ADAM SMITH'S THEORY OF VALUE AND THE FALLING RATE OF PROFIT: UNCOMMON CONCEPTIONS AND COMMON MISCONCEPTIONS

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ABSTRACT
Smith's theory of value and distribution, which emphasizes labor time as the determinant of prices, has been widely misunderstood. Ricardo misinterpreted it as relevant only to primitive societies, while Marx inaccurately aligned it with his own labor theory of value. In reality, Smith's perspective oscillates between a labor-based and a labor-commanded approach to relative prices, intended for modern economies. Neoclassical economists further distorted Smith's views by incorporating utility theory. Moreover, while Smith is often linked to the theory of a falling rate of profit due to competition, he actually attributed it to rising capital intensity. Contrary to the belief that Smith was a staunch advocate of free markets, he supported reasonable government intervention.
Keywords: Labor theory of value, falling rate of profit, labor commanded, capital intensity.
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LA TEORÍA DEL VALOR Y DEL DESCENSO DE LA TASA DE GANANCIA DE ADAM SMITH: CONCEPCIONES NO COMUNES E INTERPRETACIONES ERRÓNEAS COMUNES

RESUMEN

La teoría del valor y la distribución de Adam Smith, que enfatiza que el tiempo de trabajo es el determinante de los precios, ha sido muy mal comprendida. David Ricardo la malinterpretó al considerarla relevante sólo para las sociedades primitivas, mientras que Marx equivocadamente la alineó con su propia teoría del valor. En realidad, la perspectiva de Smith oscila entre un enfoque de los precios relativos de las economías modernas basado en el trabajo y otro enfoque basado en el trabajo comandado. Los economistas neoclásicos distorsionaron aún más el análisis de Smith al incorporar la teoría de la utilidad. Más aún, mientras que a Smith se le vincula con frecuencia con una teoría del descenso de la tasa de ganancia debido a la competición, en realidad él atribuía tal descenso al aumento de la intensidad de capital. Adam Smith estaba a favor de una intervención del gobierno razonable, contrario a la opinión de que era un porfiado abogado del libre mercado.

Palabras clave: teoría laboral del valor, descenso de la tasa de ganancia, trabajo comandado, intensidad de capital.

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1. INTRODUCTION

Adam Smith's theories of value and distribution, as well his views on the falling rate of profit (FROP) are foundational to economic theory and have been the subject of extensive discussions and debates in the history of economic thought. These theories have been analyzed by major economists of the past such as David Ricardo and Karl Marx, as well as the first neoclassical economists.

Interpretations of Smith's *The Wealth of Nations* (WN) are often ridden by the ideological perspectives of the economists analyzing his work. For instance, while Ricardo shares many of Smith's views, he becomes highly critical of Smith's theories of value and the FROP and using these critiques advances and at the same time promotes his own perspectives on these key concepts. Conversely, Marx critiques Smith as though Smith shares Marx's own conceptualization of term 'value'. However, this is inaccurate, as Smith alternates between a labor-based and a labor-commanded approach to relative prices. As a result, the term 'value' carries significantly different meanings for each economist. Marx's interpretation of Smith's theory on the FROP is similarly problematic, as he aligns with Ricardo's criticism, which argues that Smith incorrectly attributed the FROP to the increasing intensity of competition.

Neoclassical economists, in contrast, tend to interpret Smith's terms 'value' and 'value in use' through the lenses of a theory of scarcity and utility, respectively. This approach imposes their own views on Smith's concepts, particularly when it comes to 'value in use' which is interpreted to mean utility evaluating the intensity of satisfaction while in Smith is simply precondition for exchange. Additionally, there has been significant vulgarization and distortion of Smith's ideas by monetarists and dogmatic Marxist economists. Monetarists and neoliberals in general often portray Smith as a naive advocate of free markets, which, as we argue, is definitely not true, while dogmatic Marxists dismiss him as merely a bourgeois economist, which is an equally flawed characterization. It is essential to disentangle these misconceptions and return to a more faithful reading of Smith's work.

The remainder of this article is structured as follows: Section 2 explores Smith's theory of value and distribution, stressing its revolutionary character for the time it was developed. Section 3 examines Smith's theory of the FROP and addresses common misconceptions in an effort to clarify his own views. Section 4 concludes by emphasizing that major thinkers like Adam Smith should be understood based on their own writings and perspective rather than relying on second- or third-hand readings often leading to bias interpretations, if not vulgarizations of the original writings.

