costs of production ahead of their rivals. I say, "ahead of their rivals," because as soon as any innovation becomes general, then, in accordance with the uniformity-of-profit principle, no special profit can be made from it. (Reisman 1996, p. 176)

Reisman's explanation of the profit-oriented growth process is remarkably similar to Aghion's. Note, however, that Reisman's analysis of endogenous growth (although he uses the expression "continuous progress" instead) rests on a general principle of price theory, namely the *uniformity-of-profit principle* (the tendency for profit rates across the economy to converge toward the average rate, all else being equal). Growth is explained here with the help of one of the most important coordinating principles of a market economy—a principle that Aghion uses but does not name. Moreover, this principle is not limited to the disappearance of rents through imitation. It is much more general and explains the relative sizes of the various branches of production under the influence of technology, costs, and demand. Likewise, the concept of profit used by Reisman (and, more generally, by the

Austrian School) is not limited to the monopolistic rents generated by patents but extends more broadly to entrepreneurial profits of all kinds.

Focusing on concepts and principles rather than mathematical formalization reveals similarities between the basic growth theories of Aghion's Schumpeterian paradigm and the Austrian School (represented here by Mises, Hayek, and Reisman): capital supply, innovation, and endogenous growth all play central roles in both approaches.

2. The Schumpeterian Paradigm and the “Enigmas” of Growth

Aghion's Schumpeterian paradigm does not merely purport to explain the basic process of economic growth; it also seeks to account for a series of other phenomena directly related to growth. More specifically, it aims to explain (i) the economic takeoff at the beginning of the nineteenth century, (ii) the “middle-income trap” that has affected, for instance, Argentina since the mid-twentieth century, and (iii) why technological revolutions and the massive creative destruction they entail do not lead to a surge in unemployment.² He rightly calls these phenomena “enigmas,” as they are not easy to explain and, to some extent, defy common sense.

2.1 The Takeoff of the Early Nineteenth Century

Immediately after the introductory chapter of their book, Aghion, Antonin, and Bunel address “The Enigma of Takeoffs” (2021, Chapter 2). Before the Industrial Revolution, humanity was caught in a seemingly inescapable Malthusian trap of extreme poverty. After 1820, however, this scenario was refuted. Aghion draws on the monumental statistical work of Maddison (2001), who estimated that, worldwide, per capita GDP grew by less than 0.05% per year between 1000 and 1820. According to these estimates, the turning point occurred around 1820, when the average annual global growth rate rose to 0.5% between 1820 and 1870, and to 3-4% between 1950 and 1973.

Aghion essentially follows the explanation proposed by future Nobel co-laureate Joel Mokyr (2002) as to why the takeoff first occurred in Western Europe, and more specifically in the United Kingdom. An explanation based solely on technology and population density is

² Aghion also explores two other enigmas, (iv) the inverted-U relationship between competition and growth, and (v) the productivity slump in Western countries since 2005. These topics are less relevant for our comparison and we will not address them in this paper.

insufficient, because China enjoyed comparable conditions, yet no such takeoff occurred there. As summarized by Aghion, Mokyr's institutional approach instead emphasizes: (i) the coevolution of science (discovery) and technology (innovation); (ii) a new culture of information sharing, as opposed to traditional trade secrecy, together with improved access to technological knowledge (through encyclopedias, newspapers, postal services, etc.); (iii) competition among European nations to attract the most brilliant minds; (iv) respect for intellectual property rights, with patent laws replacing guild trade secrets (1624 in England, 1790 in the United States, and 1791 in France), thereby providing incentives to innovate through temporary monopoly rents while simultaneously diffusing the knowledge underlying inventions and facilitating subsequent innovation; and (v) financial development through commercial banks, equity financing, stock exchanges, and limited liability companies. Mokyr (2021) summarizes his position in a single sentence: "The key to economic growth was useful knowledge, and its expansion and diffusion was therefore at the heart of institutions and policies that would bring about social progress." By emphasizing the accumulation of knowledge and patent protection, Mokyr's explanation fits well within Aghion's paradigm of creative destruction.

Let us now turn to Mises for comparison, focusing on two relevant texts: his "Remarks About the Popular Interpretation of the 'Industrial Revolution'" (1998 [1949], pp. 613-619) and his lecture "Capitalism and Human Progress" (2004 [1951]). Our aim is not to compare Mises, who wrote only briefly about the Industrial Revolution some seventy or eighty years ago, with a contemporary historian such as Mokyr, who has devoted his life's work to studying the circumstances surrounding this major historical episode. Rather, we seek to determine whether the Austrian analysis of this crucial historical event was essentially correct.

In his "Remarks," Mises primarily seeks to dispel two myths that were still prevalent in his time. The first myth is that peasants enjoyed relatively comfortable lives before the Industrial Revolution and were subsequently impoverished by the emergence of the urban factory system, with its harsher working conditions and subsistence wages. The second myth is that only labor unions, through their struggle against capitalists, were able to improve workers' standard of living thereafter. Mises argues instead that living conditions had already been deteriorating before the Industrial Revolution because the rural population was growing while employment opportunities remained scarce. The new factory system created jobs that could not previously have existed and literally saved the lives of the poorest segment of the English population. As for wages, Mises argues that they can rise only through higher labor

productivity made possible by capital accumulation. The policies advocated by labor unions, by contrast, could only hinder this process through protectionism and hostility to technological progress. Neither of these two myths is discussed by Aghion (or, for that matter, by Mokyr). Does this mean that Mises is beside the point? On the contrary, it suggests that the Austrian interpretation of these issues is now so widely accepted that contemporary scholars of the Industrial Revolution no longer feel the need to address them explicitly.

