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The Sustainable Development Theory: A Critical Approach, Volume 1

The Discourse of the Founders

Ion Pohoaţă · Delia Elena Diaconaşu · Vladimir Mihai Crupenschi

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Introduction

Since 1987, when the term came into official use, sustainable development has come to define the spirit of the times. Generations separated by time or profession, economists, philosophers, historians, sociologists, jurists, biologists, engineers, Nobel Prize laureates, all the way to gardeners write or talk about sustainability. Too much has been said on the topic, while the essence has been lost.

How is it that so much has been written about this important but arid theme? How can we establish whether the paths of scientific knowledge have been followed in this extensive literature? How and why would a prestigious publisher let himself be persuaded that another drop could be added to this ocean of literature on sustainability, without the danger of overflowing? What else could a new book on this matter say? Is it really necessary?

We answer affirmatively to this last question, for at least three closely related reasons:

Firstly, there is an acute need to restore depth and rigour to the topic by reverting to its core. It springs mainly from economics and only later acquires social and environmental accretions, which cloud its meaning.

Secondly, there is a need to simplify and clarify the key elements that serve as a basis for development: economic growth, social harmony and environmental conservation.

Thirdly, we are convinced that there are still unanswered questions on the subject. An analysis that can bring objectivity is necessary; one in which strong and simple causalities retake centre stage; one that refuses the shadowy places that elude and are served by predetermined truths.

We seek to discern the original truths through an extensive review of existing literature and, mainly, through a return to the classical founders' insights which have been overtaken by contemporary developments, and, partly, to their neoclassical successors' ideas. We do not intend to negate concepts underpinning the current paradigm in the field of sustainable development, but only to facilitate a return to the origins that gave them meaning and relevance.

We have reason to believe that many truths have been removed from the hardcore of economic science and even thrown beyond its protective belt, to express ourselves in Lakatosian terms. This has happened in order to hide or serve those who seek to profit from manipulating the economy. Therefore, in line with the founders' message, we seek to determine the resorts of sustainability. Tracing known truths to their original source, we will come up with our own interpretation. We want to know the origins of this subject, the appropriate methods to study it and the potential beneficiaries of such an analysis. Who has the right to diagnose sustainability, and who is in charge of validating the conclusions that define it? On what founding principles can we lean on to find out today what is sustainability when the national economy could be conceived to belong to you only *de jure* and not *de facto*. Moreover, what and how do you transmit something to future generations? For example, there are those who believe that the USSR had a balanced and promising development, but that its sustainability was compromised just because creative destruction avoided it. What do we say to those who make the distribution of wealth the alpha and omega of their discourse about sustainability, forgetting that wealth must first be produced? What are the chances and what is the way forward to get rid of absolute poverty? Do we dialogue with Nobel Prize winners or do we take them at their word, accepting unquestioningly their scientific offerings? And, ultimately, from whom do we learn what sustainability really is?

The analysis is conducted within the confines of two volumes, "brothers" of the same structure of ideas. The first volume "speaks" the language of the founders. By exploring known but less exploited places, but also unknown ones, we map the core and the boundaries of a splendid lesson on sustainability, as it was originally intended.

In the second volume, we ask and answer the following question: What are the contemporaries doing with the ideational dowry of sustainability inherited from the founders?

The two volumes are relatively thematically autonomous. Yet, we believe that only by reading both of them can one grasp a deeper meaning and achieve a sense of completeness. This way we reveal the difference between what sustainability is and what it could be.

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CHAPTER 1

The Avatars of Sustainability: A Necessary Prolegomenon

1.1 Why Looking Back to the Founders?

Why is it necessary to employ the founders' support for a better, fairer and simpler understanding of sustainable development? Various reasons are discussed in the following paragraphs.

First of all, their framework for analysis is clear, logical and well-articulated. The division of labour and human cooperation gives substance to this framework, and through them, almost everything is explained: exchange, money, equilibrium and social harmony. The reality of the classical founders' world is a contradictory one, socially and economically. Their economic and social harmony is dynamic, with rich and poor changing places, efficiently or otherwise, depending on how they use their minds and hands. Good practices (Smithian institutions) respected by economic actors, the government in particular, provide support for understanding the seeds of economic resilience. This resilience is sustained by a small but powerful government, with a job description in accordance with the conception of Smith and Bastiat, summed up under two main headings: freedom and security. The role of domestic education as a natural institution regarded by Smith as a creative activity and the role of profit and productive work in sustaining economic dynamics, all with support in private ownership, reject any contemporary approach that would pursue sustainability beyond the free market economy. Classical economists tell us

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that profit moves the world, but wealth is gained through work and within the boundaries of such a framework. Work concerns all those who have the capacity to engage in it. This is how growth is achieved, and its rationale, through development, is to make people happy—not equally nor through statistical manipulation. With reference to such a background, it is possible to understand why degrowth is not suitable for everybody, through both message and reasoning; and how distributive justice and impersonal efficiency are as attractive as they are non-engaging.

Following a natural process with impeccable logic: production–distribution–exchange–consumption, the classicists help us understand why their GDP has consistency. Unlike the contemporary one, the concept is not full of holes, filled with nominal bubbles due to the fact that the causal relationship between the main components of reproduction has been reversed. In such a context, it is possible to prove that proclaiming the primacy of distribution and redistributive justice in relation to production is a naive, if not an absurd conclusion. For the same reasons, one can find proof of the lack of logical support within reports such as the Stiglitz-Sen-Fitoussi one (Stiglitz et al. 2009). We will rely on the founders' analyses to reveal how the nominal economy may be illusory, if both the lesson of Smith's alleged dogma (Marx 1990) and the lesson of Ricardo's (2001) and Marx's (1990) one about money are omitted.

Development for the benefit of all and with respect to nature can be targeted and implemented through a socialist or liberal policy, or a mixed one. Regardless of which research methodology is used, including a counterfactual one, a brief but objective analysis of the history of economic and social dynamics, as it has emerged from the classicists, tells us one certain thing: welfare and civility, including respect for the environment, are found in the countries that have followed Smith. At the same time, the social and environmental elements call for the consistent presence of the state, effecting concrete policies. Not, however, a Leviathan state in communist clothes, but a responsible state, the main actor in an institutional arrangement that makes possible human coexistence and cooperation. When asked how much state and how much market, how much liberalism and how much protectionism, how the logic of profit gets along with social welfare or how much macro-management must be given to the state, classical texts remain the source for qualified answers. If their recipe is sometimes seen as the ideal, at least, it shows us the direction to follow. For example, the role of free competition within the framework of well-considered laws, in satisfying both personal and general interests, remains the one that Adam Smith (1977) and Frédéric Bastiat (2007) supported. The XVIIIth passage of Bastiat's *Economic Sophisms* alone, "There are No Absolute Principles", is sufficient to understand how the mechanism whereby private initiative and freedom of exchange, guided by the invisible hand and personal interest, are infinitely more effective in satisfying everybody than any arbitrary government intervention. Similarly, it becomes embarrassing to seek protectionist arguments after reading the famous writing "Petition of the Manufacturers of Candles, Waxlights, Lamps, Candlelights, Street Lamps, Snuffers, Extinguishers, and the Producers of Oil, Tallow, Resin, Alcohol, and, Generally, of Everything Connected with Lighting"—by the same classical author. A simple reading of Marx's "Fragment on Machines" and of Ricardo's chapter "On Machinery" might have calmed the atmosphere at the Davos meeting in 2016. It might have clarified for the participants that the fourth industrial revolution is not necessarily destined to fill the world with high-skilled unemployed. But do we still have time for them? How many scholars still waste their time reading Ricardo to the end to understand that "machinery cannot be worked without the assistance of men, it cannot be made but with the contribution of their labour" (Ricardo 2001, p. 290) and that the law of competitive advantage could be theoretically invalidated but, in practice, it sustains the positive-sum game of free international trade.

On the trail of classical thinking, we can set out certain assumptions and suggestions that may be less comfortable but are not non-scientific or unnecessary truths. With truths established, a priori, one remains within orthodox analysis. This is not our intention. Rather, we think that the natural division of labour and inequality, not only at the starting point but also during the process, can be realistic working hypotheses. Both economic geography and economic history will be exploited to consider what responsibility may look like for future generations, in an increasingly globalized world. What does it mean, and how and for whom can redistributive justice act in order to materialize the messages of Piketty, Hayek, Mill, Tinbergen, Sachs, etc. Significant migration makes the relationship between generations transient, as it is observed in the Brundtland Report, because of the substantial number of children and grandchildren living in a country other than the one of their grandparents. If we allow distributive justice to become a sensitive topic, how will it be perceived by the world, and how will it fit, if at all, with Smith's comments on "the unfortunate law of slavery" (Smith 1977, p. 775) or "very little honour to the policy of Europe" (Smith 1977, p. 778)? How can these topics be tackled when it comes to the lack of development in a good part of the world to which today's developed nations have a "moral obligation", to use Brundtland's phrase (World Commission on Environment and Development 1987, p. 52). Will we rediscover the poor of the world to squeeze out their surplus savings or allow them to find their way unhindered? At the same time, how do we deal with the chorus of camouflaged futurists who advise them to industrialize more slowly and focus on more traditional activities (Martin 2007)? Instead of advising the underdeveloped to look at the rich countries in a demoralizing mirror (Marx 1990), we should suggest that systematic and tenacious work is the way to achieve sustainable development. Max Weber (2005) would prove to be a good teacher in this endeavour.

We will also refer to the founding tenets of economics to show that the dynamics of accumulation through reinvestment of profits ensures employment and economic equilibrium as well as social peace. Also, through the founders, we find that the concept of decrease is essentially pre-modern, inspired by the obsolete idea of the uselessness of reinvesting the surplus and the illusion, as a consequence, of ostentatious consumption. In other words, we can understand through the founders that accumulating profits and reinvesting them are the main determinants of growth. This is the way to be wealthy and happy. Mill's "Socrates dissatisfied" (Mill 2015, p. 124) is a transitory episode only to the extent that waste and consumerist ostentation tend to define ranks, rather than following rational precepts. It remains to be seen whether we need to revisit the Brundtland Report to learn about the relationship between the rich and the poor, when we already know from Adam Smith that things will always be like this. Although differences will always exist, absolute poverty is ugly and inhumane, and all energies must be gathered against it. Furthermore, a fact that cannot be ignored is that many poor of the rich world are today richer than the rich of the poor world, and relative poverty is the measure we should consider when we try to validate economic principles.

It is important to look back also because from the classical economists we understand not only that the object of economic science is economic growth, but also that a civilized society is sustained through the presence of and respect for rules. Any deviation from these principles runs counter to the theory of development and to reality itself. This topic is one of the most generous places to be exploited. This is because instead of focusing on meaningful themes, especially the theory of growth, there is a process of dilution and digression to areas that do not belong to economics. This is done by disregarding ideas from economics and by considering areas only loosely linked to it. It should be noted that an extraordinary number of books and articles dealing with growth make no reference to classical economics. And it is highly damaging when renowned, opinion-forming minds fall into this trap. If not even well-known economists build on solid foundations, it is not difficult to understand how the theory of sustainable development has been filled with an extravaganza of words and why it entertains the possibility of living better without working more, or why proclaiming propagandistically “Down with growth!” paves the way to scientific glory. On this line of thought, is it not significant that the Stiglitz-Sen-Fitoussi Commission was created in 2008, precisely the year when the world economy began to crack? To crack not in relation to distribution or the environment but rather in regard to its hard core: the link between the natural rate of interest and the bank rate; and in regard to an inflated monetary dimension fuelled by breaking some elementary classical rules regarding the role and functions of money. Yet, it is precisely the two aforementioned dimensions, of environment and distribution, on which the Commission has focused.

In Romanian philosophy, there is a belief that, in each country, the sky is different. Paraphrasing, we could say that each country experiences the joy of possessing a part of the world’s sky in a unique way, a joy that you build yourself, a distinct part of the joy of the world. The World Bank can make calculations of the globalized world GDP, but they are not relevant to individual well-being in Somalia or Switzerland. Individual well-being is a result of how each person uses, efficiently or not, his/her mind and hands in an environment of competition restricted only by law. To wait for a share of the welfare of an increasingly globalized world to also flow towards you only because you are part of it is akin to Campanella’s *Sun City* or More’s *Utopia*. Individualism, and not holism, as a principle of judgement, remains the distinctive feature of constructing and acceding to welfare. Here, again, the founders tell us which is the best alternative. If Adam Smith and his disciple on this topic, Hayek, reviewed the state of the world, they would certainly appreciate the individual efforts of the Dutch to fill their country with dams in order to drain and reclaim as much land as possible from the sea. They would also see that the Sahara is asking for solar panels. But that it also requires individual initiative to bring about transformation.