2. SMITH ON THE THEORY OF VALUE AND DISTRIBUTION

In the opening pages of WN, Adam Smith lays a clear foundation for his economic theories. After introducing the division of labor, the dynamics of economies of scale and their multiplier effects on productivity are discussed, all of which are essential elements of a rapidly emerging modern society. He then shifts his focus to the characteristics of this new society, particularly the exchange of commodities at ratios, neither accidental nor morally determined, as was the case of 'just price' views in feudalism. The exchange ratios in modern society or capitalism are systematic and therefore can be reasoned out. The systematic nature of these exchange ratios can be subjected to abstract theorization and it becomes the central focus of Smith's analysis. He plainly states that as follows:

> In order to investigate the principles which regulate the exchangeable value of commodities, I shall endeavour to shew, first, what is the real measure of this exchangeable value […]. Secondly, what are the different parts of which this *real price* is composed or made up. And, lastly, what are the different circumstances which sometimes raise some or all of these different parts of price above, and sometimes sink them below their natural or ordinary rate; or, what are the causes which sometimes hinder the market price, that is, the actual price of commodities, from coinciding exactly with what may be called their natural price. I shall endeavour to explain, as fully and distinctly as I can, those three subjects in the three following chapters, for which I must very earnestly entreat both the patience and attention of the reader […]. (WN, 48-49).

This quotation makes it evident that Smith is discussing a commodity production economy, where the primary focus is on explaining the concept of 'exchangeable value', which refers to the systematic part of exchange ratios or the relative 'natural prices' of commodities. Smith argues that the real price of a commodity is determined by the labor time contained in it, described as the "toil and trouble of acquiring it" (WN, 50), reflecting a labor-embodied theory of value.

The "early and rude state of society" (WN, 73), often cited in the history of economic thought, is not a literal depiction of any historical society. Instead, it is an analytical construct that abstracts away from various concrete features of modern societies, such as capital, cultivated land, the State, and other even more specific conditions. This abstraction is fundamentally similar to Marx's concept of 'simple commodity production' and is utilized to identify the determinants of commodity exchange ratios, particularly the labor time required for their acquisition.

Smith's use of the deer and beaver parable exemplifies how to understand the relative 'natural price' of commodities or, equivalently, their natural exchange ratios. He acknowledges that actual or market prices can deviate from these natural prices due to the "higgling and bargaining of the market" (WN, 52). For example, if the exchange ratio were one-to-one, people would naturally abandon the hunting of beavers and focus on deer. This shift would lead to an oversupply of deer and an undersupply of beavers, eventually restoring the natural equilibrium exchange rate of two deer to one beaver —an exchange rate that reflects the labor time normally required for the acquisition of each. Thus, if the relative prices or exchange ratios are in deviation from those of the labor embodied in the commodities, people's behavior would naturally adjust to re-establish this equality. The labor-embodied price or natural price acts as the center of gravitation of actual or "the money-price of goods". The latter

> it is to be observed, I understand always the quantity of pure gold or silver for which they are sold, without any regard to the denomination of the coin. (WN, 72).

The introduction of capital into the analysis complicates matters, presenting Smith with an intellectual challenge that he does not fully resolve. His labor theory of relative 'natural prices' evolves into a labor-commanded theory of value and distribution. Smith observes

> The value of any commodity, therefore, to the person who possesses it, [...] is equal to the quantity of labour which enables him to purchase or command. Labour, therefore, is the real measure of the exchangeable value of all commodities. (WN, 50).

According to this theory, the price of each commodity contains and commands a certain amount of labor. By way of an example, if the wages rate is say 5€ per hour and a piece of cloth sells at 5€, then according to the labor commanded theory of value the labor contained in this piece of cloth will be equal to 3 labor hours. And if a kilo of corn sells at 5€ then it follows that the relative prices of the two goods will be three-to-one. We observe that the labor commanded theory of value must equal the labor embodied in goods. Through his labor-commanded approach to value, Smith aimed to reconcile his labor theory of exchangeable value —illustrated in his parable of the "rude state of society"— with a labor-embodied theory of value by employing a *numéraire*, later termed the "invariable measure of value" (IMV) by Ricardo. Initially, Smith considered the money wage rate as a potential IMV, but he ultimately deemed corn to be a more stable and therefore more reliable standard for comparing value and wealth over relatively long time intervals (WN, 260). In Smith's view, a corn-commanded theory of value was more directly tied to a society's real wealth and labor productivity, making it preferable to silver, as a *numéraire* for his economic analysis (see Peach, 2009). However, in the short run, the price of corn exhibits greater variability compared to silver, making silver a more suitable *numéraire* in such cases (see Blaug, 1997, p. 51).

Ricardo, following Smith, chose gold as an imperfect yet the best available IMV. For both Smith and Ricardo, the search for an IMV was essential in their analysis due to the lack of actual data on the labor times directly and indirectly required in the production of commodities. Additionally, the discipline of Political Economy had not yet advanced to the point of developing an analytical IMV, such as the Sraffian "standard commodity", which would be formulated many decades later and proved invaluable in research on issues on the theory of value and income distribution.