Back to the comparison. Influenced by Mokyr, Aghion explains the economic takeoff primarily as the result of a combination of technological progress and institutional change, whereas Mises emphasizes the combination of ideology and institutions. While Mokyr assigns a central role to the natural sciences, Mises highlights the importance of *economic* science. From an institutional perspective, Mises argues that a series of obstacles had to be overcome: licensing requirements, monopoly privileges, prohibitions on domestic and foreign competition, the “extremely difficult and costly” provision of credit, and so forth. Above all, however, he contends that the entire framework of restrictionism as a system of beliefs had to be challenged and ultimately defeated. In this regard, the “teachings of the new social philosophy expounded by the economists” played a crucial role by demolishing “the prestige of Mercantilism, paternalism, and restrictionism” and exploding “the superstitious belief that labor-saving devices and processes cause unemployment and reduce all people to poverty and decay” (1998 [1949], p. 615).

Mises adds that the factory system also came to be accepted because it offered a solution to one of the most pressing social problems of the time by providing jobs and, therefore, sustenance for a growing mass of paupers. Furthermore, this new system benefited not only the wealthy but, above all, the poor, as it gave rise, for the first time in history, to “mass production for the needs of the masses” (p. 616).

In his 1951 lecture, Mises makes two additional points that converge with Aghion’s analysis. Aghion’s first item is the coevolution of science and technology. Similarly, Mises stresses the (obvious) importance of the “practical application” of discoveries in “the physical and chemical sciences.” He also notes that, before the Industrial Revolution, “it was considered a crime to depart from traditional methods of production—and any changes are necessarily always innovations” (2004 [1951], p. 35). As for Aghion’s second item (the emergence of a new culture of information sharing), Mises emphasizes the importance of the “intellectual freedom of ideas” and writes that “The peaceful exchange of ideas and the peaceful coexistence of people with various ideas were in triumphal progress at the beginning of the nineteenth century” (p. 40).

To conclude, there is, once again, no contradiction between Mises's and Aghion's analyses. The two accounts are largely convergent, and Mises's interpretation of the economic takeoff, although much shorter and considerably older, does not appear to have been challenged by recent scholarship. He was fundamentally correct and did not fall into the trap of a purely technological or demographic (population-density) explanation. His emphasis on the role of economic science as an ideological factor constitutes an originality.

2.2 The “Middle-Income Trap”

In the first decades of the twentieth century, Argentina was a relatively wealthy nation, with a per capita GDP estimated at around 40% of that of the United States. Since then, however, the country has stagnated, and its growth has slowed significantly. It has been caught in the “middle-income trap,” unable to keep up. Aghion explains this state of affairs as resulting from a combination of factors: a lack of diversification in production, a low level of industrialization, and import substitution instead of export-led development. In his words, “Argentina failed to adapt its institutions to move from an agricultural economy based on accumulation to an industrial economy based on innovation” (2021, p. 125).

At a more general level, as we have seen, Aghion uses the concept of the technological frontier and distinguishes between “investment-based growth” and “innovation-based growth.” If a country is still far from the technological frontier, the growth-maximizing strategy is investment-based growth, which relies on increasing savings and investment and on the use of already existing technologies. Then, when the country catches up and comes close enough to the technological frontier, the growth-maximizing strategy shifts to the less easily navigable path of innovation-based growth. A country that does not transition from imitation to frontier innovation becomes stuck in the middle-income trap.

Mises wrote, in the early 1940s, a monograph on “Mexico’s Economic Problems” (2000 [1943]) that is highly relevant to this discussion. Already at that time, he offered a diagnosis very similar to Aghion’s of the problems faced by an essentially agricultural nation and its prospects for economic development.

Mises begins by observing that, given its relatively large population and the low fertility of its farmland (Argentina, by contrast, is highly fertile), Mexico’s principal economic problem is its lack of industrialization. He immediately warns against the danger of mercantilism, which views industrialization as a means of achieving national autarky. Mises calls this mercantilist strategy the “closed door method of industrialization.” This scheme

corresponds exactly to what Aghion calls “import substitution,” an expression that became widespread in the 1950s under the name “import-substitution industrialization” (ISI). ISI denotes a policy whereby a developing country seeks to reduce its dependence on developed countries by promoting industrial self-sufficiency. Mises explains that this policy overlooks a key feature of industrialization, namely specialization. Specialization is necessary to reduce production costs, but it requires a broad market that can be provided only by international trade. Exports can then pay for needed imported goods. By contrast, the “closed door” method leads to high-cost industrial production, raises the domestic prices of manufactured goods, reduces agricultural production and exports, and thereby also curtails imports of needed goods. As a result, the country suffers from higher prices across the board and is deprived of goods that can be produced more cheaply abroad by specialized industries. This policy will not raise but instead significantly lower the average standard of living. Mises must have been one of the very first economists to develop such a scathing critique of import substitution under the name of the “closed door method.” He was proven right two decades later, as ISI was widely recognized as a failure by the 1960s, even by many of its own proponents (Irwin 2021).

Logically, Mises advocates the transition to an “open door method of industrialization” for Mexico. In his view, industrialization can lead to prosperity only if it takes place within the international division of labor and aims at specialization according to comparative advantage. Part of the output can then be exported to pay for needed imports. He therefore recommends the gradual abolition of tariffs (a 10% reduction each year until their complete elimination) and a government pledge (i) never to expropriate domestic or foreign capitalists, (ii) to avoid taxes that confiscate business profits, (iii) not to resort to foreign exchange controls, and (iv) not to interfere with the management of private firms. Mises is, of course, aware that the Mexican government, with its strong anti-capitalist prejudices, is unlikely to make such a pledge. He also mentions two elements that Aghion takes into account, namely the development of the banking system and of vocational and technical schools, as well as a number of other elements left aside in Aghion’s more focused study (such as trade unions, social security, currency, etc.).

Although Mexico was poorer than Argentina at the time, their status as primarily agricultural countries and their difficulties in achieving economic development made them comparable. It is surprising to see how perceptive Mises’s perspective on development economics was as early as 1943. His analysis of the obstacles that needed to be overcome is remarkably similar to Aghion’s, presented three quarters of a century later. The main

recommendations of both authors are also the same, namely industrialization and the development of exports.