1.2 Sustainable Development: Everything and Nothing

Never in the area of development theory has a word carried more meanings, evoked more comments and accrued so many different adjectives. We are talking about sustainable, or durable, or resilient development.

Although the phenomena of economic growth and development were present well before 1987, this is the moment when, through the Brundtland Report, a milestone is reached that transforms sustainable development into a leitmotif of economic and political discourse. The post-factum comments of this event have institutionalized the idea that the essential product of the Report translates into a standard definition. Thus, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987, p. 41).

To define is to capture, in a sentence, the essence of a phenomenon. After defining it, by an abstract and easy-to-remember sentence, a complex phenomenon may be further elaborated through secondary sentences to detail its intimate structure, function or mechanism. This is not the case with development, no matter which metaphor we use—sustainable, durable, resilient, etc. Economic growth, which, through economic and social progress, affects development, is a concept that economic theory has long since clarified, without doubt and without relativisms. The Brundtland Report uses the notion of "sustainability", without stating clearly that it is a definition. Our opinion is that the authors of *Our Common Future* (World Commission on Environment and Development 1987) did not delineate a standard definition, but rather the exegetes who have followed. What the Report's authors wanted to convey to the whole world was a *message* with a strong humanitarian flavour, expressed with a triple concern for the fate of those that follow, pursuing the following aims: the use of non-renewable resources without waste; everyone benefits from growth; increased growth occurs without pollution, flattening Kuznets' curve as much as possible. Nothing is unclear, but rather the message is engaging and inspirational. If scientists had taken this meaning from the Report, we would not have reached today's situation where sustainable development means everything and nothing. Rather, the mundane and undistorted notion would have retained its primary and original meaning of rational consumption of resources and energies. However, to create a sense of false thoroughness, some scientists felt the need to encapsulate the words of the Report in an alleged definition. And, in a conflicting etymological area, a definition evokes comments, criticism, denials or appreciations, depending on one's theoretical-doctrinal perspective and the socio-professional category of the analyst. In the area of economic science, there are other areas of "great oppositions" that undermine its status and suggest weak causalities (Mouchot 2003). On the theme of growth and development, it should be strong, edifying and clear. But it is not due to digressions on the topic of sustainability.

We are already aware of the direction of our analysis and we are convinced that an inventory of the pros and cons of sustainability, impossible to fit between the covers of one book, does not affect our conclusions. However, we offer a sample of guidelines in order to argue, once more, that returning to healthy founding origins is necessary for clarification and simplification.

Thus:

- In terms of the Brundtland Report, the wording admits the relative: "sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs" (World Commission on Environment and Development 1987, p. 17).
- The multidimensionality of the phenomenon, the fact that it comprises, simultaneously, the economic, social and environmental dimensions, makes it hard to capture it within a single equation (Gatto 1995; Goodland 1995; Shearman 1990). From here originates the attempts to define the phenomenon by dividing it into individual components.
- The economic-social-environmental triumvirate should come together to provide the true meaning of sustainability. Unfortunately, Jeffrey Sachs (2012) notes, the three desirables have not yet been reconciled as an organic whole.
- The distinction between economic sustainability and environmental sustainability is observed by the Commission of Stiglitz-Sen-Fitoussi Report. The first is to be analysed by means of monetary indicators

and the second by a well-chosen set of physical indicators (Stiglitz et al. 2009).

- Robert Kates considers that pointing the concept towards social concerns was a meritorious course of action by the Brundtland Commission. A new perspective on nature would enhance the chance that, steered in such direction, the concept would remain alive, divided between its three main components: "The original emphasis on economic development and environmental protection has been broadened and deepened to include alternative notions of development (human and social) and alternative views of nature (anthropocentric versus eco-centric). Thus, the concept maintains a creative tension between a few core principles and an openness to reinterpretation and adaptation to different social and ecological contexts" (Kates et al. 2005, p. 20).
- "The moral obligation for the future" is uncertain and, as such, hardly feasible, believes Robert Solow: "Pretty clearly the notion of sustainability is about our obligation to the future. It says something about a moral obligation that we supposed to have for future generations. I think it is very important to keep in mind […] that you can't be morally obliged to something that is not feasible" (Solow 2005, p. 1002). A general and non-specific obligation, the author adds, aims at preserving the *ability to produce* and live longer and better: "Sustainability as a moral obligation is a general obligation not a specific one. It is not an obligation to preserve this or preserve that. It is an obligation, if you want to make sense out of it, to preserve the capacity to be well off, to be as well off as we" (Solow 2005, pp. 1008–1009).
- It is clear that "The moral obligation underlying sustainability is an injunction to preserve the capacity for future people to be as well off as we are" (Anand and Sen 2000, p. 2038). At the same time, we must not forget that the problem is also an intra-generational one; that we have serious problems with poverty today; and that "It would be a gross violation of the universalist principle if we were to be obsessed about inter-generational equity without at the same time seizing the problem of intra-generational equity: the ethic of universalism certainly demands such impartiality" (Anand and Sen 2000, p. 2038).
- The predilection of political decision-makers to adorn their speeches with fashionable words does not leave the concept untouched. In this respect, Pelt et al. (1995), Morelli (2011), and Johnston et al.

(2007) emphasize that, through the language of political decision-makers and corporate leaders, sustainable development has become a slogan. Sharachchandra Lélé argues that sustainable development "is in real danger of becoming a cliché like appropriate technology—a fashionable phrase that everyone pays homage to but nobody cares to define" (Sharachchandra 1991, p. 607). The same parallel between sustainable development and appropriate technology is observed by Desta Mebratu (1998).

- Abstract and inconsistent, the concept would benefit from a consensus in approach precisely because of its lack of concreteness. Baden says "The expression 'sustainable development' is a magic formula, linked to emotions but without any concrete contents nor exact definition. And precisely thanks to that, it carries a broad consensus. Its attractive power lies in the impressions and the emotions linked to it, and not in the concrete contributions from a deep analysis" (Baden 1997, p. 2). Obligatory but also absurd, sustainable development is a term that Luc Ferry finds to be "more charming than meaningful" (Ferry 2007, p. 76).
- For Franck-Dominique Vivien, sustainable development has become "a central element of the rhetoric" with an "incontestable fashion effect" (Vivien 2003, p. 1), whether it belongs to economic journals, press or advertising. Even more critical, Alban Verchère (2011) believes that sustainable development is a trick to deceive the Third World, a naive concept that ignores the issue of power. The same ambivalence is expressed by Peter Söderbaum: "One attractive (or dubious) feature of the term is that each scholar, or other actor, can choose a meaning of sustainability which fits well into his or her pre-established world view" (Söderbaum 1992, p. 137).
- The view that sustainable development is a truism is supported by Michael Redclift (1987, 2005) with titles such as *Sustainable Development: Exploring the Contradictions*, or *Sustainable development (1987–2005): an oxymoron comes of age*.
- Following the evolution process, sustainability seems to be a link in the chain: viable, sustainable, durable, resilient (Lefèvre 2015). It only seems so, however, because the author immediately mentions that the above notions are undifferentiated synonyms, all subordinated to economic reasons. To this latter fact, he attributes not only the economic and social crisis, but also the crisis of civilisation as a whole. An ecological transition would solve the problem. Samuel

Huntington (2011) has been deprived of its subject. It seems that the *Clash of Civilizations* happens in a completely different place!

- Sustainability can be weak or strong. The first type is based on the neoclassical hypothesis that technology can substitute nature as a production factor. Eminent contributions on this matter are brought by Dasgupta and Heal (1974), Stiglitz (1974), Solow (1974), and Hartwick (1977). The second type takes into account that nature cannot be substituted indefinitely due to technical impossibilities, but also simply because it is finite, exhaustible (Daly 1990; Costanza 1991; Norgaard 1994). The solution would be the subordination of the economy to ecology in the structure of a new science, ecological economics, based on the principle of strong sustainability. It would differ from environmental economics simply because, according to the concept of ecological economics, "nature is not soluble in the market" (Froger et al. 2016, p. 8).
- Richard Norgaard (1994) and Herman Daly (1990) believe that the solution to the contradictions between the financial management of resources, subject to the constraints of capitalist accumulation, and ecological management can be found in the logic of sustainable development, as understood in terms of the co-evolution of social and natural dynamics. This is a central theme of ecological economics, of which the two are supportive.
- For Debal Deb, capitalism is the most inappropriate way to pursue sustainable development. The logic of profit and the mechanism of perpetual growth do not recommend it as a suitable system for sustainability. The author's solution is predictable: "zero-growth economy will result in better environmental integrity because with zero rates of profit and interest, there will be no further incentive to invest in technology to accelerate depletion of natural resources. Zero rate of profit may not need stopping of all business enterprises; rather, enterprises will strive to maintain the average rate of profit, which is zero, and avoid *negative* rates of profit" (Deb 2009, p. 293). This would be possible in an "inclusive freedom of society", believes the author. Sudhir Anand and Amartya Sen also have a problem with the market and its mechanisms based on the logic of profit. They do not believe in its ability to solve a problem that belongs to the future. Therefore, they call for the state's presence: "the obligation of sustainability cannot be left entirely to the market. The future is not adequately represented in the market – at least not the distant future – and there is no reason that ordinary market behavior will

take care of whatever obligation we have to the future. Universalism demands that the state should serve as a trustee for the interests of future generations" (Anand and Sen 2000, p. 2034).

- The existence of strong and effective institutions, including the presence of democracy, can make the difference between sustainability and non-sustainability in the opinion of many authors (Barro 1996; Broadberry and Wallis 2017; North 1990, 2005; Stiglitz 2016). Within this approach, Acemoglu and Robinson maintain the inclusive role of political and economic institutions to make the difference between "inclusive" and "extractive" nations (Acemoglu and Robinson 2012).
- It is the production of material and non-material goods that generates growth. The neglect of this aspect is synonymous with the trivialisation of the concept of development, believes Amartya Sen. He states that "The process of economic development cannot abstract from expanding the supply of food, clothing, housing, medical services, educational facilities, etc. and from transforming the productive structure of the economy, and these important and crucial changes are undoubtedly matters of economic growth" (Sen 1988, p. 12). Sen continues "The foundational role of values can be neglected in favor of an instrumental view only by trivializing the basis of the concept of development" (Sen, 1988, p. 23).
- The Stiglitz-Sen-Fitoussi Report's (2009) synthesis mentions the "sustainability of well-being". In response, the Report of the Conseil d'Analyse Économique and German Council of Economic Experts (2010) points out that, indeed, GDP is not an absolute measure of well-being, but, nonetheless, the material component prevalent in the calculation of GDP is essential if well-being is to be achieved and delivered to the population.
- "The problem with sustainable development", believes Serge Latouche, "has not so much to do with the word sustainable, a beautiful expression, but with the concept of development that is downright a 'toxic word'" (Latouche 2007).

What does this "conflict of definitions" tell us, to use the expression of Jacques Sapir from his book *Quelle économie pour le XXIe siècle?* (Sapir 2005)? Sapir uses an inventory of the multitude of definitions of Economic Science created by Serge Latouche. Yet, ironically, it is precisely Latouche who makes use of titles such as *L'imposture du développement durable ou les habits neufs du développement* (Latouche 2003) and *A bas* *le développement durable! Vive la décroissance conviviale!* (Latouche 2007) to create disorientation and confusion, tarnishing the image of the science he claims to serve.

So, what do these many and contradictory definitions tell us?

Firstly, the state of amalgamation is clear and bothersome. The attempts to define, critique, classify and configure the content of sustainability are diverse. The criteria for analysis and the units of measurement vary widely.

One common observation is that the phenomenon is too complex and can only be analysed through one of the three components. The triptych of sustainable development calls for economic, social and environmental judgements. Yet, only the ecological footprint appears to define the scope of sustainability.