The "rude state" parable illustrates the principle that all value is created by labor and could, therefore, be argued to rightfully belong to the laborers who produce it (though Smith himself did not make this argument). Hence, it is implicitly assumed that the different kinds of concrete labor are either interchangeable, meaning the same person can perform them, or that they are exchangeable, that is, they have already been reduced to what Marx would call 'abstract labor'. In the same chapter, there is a discussion that distinguishes between simple and complex labor, noting differences in productivity and rewards (WN, 73). Consequently, in the hypothetical "rude" society where production is undertaken by self-employed producers, the same relative prices are the result of the labor theory of exchangeable value or the labor-commanded theory of value. While these distinctions may be irrelevant in a primitive society, they are important to address due to a similar historical narrative often referred to as the "historical transformation problem", which is mistakenly attributed to Marx's labor theory of value. Proponents of the historical transformation problem argue that the labor theory of value was applicable to pre-industrial capitalism but is no longer valid in modern capitalism, where labor values have been superseded by prices of production, which are similar to Smith's concept of natural prices.

In his efforts to further concretize his analysis, Smith sought to account for the impact of additional factors on prices. However, it is true that he could not provide adequate answers. For instance, in the presence of capital stock, he argued that the new value created by labor must be divided between the owner of capital, who hires workers and pays them a wage sufficient to enable them to provide their labor services, and the remainder of the labor-created value, which is taken as profit by the capitalist. As Smith notes,

> In this [rude] state of things, the whole produce of labour belongs to the labourer; [...]. As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or by what their labour adds to the value of the materials. (WN, 74).

Under these circumstances, the labor theory of exchangeable values and the labor-commanded theory of value may yield quite different results. More specifically, and assuming away depreciation and intermediate inputs, we can write for the production of commodity *i* as follows:

$$p_i = wl_i + rK_i \qquad [1]$$

Where p stands for the price, w the money wage rate, l stands for labor, r the profit rate and K the capital stock. The labor-commanded theory of value would be:

$$\frac{p_i}{w} = l_i + r\frac{K_i}{w} = l_i\left[1 + r\left(\frac{K_i}{wl_i}\right)\right] \qquad [2]$$

While the two theories do not yield identical answers, this does not imply that the conclusions derived from the labor theory of relative prices are fundamentally different from those of the labor commanded theory of value in the presence of capital. It is true that in the labor commanded theory of value one expects deviations between relative labor times and relative prices, which depend on the capital labor ratios and the rate of profit. Although Smith did not explore this further, Ricardo and, more notably, Marx —along with recent theoretical and empirical literature— have elaborated on and extended the labor theory of (exchange) value. These contributions offer satisfactory explanations for both the observed differences (which are minimal more often than not) and what is equally important the extracting of potential determinants of these differences (Shaikh, 1998, 2016, ch. 9; Tsoulfidis, 2021a, 2021b, 2022; Tsoulfidis and Tsaliki, 2019, ch. 4).

For instance, when the rate of profit is very low and the capital-labor ratios are not too different in the production of the two commodities, deviations between the two theories are minimal. It is evident that, all else being equal, the price of say commodity *i* increases (decreases) with a rise (fall) in the rate of profit, as a theoretical exercise to identify limits and possible price trajectories and not that the rate of profit can take on any values. However, Sraffa (1960) argued that as the number of commodities increases, the situation becomes considerably more complex. When capital is re-evaluated at new prices, certain commodities —especially those with a capital-labor ratio close to the economy's average— are more likely to shift from being capital-intensive to labor-intensive, or *vice versa*. Despite this theoretically expected complexity, empirical literature consistently shows that actual economic structures are not so intricate as to produce entirely unpredictable results (Tsoulfidis, 2022, 2023).

The labor theory of exchangeable value and the labor commanded theory of value are distinct, particularly due to the involvement of capital, the rate of profit, and other factors. Ricardo and Marx both addressed these complexities, albeit in different ways. Ricardo acknowledged that deviations from labor time in determining value exist but argued that these deviations are minimal and quantifiable. According to him, the change in relative labor times spent on production of commodities are the primary determinants of the change in relative natural prices, which, over time, tend to equalize with market prices.

Marx viewed the labor content of commodities as an initial but solid step in determining their monetary expression, leading to what became known as "direct prices". These direct prices act as a center around which market prices fluctuate. However, Marx went further by discussing "prices of production", which arise from interindustry competition and the resulting tendential equalization of profit rates across industries. These prices of production represent a more concrete center of gravitation for the market prices, as they emerge from a lower level of abstraction, incorporating more real-world features. Marx's analysis further introduces the concept of regulating capitals—those capitals that are activated in industries where the expansion or contraction of accumulation takes place. The prices of production corresponding to these regulating capitals provide a more concrete center of gravitation for the ever-fluctuating market prices.

In both Ricardo and Marx's analyses, deviations of labor content from natural prices, however defined, are considered minimal and determinable. Ricardo viewed these deviations as slight imperfections of the labor theory of exchange value, which do not undermine the robustness of the theory of relative price determination. Marx, on the other hand, viewed these deviations as fully consistent with his theory of relative price determination, provided the deviations remain within reasonable and determinable bounds. In contrast, Smith's analysis does not progress to the same level of concreteness, leaving many questions without providing straightforward and fully explained answers. It is important to note, however, that none before Smith had understood and addressed the centrality of the theory of value and distribution in Political Economy as clearly and accurately as he did. Even nearly two and a half centuries after the publication of WN, questions and debates on these topics persist, with new ones continually emerging. This o going discourse makes Smith's intellectual struggle to provide answers (albeit neither definitive nor straightforward) entirely understandable.