2.3 Why Do Technological Waves Not Cause Massive Unemployment?

The major waves of technological revolution destroy many jobs. It would seem that these disruptions should be accompanied by a sharp rise in unemployment that would be almost impossible to reverse. Yet, historically, such a collapse in employment has never occurred. Aghion addresses this issue in the section of his book entitled “Industrial Revolutions and Employment: Irreconcilable Antagonists?” From the Austrian perspective, his answer to the question of automation and employment is somewhat disappointing because he presents only two empirical studies and a one-sided theoretical explanation that does not even answer his own question.

The two studies measure the effect of automation on employment at different levels and in different contexts. The first study was conducted at the aggregate level and showed that, between 1993 and 2007, across 722 commuting zones in the United States, “One more robot per thousand workers reduces the employment-to-population ratio by 0.2 percentage points and wages by 0.42%” (Acemoglu and Restrepo 2020, p. 2188). The second study, by Aghion, Antonin, Bunel, and Jaravel (2020), was conducted at the firm level using data from the French manufacturing sector between 1994 and 2015. It showed that “a 1 percent increase in automation in a plant today increases employment by 0.25 percent after two years and by 0.4 percent after ten years.” The two studies may appear to conflict, but Aghion reconciles them by arguing that, in the study of commuting zones, automation has an eviction effect on employment: firms that fail to invest in automation exit the market, and jobs are destroyed at the aggregate level of the commuting zones. Aghion et al. conclude that “automation creates more jobs in the plant than it destroys, contrary to preconceived notions” (2021, p. 51).

Aghion offers a general explanation for the absence of a connection between automation and unemployment. He argues that, thanks to automation, productivity increases, product prices fall, sales grow, firms gain new markets, and they are in a position to hire more employees. As a result, Aghion et al. write, “industries that automate the most are the ones where employment increases the most” (2021, p. 52).

Now, this explanation is not satisfactory from the perspective of the Austrian School because it tells only half of the story, and not the most relevant half. Aghion explains what happens in “everyday” innovation, so to speak, rather than during “industrial revolutions,” as

the title of his section (“Industrial Revolutions and Employment: Irreconcilable Antagonists?”) suggests he should. A more comprehensive and satisfactory analysis can be found in Hazlitt’s classic text (2008 [1946]). Hazlitt explains, like Aghion, that “machinery” reduces costs and therefore the price of the product, but he notes that *two scenarios are possible*, depending on the elasticity of demand for the product. If demand is elastic (that is, if the good has close substitutes), Aghion’s scenario prevails because the quantity effect dominates: the lower price of the product generates higher overall revenue, allowing the firm or sector to expand and create jobs.³ If, on the other hand, demand is inelastic (because there are few or no substitutes), the opposite conclusion follows: the price effect dominates, revenue falls, and the firm or sector contracts and loses jobs.

This second case is the most important because it reduces consumer spending in the sectors where productivity growth occurs, thereby producing a double effect: it increases consumers’ purchasing power and frees up factors of production. New branches of production can then emerge to satisfy additional and entirely new needs. The freed factors of production, especially labor, will thus find employment in these new branches, which have become profitable thanks to consumers’ increased purchasing power. This process occurs during technological revolutions, such as the transition from an agricultural to an industrial economy, and it is the primary source of economic progress, leading to the emergence of new industries and new types of products.

To be fair, although Aghion neglects this second scenario in his discussion of technological unemployment, he does take it into account in a later chapter when addressing a different question (2021, Chapter 8: “Can We Bypass Industrialization?”). There, he explains the transition from an agricultural and industrial economy to a service economy. He points out that, as economic progress occurs, households spend a progressively smaller share of their income on food and manufactured goods. This is a sign that the overall demand for each of these categories of products is inelastic. The demand for a specific food product may be elastic if it has close substitutes, but the demand facing the sector as a whole is inelastic. In Hazlitt’s second scenario, this inelasticity explains why such a sector contracts over time, eventually freeing up factors of production and creating effective demand for the emergence of entirely new sectors. Aghion offers the same explanation for the major transitions from

³ Hazlitt takes the striking example of the cotton industry in England. When Arkwright invented his cotton spinning machine in 1760, 7,900 persons worked in the production of cotton textile. Twenty seven years later, in 1787, this number had increased to 320,000. Employment had exploded in a sector that had implemented the use of “labor-saving” machinery.

agriculture to industry and from industry to services. However, he does not explicitly link this process to the transfer of jobs from one sector to another, nor does he point out that it is precisely this transfer that prevents the emergence of large-scale technological unemployment when waves of innovation sweep through the economy.

3. The Side Effects of Creative Destruction

Aghion, to his credit, did not settle for purely mathematical models but continued to explore the nature and multifaceted consequences of creative destruction in a series of empirical studies. More specifically, he analyzed the effects of Schumpeterian growth on inequality, unemployment, skill obsolescence, health, and even happiness. Except for inequality and unemployment, these important issues are rarely addressed by Austrian economists, who tend to focus instead on the long-term beneficial consequences of creative destruction. Each of these topics is vast, and we must limit ourselves here to a very brief and concise overview.

3.1 Creative Destruction and Inequality

Aghion first examines the impact of creative destruction on inequality, joining the discussion reignited in recent decades by Piketty and his colleagues (Atkinson, Piketty, and Saez 2011). He distinguishes between “static” measures of inequality, such as the Gini coefficient and the share of total income accruing to the top 1%, and “dynamic” measures, such as intergenerational social immobility, measured by the correlation between children’s and parents’ incomes.

Aghion (2021, Chapter 5: “Innovation, Inequality, and Taxation”) draws three predictions from his paradigm. (i) Since innovation generates significant rents (through more highly demanded products or lower costs), it will lead to a higher income share for the top 1%. (ii) Since new innovations destroy the rents generated by previous innovations, innovation will be “a source of social mobility.” (iii) Since innovation is associated with both a higher income share for the top 1% and greater social mobility, its relationship with overall income inequality (as measured by the Gini coefficient) will be “ambiguous.” In an empirical study of American states covering the period from 1975 to 2010, in which innovation is measured by the number of patents filed per resident in each commuting zone, Aghion et al. (2019) find results consistent with all three predictions:

In sum, innovation does increase top income inequality, but it comes with a trio of virtues: it does not increase overall inequality, it fosters social mobility, especially when it involves new innovators entering the market, and it stimulates productivity growth. (2021, p. 82)

Regarding the specific topic of innovation and inequality, Aghion's empirical approach goes much further than that of the Austrian School. With his distinction between different types of inequality and his analysis of the differential impact of creative destruction on each of them, he offers insightful perspectives that Austrian economists have not explored.