When not associated with its usual characteristics of durability and resilience, sustainability is linked to adjectives not usually found within the scope of economic analysis: magical, vague, dangerous, similar to the Christian vision of good and evil, obligatory, absurd, etc. When trying to emphasize the link between the definition and the essence of the phenomenon, sustainability appears as an oxymoron, a contradiction of terms. If it refers to the extent to which the main factors of production substitute each other, sustainability appears to be either weak or strong. If one is to take into account the macro-organizational framework to which sustainability is applied, then it could be conceived as: (a) a new model: democratic, concerned with social distribution and equity but opposed to capitalist economism; (b) an "inclusive freedom of society" with a zero profit rate (Deb 2009); (c) a hidden form of protectionism or a trick to deceive the Third World; and (d) a compromise solution between capitalism and socialism or a naive construction that ignores issues of power. The fact that sustainability has passed from the minds of scientists into everyday language is captured by expressions such as slogan, cliché and an element of rhetoric. That sustainability no longer possesses any serious meaning, we understand from Solow's admonishment: the less we know about it, the better it is for the health of our thoughts.

In summary, the sustainability of economic development can mean anything. It can be viewed and analysed from all angles and makes sense only by the intent and interest of the one who leans on the concept.

Secondly, it is said that the definitions stem from an alleged standard belonging to the Brundtland Report, or, the Report, as we have already stated, does not provide one. It explains a *necessary process* of compromise, reconciliation and balance of contradictory tendencies manifested between the three sectors of sustainability: economy, society and environment. The *goal* of this compromise is to make the lives of present and future generations compatible. All of the various definitions would have gained substance and would have been easy to comprehend, had they been connected to the core, namely economic growth. In looking for its ultimate purpose, the Report introduced the notion of sustainability within its analysis to clearly state something that can be found in the *message of the founders*: that the fruits of growth must be enjoyed by men and other living beings and that this happens in friendship with nature and not at its expense. Further, this exercise should be seeking permanence, to be valid today but also in the future. Yet, many of the definitions mentioned not only do not comply with continued growth, but they deny it, deeming it toxic and contrary to happiness—hence the need to stop and switch to degrowth. In such circumstances, do we still find ourselves within the area of economic science if we relativize its main goal up to the point of denying it completely? If all those who study the subject, economists and non-economists alike, miss what has been established plain and crystal clear by Adam Smith, and instead come up with their own definition, the notional and epistemological base of economics will be seriously damaged. It should be added that not even Smith (1977) managed to come up with a standard definition. He defined the *goal* by letting a civilized society (the leitmotif of many paragraphs of his writing) understand that: (1) the results of human action are not to be thrown into the sea or incinerated; (2) these results must profit those who create and expect them; (3) the productive activity provides employment and purchasing power; and (4) at last, in a civilized world, no garbage is thrown on the side of the road, the sky is not covered by the smoke of the factories, animals are not aggressed, and forests are not cut down. Is it necessary to come up with hundreds of additional definitions to pollute the medium of ideas with things already known?

Thirdly, it is acceptable that economics was not, and is not, the exclusive domain of economists. Favourable circumstances have located its origins in the spheres of philosophy, history, sociology and psychology. But that phase has passed, and economics has been formalized with an object and method of its own. It remains open, by the very nature of its object, to interdisciplinary study. Economic facts are embedded in real life; you cannot de-compact it and understand it only by economic knowledge. But there is a long road from here to the invasion, not just of " polylogism" (Mises 1998), but also of logical inadequacies, fictions, phantasms or naiveties. If those seduced by the economic mirage would come up with a solid theoretical offering, within the limit of paradigm shifts, we would be more than happy to recognize it. But what do you do with those who fill the area of economics with distortions, confusions and inadequacies? It is a curious attitude when one tries to forbid a smile caused by economic growth, proclaiming its end and rejecting it without solid arguments. It is also illusory to proclaim that we could live better with less work, insisting on the pleasure component and disregarding the material side of life (Daly 1974). In this respect, the rarely quoted work of Thorstein Veblen (2007) and his "leisure class" appears to be overlooked. The insights of the old institutionalist captured a change, observable but illogical, of plans: the transformation of work from simply a means to an end in itself. The goal is the pleasure of life. No one likes work in itself, but without it one does not reach that goal. For the time being, mankind has not invented another way to obtain extra well-being. This is Veblen's message.

As a reflection of the detachment from the classical ideological core, we find ourselves today in the hands of manipulators of ideas, invited to think that what happened in the USSR immediately post-war bore the signs of growth and even of sustainable development. The Brundtland spirit asks for disclosure. We cannot teach future generations that they will progress at the desired pace by putting the cart before the horse, distribution before production. Do we advise them to read Lenin to see how a scientific plan of imposed collectivization of agriculture and forced industrialization promises to deliver a good, sustainable life? No, and this is why we believe that Pikettism must be regarded as a disease (Pohoaţă 2016) whose catastrophic consequences were exemplary captured a century ago by Berdyaev (2015), who lived through that traumatic experience. Yet, it appears that not everyone has been vaccinated against it.

It would be good if these thousands of sustainability activists were only to offer a welcomed critique. Everyone has the right to say what he thinks about sustainability. But their attempt is one of dilution and confusion, distorting the concept. And for economics, dilution of the concept by abusive use leads to its trivialization. What impression are you left with, for example, if under the title *The Illusion of Sustainability*, you find out that it is possible to talk about the sustainability of anti-parasitism (Kremer and Miguel 2007)?

Fourthly, a definition captures only the essence of the phenomenon, leaving its forms of development and determinants open. The assertion that the wording of the Brundtland Report gives a definition does not stand. Accusations of a deceitful trick played on the Third World do not constitute criticisms of a definition. They may be considered so when applied to a message, a suggestion, a process analysis, but not to a definition. A definition might be criticized for the degree of abstraction or the clarity of the formulation. However, it is not so much a definition when it refers to the system, the way of organizing the economy and the appropriate society for sustainable development. If alternatives like free market—étatism, democracy—"inclusive freedom of society" (Deb 2009, p. 366), "inclusive markets"—"extractive markets" (Acemoglu and Robinson 2012), are being brought into discussion, are we still talking about a definition or are we referring to a process, a good mechanism for development with the name of sustainability? Is it not recognized that in economics, as in any other realm of existence, not everything requires a definition? If things follow clearly, do we find no other way to affirm them, other than confusing them?

Fifthly, it has been asserted that ideology is the true enemy of economics' objectivity. Marx told us so, thinking of others. Schumpeter explained it, deceiving us in a consoling manner that its legacy does not last for eternity (Schumpeter 2008). We feel it fully today when we realize, helplessly, that by retaining the spirit of Political Economy, its validation is achieved through legislation. Ideology can confirm or deny it to suit the interests of lawmakers. The fact that sustainable development has become a slogan of current politics is worthy of consideration. If this latest expression—sustainable development—used by economists to articulate the ultimate goal of growth has become an appealing slogan for winning votes, it raises serious concern for the status of this science.

Overall, where the criticism comes from, the target is the alleged definition of sustainable development. The attributes used range from vague, dangerous, pretext to exploit someone, undefined, slogan, too broad, trick, naive conception, a central element of rhetoric with a powerful fashion effect, technology-like cliché and a dogma maker (to live in harmony with…), attractive yet dubious, oxymoron, hidden form of protectionism, magical and inconsistent concept but, yet… unavoidable!

If this is the case, can this concept serve an objective analysis? What can undermine a concept more than the assertion that the only unanimity of opinion is based on its lack of content? So, if you can juggle with it to say almost anything, it is clear that the term sustainable development can no longer "become the exact reflection, the perfect double, the unmisted mirror of a non-verbal knowledge" (Foucault 2005, p. 323). Instead of neutralizing scientific language to provide the necessary logical rigour, it serves to perform ideological acrobatics that have a flavour of mysticism, similar to the "diplomacy by terminology" phenomenon explained by Gunnar Myrdal when referring to the "developing country" expression (Myrdal 1970, pp. 33–36).

If, however, it is unavoidable or obligatory, as the philosopher Luc Ferry (1995) says, but also disavowed, what can we do? What is to be done for sustainable development to become an operative, meaningful concept with an unequivocal core? As we suggested, the solution is to cleanse it by reverting to the sound core of classical and, in part, neoclassical economics.

1.3 How Do We Understand the Brundtland Report?

The text of the Brundtland Report has been analysed, appreciated or criticized from various perspectives. If things continue in this manner, there is every chance that it will acquire the status of the concept it has conceived—sustainable development. It will relativize and dilute until it transmits nothing. Can it gain support? And if so, on what grounds? For the most part, such an effort is worth it to defend the idea of the general and generous message which it conveys. Then, it has to be done because the Brundtland version of sustainability is the only one that can validate the ideas that came to us from the founders of development theory. And it does so because Brundtland sustainability represents the current concept, the functioning mental framework, the norm that no one can ignore.

What is to be challenged in the Report and what is to be accepted?

Firstly, its target audience! It is said to be a message for intellectuals and for the developed world. What are the others to do? Was there no universal Walrasian *commissaire-priseur* to read the message in all the languages of the earth?

This criticism lacks substance. The lesson of the text is valid to anyone interested. The Report states that there are no ideal models of sustainable development (World Commission on Environment and Development 1987), and that each country offers its own measure. Is it Mrs. Brundtland's fault that intellectuals in the Afghan government are not dealing with the transmission of this message to their fellow citizens? We do not think so. Would it upset these citizens to find out that such a report also includes them in *Our Common Future*? It is understandable that the perception of the message is different in a developed country than in an emerging or underdeveloped one, in a former colony compared to a colonial metropolis, in one that has experienced the trauma of communism as opposed to one that has not known such an experience. History, culture, the institutional systems, the level and the quality of resources, the emphasis on education and production, the power to repress feelings caused by a humiliating past and to start over, all these create the chemistry whereby the message of the Report comes to life—combines forces or dislocates them. And it dislocates them if governments in the underdeveloped world do not fulfil their primary function of creating an enlightened public opinion, helping citizens to understand and, if necessary, transform the conditions they face.

Secondly, the following expression synthesizes the content of the Report: "without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987, p. 41). The keyword here is ***ability***. Because the moral obligation towards the future is uncertain and difficult to assess, Robert Solow (2005) notes that the orientation on capacity is essential and realistic. Amartya Sen and Sudhir Anand build on the idea by alluding to the problem of intra-generational relationships, arguing that the capacity of the present generation to solve the problem of poverty of those that coexist with them is also important (Anand and Sen 2000). The "moral obligation" (World Commission on Environment and Development 1987, p. 52) of any generation is, indeed, to help the latter to develop their own abilities, in terms of craftsmanship and skills, so as to meet their own needs. How? Teaching them how to fish, not simply giving them a fish; passing on knowledge that will encourage the agility of mind and help them meet other needs in different circumstances. If this requirement is met, then, in line with the idea of progress, those who come after us will be more capable, or at least as capable as we are, in shaping their life plan and ensuring that it is feasible. It is an individual life plan whose outline, character and structure cannot be clearly sketched by those living in the present. In a constantly changing world, the idea of accurately projecting an individual life plan for another human is futile. From such a perspective, learning and study occupy such an important place within the programme. Learning must be acquired from all available sources: from family or in school; from economists, philosophers, sociologists, literati and engineers; for example, by reading Smith's splendid lines about domestic education as an "institution of nature" in *The Theory of Moral Sentiments* (Smith 2004, p. 261) or from Confucius. The latter can convince us that, millennia ago, sustainable development had supporters. From him, we explicitly learn that education opens doors towards everything, and that this is the safest way to happiness, uncovering for those who are interested all there is to know about moral desiderata. Confucius and Socrates can be regarded as pioneers of the economy of happiness. Who, more than Socrates, was satisfied with little and saw fulfilment beyond conspicuous consumption? Who has more effectively sought equality among people by walking the path of peace and social equilibrium, topics close to sustainable development? Or, if we are to continue the path of the notable ancient precursors of sustainability, Xenophon is also worth consideration. His work on the growth of horses is a first sign, received from an approved philosopher that our happiness must not be dissociated from that of animals (Xenophon 2006).

The ultimate goal of development is not a discovery of this Report. Walras (2014), followed by Pareto (2014), explicitly drew attention to the fact that economic efficiency is a nonsense if it is not matched by social efficiency. Their preparatory steps outline what will eventually become the social market economy. Basically, this is a concept of German origin that seeks to reconcile economics with the wider social dimension. It is true, the environment has not been an explicit concern for those who have launched the idea of a social market economy, but where more than in the German space, is nature at home? Or, in order to acquire a realistic and current understanding, a reading of the provisions of the UN Charter would be worthwhile in parallel with Oliver Williamson's (1985) texts on opportunism. The enthusiasts who dream of entering this globalized world as in a huge dance of universal brotherhood will quickly be immunized, discovering from the realist Nobel Prize winner that opportunism refers to "self-interest seeking with guile" which "more often involves subtle forms of deceit" (Williamson 1985, p. 47).