In the pertinent literature it is usually argued that problems of dealing with the presence of capital and land led Smith to develop a third theory of value, which came to be known as the "adding-up theory of value" according to which the value of a commodity is determined by the sum of three natural incomes, that is, natural wages, natural profit and natural rents[2]. Smith notes:

[2] Sraffa (1951) in his introduction to Ricardo's *Principles* notes on Smith's theory of value which he "arrived at by a process of adding up the wages, profit and rent" (p. xxxv). In similar vein, Dobb notes "Smith a theory of price that can be characterised […] as an Adding-up Theory —a summation (merely) of three primary components of price", (Dobb, 1973, p. 46).

> When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price. (WN, 83).

Hence, Smith is interpreted by most authors (Schumpeter, 1954, p. 309; Blaug, 1997, pp. 38-39) as if he simply argued that the constituent components of the natural price of a commodity includes the wage, the profit, and rent (something that is always accounting-wise true), and that the above incomes jointly determine the natural price of the commodity. Notes Smith,

> The natural price itself varies with the natural rate of each of its component parts, of wages, profit, and rent; and in every society this rate varies according to their circumstances, according to their riches or poverty, their advancing, stationary, or declining condition. I shall, in the four following chapters, endeavour to explain, as fully and distinctly as I can, the causes of those different variations. (WN, 83).

As long as the value created by labor which is paid its natural wage and the remaining value is distributed between capital and land according to their natural profit and rent rates, there is no issue with the above definition. However, if these three incomes are determined independently, two issues arise. First, there is a problem of circularity: These incomes are used to determine the prices of commodities, but they themselves depend on these prices for their determination. Second, any changes in these incomes imply changes in the price level, both of which raise concerns about theoretical consistency. It seems that Smith considered these incomes to form an accounting identity —the "adding up" of the various costs of production received as distributive shares according to their natural rates— rather than as determinants of the price level, except in specific cases (*e.g.*, the imposition of a wage or indirect tax)[3]. This is because these

[3] Ricardo again charges Smith that the application of the adding up theory of value leads to rising prices "without assignable limits" (*Principles*, p. 225). This is an issue that deserves further exploration (see Tsoulfidis, 2024, ch. 5 and the literature cited there).

costs (incomes) are determined by the value created by labor and they are measured in terms of labor time, rather than being creators of value.

These issues were beyond Smith's reach at the time of his writing. However, he managed, among other contributions, to identify that the labor time (his concept of "toil and trouble") spent on production is reflected in the exchange ratios of commodities. The value in use is not utility and that serves as a requirement for exchange and assuming away the presence of capital, the labor time required for the production of commodities or what is the same the wages are equal to the value added in production. The presence of capital (or stock in Smith's wording) and its reward profit which depends on invested capital and not on entrepreneurial characteristics (management, talent and the like) is what makes Smith (as if he were Marx or rather a utopian socialist) to note:

> In this state of things, the whole produce of labour does not always belong to the labourer. He must in most cases share it with the owner of the stock which employs him. (WN, 76).

After such a statement one wonders how Smith would support a cost-of-production theory of value. From the outset, he clearly posits that all value is created by labor and if there is no capital all value-added goes to labor as he explained in his analytical and not historical "early and rude state of society". The presence of capital results in the value created by labor being shared with the owners of capital. Given the constancy, or rather, the socially determined nature, of real wage, the surplus remaining after labor is paid goes to the owners of capital in the form of profits. If land is involved, a portion of the labor-created surplus is extracted and divided between the owners of capital and land. The same principle applies to other residual claimants on the surplus. After all, it comes as no surprise that the natural price of a commodity is equal to the three natural incomes. Furthermore, it is surprising that well-established economists recognize Smith's distinction between production and non-production labor and activities, yet they overlook the fact that non-production activities are supported by the surplus generated by labor in production activities. Smith repeatedly emphasizes that a manufacturer becomes wealthier by employing workers in a factory but becomes poorer by employing servants (WN, 438).

Ricardo and Marx appear to have misunderstood Smith's labor theory of relative prices. Ricardo thought and rather promoted the idea that Smith had replaced this theory with a cost-of-production theory applicable to modern societies. Meanwhile, Marx interpreted Smith's theory as if Smith used the same concept of "value" found in his own work, *Capital*. Marx, like Ricardo, assumed that Smith's theory only applied to the "early and rude state of society", treating this stage of society as a historical reality. This misinterpretation has persisted among leading economists and historians of economic thought. For example, Schumpeter (1954, p. 310) argued that Smith used the labor theory of value only to explain value in the specific context of primitive societies. Similarly, Blaug (1997, p. 53) posited that Smith was primarily focused on contrasting his views with those of the mercantilists, who equated wealth with money. Schumpeter and Blaug suggest that Smith never intended to apply the labor theory of value to modern conditions.