Aghion's conclusion quoted above reveals his consequentialist defense of inequality. Income inequality is acceptable only if its consequences are sufficiently beneficial. In other words, for him, inequality as such is socially undesirable, but its functional role is sufficiently important to justify it. Mises likewise adopts a utilitarian viewpoint, with the difference that he refrains from expressing any value judgment, either explicit or implicit, about inequality as such. He remarks that "Inequality of wealth and incomes is an essential feature of the market economy" (1990 [1955], p. 50). If people want a prosperous country, they should adopt a market economy and accept the unavoidable inequality that comes with it.

From there, Mises especially insists on the consequences of taxing profits, which would deprive businesses of the means to invest and foster technological progress in the lines of production chosen by consumers. This "productivity" argument is very similar to Aghion's. Mises also notes that inequality encourages individuals to apply their abilities to the activities in which their income is highest, that is, where they make the greatest contribution to serving consumers. In an earlier text, Mises (2002 [1927]) argued that inequality has another function: making luxury consumption possible. In a capitalist society, luxury encourages the creation not only of new goods but also of new needs, and Mises explicitly links luxury to innovation when he writes: "To it [luxury] we owe the progressive innovations by which the standard of living of all strata of the population has been gradually raised" (p. 32). Even though at first only the richest people have access to innovative luxury goods—he gives the examples of automobiles and foreign travel—technological progress eventually makes these goods available to increasingly wider segments of the population until they become ordinary necessities (see also Hayek's in-depth analysis in 1960, pp. 42-46). To sum up, Aghion's account of the different types of inequality is more detailed, but the Austrian defense of inequality developed by Mises and Hayek is more elaborate.

3.2 Creative Destruction and Unemployment

Aghion addresses here the topic of unemployment, not in the context of major technological upheavals, but in that of regular, everyday creative destruction. He identifies three consequences of innovation for the probability of losing one's job: (i) job destruction, which tends to increase unemployment because the labor market is frictional and it takes time to find another job; (ii) job creation, which tends to reduce unemployment; and (iii) a "capitalization effect" resulting from a higher growth rate and the development of more lucrative activities. He then notes that these effects unfold over time: "These three effects are not simultaneous: the job destruction effect plays out in the short run, whereas the job creation effect and the capitalization effect are more long term" (2021, p. 214).

In a 2016 paper, Aghion and his colleagues study the correlation between creative destruction and unemployment across U.S. employment zones between 2005 and 2010. They measure the rate of creative destruction in each zone as the sum of the job creation rate and the job destruction rate. They find a strong positive correlation between job creation and job destruction. Regarding employment, they observe that, on average, "the employment zones with the highest rates of creative destruction are also the ones with the highest unemployment rates." The study also shows that, in a zone with a high rate of creative destruction, an individual faces a higher risk of "experiencing unemployment at some point. Nevertheless, this transition through unemployment is not destined to be long-lived... [since] job creation is also more intense in this type of employment zone" (Aghion et al. 2021, p. 215).

Aghion offers here a relevant case study on a crucial topic. However, from a theoretical viewpoint, his analysis is quite basic. Let us simply point out that Mises is critical of the concept of "frictional" unemployment, which seems to imply the existence of some external force preventing adjustment in the labor market. Instead, he emphasizes the multiple reasons why an individual might choose to wait rather than immediately accept another job. He also draws a sharp distinction between catallactic unemployment (unemployment in the unhampered market), which, according to him, is essentially voluntary, and institutional unemployment, caused by state regulations such as minimum wage laws and other political barriers (Mises 1998 [1949]; see also Sennholz 1987, pp. 201-204). Aghion, in his book, does not discuss the issue of voluntary versus involuntary unemployment.

3.3 Creative Destruction and Skill Obsolescence

Aghion then asks how innovation affects human capital, as represented by educational attainment and acquired skills. With his coauthors (Aghion et al. 2018), in a case study of Finland using data from 1994 to 2010, he finds that “a blue-collar worker loses an average of 1 percent of his wage over the five years preceding the innovation, then realizes a monetary gain of 2.3 percent after the innovation” (2021, p. 216). For white-collar workers, they observe no decline before innovation and a 2 percent gain afterward. Aghion concludes that “innovation introduces uncertainty in employees’ wages, particularly for the least skilled workers.” The study also shows a correlation between age and job loss: older workers face a higher probability of losing their jobs. However, the crucial factor turns out to be the time elapsed since the last educational degree obtained by the worker: “each additional year since the degree reduces innovation revenue by five percentage points and increases the probability of job loss by 0.4 to 0.6 percentage points.” Aghion pessimistically concludes his section on “Creative Destruction, Unemployment, and Loss of Status” by stating that “innovation induces loss of status for individuals with older degrees. In sum, innovation generates unemployment and loss of status” (p. 217).

These empirical results are noteworthy, and we have not found any comparable study from the Austrian School. An interesting comparison can nevertheless be made with Reisman’s section on “The Short-Run Loss Periods” (1996, pp. 345-347), in which he provides a theoretical analysis of the adjustments required by competition and job obsolescence. Reisman explains that if an unskilled job becomes obsolete because of competition, the laid-off worker will be able to “acquire a comparable level of skill” for another job relatively quickly, that is, within a matter of weeks or months. If, on the other hand, a skilled job is lost because of obsolescence, much more time will be required to acquire a comparable level of qualification in another field. However, the main point raised by Reisman is different. He argues that even laid-off workers who must acquire new qualifications or move to a different labor market are better off because of the very existence of the system that has temporarily worked against them. The reason is that, throughout their lives, their standard of living benefits from the numerous adjustments made by *other* workers (and by capitalists through the reallocation of capital). These adjustments—systematically replacing less productive jobs with more productive ones—take place continually and lead to a sustained increase in labor productivity and, consequently, in real wages over time.