In short, responsible parents, a good school, generous readings on the whole range of knowledge can endow one with the abilities that Mrs. Brundtland refers to. From these same sources, one learns that it is indeed a moral duty not to leave behind an empty, polluted or predatorily exploited planet.

Concentrating our discourse on the creation and cultivation of abilities, generation after generation, we will be exempt from unanswered questions. We will be relieved of the nonsense of accurately defining the needs of the present generation in order to compare them with the needs of unborn generations. The needs of some of the present generation, where poverty and failure make lives difficult or unhappy, are more acute and more concrete. Future generations will know what their needs are, and, above all, they will know how to fulfil them if we teach them how to fish. And if we teach them well, they will look back and smile at our conceptual confusion about developing the development of all sustainable development. They will cherish us not for our proud and empty oxymorons, but because we sent them to school. Then, the obsession with physical and monetary terms will diminish. The theoretical concern that by increasing prices the consumption of non-renewable resources will be reduced is welcomed. Even if 80% of the world's resources are used by 20% of the world's population—and, indeed such a solution might have full justification—who makes such a decision? Finding that global supply exceeds global demand, who proceeds, normatively, to the much-needed redistribution for the poor? Neither the Brundtland Report nor those of the Club of Rome offer any normative guidance. A world government that can do so, imagined as possible by Piketty (2014), and welcomed by Krugman (2014), remains a utopia. Non-utopia remains the idea that future generations will not spread their bread with prices instead of butter. The idea remains that tenacious, thorough, honest and qualified work will help them solve the dilemma regarding the complementarity or substitutability of nature with capital. Alternatively, new energy sources may solve the problem of raw materials, and as a result, Georgescu-Roegen's (1971) entropy remains a valid lesson only to those who distrust the force of human creation.

Thirdly, the Brundtland message is a general one, but it is one about development. It starts from growth, proceeds through economic progress and arrives at a generalized social progress. No area of human activity remains unimpeded in targeting the goal. Lacking direction, the theme of development or its latest name—sustainable development—seems to be no longer the pinnacle of economics; anyone can deal with it. Economists and non-economists alike have greatly contributed to this perception. When an economist like Serge Latouche (2007) declares that the issue of sustainable development must be removed from the economists' tutelage to receive a friendlier analysis from intellectuals, what does he actually achieve? He confirms not Adam Smith, who was very clear about what the economist should do, but rather Joseph Schumpeter, who wrote, "most of us, not content with their scientific task [...] bring into their work their individual schemes of values and all their policies and politics – the whole of their moral personalities up to their spiritual ambitions" (Schumpeter 2008, p. 208). This is precisely what Latouche does. Making use of his moral authority, he describes development as one "toxic word" (Latouche 2007) and in line with Georgescu-Roegen's path, invokes degrowth as the ultimate mechanism to bring about the happiness of the world. The same Georgescu-Roegen pointed out that "No science has been criticized by its own servants as openly and constantly as economics" (Georgescu-Roegen 1971, p. 1).

This has left economics in an unlikely place; an area between a reality that disqualifies it and an alleged universalism that dilutes it; between looking for sustainability in the study of intestinal parasite treatment (Kremer and Miguel 2007) and the torture of finding infallible indices to measure happiness on the planet (Hecht 2007). This is the source of a loss of systemic vision and the false identification of some areas as potentially more dangerous than others, declaring the ecological footprint as a basis for transitioning from development to, simply put, sustainable development. The change brought about, naturally, the temptation of creating a new specialized science, ecological economics or its ultimate form, the science of sustainability.

It is true that the Report has generated a new attitude towards the environment, which is welcomed and certainly well documented. At the same time, a social uproar has accompanied the ecological one by triggering economic analyses in the area of anti-profit justice which are thus unintentionally anti-entrepreneurial and unsympathetic to the very foundations of economic dynamics. To this picture, we can add the chorus of those who play the tune of the rational state, to the extent that those who really create wealth wonder why they should continue to do so. We believe that the Brundtland Report has suggested no such thing. But it created the opportunity for many to do it. The social tremor, the fiction of living equally and happily, in which too many have put their hopes, has for almost half a century destroyed the economy of a good part of the world. It is preferable for the promulgators of such a thought not to put imagination before experience or to discover what those who have already experienced confiscation think. Or to fathom the conviction that those who followed Smith and not Marx succeeded because they believed above all in indisputable natural rights, in the context of liberal democracy. The power of democracy is not absolute, nor convincing for all. But just as we cannot impose virtues on the underdeveloped world by force, likewise we cannot deceive ourselves that an institutional culture that bears fruits in the US will have the same results in Bhutan.

On the whole, the conclusion of all these contributions thus far is summed up in the following sentences: (1) development no longer seems to be the main theme of economics nor indeed its domain; (2) the economist is no longer in charge of economic diagnosis; and (3) the value grids of each of the three components, namely ecological, economic or social, may or may not define the status of sustainability.

Therefore, where can we find inspiration in this regard?

Mohammed Rabie provides an integrated, up-to-date vision of development, with a strong institutional tone in his book *The Theory of Sustainable Sociocultural and Economic Development* (Rabie 2016). When he sketches a programme that targets sustainable development, he gets caught up in the mirage of thoughts raised to the rank of orthodoxy and not only places redistribution at the forefront, but also fails to mention any measure related to production. An outline of Mohammed Rabie's analysis is as follows:

1. "Distribute income fairly among social classes and nations;
2. Reduce the world's annual population growth rate to near 1%;
3. Transform world cultures;
4. Reduce annual military spending by all nations, especially the great and regional powers, to 2% of their GDPs or less; and
5. Liberate all nations from the burden of public debt" (Rabie 2016, p. 28).

It is perhaps surprising that the author of a valuable book does not recognize that without growth everything is futile. But if he establishes such an order of priorities, can we learn from it what sustainable development is, and how it might be achieved? If we cannot, where might we look for guidance?

Do we find it in the works of a historian like Yuval Noah Harari? Maybe. His book, *Sapiens: A Brief History of Humankind* (Harari 2015), does not explicitly proposes a sustainability analysis. But after reading his book, you begin to doubt the erudite treaties on sustainability. And you understand what you must about sustainability.

The renowned economist David Landes, in his book *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor* (Landes 1999), presents a picture of what he thinks would be the ideal case of a growing and developing society. We describe this exceptionally articulated sketch, noting that it starts where everyone should start: "[…] manage, and build the instruments of production" (Landes 1999, p. 217). It is notable that nothing escapes the text. The expression "sustainable development" is not used, but that is what it is all about. It is a text that should be quoted and necessary in any work on development, sustainability, resilience or whatever we wish to call it:

"This ideal growth-and-development society would be one that

1. Knew how to operate, manage, and build the instruments of production and to create, adapt, and master new techniques on the technological frontier.
2. Was able to impart this knowledge and know-how to the young, whether by formal education or apprenticeship training.
3. Chose people for jobs by competence and relative merit; promoted and demoted on the basis of performance.
4. Afforded opportunity to individual or collective enterprise; encouraged initiative, competition, and emulation.
5. Allowed people to enjoy and employ the fruits of their labor and enterprise.

These standards imply corollaries: gender equality (thereby doubling the pool of talent); no discrimination on the basis of irrelevant criteria (race, sex, religion, etc.); also, a preference for scientific (means-end) rationality over magic and superstition (irrationality).

Such a society would also possess the kind of political and social institutions that favor the achievement of these larger goals […].

More corollaries: this society would be marked by geographical and social mobility. […] This society would value new as against old, youth as against experience, change and risk as against safety. It would not be a society of equal shares, because talents are not equal; but it would tend to a more even distribution of income than is found with privilege and favour. It would have a relatively large middle class. This greater equality would show in more homogeneous dress and easier manners across class lines" (Landes 1999, pp. 217–218).

1.4 What Is Sustainability? the Sustainability-Durability-Resilience Kit

We are convinced that, irrespective of other synonyms, sustainable development has, first and foremost, a decisive link with the economy. The most generous social and environmental policies remain unsupported if the economy does not work. To believe otherwise might be more engaging, but certainly, also more ephemeral. The economy has emerged as a science with the ultimate goal of teaching people how to produce wealth faster and more efficiently, so as to satisfy the growing trend of consumption. How this wealth is divided among the members of the community for the benefit of each is a matter of concern. Economists have never been inhumane. They have always pursued policies to produce satisfaction by designing mechanisms with self-propelling and obstacle-overcoming force. They thought their approach was sustainable, that is, with its own power to function and overcome obstacles, just as the Latin *sustinēre* says and as Walt Rostow (1959) rightly observed, using the syntax of self-sustaining growth. They have seen obstacles with possible origins within the economic and social body as well as beyond; related to production, distribution, exchange or consumption; to the way in which the actors of economic life, both governmental and private ones, respect or disregard the job description resulting from an institutional arrangement designed to make life possible; regarding the sphere of politics and geopolitics; and in relation to the environment and resources. On any of these lines of human action, sustainability analysis can be successfully employed. This can be achieved by starting from the premise that what we conclude about any of the aspects must be integrated into the fabric of the whole. Logic demands it. It is nonsense to talk about the sustainability of consumption and the unsustainability of production.

Sustainability is of the ensemble. Hence, sustainability requires a systemic, holistic, macroeconomic vision.

The idea of sustainability gains contour and meaning with reference to a country. The sustainability of the global economy is, for now, a phantasm. A sustainability map, by country or region, does not draw sustainability as a continuous line. The quality of resources, natural and human, the institutional culture, the quality of rules and players, the entrepreneurial vocation, the saving and investing spirit have, throughout history, been responsible for the level of sustainability. And the level varies both within and between countries over time. Also, depending on capacity and inspiration, each country requires another measurement method to assess its robustness to shocks and the chance of progress without syncope—in other words, to measure resilience. No other concept is closer to sustainability than resilience, which it includes and validates, or not, in moments of major economic crises. In such circumstances, it is clear what is the position of each country regarding sustainability. Then, it is neither environmental nor social policies that are tested. They all will depend on how the economy fares, their status being a consequence rather than a starting point. This has been seen in the last two major crises, a result of the unhealthy way in which the nominal economy has broken away from the real economy. The manipulation of monetary mechanisms costs everyone everywhere, including the social and natural environment.

Sustainability cannot be tested in the short term. The scope of the process to which it refers, that of development, requires long-term analyses. Indeed, long-term development and, likewise, long-term sustainability are, we would argue, tautologies. Concisely, the simple assertion that an economy is sustainable means that its dynamic comprises robustness, viability and a capacity to overcome social, environmental or resource constraints. As far as the sustainable-durable synonym is concerned, this concerns the translation of the term "sustainable" from English into French—"durabilité". But durable means the same thing as sustainable and also alludes to the functionality of an economy without major obstacles.

In outlining and arguing such points of view, the limited inventory of sustainability definitions that we have explored does not help us, as we anticipated. Most of them are preparing the stage for degrowth. We do not accept such an idea for a number of significant reasons. We are interested in the fundamentals, the origins of sustainable development.

We will search for them in the works of Smith, Ricardo, Malthus, Mill, Say and Bastiat. We will be attentive to the echoes of their thoughts in the sources of economic dynamics, reviled, updated or developed by the likes of Jevons, Menger, Hicks, Nordhaus, Rostow, Kuznets, Acemoglu, Diamond, Jeffrey Sachs, Solow and Stiglitz. The social component, so important in sustaining economic dynamics, refers us to Perroux, Schumpeter or Keynes. Thanks to Walras, Pareto or Nash, we will be convinced that there are no ideal models of sustainability. Through them, we find positive direction towards a robust, sustainable economy. We add that Marshall or Pigou will serve as examples of what sustainability represents, at its origins, from the perspective of the relationship between economic dynamics and the environment.

1.5 Assumed Eclecticism Within a Non-history of Economic Ideas: About Whom and What We Are Going to Discuss

In our search of additional rigour and clarity for our topic, we subject the return towards the founders to an exercise of decantation. Not everything they have written serves our initiative. From their "rounded" work, we only extract that which consolidates our argument. It is clear that the sum of these pieces extracted from harmoniously outlined unitary systems does not form another whole. Yet, we knowingly resort to this puzzle in order to achieve our goal; to show that there are unexplored or very little exploited areas in the works of the founders of economics that hold great potential for the endeavour of the necessary relocation of sustainability theory within its natural domain. Our treatment of these areas may appear, at first sight, to be dominated by a baffling eclecticism, lacking the unity of a clearly defined perspective and object of study. It certainly seems this way when tackling a broad range of subjects, such as: inequality, human cooperation and the division of labour, accumulation and the production–distribution–exchange–consumption logic inspired by Smith, the market, property and money as informal institutions, the stationary state, non-material happiness, the dialectics of the natural price of both commodities and money, the disciplinary characteristic of the natural rate of interest and the roundabout method of production. The impression one is left with is that of hopelessness. Yet, beyond that first initial impression, one can see that we do not compromise when it comes to the unity of our construct. It is achieved by means of method. The very different places we have visited "speak" the same language and, albeit in different ways, serve the same purpose: to show that sustainability is in its element within the founders' framework. In other words, returning to the beginning is important for the attempt of detaching the theory of sustainable development from the trivializing forms that smother it, even if these beginnings amount to ideas and views that bear no visible connection between themselves.