Samuel Hollander's (1973) regrettably presents Smith's theory of value in a neoclassical framework and argues that in Smith, we find a general equilibrium perspective of the economy. None would deny that in Smith's analysis, there exists general interdependence of the various economic sectors, an idea that permeates Smith's work and also that of the Physiocrats. The trouble, however, starts when one tries to attribute to Smith a utilitarian theory of value. Hollander's view builds on Alfred Marshall's earlier efforts (1890) to portray the works of both Smith and Ricardo within a neoclassical framework. Hollander further argues that these classical economists neglected or even worse did not know enough about the demand side of the supply-and-demand dynamics. Once demand is integrated into their analyses, Hollander asserts, long-run prices can be accurately estimated.

Kurz (2024), on the other hand, drawing from Sraffa's unpublished notes of the late 1920s —made available to scholars seven decades later— was surprised to find that the labor-value-based reasoning of the classical authors, including Marx, involved a 'corruption' of the true concept of cost. According to Sraffa's notes, "the fatal error of Smith, Ricardo, and Marx had been to regard 'labour' as a quantity, measurable in hours or kilowatts of human energy, and thus commensurate with value". Kurz concludes that the "claim that labor values are magnitudes that are not 'contaminated' by being dependent on prices cannot be sustained" (Kurz, 2024, p. 31). The key idea is that abstract labor should be understood in terms of simple labor, with complex labor being a multiple of simple labor. This conversion, determined by wage differentials, introduces prices into the equation, leading to issues of circularity. This is a long-standing and extensively debated issue that, however, goes beyond the scope of this article[4].

Finally, Henry (2000) and Peach (2009) argue that Smith did not confine the labor theory of exchangeable value to "early and rude state" of societies and that his frequent references to labor in other sections of WN indicate that he genuinely saw expended labor as the fundamental determinant of exchangeable value. In the same line is also Rima (2009) who explains that an adding-up theory of value is inconsistent and is not supported within Smith's approach.

3. FALLING RATE OF PROFIT AND THE STATIONARY STATE OF THE ECONOMY

Smith's argument regarding the falling rate of profit (FROP) is closely linked to his labor theory of exchangeable value and distribution, which is applicable to modern societies and maybe not to the primitive societies usually studied by anthropologists. The central idea is that goods are produced for their exchangeable value, making the pursuit of profit an end in itself that drives the actions of producers.

> The consideration of his own private profit, is the sole motive which determines the owner of any capital to employ it either in agriculture, in manufactures, or in some particular branch of the retail trade. (WN, 497).

This persistent pursuit of profit drives the division of labor as a means to enhance productivity, which, in turn, reduces production costs and lowers selling prices. The subsequent increase in demand necessitates further division of labor, which becomes feasible only with the introduction of fixed capital. This fixed capital, often in the form of machinery, facilitates deeper division of labor, further increasing productivity, reducing unit costs, and prices, thereby setting the requirements for another round

4 Interested readers may refer to Botwinick's (2018) important book for an in-depth discussion of the theoretical and empirical issues on this topic.

of this 'virtuous cycle'. It is important to point out that the invention of machines —representing the newly introduced fixed capital— directly results from the (sub)division of labor and they are "the inventions of common workmen" (WN, 24). Moreover, the introduction of machines creates new employment positions rather than eliminating existing ones (Heilbroner, 1975, p. 526; Löwe, 1975, p. 419). Consequently, the increase in total capital is the regularly expected result in an economy on its growth trajectory (WN, 456).

However, this growth is not linear but follows a spiral-wise pattern, characterized by alternating phases of acceleration and deceleration. As new investments increase labor demand, wages rise, improving living conditions for the working population. This leads to a decrease in infant mortality rates and an expansion of the labor supply. However, as wages rise, profits initially fall; but as the labor supply increases, wages eventually decline, leading to a rise in profits, and the cycle repeats. The question is whether and to what extent this growth process will continue forever or will be interrupted at some point. Smith argued that the rate of profit will be falling in the long run and will lead the economy in its stationary state. Smith's argument on the causes behind the FROP, as with his theory of value and distribution, is often supplemented by conflicting statements, leading to various interpretations and, at times, making his views appear inconsistent and *naïve*.