While, in the empirical Finnish study, Aghion focuses on the individual fate of the workers affected by the innovation taking place in their own firm, Reisman—as he should from a theoretical perspective—analyzes skill obsolescence within the framework of the

market economy functioning as an integrated system. This difference in perspective explains why Reisman's conclusion—that short-run losses are quickly outpaced by gains in the long run—is more optimistic than Aghion's.

3.4 Creative Destruction and Health

On the topic of health, Aghion does not present original research but instead draws on existing studies. He notes, on the “bright side,” that between 1961 and 2017, life expectancy in developing countries converged toward that of developed countries faster than GDP per capita did. Thus, “innovation has contributed more to the increase in life expectancy than to the increase in GDP per capita...” He mentions the discovery of antibiotics, vaccines, diuretics, and other medical advances, and concludes that “All told, innovation has given rise to a spectacular increase in life expectancy throughout the world over the last century” (2021, pp. 217-218).

There is, however, a “dark side,” reflected in two “recent and worrisome” phenomena: first, the increase in mortality among middle-aged non-Hispanic Whites in the United States (including the “so-called deaths of despair” resulting from suicide or substance abuse, primarily among low-skilled individuals), which “has no equivalent in other developed countries”; and second, the “significant impact of job displacement on mortality in the United States” (according to a 2009 study by Sullivan and von Wachter). For Aghion, the explanation for this “dark side” is straightforward. Low-skilled individuals “are the same people whose jobs and earnings are the most destabilized by innovation.” They face an increased risk of unemployment, loss of status, and reduced earnings, which in turn lead to anxiety, family instability, and lower individual investment in health. Aghion's explanation is perfectly plausible, but it remains speculative and may be too general to account for phenomena that characterize a specific demographic group in a particular country.

Aghion then argues that the vicious circle between unemployment and poor health can be broken with the type of “flexicurity” system implemented in Denmark, as illustrated by Roulet's (2017) study of the “Danish Miracle.” Dismissal procedures for firms should be simplified, but, in return, generous unemployment benefits should be provided (in Denmark, up to 90 percent of salary, subject to a ceiling, for a maximum of two years), and vocational training should be readily available and subsidized.

Our comment here can be brief. As far as we know, economists of the Austrian School have never studied the relationship between the market process (creative destruction) and

population health. Instead, they have focused on the institutional question of market-based versus public healthcare (Jasiński 2021). As for the flexicurity system advocated by Aghion to mitigate the adverse health effects of job destruction, it will be analyzed in the section on social security below. Suffice it to say here that, for political and cultural reasons, the transition of the United States to a Nordic-style welfare state appears unrealistic, even in the long run.

3.5 Creative Destruction and Happiness

Finally, Aghion turns to the issue of happiness and draws four predictions from his theory: (i) creative destruction “increases stress or anxiety” because of the risk and reality of job loss; (ii) it also implies growth and job creation and thus has a “positive effect on life satisfaction”; (iii) the negative impact predominates in the short run, while the positive effect “is more visible in the longer term”; and (iv) “the effect of creative destruction on satisfaction is on the whole more positive when unemployment benefits are more generous” (Aghion et al. 2021, p. 222). These predictions are tested in Aghion et al.’s 2016 technical paper, “Creative Destruction and Subjective Well-Being.” The study covers U.S. metropolitan areas over the 2008-2011 period. Creative destruction is measured by the job turnover rate, defined, as noted earlier, as the sum of the job creation and job destruction rates. Happiness (“subjective well-being” in the paper) is measured using the Well-Being Index compiled by the polling company Gallup, which conducts daily telephone interviews with 1,000 randomly selected Americans. Interviewees are asked where they feel they currently stand (ladder-present) on a 10-step ladder, with their best possible life at the top (10) and their worst possible life at the bottom (0), and where they think they will stand five years from now (ladder-future).

Aghion’s study finds that creative destruction does indeed increase anxiety (the first prediction), but also that this effect is smaller when unemployment is controlled for. Unemployment is therefore not the only source of anxiety: the obsolescence of educational qualifications and the loss of status within the firm also play a role. Using the future Cantril ladder to test predictions (ii) and (iii), the study shows that “When individuals project five years into the future, they tend to minimize the negative effect of creative destruction... and focus more on the positive effects” (2021, p. 224). Prediction (iv), concerning the effect of more generous unemployment benefits, is also supported by the study’s data, which strengthens Aghion’s case for flexicurity.

Happiness is not a central topic in the Austrian School, and only a handful of studies address it. Let us first remark that Mises (1998 [1949]) and Rothbard (2009 [1962]) use a purely formal conception of happiness as a synonym for subjective satisfaction: if an actor achieves, through action, the ends chosen, whatever they may be, then he or she is “happier” than if those ends had not been attained. By contrast, the “subjective well-being” examined in Aghion’s study and measured in the Gallup surveys refers to a general evaluation attached not to the specific outcome of an action, but rather to an overall assessment of one’s life as judged by the interviewee. More recent Austrian studies adopt this contemporary conception of happiness, but they mainly focus on criticizing the possibility that public policies can promote happiness within the population (Coyne and Boettke 2006, Facchini 2022). As in the case of health, there is no Austrian study examining the causal relationship between the market process itself and happiness, understood as an overall evaluation of one’s life.

4. Creative Destruction and Social Security

Aghion regards creative destruction as an overall beneficial process, albeit one that inevitably generates costs for some individuals and groups. Accordingly, the state’s role is to support this process while minimizing its negative consequences to the greatest extent possible. This mitigation applies to issues such as unemployment, job obsolescence, health, and happiness. According to Aghion, it requires a social security system inspired by the Danish model of *flexicurity*. The promotion of creative destruction, on the other hand, requires protecting competition from innovative entrants against large incumbent firms. It also calls for substantial public funding for education and basic research. We leave aside the topics of competition, education, and research here in order to avoid making this already lengthy paper even longer.