At the same time, at first sight, volume one of our work may look like a short history of economic doctrines. In fact, it is not, and it cannot be such a thing. Even if the pieces extracted for the purpose of our argumentation are quite substantial, they do not say everything there is to say about the authors they belong to and their work. They serve our endeavour but simply jotting them down does not amount to recounting history. It may resemble, in part, a history of the analysis of the evolution of the idea of sustainability, in the same sense that Schumpeter (1986) has ascribed to the concept of analysis. The fact that many other problems tackled in the works of the founders, which do not directly serve our purpose, are knowingly skipped does not support the idea that our work is purely historical.

We should also take notice that the founders whom we have used as reference did not write about sustainability in the manner we understand it today from the standpoint of the tridimensional doctrine of economics-society-environment. It is certain that it was not their goal to do so. There was no debate on the topic of sustainable or unsustainable development. There was only one type of development whose goal was to bring prosperity and which was primarily judged from a quantitative perspective. Social and environmental problems were not clearly delineated. They were contained within the organic whole of economic theory and, without being disproportionately insisted upon, they conferred roundness and meaning to the endeavours of the founders.

For a while now, it is customary that the work of the founders' descendants be referred to as mainstream economics. It is generally accepted that the whole neoclassical tradition is "drowned" into the mainstream. The fact that great Nobel laureates such as Solow, Arrow and Samuelson stay faithful to the marginalist doctrine of the neoclassicists as a method of analysis but do not break away from the sturdy core of classicist economics is often ignored. As in any other area of knowledge, the domain of economics is also subject to a cumulative process. That which proved timeless within the theoretical corpus of the past is updated and retained within the theoretical corpus of the present. Quoting the contemporaries, the neo-neoclassicists, does not mean that we forget about the founding neoclassicists or classicists. They did not and will not die (Colander 2000). What has died, as resulting from the referenced article, is the good habit of also referencing primary sources. When, during the course of our endeavour, we referenced many neoclassicists such as Wieser, Menger, Böhm-Bawerk, Jevons, Marshall, Pigou, Walras, Pareto or Wicksell to name only a few representatives, we have done so using the classification that has been standard in the majority of economic history treatises ever since Thorstein Veblen has first coined the term "neoclassical" (Aspromourgos 1986). From the neoclassicists as well as the unmistakable classicists, we wanted to find out what form sustainability takes in the works of those who had the privilege of being deemed the founders of economic science. In the second volume, we will also deal with a part of their descendants which tackled the subject of sustainability. In this volume, apart from the classicists, we also draw inspiration from the founding neoclassicists. And the founding neoclassicists were and still are considered the initiators of the marginalist revolution and the subjective theory of value. In their three versions—English, Austrian and Swiss—they sought to impose a new research method and direct the science which they served towards new research goals. We deem their direct contribution to the analysis to be beneficial and helpful in offering a new perspective to sustainable development, in regard to both economic theory and practice.

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CHAPTER 2

The Classical Discourse—From Start-Up to Harmony. What Is Sustainable About It?

In our assumed line of thought, we are first concerned to find out how solid and logical the theory of sustainability is organized according to a matrix of classical origin. In its original form, the classical theory does not seem to need further subtleties. It said what it needed to say regarding the knowledge in its field of study and, through the prestige gained, it also provided protection against deforming vulgarization. But not in a definitive way, and we believe this to be a possible problem. It is a problem because little or very little of its original texts directly serve as benchmarks in current analyses. Processed texts, as well as interpretations, are being used instead. The exercise of decantation, actualization and dissemination enriched it, but also made it weary; in too many cases it constituted a departure from the forms of the beginnings and unnecessarily complicated it. Its registers remain rigorous and inspirational as they were conceived and completed by the founders, but not in the fight of contemporary words that suffocate and pervert its original meanings. And concerns about sustainability also seriously contribute to this exercise of suppression and emptiness. To deal with them, a critical reckoning is necessary. One that is not without risks because we are already dealing with Orthodoxies, authorities as well as with upsetting, but esteemed platitudes. Such undertakings demand a reply. We will provide one by searching thoroughly; not by claiming quotable pages, total justification or absolute truths; but by

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claiming, however, a deeper understanding. By bowing respectfully to the great scholars of the past, but not shying away from constructive doubts about the lesson of the professors of economics, we will substantiate the conviction that also in the field of development theory not everything new and packaged in a modern manner is coherent. And that many ideas from the past are still relevant and inspiring.

2.1 Division of Labour and Cooperation—The Ferments of Sustainable Development

2.1.1 Analysis Framework

No subject matter of the economic theory seems more exhausted and more mundane in its apparent simplicity as the division of labour. At the same time, there is no serious treatise of economics in which the issues of the division of labour are not included in the preface. Why is that? Because, as the quotable Nicholas Berdyaev put it, who was no economist but experienced first-hand a macroeconomic and political experiment that fought against inequalities, "the division of labour is at the basis of human society and human culture, the basis of the discipline of work and its qualitative hierarchical aspect. The casting down of the division of labour is a casting down of the societal cosmos, an ending of a qualitative culture. The qualitative levelling of work is an insult to the finest and a selection of the unfit, a denial and destruction of abilities and talents, of experience and education, of vocation and genius" (Berdyaev 2015, p. 200). Such a text almost leaves us nothing more to say about the importance of the division of labour as a fundamental determinant of the dynamics of a society. At the risk of really saying nothing new, fundamentally different from him, we have invoked his name and we shall bring further arguments to emphasize, once more, the solidity of his thought.

Precisely because it is an important beginning, all classicists, without exception, but particularly Smith and Mill, have treated the division of labour as a predilect subject of their analyses. They did so to persuade that the entire work of developing a society is built on the principle of division of labour. On it and on its twin phenomenon—human cooperation—should one base any type of healthy dynamics—or sustainable as we refer to it today—of the economy and society. In addition, even though they have not explicitly intended this, through their coherent and limpid approach, they made it clear to us that the division of labour and induced cooperation possess the vocation of a unifying principle. Without them, we can build nothing or almost nothing.

What is worth remembering from the classical undertaking on this topic as food for thought for sustainable development?

First of all, it prevails the idea that the division of labour provides everyone with a distinct task. "[S]kill, dexterity, and judgment" establishes one either as a "trifling manufacturer" or as a specialist in thinking issues (Smith 1977, p. 17). "Human beings are not like sheep", Mill completes (Mill 2015, p. 66). Nature and/or society places them in the social hierarchy according to their physical and intellectual potentialities. They should be aware of these potentialities to place themselves in positions where their hands or their minds may be used most profitably, for both themselves and the society. ***Then***, the Smithian example of manufacturing pins remains useful for understanding the way in which the division of labour proves to be the primary factor in the process of increasing productivity. "[T]he increase of dexterity", "the saving of the time" and "the invention of a great number of machines which facilitate and abridge labour" (Smith 1977, pp. 21–22) will constitute reasons of reflection for people who produce today analyses on the substitution of labour with capital. The Schumpeterian "Creative Destruction" (Schumpeter 1976, p. 81) has to be understood in this context. The risk that the substitution of labour is too accelerated and will fill the world with unemployed people due to digitalization, a phenomenon insistently talked about at Davos 2016, is perceived in this context of ideas. ***Third***, but in the same line of anticipations, prime importance is attributed to Smith's eulogy of reason. He considers it an exceptional activity, the apanage of a category of people with a fundamental role in the development of the society. The "specialization" of reasoning will become, within the Friedmannian formula of the "state of knowledge", the configurating support of the line that separates the «amateur» from the «professional» (Friedman 1953, p. 25).

2.1.2 The Double Origin of Inequality: Nature and Society

The division of labour could ultimately also be envisioned in a world of equals, but the classicists dealt with what they had seen. They left the utopians jubilate and dream of a world of equals; in heaven or on earth. The disillusion is that they also did not conclude that heaven is populated by equals. Thomas More, for instance, establishes that there are three categories of angels, according to the distance that separates them from God. Equality is only to be found in the realm called utopia (More 1975), that is "nowhere"! The classicists have seen that people are not equal in the first place. Responsible for these inequalities are nature, the great creator, or society; or all of them. Smith believes that in the first 6–8 years of their lives, individuals seem alike, almost impossible to differentiate. During this period, a philosopher does not seem to him to be even half as special as a street porter (Smith 1977). It is only after this time horizon that serious differences emerge. Only after this threshold, the "habit, custom, and education" produce hierarchies (Smith 1977, p. 32). In other words, society is overwhelmingly responsible for the inequality at the starting point in life. This is what Adam Smith thought!

Irrespective of the extent to which nature and society contribute to inequality, the world of the classicists is populated by unequal people. This idea is not at all new. Thousands of years later, the social structure they operate with is not fundamentally different from the one found in Hammurabi's Code or the works of Aristotle the Stagirite (1959): superiors, commoners and slaves. The condition of the latter seems to our founders as possessing transcendental origins. "[S]lave nature" is opposed to "freeman nature". This is the making of the divine. A sort of "God dependence", especially in Smith's case, alleviates the discomfort with which this syntagma is invoked. Their revolt is minimal towards the hideousness of this phenomenon. Slaves belong to a special logic of the division of labour; they rather resemble animals. For what would later become sustainable development, the said surrogate of revolt against slavery is worth retaining. But only that! The notion of a "slave nature" has nothing to do with sustainability or humanity. Interesting and worthy of attention in this instance are the analyses of the classicists concerning the "commoners" and the "superior people". The difference between them is one of capacity; physical, but especially intellectual. Unable to be definitely framed in one of these two categories, but certainly well-equipped with capabilities, the entrepreneur is a special type of unequal individual. A character that is not puzzled by dialectical exercises. He has on his side abilities, prudence, incisiveness and the courage to start a business. He is the future *homo oeconomicus rationalis*, accurately described by Smith, Say and then Schumpeter, anathemized by Marx but eulogized by the whole science of modern management. He is not a splendour of a man, often at odds with ethics, but one cannot do without him. From Smith, Say and then, Schumpeter we find out, maybe not happily, that not all individuals have the entrepreneurship gene in their DNA. Only some do, and the exercise of wealth production depends on them; thus, they deserve special treatment. And we grant it to them because, if we do not, the sustainability of development remains a chimera. The theory of the firm of the Nobel laureate Ronald Coase represents a clarifying exercise in this respect. Coase's firms are "islands of conscious power in this ocean of unconscious co-operation (…)" (D. H. Robertson, quoted in Coase 1937, p. 388). That is to say, the firm is a normative structure manifested within the area of the free market. Once you are employed, you do what the entrepreneur tells you to do; it is true that you act in accordance with the clauses of the employment contract. But regardless, your behaviour as an employee is an admission of the fact that you are not equal to the initiator of the business. You can replace him through competition only if you prove qualities at least equal to his.

In the social landscape explored by Smith, economic actors differ in other respects as well. A kingdom of industriousness coexists here with one of laziness. The human batter with its "balances and counterbalances" does not place people in the same positions in regard to labour, rest, leisure, pleasures or pains, to use Bentham's words (2000). Smith understood in his time what Veblen (2007) or Russell (2004) would later figure out as well: that work is not virtuous in itself. Namely, the world does not work according to Marx when configuring its path towards happiness. Work in itself does not ennoble. The world does not strive for work, but for its result, well-being. And on this path, "laziness" may not only be permitted, à la Mill, but may also prove creative, à la Russell. It is important to know and to acknowledge that the equation of wealth is based on an ingratitude: there is no pleasure without pain! You do not get there without work, and from this point of view, the market plays its role by engaging competition to determine people to work harder. When one reaches the desired result, a simple calculation à la marge tells him that it is natural to restrain oneself. When an additional unit of effort does not bring a corresponding gain of leisure, a well-deserved break is in order and, even, a blessed and noble laziness! Mill (1885), Russell (2004), and Paul Lafargue (1907) consumed a generous amount of ink on the subject. In the end, only Einstein can clarify, making use of relativity, whether the time in Africa is equal to the one in Europe or America in the pursuit of productivity; whether the freedom to be slow may equalize the satisfaction of doing things quickly! Judging from a historical point of view, laziness appears to be a most humanly trait. A theory or a religion may still judge it as a vice. A simple, marginalist assessment may find it to be an admissible luxury at the end of a busy day. All these are various angles that could inspire the sustainability analysis of economic and especially social dynamics. And it can be especially well served by becoming aware of the role that informal institutions (traditions, customs, religion, culture, etc.) play regarding economic development. Acemoglu et al. (2002), and Sachs et al. (2001) in their search for the origins of the civilized world, and also of the cleavages between the rich and the poor, have transformed the nature-institutions equilibrium into a controversial topic.