Ricardo, influenced by his own economic perspectives, attributed to Smith a theory of the FROP based on the rising intensity of competition (Ricardo, *Principles*, p. 289). By doing so, Ricardo criticized Smith for inconsistencies, arguing that competition could only lead to an inter-industry equalization of profit rates to a general rate of profit. This Ricardian interpretation of Smith, like his theory of value, was effectively imposed on later economists, who have monotonously repeated Ricardo's interpretations. Even Marx, writing a century later in *Theories of Surplus Value I* (p. 438) and *Grundrisse* (p. 75), endorsed Ricardo's interpretation of the Smithian FROP. Thus, both Ricardo and Marx have established the view that, in WN, increasing competition of the owners of capital in the labor market is the root-cause of the FROP, a perspective that a majority of historians of economic thought, as well as most widely used textbooks continue to uphold. However, there are exceptions to this consensus, including Hollander (1973), Eltis (1984), Verdera (1992), Tsoulfidis and

Paitaridis (2011), and Chatzarakis, Tsaliki and Tsoulfidis (2024, ch. 3). On the other hand, it is worth noting that Keynes (*The General Theory*, ch. 11) tacitly accepted the workings of competition, where in both its short-run and long-run dynamics lead to a falling marginal efficiency of capital —his own variable for measuring the profitability of capital (Tsoulfidis, 2006, 2024, ch. 11).

Overall, the analysis of the FROP in Smith's work is fraught with challenges, as it is interwoven with varying interpretations and the evolution of economic thought. According to the usual, or Ricardian, interpretation, as time progresses, capitalists are compelled to intensify competition in labor markets, leading to rising wages and, consequently, falling profits. Profits are further eroded by competition in resource markets, where prices increase, and in the product market, where competition forces capitalists to reduce their selling prices to maintain, if not increase, their market share. These factors are not mutually exclusive and collectively contribute to a falling rate of profit. Ricardo cites the following passage from Smith to support this interpretation:

> The *increase of stock*, which raises wages, tends to lower profit. When the stocks of many rich merchants are turned into the same trade, their mutual competition naturally tends to lower its profit and when there is a like increase of stock in all the different trades carried on in the same society, competition must produce the same effect in them all (WN, 127; emphasis added).

Hence, Ricardo focuses on wages and overlooks the *increase of stock* as the cause of the FROP and the subsequent intensification of competition, which eventually spreads across all markets. Ricardo's interpretation gained widespread acceptance, however, without thorough examination. It is important to stress that from the very first chapter of WN, Smith emphasizes the significance of mechanization in the production process, particularly in relation to the division of labor and the resulting increase in productivity. Specifically, he identifies three key advantages of the division of labor: *a*) the 'increase in dexterity' of workers; *b*) the saving of time by avoiding the transition 'from one species of work to another'; and *c*) the invention of machines that "enable one man to do the work of many" (WN, 17). Similar observations are reiterated, for example:

the *increase of stock*, tends to increase its productive powers, and to make a smaller quantity of labour produce a greater quantity of work (WN, 126; emphasis added).

So, the capital-labor or capital-output ratio increases and so does productivity or what is the same the labor content of commodities decreases[5]. Hence, it is important to stress that Smith connects the decisions to invest and therefore to increase the (capital) stock to the profit motive. Notes Smith: "It is the stock that is employed for the sake of profit, which puts into motion the greater part of the useful labour of every society [...]" (WN, 347).

Consequently, a country in its course of economic growth is expected to increase the volume of its capital, as well as wages and rent incomes while the rate of profit will be falling. In particular Smith notes:

> [W]hen we compare, therefore, the state of a nation at two different periods, and find, that the annual produce of its land and labour is evidently greater at the latter than at the former, that its lands are better cultivated, its manufactures more numerous and more flourishing, and its trade more extensive, we may be assured that its capital must have increased during the interval between those two periods (WN, 456).

In Smith's presentation of the FROP, exceptional importance is attributed to the fixed capital stock, which facilitates the further division of labor, leading to rising productivity, decreasing unit costs of commodities, and ultimately lowering prices. For all of these to be possible, workers must be provided with a greater stock of intermediate inputs, as Smith notes:

> No fixed capital can yield any revenue but by means of a circulating capital. The most useful machines and instruments of trade will produce nothing without the circulating capital which affords the materials they are employed upon, and the maintenance of the workmen who employ them. (WN, 370).

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5 The same view is repeated: "The intention of the fixed capital is to increase the productive powers of labour, or to enable the same number of labourers to perform a much greater quantity of work" (WN, 376).

It might be remarked in passing that profits are not generated by fixed capital, and therefore Smith's views are not related neither to a cost of production theory of value nor to a marginal productivity theory of income distribution[6]. Smith continues his analysis by arguing that as capital stock increases, a growing portion of output must be allocated to its replacement, proportional to the wealth of each country. Smith specifically notes this in relation to manufacturing:

> Of the produce of a great manufactory, in the same manner, one part, and that always the largest, replaces the capital of the undertaker of the work; the other pays his profit, and thus constitutes a revenue to the owner of this capital. (WN, 441).

The same applies to agricultural production. Additionally, Smith notes that the capital required for replacement is not only significantly higher in wealthy countries compared to poorer ones but also tends to increase as a proportion of the surplus (or 'revenue' as Smith describes it) generated. As a result, profits and rents tend to decrease over time.