To discuss the issue of social security, we have chosen to draw on Hayek’s (1960) *magnum opus* in political philosophy. We could have chosen instead to contrast Aghion’s views with Mises’s more uncompromising liberalism (in the European sense of the term) or with Rothbard’s anarcho-capitalism. However, it is more interesting to search for possible common ground with Hayek’s nuanced position on economic policy than simply to point out the clear incompatibility with more radical forms of libertarianism. An additional reason for

focusing on Hayek is that Aghion's 2021 book was among the six finalists for the prestigious Hayek Book Prize.⁴

4.1 Hayek's Conception and Defense of a Free Society

Hayek (1960) defines a free society as one in which coercion is minimized, that is, where individuals can, to the greatest extent possible, act according to their own plans rather than be subjected to the arbitrary will of others. In such a society, individuals are free because they are not forced to obey specific commands (that is, concrete orders issued by the government) but instead are required to respect "abstract" laws (general rules of conduct) that "apply equally to all people for an indefinite period of time" (p. 221).

Hayek's consequentialist defense of liberty emphasizes the significant benefits it brings to the members of society—benefits that could never be achieved in a system based on coercion and command. His principal argument is presented in the chapter entitled "The Creative Powers of a Free Civilization," where he identifies "the growth of civilization with the growth of knowledge" (p. 25). Hayek immediately makes it clear that this "knowledge" ranges from formal scientific knowledge to the particular facts known only to individuals in their local circumstances, and even to tacit knowledge, such as know-how, that cannot be conveyed in words. His argument, then, is that in a society where individuals are free to pursue their own plans, there is a greater likelihood that they will innovate in one way or another (by developing new skills, tools, values, ideals, or institutions) and that these innovations will be put to valuable use, imitated, and further improved by other individuals who are likewise free to act in their own interest.⁵ The stock of "knowledge" thus grows through innovations of all kinds introduced by people who are free to take advantage of their own abilities and specific circumstances. By contrast, individuals coerced by a governing body have little opportunity to explore new ways of acting, thinking, and organizing, except through the few and narrow channels authorized and promoted by those in power. As a result,

⁴ This \$50,000 prize awarded by the Manhattan Institute was won that year by evolutionary anthropologist Joseph Henrich for his book on *The WEIRDest People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous* (Farrar, Straus and Giroux, 2020).

⁵ "All we can do is to increase the chance that some special constellation of individual endowment and circumstance will result in the shaping of some new tool or the improvement of an old one, and to improve the prospect that such innovations will become rapidly known to those who can take advantage of them" (Hayek 1960, p. 30). It seems to us that Hayek uses here the word "tool" to denote, not just a material implement, but also a skillset, a value system, and an institution (such as language and money, to take the two foremost examples).

enormous opportunities for progress across the board are lost without anyone ever realizing it.

With its focus on knowledge and innovation, Hayek's defense of liberty is clearly similar to Aghion's approach to economic growth. However, Hayek's perspective is broader, since it is not limited to technological progress but encompasses the various dimensions of civilizational development. It should be added that Hayek's liberalism is not fundamentally opposed to government intervention in economic affairs. It merely requires that such interventions (i) comply with the rule of law (without infringing upon individuals' spheres of action) and (ii) be "expedient" (i.e., useful and cost-effective).

4.2 Social Security for Health, Poverty, and Unemployment

Aghion's ideas on this topic have already been presented. Together with his colleagues, he advocates in their 2021 book, in their own words, for (i) "High-quality health care accessible to all," (ii) a "system of minimum income to eliminate poverty traps," and (iii) a "system of flexicurity" characterized by "flexibility to hire and terminate employees," "generous unemployment insurance," and "effective lifelong professional training." This program requires a sufficiently high level of regulation and taxation. At first sight, it may appear incompatible with genuine liberalism. However, Hayek's vision of a free society is not necessarily at odds with these types of public intervention.

Hayek recognizes that, with economic prosperity, a system of social security becomes not only inevitable but also desirable: "There are common needs that can be satisfied only by collective action and which can thus be provided for without restricting individual liberty" (1960, p. 257). Unemployment, industrial accidents, sickness, destitution, and old age should be addressed through state intervention, i.e., through taxation or compulsory insurance. His main objection is to a social security system whose primary purpose is the redistribution and equalization of incomes.⁶ Aghion et al. (2021), however, do not advocate the equalization of incomes or wealth, but only the mitigation of the adverse effects of creative destruction. Their conception of social security is therefore immune to Hayek's principal objection. As we have seen, Aghion is, so to speak, a "soft" egalitarian. He accepts a degree of inequality insofar as it is necessary to generate innovation and economic growth. In other words, he acknowledges

⁶ This is also his objection against "social justice" as a redistributive scheme in Hayek (1976).

the functional role of inequality, even though his defense of it is much less thorough than Hayek's (1960, pp. 42-46).

The areas of social security most relevant to creative destruction are health (including workplace accidents and illness), poverty, and unemployment. Hayek is not opposed to state intervention in these matters. However, he insists that, in a free society, these services should *not* be provided by a single monopolistic state organization but instead by competing agencies that can innovate, improve the services offered to the public, and keep costs under control.

(1) The example of present-day Switzerland shows that "High-quality health care accessible to all," to use Aghion's words, can be provided by competing private health insurance companies. In Switzerland, health insurance is mandatory, but Hayek argues that compulsion is, in this case, compatible with liberty, "since many who could thus provide for themselves might otherwise become a public charge" (p. 298). Other characteristics of the Swiss system might have displeased him, such as the fact that insurance companies are regulated and required to provide a basic plan with benefits defined by law. He might nevertheless have considered this feature consistent with the rule of law, since it implements a general and non-discriminatory measure.

(2) Regarding what Aghion calls a "system of minimum income to eliminate poverty traps," Hayek explicitly advocates this type of institution. For instance, he writes: "We shall again take for granted the availability of a system of public relief which provides a uniform minimum for all instances of proved need, so that no member of the community need be in want of food or shelter" (pp. 300-301). Hayek is thus not at all opposed to redistribution through taxation to the fraction of the population that is unable to work (the "disabled") or is very poor (the "indigent").