Smith makes use of the market to remove the individual from the temptation of sluggishness and to make him diligent by placing him in the area of the Benthamian balance between pleasures and pains. Therein, the individual must do his best; he must be efficient or leave the stage. The market educates, selects shapes and consolidates personalities. Armen Alchian (1950) would generously theorize on the topic. His line of thought is a continuation of Fritz Machlup's (1940) theory on the filtering role of the ensemble of free market forces and is later followed by Milton Friedman and his behavioural principle «as if he knew» (Friedman 1953, p. 21), or by Oliver Williamson (1996) who felt compelled to take into account the selection mechanisms of the market in his analysis of the governance mechanisms. Nowadays, the stage set by Alchian no longer belongs to "myopic actors" who enter the market *tabula rasa* and end up as great managers (Demsetz 1996). Yet, the basic idea is still valid. It is not only the emulating spirit, but also the potentially creative energies that find the market to be their most solid switch-on. The market kills laziness, propels and maintains the consumption of energies and talents. Without it, any kind of development runs out of self-propelling force.

2.1.3 And Yet, How Does Nature Influence Our Start in Life?

The question of inequalities among people was not, as it is obvious from their works, a pleasant subject for Smith, Mill or the other classicists. But they were forced to acknowledge that diversity and differences determine the true value of things and support the act of creation. They wrote on this subject without partiality. Their reflections cannot be neutral for the theory and the phenomenon of sustainable development.

So, what are we invited to deduce from the hypothesis that nature does not place people on the same starting position? We are entitled to ascertain, for instance, that the intra-generational relations have a special connotation as we cannot significatively influence the way nature works. For example, little Mohamed may ascertain, post-factum, that it is not very fair that his start is influenced by his Saharan origin, while Erhard's is supported by the rich Germany in which he came to life. This "distribution" is preordained. Moving from one place to another in search of a more solid education and better living conditions, in a friendlier nature, which is available in an ever more globalized world, reduces the gap at least on the way, if not at the starting point; but it never does away with it. In terms of the theory of sustainable development, nature's offer at the planetary scale is conceived in a very "unequal" manner, and the great creator does not show any levelling intentions.

Then, what can society do when faced with children born with physical or mental disabilities? Condemned by their condition to inequality, their only hope lies within society. Only it can help them feel like the others. Furthermore, how can society support a child born in a country governed by an oppressive regime, within a social system that condemns him or her to be a pariah, subjected to abjection and servitude? In the saddest case, it also provides them with an ideology or a religion, a "beautiful lie" that makes it "clear" that this is their "natural" life condition. And they accept it, because otherwise their life would be unbearable. By not refusing it, their humble condition, and, quite possibly, that of their offspring, becomes "sustainable" and, why not, even "resilient!"

The material condition of our parents is also a situation of original differentiation. The plea for equality at the starting point has found here a serious point of controversy. The renunciation of the inheritance right to solve this problem in a supposedly radical manner has equally preoccupied both J. S. Mill and Th. Piketty. The idea encapsulated a large amount of fantasy back then, as it also does today.

Noteworthy is also another aspect of this discussion. It features Mill, Ricardo and Malthus, as representatives of the classicists. For instance, Mill finds it proper and well-grounded to think and to write that "to bring a child into existence without a fair prospect of being able, not only to provide food for its body, but instruction and training for its mind, is a moral crime, both against the unfortunate offspring and against society" (Mill 2015, p. 102). The food for the body and the food for the mind are the responsibility of the child's parents. They are compelled, from an ethical point of view, to ponder extensively upon the decision of bringing a new human being to life. Whether the life of the new-born would be "a curse or a blessing" depends on this decision (Mill 2015, p. 105). Mill's starting hypothesis is that not everybody fulfils the natural and normal prerequisite of being able to secure material support and education for the new-born. Something must be done in this respect, and Mill calls upon the state for help. As a first step, the state might impose "a moderate fine [the father is concerned, as he is considered responsible for the education of the child!], to be worked out, if necessary, by his labour, and the child might be put to school at his expense" (Mill 2015, p. 103). If this measure does not achieve its purpose, our classicist, liberal in his intimate convictions and socialist in his suggested policies, also considers the version in which "[t]he laws which, in many countries on the Continent, forbid marriage unless the parties can show that they have the means of supporting a family, (…) they are not objectionable as violations of liberty" (Mill 2015, p. 105). Mill writes these things in pages where he configurates a conflicting area in which social rights, individual liberties and the presence of the state as a rational pedagogue interfere with one another. He has no reservations to weight the right of the new-born to "blessing", to a normal start in life, against the liberty of the parent to procreate. Given what he has written, it is obvious that Mill favours the former choice. And he is convinced that, in doing so, he does not infringe on liberty. Ricardo does not think either that liberty is somehow affected if the state intervenes to regulate the marriage of people in need, namely those socially assisted. He does not share the view: I have had children, and this is an honour for the state! So, it should feed and dress them! No, Ricardo, in full accord with Malthus' ideas on the subject, welcomes the intervention of the lawmaker to reduce the numbers of the poor, even by decreasing the number of "early and improvident marriages" within these populations (Ricardo 2001, p. 68).

This idea retains, even today, a consistent flavour of conflict. It is likely that the concern for the rights of people during their life has overshadowed those regarding the human being in the preconception phase. Mill's and Ricardo's caveat on the importance of this moment still stands. Also, actual and relevant for any development project is the idea that sustainability presupposes healthy and educated children. A wrong gesture and decision of the parents may recoil on future generations. A vagabond child, a product of an excess of liberty misunderstood by the parents, has few chances to bring to life, in his or her turn, children with normal and equal chances as the others in the struggle of life. Mill and Ricardo had the courage to assume a position. Who has followed their advice? In how many countries does the government convene the potential parents, be they married or unmarried, to account whether they can back up their decision? We believe this to be a critical theme for the theory of sustainable development. A delicate, but unavoidable theme. A place of reflection about how to draw a separating line between scorned social engineering and responsible care, even duty, to secure the material and social conditions of a minimum living decency for new-borns. In any case, this subject is much more engaging than the ones that give the false comfort that, if we, in corpore, get a grip on liberty, equality and environment, we simultaneously solve the issues of sustainable development. At the same time, we cannot help acknowledging that the sensitivity of this theme, and especially its dissonance with today's philosophy on human liberty, including the liberty to decide on family planning, practically inhibit the discourse of Mill, Ricardo and Malthus on this subject.

The differences of life's beginning are also determined by gender. Because it is imparted by nature, the condition of being a woman or a man should be considered in all its natural and innate character. It is obviously absurd and ridiculous to claim that there are no differences between men and women. It is precisely with their different and diversified features that men and women offer themselves to the likewise different demands of economy and society. If the delicate equilibrium of demand-and-supply has never been reached in this department of economic life, the fault does not lie with nature. Society is 100% to blame for this state of affairs brought about by promoted religions and social philosophy systems. And this equilibrium has never been reached precisely because the status of women has been deviated from its natural course. Deliberately and maliciously, the status of women was subjected to obstructions, interdictions and humiliations. These circumstances served as background for the false problem (false as it had no reasons to exist) of the promotion of women. A promotion meant to advance their standing from the condition of a humble subject to one of equality with men. However, she must not be equal, less than equal or more than equal to men; she is HUMAN and must be seen, treated and respected as a HUMAN. A human just like the one who has written, for ages, her job description and forced her to accept that she is not fit for certain kinds of labour in society. Or that she is only permitted to leave her home for special moments of her existence, like baptisms, weddings and eventually for her own burial. And, in the end, can one compare a super-intelligent woman to an alcoholic baggage carrier? Is the latter comparable to Hannah Arendt, for instance? How could that be?! The splendid philosopher admits in her last *Interview*

"(…) that there are certain occupations that are improper for women, that do not become them (…) It just doesn't look good when a woman gives orders [she exemplifies]. She should try not to get into such a situation if she wants to remain feminine" (Arendt 2013, p. 3). Agreed! The same reasoning may be used for a man. For him too, some preoccupations are not suitable. The basic problem is free choice. It is natural for anyone, man or woman, to choose their future according to what "suits them", without constraints. But if, as a consequence of free choice, some climb the social ladder while others do not, it would "suit us" to respect the differences. We cannot treat Albert Einstein or Marie Curie as our equals and it also would not "suit us" to engage in a vulgar conversation with them. They are peaks of reason, statues. And before statues we bow. If we do not, and we climb in their place, forgetting to question whether it "suits us", sustainable development turns to dust.

Mill, allergic to any sort of tyranny over the individual, consistently pleaded in his *Subjection of Women* for total equality between man and woman (Mill 2015). He did so at the same time as Johann Jakob Bachofen (1992), emphasizing the influence of religious ideas in the unnatural exercise of subjugating women.

Does development, in general, and the sustainable kind, in particular, have anything to do with the status of women? It does, if only we ponder upon Smith's exemplary proposition: "[a] man grows rich by employing a multitude of manufacturers: he grows poor by maintaining a multitude of menial servants" (Smith 1977, p. 438). What kind of development project could one come up with if, for instance, in 2013, 66.5% of the active feminine population in Bangladesh was deemed to be nonindustrial, "domestic", without notable productive skills (Asian Development Bank 2016)? Or can one still talk about generalized social progress—a defining aspect of sustainable development, the Brundtland version—when women are not only excluded from work, but are not even allowed to vote? Like it or not, the distinction between man and woman is a biological one; it actually does not give any right to privileges, but it also does not support equal preferences. Man and woman become social constructs when culture, religion, social laws and regulations, both formal and informal, operate as norms to favour some and abuse others. Sustainable development cannot be built on and cannot acquire self-sustaining characteristics starting from social constructs. Quite the contrary, it has only to gain and becomes self-development if every individual, possessing distinct traits related to temperament, age, sex, culture, physical force, intellectual capacity, etc. is allowed to freely think of and build their own life plan. This freedom must comply with the rules and good practices accepted by society.

2.1.4 Inequality—Between Criterion of Efficiency and Social Conflict. The Contradictory Perspective of J. S. Mill

A peculiar game of simultaneous YES and NO is orchestrated by Mill with respect to the options of developing with equalities or inequalities. At first glance, inequality and its natural corollary, the division of labour, seem not to mess with his plans. They seem not to infringe liberty. He seems convinced that it is precisely freedom and diversity, as a whole, that represent the origin of civilized Europe. Levelling trends scare him. He seems convinced that individualities and especially "eccentrics"—that is, elites—have built every modern country. Such eccentrics have the mission, among others, of defeating the tyranny of the majority. And it is necessary to defeat it because what emanates from it does not present cause for optimism. However, the eccentrics, the models to be followed, seem to him entirely admirable. As they possess innate talents, they must be schooled with particular care, in private schools especially designed for "great minds (…) with aspirations and faculties above the herd" (Sedgwick 1835, p. 94).

But when almost confirming the impression that he is convinced that the diversity of individual lifestyles, as an expression of the differences among individuals, is a natural thing, Mill takes a step back and fills his analysis with dilemmas. ***The first one*** is referenced when he decides that an ethical component would not harm. He writes that equality "often enters as a component part both into the conception of justice and into the practice of it" (Mill 2015, p. 159). And he is confident that each person shares the same opinion "except where he thinks that expediency requires inequality" (Mill 2015, p. 159). In other words, he thinks the opportune decision is also a just one; an inopportune decision is unjust! With respect to opportunism and utility, he states that it is not "unjust that riches and social privileges should be unequally dispensed" (Mill 2015, p. 159). But take notice, distinctions of rank do not last forever! This criterion, as well as the mechanism it induces, is mobile and dynamic. As soon as inequalities "have ceased to be considered expedient, assume the character not of simple inexpediency, but of injustice, and appear so tyrannical, that people are apt to wonder how they ever could have been tolerated" (Mill 2015, p. 176).