> That part of the annual produce, therefore, which, as soon as it comes either from the ground or from the hands of the productive labourers, is destined for replacing a capital, is not only much greater in rich than in poor countries, but bears a much greater proportion to that which is immediately destined for constituting a revenue either as rent or as profit. (WN, 444-445).

In the long run, an increasing capital-output ratio can lead to a depreciation squeeze on profits. Over time, this dynamic might gradually erode profits to the point where economic growth halts, transitioning the economy into a stationary state. In this state, net investment becomes zero, meaning that all investment is directed solely toward replacing depreciated capital, leaving no surplus for further growth. It is important to

[6] The following quotation further dismisses the marginal productivity theory of income distribution and emphasizes the true source of profit: "the labourers and labouring cattle, therefore, employed in agriculture, not only occasion, like the workmen in manufactures, the reproduction of a value equal to their own consumption, or to the capital which employs them, together with its owners' profits; but of a much greater value" (WN, 482).

note at this juncture that the rising intensity of competition results from the FROP, not its cause. Smith argues that when there is an abundance of a good, its price necessarily falls. He continues by saying that

> As capitals increase in any country, the profits which can be made by employing them necessarily diminish. It becomes gradually more and more difficult to find within the country a profitable method of employing any new capital. There arises in consequence a competition between different capitals, the owner of one endeavouring to get possession of that employment which is occupied by another. (WN, 469).

Smith identifies a causal chain where the profit motive drives increased capital intensity (*i.e.*, higher capital-labor and/or capital-output ratios), which in turn enhances the division of labor, enhances productivity, and ultimately reduces costs and prices. This sequence intensifies competition within the market. Smith repeatedly observes that wages tend to rise in a growing economy and fall in a declining one, while profits typically move in the opposite direction, though both are influenced by the same underlying factor, that is, the evolution of wealth. As Smith in the beginning of chapter IX, notes:

> The rise and fall in the profits of stock depend upon the same causes with the rise and fall in the wages of labour, the increasing or declining state of the wealth of the society; but those causes affect the one and the other very differently. (WN, 127).

Based on the discussion above, it becomes evident that Smith's theory of the FROP and the attainment of the stationary state are at variance from the interpretations typically attributed to him. In *WN*, Smith clearly starts with the premise that the motivation for investment is profit. He argues that this profit-driven investment continues in fixed capital, leading to a further increase in the division of labor and rising productivity. However, this process also results in growing replacement expenditures, which gradually squeeze profits and the investible product. Eventually, and in the distant and not necessarily visible future, as the economy approaches its stationary state, profits and the investible product diminish to nearly zero. Meanwhile, the FROP intensifies competition, wages increase and profits fall both being affected in opposite ways by the growth of the economy and its rising wealth. This is how Smith describes the profit motive and the attainment of the stationary state, that is, the state of the economy in which the motivation for net investment is nil:

> The value which the workmen add to the materials, therefore, resolves itself in this ease into two parts, of which the one pays their wages, the other the profits of their employer upon the whole stock of materials and wages which he advanced. He could have no interest to employ them, unless he expected from the sale of their work something more than what was sufficient to replace his stock to him; and he could have no interest to employ a great stock rather than a small one, unless his profits were to bear some proportion to the extent of his stock. (WN, 74).

Once the stationary state is reached, profits will be nearly zero, wages will settle at a socially determined subsistence level, and capitalists will earn a slightly higher wage for their entrepreneurial abilities (Heilbroner, 1975). Finally, landlords are expected to obtain higher rents due to the rising demand for agricultural products.

It is important to stress that the FROP is driven not by rising wages, but by the increasing mechanization of production the rising capital-output ratio leading to increased depreciation expenditures which squeeze profits. This interpretation aligns more closely with Marx's theory, even though it lacks detail and significantly differs from the perspectives of Ricardo and J. S. Mill. These differences extend beyond the FROP itself, encompassing their views on the stationary state and the status of social classes (Rima, 2009, pp. 105-106).

4. CONCLUDING REMARKS

Smith's theory of value, which posits that the relative labor times required to produce goods determine their relative prices, has often been misunderstood, even by prominent economists. For example, Ricardo interpreted Smith's theory of value as primarily relevant to primitive societies. Additionally, the labor-commanded theory of value, despite its relevance to modern economies, has been similarly downplayed although Keynes (1936) supported the idea that money wages could effectively serve as a deflator of money prices expressed in 'wage units'. Within Smith's labor-commanded theory of value, it is acknowledged that if the rate of profit increases, prices will also rise. However, it is not accurate to claim that the relative prices of commodities are entirely disconnected from their labor times. In conditions of capitalism, Ricardo suggested that Smith shifted toward a cost-of-production theory of value, where changes in the components of price —wages, profits, and rent— affect the natural price of goods. However, this interpretation is questionable. Smith explicitly argued that rent is determined by price rather than rent is a price-determining income, anticipating Ricardo's argument by several decades. Notes Smith: "High or low wages and profit, are the cause of high or low price; high or low rent is the effect of it." (WN, 205).