(3) Finally, turning to flexicurity, Hayek would obviously have had no objection to the "flexibility to hire and terminate employees." As for the "generous unemployment insurance" advocated by Aghion and exemplified by Denmark, Hayek would have taken issue with it. Hayek fully agrees with the principle of unemployment insurance: "There is undoubtedly a case for *genuine insurance* against unemployment wherever practicable, insurance in which the different risks of the various trades are reflected in the premiums paid" (p. 301, *emphases added*). What Hayek calls "genuine" or "true" insurance is a system "under which the individuals pay for benefits offered by competing institutions" (p. 304). There is thus a close connection between the premium paid, the insured risk, and the expected value of the benefits. In the case of the Danish unemployment system, however, this connection is,

unsurprisingly, weak. The eligibility conditions, benefit levels, and duration are entirely regulated by the state, and they are uniform for all workers, regardless of their occupation or circumstances.⁷ There is some scope for individualizing unemployment benefits by paying a voluntary membership fee to one of the twenty-one competing “unemployment insurance funds” (which are private, non-profit organizations), but the bulk of the benefits is financed through taxation anyway.

From a Hayekian perspective, the Danish unemployment system can be criticized on multiple grounds. First, its imposed uniformity does not allow the circumstances of time and place to be taken into account. Second, stable occupations subsidize unstable ones: in occupations where the risk of unemployment is higher, subsidizing that risk through general taxation will expand the labor supply “beyond the point which is economically desirable” (p. 302). Third, the government spends a substantial portion of workers’ wages on their behalf. Given the choice, would workers voluntarily give up 8% of their income, or would they prefer to provide for themselves? The decision about how this portion of their wages is spent is taken out of their hands, constituting a clear infringement of their liberty. Individuals who can quickly find another job would perhaps prefer to retain this portion of their wages.⁸ Fourth, an argument could be made that this state intervention is justified on the grounds that wage earners lack either the knowledge to assess the risk of unemployment or the self-discipline to provide for it. If people cannot take care of themselves, is it advisable to allow them to vote, and is democracy legitimate?⁹ Fifth and finally, Hayek criticizes the disincentive effect of compulsory unemployment insurance on the labor mobility required for the workforce to adapt to the various shocks affecting the economic system. Aghion’s answer is the implementation of “effective lifelong professional training,” but this topic was largely unknown when Hayek wrote his treatise, so we do not really know what he would have thought of state financing for vocational retraining.

⁷ The premium essentially consists in a tax of 8% of labor incomes, which is quite a lot. The benefits last for a maximum of two years and are maxed at 90% of the best 12 months within the last 24 months (with a cap at around 3,000 € per month). See OECD (2024) and the official Danish website: <https://www.a-kasser.dk/unemployment-insurance-in-europe/denmark/index.html>.

⁸ For Hayek, this argument is especially strong in the case of relatively poor countries such as Italy at the time: “Does anyone really believe that the average semiskilled worker in Italy is better off because 44 per cent of his employer’s total outlay for his work is handed over to the state... Or that, if the worker understood the situation and were given the choice between this and having his disposable income nearly doubled without social security, he would choose the former?... Can it be seriously denied that most of those people would be better off if the money were handed over to them and they were free to buy their insurance from private concerns?” (1960, p. 294).

⁹ Here, Hayek takes up an argument put forward by Mises (1998 [1949], p. 613).

Our review of Aghion's recommended social policy through a Hayekian lens has shown that the ideas of the two authors on this crucial topic are not entirely compatible. Hayek accepts a non-negligible degree of state intervention in these matters, for instance, redistribution through taxation to alleviate genuine poverty and compulsory health and unemployment insurance provided by competing organizations (not necessarily for profit). However, he firmly rejects the monopolization of social security by a single tax-financed state agency because he believes that this kind of "sheltered" monopoly will "become inefficient in the course of time" (p. 287) and also risks turning into a redistributive scheme. Even though the Danish flexicurity system is not purely monopolistic or entirely tax-financed, we have reviewed a number of reasons why Hayek would probably have found it incompatible with a free society.

5. Conclusion

Aghion's 2021 book covers a lot of ground and makes for a very interesting read, as it focuses on the substance of major economic issues without jargon or unnecessary technical details. The book also does an excellent job of weaving together theory, empirical findings, and policy implications. However, the claim that it develops a "new" paradigm (2021, Chapter 1) is questionable, since the concept and theory of creative destruction have been developed and refined by Schumpeter and the Austrian School over the past century. What is new is that Aghion (with Howitt) has succeeded in formalizing a version of this concept mathematically within the framework of standard neoclassical economics. This is no small feat, but it is largely irrelevant outside the confines of the neoclassical macroeconomic paradigm initiated by Solow (1956).

From an Austrian perspective, Aghion's original contribution lies rather in his empirical analysis (conducted with numerous co-authors in a commendable collaborative effort) of the effects of creative destruction on various aspects of social life, such as inequality, unemployment, skill obsolescence, health, and happiness. The results provide valuable insights into the quantitative magnitude of these phenomena, even though the generalizability of these case studies across countries and over time can be questioned. On the other hand, his analyses of the "enigmas" reviewed in this paper (the take-off after 1820, Argentina's middle-income trap, and technological unemployment) do not offer any substantial improvement over the reasoning found in "classic" Austrian authors such as Mises and Hazlitt.

As for Aghion's policy recommendations, inspired by Denmark's system of flexicurity, they are consistent with his theoretical and empirical analyses. However, they could probably not be applied in two of the world's most developed economic regions, namely the United States and China. In this regard, by contrast, Hayek offers the ideal of a free society that does not exclude state intervention (through taxation, redistribution to the needy, and compulsory insurance) but leaves open the possibility of innovation and adaptation by relying on private, competing agencies to provide social security services.

From a theoretical viewpoint, Austrian economists have developed a market process theory that is perfectly suited to explaining creative destruction. They do not need the mathematical models used by Aghion and Howitt (1992), whose scope and validity are much more limited anyway. Aghion's Schumpeterian paradigm and the Austrian School nevertheless converge on a crucial point: the central importance of creative destruction, both from the theoretical perspective of understanding how a market economy functions and from the practical perspective of promoting economic prosperity.