The ***second*** dilemma is introduced when Mill discusses talent as basis for differentiated remuneration. It is obvious for him that talent differs among individuals. However, he seems inclined to also agree with: (a) those who admit that "whoever does the best he can, deserves equally well" (Mill 2015, p. 170); and (b) the others who believe that "society receives more from the more efficient labourer; that his services being more useful, society owes him a larger return for them (…) of the joint result" (Mill 2015, p. 170). How does Mill choose when confronted with a two-faceted justice? He takes the middle path and calls upon his "infallible" criterion—social utility, because "[it] alone can decide the preference" (Mill 2015, p. 171).

Are there any "sustainable" parts left in this game of ideas? The invocation of moral judgements in the context of a distribution among unequal individuals sends the problem of inequality towards the shifting sands of social justice, an argument overused by all the socialists of his times, as well as ours. This is an area in which those who think that equality is included in the menu of justice get to be right more often than to those who believe that differentiation is the mother of progress. Against this background, the leftist economic literature, which has strongly influenced the approaches on sustainable development, will create a sermon full of humanitarian ideas, attractive and charming, ready to support the universalist and utopian creed of egalitarian distribution. This literature would generously draw inspiration and receive "blessing" from Mill, as he himself suggests that every doctrine has natural justification for its own position. And it is precisely socialist doctrines that felt justified in this respect. This is one of the reasons why Hayek was convinced that Mill's ideas "probably led more intellectuals into socialism than any other single person" (Hayek 1992, p. 149).

The solution of social utility as a principle, encompassing equilibrating characteristics and compensatory potencies in a multipolar world dilutes the differentiating individualism which Mill considered as starting point. To what amounts the use of this principle? To an invitation for the state to make sure that all individual energies are put to work for the common good. While Smith uses the market as a means of stimulating industriousness and skill, Mill turns to the state. With the state acting as a saviour of last resort, one can use a warmer criterion to shape one's life plan. If you "do the best you can", you qualify for the list of equal rewards. It is not an appeal to maximum individual efficiency, an encouragement to do "one's best"! One of the gates to his famous "stationary society" is open.

The theory of sustainable development, as has been previously noted, is imbued with this philosophy. Mill makes his presence felt not only through his vaguely articulated ideas on the "stationary state"—an inspirational subject for the artisans of degrowth—but also on the entire range of decisions on which the state is called forth to establish what is just or unjust, sustainable or unsustainable for society.

In addition, Mill transparently points the way to tackle the problem of opportunism. We ascertain that, had Williamson read him carefully, he should have quoted him! From "expediency requires inequality" (Mill 2015, p. 159) to the proposition "[b]y opportunism I mean self-interest seeking with guile" (Williamson 1985, p. 47), the path presents no serious hindrances. Mill's "contractual man" is not different from Williamson' as far as the plan of business strategy is concerned. In the first case, inequalities may be ignored, in the second one, cheating is allowed; everything is allowed as long as the objectives are met. It is only when the differences and inequalities induced by this unethical game become upsetting that a change of rules is required. But until then, one can be a rich cheater and yet abide by the rules of opportunity! Sustainable economy is intended to be based on good practices, on rules, institutions and organizations in accordance with civility. Can the image of a cheater be assimilated with this picture of civilization? Should one give weight to the idea that entrepreneurs must be understood and treated just the way they are, with their strengths and weaknesses, egoistic and cold, unwilling to take morally driven decision at the expense of hedonistic goals? This may be a realistic idea, but it is hard to find arguments that make it compatible with Brundtland's spirit!

Interestingly, Mill's assertion about the existence of a time horizon as a judgement instrument also provides an opportunity for pondering. The classicist assures us that during a certain period, the rules that allow inequalities to creep into the plan of wealth distribution are protected for the sake of opportunities. Mill does not say how long this period is. It is people, he thinks, who ask for a change of order, and they do it when they are hit by injustice, thus forgetting that, up to that point, for the sake of material wealth, they did not seem to mind inequalities.

The phenomenon described by Mill is complicated, but part of the economic dynamics of the world. Douglass North (1981, 2005) analysed and clarified it. Just as in the case of opportunities, this is a delicate matter that the theory of sustainable development cannot ignore. However, it can define, clarify and include it in its theoretical structures. The goal is to achieve a plus of realism and credibility.

2.1.5 Cooperation—The Induced Piece of Division

The division of labour induces *cooperation* because "[a]ll the members of human society stand in need of each others assistance, and are likewise exposed to mutual injuries" (Smith 2004, p. 100). At first glance, the feelings that bring people together come from nature: "from love, from gratitude, from friendship, and esteem" (Smith 2004, p. 100). If these humane, unselfish motives are not to be found, society does not fail. It works based on a communion of interests. The individual understands quite quickly that he may better realize his interests by using the instrument called society. In fact, left free to perform this exercise, guided only by the "invisible hand" and following his own interests, he "frequently promotes that of the society more effectually than when he really intends to promote it" (Smith 1977, p. 594). Thus, it is not only love or "consciousness of ill-desert" (Smith 2004, p. 101), the acknowledgement of the fact that individuals are not self-sufficient in their struggle for life, which drives them towards cooperation. Interests require it, too, and realizing them is only possible on the backdrop provided by cooperation guaranteed by justice. Without it, "all the bands of it are broke asunder" (Smith 2004, p. 101).

Smith is not the only classicist preoccupied with the motivation, the mechanism and the intimate causes of the phenomenon called cooperation. Ricardo, Malthus and Say add to his insights. Ricardo's law of association (of comparative advantage, actually) is a good example. Turning to cooperation and engaging in it through the use of different abilities, but resulting in mutual gain, not equal for every participant but proportional to one's contribution, is an idea for which Ricardo remains quotable.

2.1.6 The Emulating Context of Development. The Transition from an Aggregate of Homogeneous Particles to the Elegant Dissociation Between People

In short, from the classical offer on the subject of labour division, inequality and human cooperation, what is there to serve as inspiration or source of imitation for the theory of sustainable development? We have selected the following ideas:

- The division of labour and human cooperation cannot be missing, for logical reasons, from any analysis pertaining to durable development. The classicists say it indirectly and Mises says it directly when he writes that: "[t]he fundamental social phenomenon is the division of labor and its counterpart human cooperation" (Mises 1998, p. 157).
- The theory on sustainability has only to gain, not only in regard to the logic of the discourse, but also with respect to the realism of predictions for a development project, if it starts from and leans upon the division of labour and the differences among people. The projection and the management of an economy and society populated by homogeneous human units cannot be deemed sustainable. Forgetting that the transformation of man into a drop of the social ocean that you one then send to work according to the rules and rigours of a military exercise is one of the primary causes of the fall of communism constitutes a risk that cannot be assumed. It may be that a "trial" against the cauldron of quantitative levelling of men should be initiated, just as Joan Robinson (2013) launched the trial of capital, of its homogenization through the methods of marginalism. It is hazardous to pretend that one is building a sustainable economy if one believes people are all the same.
- The division of labour is, at the same time, a natural and a social phenomenon. It is based on the differences among individuals; differences which will never disappear and will permanently generate inequality. Not all doctrines agree with such a viewpoint. Opposing views occur due to concerns about the decrease of the social component as a source of inequality among people. The collectivist doctrines, starting with the utopians, followed by Rousseau and culminating with totalitarianisms of all flavours intended to annihilate the social factor of differentiation. The premise was a chimera, and it led to a lamentable result. On the other hand, the philosophy of individualism, despite appearances, promotes a social individual who is willing to cooperate. He considers cooperation necessary for objective rather than sympathetic reasons. In addition, this is a philosophy that embraces differences, including those of a societal

kind. It does not see any rational reason to repeal the societal component and encourage the good state of primitive barbarism promoted by Rousseau (1985). At the same time, it allows for Mill's "necessary adjustments" when the disparities of wealth and social status endanger social peace. Such disparities also occur because the division of labour itself exacerbates, objectively, the differences. Through the micro, macro, global process of specialization, its effect is not a levelling one. The differences of skill and reasoning determine the profit and sustain the open society of Mises and Hayek. These differences that fuel the division of labour define the objective law of productivity growth—a universal law on which one can durably build, as it has been proved. This law is one that allows more prosperity with less work; not through stagnation or degrowth, but by growing with less effort.

- Cooperation is the "pendant" of labour division. This fact is not necessarily contractual, but rather consciously assumed, intentional and efficient. The need to cooperate is influenced by subjective factors, especially by interests. The "voice of blood" has something to say through Mill, but that something has no large bearing. Interests coagulate forces at a regional, national and global scale. That the earth has become "flat" (Friedman 2007) and individuals, in pursuit of their interests, cooperate from their different corners of the Earth is a fact that confirms the classicists. The components of the final product in Smith's manufacture of pins are nowadays specific, physical, technical, human, dedicated, branded assets, etc., which form an expression of cooperation between multinational corporations which, according to the "[t]he technique of production that it has chosen" (Robinson 1972) "connect" in a chain of causal dependencies imposed by the technological specificity and the need to reduce transaction costs (Williamson 1993). Sympathy, affection or love, very dear to both Mill and Smith, may be useful in the case of a family or a very small group, but not further than that. One does not need to love his or her neighbours; one cooperates with them according to the "philosophy of the fence" referred to in the famous poem *Mending Wall* by Robert Frost; or, making use of rational analysis, one weighs the pros and cons of externalities determined by a proximal vicinity, according to a logic à la Pigou (1920); or by a possible reduction of transaction costs à la Coase (1960).

- The advantages of cooperation have always been mutual, not equal, but reciprocal. Cooperation also implies personal sacrifices, but these do not encourage isolation. It is only by cooperation that one stands to gain, both as an individual and as a member of the society. Mill's principle of utilitarianism may breed confusion. Here, Smith is clearer. There is no contradiction between the pursuit of individual interest and the realization of the collective goal. All stand to gain from cooperation, including the society. Ricardo's law of association (of relative costs and advantages) is a clarifying demonstration in this regard. And sustainability is a collective work. All participate unequally and benefit proportionally.
- The classicists took into account the lower strata as well, the "trifling manufacturer", in regard to the economic and social dynamics. They even entrust it with a special mission. They invite us to see that there is a category of people that do not share Descartes' dilemmas. They have clearly defined certitudes and a strongly institutionalized illiterate culture based on a very efficient oral tradition. In a way, they are models from which one can learn how to survive under conditions that might prove fatal to more cultured people. With respect to these people, the classicists, as well as today's sustainability scholars, do not have a clearly defined position. This is the case because it is difficult and risky to replace their motive for living with another one, 100% compliant with the modern exigences of sustainability. What can one do with them? Do we present them the Brundtland message and then lecture them till they accept it? Do we "discover" them for the purpose of an aggregation, driven by external forces, with the current forms of sustainability or do we let them live according to their convincingly perennial motive for living?! Do they have their own version of sustainability?
- In the equation of cooperation, the variable time is also important. And in the long run, not only the relations within generations, but also the ones between generations are influenced by the division of labour and human cooperation. Both the current and future generations benefit from a solid and equilibrated background of cooperation. And on the contrary, the defects of one phase will be found in the next one, as a negative trump card.
- Nobody likes inequalities. It is a subject that rather calls for silence. At the same time, it cannot be avoided. Sustainable development finds reasoning and explanations in a theory with strong ethical,

moral and altruistic characteristics. In such a context, it is not proper either to punish the irresponsible parents that are unprepared to provide for the start of their own children or to make discriminations. If discrimination could be replaced by a ***fine dissociation among people***, in order to avoid treating everything like it were the same, then the theory of sustainable development would stand to gain in respect to its working instruments. Such an operation is necessary. A sustainable society cannot be conceived as an aggregate of homogeneous particles that operates according to the principles of a given social arithmetic. The societies that have proved to be durable admitted the existence of differences in quality. Making fine distinctions, they did not mix up the elites, Mill's "eccentrics", with the crowd; they did not bring together the intelligent, cultivated and talented individuals with the lazy people and the criminals. Had they done so, they would have been anything but sustainable.

- Social progress and social capital possess natural ferments, derived from the mechanism of the division of labour. Objectively and leaving sentiments aside, "people can only hold on within society". Society "binds"! Within it, the division of labour induces cooperation, and its mechanism is conditioned upon everybody's chance of using the other person's pool of knowledge, and the other way around!