Moreover, wages and profits are influenced by capital accumulation: In a growing economy, wages tend to rise while the rate of profit generally declines. Although Smith was not always consistent in applying his labor theory of relative prices, Ricardo showed that the deviations of relative prices from their relative labor times are generally small and can be theoretically accounted for (Tsoulfidis, 2021a, 2024, ch. 5).

Marx, on the other hand, often treats Smith as if he had a labor theory of value rather than a theory of relative prices (or exchangeable values). Smith does indeed oscillate between the two, but he is more consistent with a theory of relative prices, which distinguishes him from Marx's approach to value. For Marx, the value of commodities refers to the embodied abstract labor time, with its monetary expression the 'direct price'. Marx's analysis evolves through the first two volumes of *Capital*, culminating in the third volume, where he introduces competition, tendential equalization of interindustry profit rate to an economy-wide average one and the associated concept of the (average) price of production as a more concrete center around which market prices fluctuate. Further examination leads Marx to the idea of regulating capitals and their corresponding regulating prices of production, which serve as an even more accurate center of gravitation for market prices, and so on. Marx's critiques of Smith overlook his rather more consistent theory of value, dismissing it as only applicable to primitive societies, and like Ricardo attributes to Smith a cost of production theory of value.

Neoclassical economists have distanced themselves even further from Smith's theory of value by interpreting him as a neoclassical economist, albeit without addressing the demand side of the market. Consequently, they attempt to impose utility theory and subjectivism onto Smith's value theory. The famous "water-diamond paradox" is often cited in this context, with its resolution attributed to Smith's "toil and trouble" concept. These economists also suggest that Smith was on the verge of developing a utility theory of value but did not fully do so due to other pressing concerns (Blaug, 1997; Hollander, 1973).

We have argued that the typical interpretations of Smith's theory of the FROP are largely influenced by Ricardo's perspective. Ricardo's interpretation centers on the intensifying competition over time in resource markets, which drives up production costs, while ongoing competition in product markets suppresses selling prices, thereby reducing profits and the rate of profit. However, a more in-depth examination of Smith's analysis suggests that it is the mechanization of production, driven by the pursuit of profitability that leads to a long-term FROP and ultimately brings about the stationary state of the economy.

In our analysis, we focused on two central problems of economic theory. However, Smith has often been misinterpreted in his broader philosophy, frequently portrayed as an unwavering advocate of free competition and free trade, which is not entirely accurate. For instance, he supported the retention of the Navigation Acts —"the wisest of all the commercial regulations of England" (WN, 605)— which prohibited foreign-registered vessels from landing cargoes in British ports. Smith believed that the British merchant marine needed protection, as repealing the acts would enable foreign competitors to undercut British shipping companies (WN, 603). He also was in favor of retaliatory tariffs. Additionally, he advocated for state investment in defense, which he termed the "first duty of the sovereign" emphasizing its crucial role in national security, "as defence [...] is of much more importance than opulence" (WN, 605). He also emphasized the importance of justice, arguing that without it, society would "crumble into ruins" (WN, 1071). Furthermore, he supported infrastructure investments —such as roads, canals, harbors, and bridges— alongside elementary education, promoting the establishment of a school in every village. His vision also included advancing public health initiatives, particularly focusing on the eradication of loathsome diseases. Given the scale of expenditure required to support this public spending program, Smith was not inherently opposed to large-scale government activity. He was not an ideologue for 'free markets' and did not advocate laissez-faire. Smith also supported government regulation in areas like the Mint, regulating banking, running a postal service, establishing ceilings on interest rates, providing assay services, and hallmarks for gold and silver, among others. As we can see, Smith envisioned a substantial, rather than minimal, role for government (see Heilbroner, 1996).

Summing up, Adam Smith is hailed as the 'father of political economy,' however, his views are misrepresented. This article sought to clarify Smith's perspectives by focusing on his labor theory of exchangeable value, the FROP and touched upon his broader philosophy. One is surprised to see that Smith's theory of value so much based on labor time has been interpreted as if Smith argued altogether different theories. The following quotation reveals his adherence to labor values:

> Labour […] is the only universal, as well as the only accurate measure of value, or the only standard by which we can compare the values of different commodities at all times, and at all places. We cannot estimate, it is allowed, the real value of different commodities from century to century by the quantities of silver which were given for them. We cannot estimate it from year to year by the quantities of corn. By the quantities of labour we can, with the greatest accuracy, estimate it both from century to century and from year to year. (WN, 59).

Labor values serve as the most effective measure for aggregating otherwise heterogeneous commodities, as they all share the common attribute of being products of labor. This approach allows for a theoretically consistent method of measuring capital goods. Although it was exceedingly difficult to progress on a labor-based value theory during his time, Smith successfully connected this to the primary motive in modern societies: The pursuit of profit and its long-run declining tendency. Smith's predictions, while not entirely conclusive, are consistent with the observed long-run rising tendency in capital intensity and the FROP observed in today's advanced economies. ◀

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