References

- Acemoglu, Daron, and Pascual Restrepo. (2020). Robots and Jobs: Evidence from US Labor Markets. *Journal of Political Economy*, 128(6), 2188–2244.
- Aghion, Philippe, Ufuk Akcigit, Antonin Bergeaud, Richard Blundell, and David Hémous. (2019). Innovation and Top Income Inequality. *Review of Economic Studies*, 86(1), 1–45.
- Aghion, Philippe, Ufuk Akcigit, Angus Deaton, and Alexandra Roulet. (2016). Creative Destruction and Subjective Well-Being. *American Economic Review*, 106(12), 3869–3897.
- Aghion, Philippe, Ufuk Akcigit, Ari Hyytinen, and Otto Toivanen. (2018). On the Returns to Invention within Firms: Evidence from Finland. *AEA Papers and Proceedings*, 108, 208–212.
- Aghion, Philippe, Céline Antonin, and Simon Bunel. (2020). *Le Pouvoir de la Destruction Créatrice*. Odile Jacob.
- Aghion, Philippe, Céline Antonin, and Simon Bunel. (2021). *The Power of Creative Destruction: Economic Upheaval and the Wealth of Nations*. Harvard University Press (page references are to the Kindle edition of the book).

- Aghion, Philippe, Celine Antonin, Simon Bunel, and Xavier Jaravel. (2020). What Are the Labor and Product Market Effects of Automation? New Evidence from France. Working Papers, *Observatoire Français des Conjonctures Économiques* (OFCE), January 2020.
- Aghion, Philippe, and Peter Howitt. (1992). A Model of Growth Through Creative Destruction. *Econometrica*, 60(2), 323–351.
- Atkinson, Anthony B., Thomas Piketty, and Emmanuel Saez. (2011). Top Incomes in the Long Run of History. *Journal of Economic Literature*, 49(1), 3–71.
- Collège de France. (2020). Quels Sont les Sources et les Défis de la Croissance Économique? *Collège de France*.
- Coyne, Christopher J., and Peter J. Boettke. (2006). Economics and Happiness Research: Insights from Austrian and Public Choice Economics. In Yew-Kwang Ng and Lok Sang Ho (eds), *Happiness and Public Policy: Theory, Case Studies and Implications*, 89–105. Palgrave Macmillan.
- Facchini, François. (2022). Happiness and Public Spending. *Quarterly Journal of Austrian Economics*, 25(2), 147–174.
- Hayek, Friedrich A. (1960). *The Constitution of Liberty*. Routledge & Kegan Paul.
- Hayek, Friedrich A. (1976). *Law Legislation, and Liberty, Volume 2: The Mirage of Social Justice*. Routledge and Kegan Paul.
- Hayek, Friedrich A. (2014). *The Collected Works of F. A. Hayek, Volume 15: Market and Other Orders*. Routledge.
- Hazlitt, Henry. (2008 [1946]). *Economics in One Lesson*. Ludwig von Mises Institute.
- Irwin, Douglas A. (2021). The Rise and Fall of Import Substitution. *World Development* 139, article 105306.
- Jasiński, Łukasz. (2021). *Markets vs Public Health Systems: Perspectives from the Austrian School of Economics*. Routledge.
- Maddison, Angus. (2001). *The World Economy: A Millennial Perspective*. OECD.
- Mill, John Stuart. (1987 [1848]). *Principles of Political Economy with some of their Applications to Social Philosophy*. Augustus M. Kelley.
- Mises, Ludwig von. (1980 [1952]). Capital Supply and American Prosperity. In Ludwig von Mises, *Planning for Freedom and Sixteen Other Essays and Addresses*, 195–214. Libertarian Press.
- Mises, Ludwig von. (1985 [1927]). *Liberalism: In the Classical Tradition*. Foundation for Economic Education.

- Mises, Ludwig von. (1990 [1955]). Inequality of Wealth and Incomes. In Ludwig von Mises, *Economic Freedom and Interventionism: An Anthology of Articles and Essays*, 50–55. Liberty Fund.
- Mises, Ludwig von. (1998 [1949]). *Human Action. A Treatise on Economics*. Ludwig von Mises Institute.
- Mises, Ludwig von. (2000 [1943]). Mexico's Economic Problems. In Ludwig von Mises, *Selected Writings of Ludwig von Mises: The Political Economy of International Reform and Reconstruction*, 203–254. Liberty Fund.
- Mises, Ludwig von. (2004 [1951]). Capitalism and Human Progress. In Ludwig von Mises, *The Free Market and Its Enemies: Pseudo-Science, Socialism, and Inflation*, 33–42. Foundation for Economic Education.
- Mokyr, Joel. (2002). *The Gifts of Athena: Historical Origins of the Knowledge Economy*. Princeton University Press.
- Mokyr, Joel. (2021). Attitudes, Aptitudes, and the Roots of the Great Enrichment. In Alberto Bisin and Giovanni Federico (eds), *Handbook of Historical Economics*, 773–794. Academic Press.
- OECD. (2024). *Tax and Benefit Policy Descriptions for Denmark 2024*. OECD.
- Reisman, George. (1996). *Capitalism. A Treatise on Economics*. Jameson Books.
- Rothbard, Murray N. (2009 [1962]). *Man, Economy, and State with Power and Market*. Ludwig von Mises Institute.
- Roulet, Alexandra. (2017). The Causal Effect of Job Loss on Health: The Danish Miracle. In *Essays in Labor Economics* (PhD diss., Harvard University).
- Royal Swedish Academy of Sciences. (2025). The Prize in Economic Sciences 2025. Press release, 13 October 2025.
- Schumpeter, Joseph A. (1942). *Capitalism, Socialism and Democracy*. Harpers and Bothers.
- Sennholz, Hans F. (1987). *The Politics of Unemployment*. Libertarian Press.
- Solow, Robert M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70(1), 65–94.
- Sullivan, Daniel, and Till von Wachter. (2009). Job Displacement and Mortality: An Analysis Using Administrative Data. *Quarterly Journal of Economics*, 124(3), 1265–1306.