2.2 The Way to Social Harmony in the World of the Founders

2.2.1 Anatomy and Physiology of a Concept

The theory and politics of social order and harmony are based on the belief that the division of labour and human cooperation are fundamental economic acts. This hypothesis is essential, as sustainable development is unconceivable in a context marked by economic and social disorder and chaos. Social peace is unthinkable without economic peace and the other way around!

When can we say that harmony reigns in society? When "interests, left to themselves, tend to harmonious combinations, and to the progressive preponderance of the general good", would say Frederic Bastiat (2007, p. 438). The argument of the quoted economist addresses two rubrics: (a) liberty, without which interests become antagonistic; (b) unnecessary constraints by which interests are diverted. We thus recognize the well-known pillars of natural order. This order has its inherent anxieties and contradictions: micro-macro, nominal-real, static-dynamic, equilibrium-disequilibrium, etc. (Mouchot 2003; Martinet 1990). Such contradictions do not become unsurmountable oppositions if we do not infringe in a normative, gross and inopportune way upon freedom of thought and act. This is how Bastiat thinks that socialist doctrines operate. They assume the premise of an organic antagonism of interests. On it, they base the necessity of a social contract to solve the myriads of contradictions that would otherwise seep into the economic-social texture: producer-consumer, bourgeoisie-proletariat, agriculture-factory, city-village, foreign-indigenous, etc. (Bastiat 2007). Such a solution à la Rousseau repels Bastiat. He does not endorse a limitless laissez-faire, but neither does he find necessary a military-like form of organization. He envisions a world of free people, guided towards liberty in prosperity by a self-propelled social engine with inexhaustible fuel. In his very words, "[t]he motive force is that personal irresistible impulse, the essence of all our forces (…) [w]e term it the instinct of preservation, personal or private interest" (Bastiat 2007, p. 998). Thus, a social order as "human invention" is not the answer, but rather one rooted in the natural order.

It was not only Bastiat, but also the other classicists, without exception, including Marx, who were concerned with the conditions and the way to achieve social harmony. The differences between their approaches amount to more than just nuance. Differentiating characteristics appear in the following areas: the mechanics of individual interest-general interest; the role played by distribution and social justice regarding the configuration of order; the relation between laws and inequalities; the relations between generations and within generations, etc. It is difficult to associate a unifying thought to these various positions. In their efforts to configure the determinative factors of individual and collective well-being and to find underpinnings with self-sustaining characteristic of preserving balance and harmony, the classicists came up with their own recommendations.

The most solitary character in this landscape, comparable only to himself and maybe, in part, to Mill, is Marx (1990). His version of harmony consists of a social peace frozen on the pedestal of equality. We come into this world as equals and we stay that way, this is his basic methodological hypothesis. Getting out of line not is permitted. As "obscure" forces have allowed something like this to happen, the moment forever deserves its anathema. Primitive accumulation is pilfering, unjustified theft, an immoral exercise that placed some at the top, others at the bottom of the social hierarchy, without just cause. Marx's "bourgeois" can never justify his position, and he is actually not even entitled to such a treatment. From immemorial times, his ancestors were thieves. "Property is theft", J. Proudhon (1876) synthetized this thought. If the rich person does not belong in the Marxist scheme, ample space is reserved for the worker; the generic worker who was deprived of the means of production. When talking about "general intellects", Marx hints that they belong to the workers. He hated the "bourgeois" too much to grant him such gifts. All Marx's workers can be, at the same time, masters of their own lives, but also industrious entrepreneurs. Urged to revolt and take over the factories, they are automatically endowed with managerial skills. They cannot enjoy these skills and capitalize on them because the bourgeois prevents them from doing so; he or she exploits them. When some people have everything while others, the majority, possess only the arms to be put to work, social peace is a chimera. Only class struggle can solve this problem. It pervades, in Marx's opinion, as a guiding light, the entire history of economic and social dynamics and evolution. It proved to be the godfather of a new order, based on the tempting, but unnatural and losing total equality. Communism, the golden cocoon of the Marxist egalitarian dream, proved, on a large scale, not only economically bleak, but also socially sinister. Social harmony in communist garment was the lowest form that hypocrisy could assume at a planetary scale.

In Smith's case, natural order is the one that imposes its matrix on the social order. His sentences on the physical limits of a rich man's stomach and the invisible hand that redistributes the excess of food to the poor draw the Smithian equation of a self-maintaining mechanism able to please everybody. At least, this is what he believes to be happening when he writes: "[i]n ease of body and peace of mind, all the different ranks of life are nearly upon a level, and the beggar, who suns himself by the side of the highway, possesses that security which kings are fighting for" (Smith 2004, p. 216). This quotation may create confusion and, also, illusions. Kings and beggars may be at peace, but at a level that is dependent on the compliance with social positions. For bodily and mental well-being, the cohabitation of social categories is implied. It is always a matter of reciprocity.

In the name of this reciprocity, Smith considers the matter of calculation and equity in regard to distribution. In other words, he is not interested to achieve harmony at any level of wealth. He wants people to be "well fed, clothed, and lodged" (Smith 1977, p. 115), as a general prerequisite. He is constrained to acknowledge that most of the population is made of servants, labourers and workmen. There can be no harmony if this majority is "poor and miserable" (Smith 1977, p. 115). It is unfair for the people who are engaged in production, on the whole, to not live a decent life. It is not even logical. Not only does the issue of happiness of a starving majority not lead to a convenable diagnose, but this majority may not even secure the perpetuation of the species. He ascertains that hungry children of poor families die prematurely. Economic growth loses its support; a civilized society cannot be further from this situation. Reciprocity includes also mutual respect. Smith seems cold and biased when he states that: "[u]pon this disposition of mankind, to go along with all the passions of the rich and the powerful, is founded the distinction of ranks, and the order of society" (Smith 2004, p. 63). That is, everybody should stop being pretentious. Does he believe in a social peace that is unfrozen, but forever stratified? Yes, one in which "natural superiors" are accepted, and with respect to which the majority "forget[s] all past provocations" (Smith 2004, p. 65), as the price to pay for achieving harmony. On the other hand, the "submission" of the majority appears to be just as "natural". But even so, the admiration for the rich goes together with the latter's appreciation of the poor or those of humble status. This is the core and the central drive of the self-maintaining mechanism of social order.

After all, differences and inequalities among people define the paradigm of the division of labour. Division enforces cooperation, and cooperation, infused by a sentiment of social utility, induces natural order. This order may be natural, but it is not without internal tensions and solvable contradictions. A stratified order is not a celestial peace. It is an economic peace with imperfections. From that starting point, one achieves social peace by travelling with the train of justice, which is necessary to quell people's discontent. The appeal to justice is made by Smith on the same exact logic as that of Hayek: to compel the individual to see the things that do not lay in plain sight or those he does not want to see; namely, that "his own interest is connected with the prosperity of society, and that the happiness, perhaps the preservation of his existence, depends upon its preservation" (Smith 2004, p. 103). However, a well-established liberal like Smith could not have melted individual happiness into the prosperity of society. "Man, [he says], has a natural love for society" (Smith 2004, p. 103). But as far as the relationship man-society is concerned, Smith remains clear and unwavering. Man's attachment to society resembles his attachment to an instrument. This is the written proof: "our regard for the individuals [does not] arise from our regard for the multitude: but (…) our regard for the multitude is compounded and made up of the particular regards which we feel for the different individuals of which it is composed" (Smith 2004, p. 105).

At this point, Mill clearly distances himself from Smith's position. He focuses his attention on a holistic version of the happiness of the world. This is what defines social peace. For its sake, it seems desirable not to make of one's personal happiness a concern. On the contrary, a concession on this would amount to a proportional gain in general happiness. This is the well-known socialist mechanics! Individual frugality accepted for the sake of general welfare. One may even walk barefoot if it serves the general interest. But the reciprocal is offending! Also noteworthy is that, while Smith was invoking culture to consolidate the "dignity of rank", submission and mutual respect, Mill invokes education as a means to "naturalize" acquired rather than congenital behaviours; this meant thinking about someone else's happiness as naturally as it was "to speak, to reason, to build cities, to cultivate the ground" (Mill 2015, p. 144). And this, he thinks, was possible to be accomplished in a world of equals, with one notable exception: "in the relation of master and slave"! (Mill 2015, p. 145). Slavery represents another nature; it involves a different normality and a different society-world! Dressed in the garment of the utopian, Mill builds his own City of the Sun (Campanella 2009) in which the individual "comes, as though instinctively, to be conscious of himself as a being who *of course* pays regard to others" (Mill 2015, p. 145). This exercise seems so natural to Mill that, based on it, the individual finds himself in the situation that "would make him never think of, or desire, any beneficial condition for himself, in the benefits of which they [all the rest] are not included" (Mill 2015, p. 146).

This is the foundation, Mill's theoretical base for a society of individuals who act as brethren in their interests and happiness, up to abnegation! Thus, from this almost clerical position, harmony is self-defined by means of an alchemy that overlaps the social and the natural order. Mill even forces an update of Kant's ideas to suit the atmosphere. He believes and writes that the Kantian principle "So act, that thy rule of conduct might be adopted as a law by all rational beings" (as quoted in Mill 2015, p. 165) only makes sense if we accept that the said rule serves the general interest. Kant uses the prerequisite of dealing with "rational beings". In this instance, Mill leaves aside the fact that he deals with both "eccentrics" and commoners. He sends them indiscriminately, levelling any differences in rationality, towards the collective interest. And for this collective interest, Mill melts everything. He does it not in spite of any principle, but in harmony with an ideal: a society of equal people, drops in the social ocean and undifferentiable! Namely, an ideal of people which he claims is not "like sheep"!

Compared with such thoughts, Mill's much lauded elitism becomes an epsilon. The "salt of the earth", the "eccentrics" who must be allowed to flow like the Niagara river not like a Dutch canal, drown in a dead sea, a "stale lake" of undifferentiated people condemned to never get out of line. Mill is afraid of mediocracy and, logically (as it represents a majority), of democracy. A "mediocre government" seems a fatal idea to him. He sees salvation in the grain of intelligence of the mediocre majority to "let themselves be guided" (Mill 2015, p. 65). Guided by whom?! It is obvious: an "eccentric"! However, it is not clear how Mill comes up with this person from a large world of equals to make him/her the leader! However, Mill's engagement to the collective interest may suggest what path he was thinking about.

2.2.2 Points of Support for Inter- and Intra-Generational Relations

The relations within and between generations are infused with the philosophy of social harmony. In the case of Smith, the individual is condemned, from the start, to be social. There is no lack of brotherhood, disposition towards agreement and altruism as elements of the criterion that defines the relation between an individual and another person from his generation. But this is not the key that unlocks the mystery of the paradigm which allows the individuals of a generation to allocate the portion of happiness to each other. Reasonableness, a consequence of the mixture of mutual interests, explains everything; it explains the state of "necesidad", a necessity of the situation that individuals find themselves into when "[t]heir good agreement is an advantage to all" (Smith 2004, p. 263).

Of course, not everything is milk and honey in Smith's world. The Guild Law bothers him. Because of its dynamic, a subordinate part of society is deceived by the flag of general interest. Deceived are the villagers, as they lack the power of association against the monopoly prices of town dwellers working as traders and manufacturers. On such grounds, the city-village relation suffers as well. He also does not like the laws regulating the circulation of workers and salaries. Smith writes: "[w]henever the legislature attempts to regulate the differences between masters and their workmen, its counsellors are always the masters" (Smith 1977, p. 200). The conflicting character of labour contracts derives, according to our classicist, from the restrictions imposed on the free circulation of the labour force. It is noteworthy that society, in the form sketched by Smith, does not lack internal contradictions, but they are solved by using the rationality of the individual, crystallized in the form of personal interest. The latter determines individuals to always choose a form of cooperation, not without compromise, but preferable to the open revolt à la Marx. Such a solution to social crises was possible in Smith's time because society was still organized according to the principle of a generally accepted order. The industrial revolution would change the world from the ground up, including its faith in the magical baton of the enlightened sovereign to master the "orchestra". The "orchestra" was starting to be animated by revolutionary movements. Maybe Mill's socialist aberrations may be partly explicated by this pendulation between the creed of classical liberalism caught in the matrix of natural order and the need to understand a world that was ceasing to resemble the one in which Smith, Malthus or Ricardo used to live.

In Mill's case, altruism turns into a primary cause and operating criterion in the relations between individuals. If the one who deserves all honour is the one who denies his own personal pleasures, the same as Jesus Christ, which Mill quotes, it is obvious that this attitude fuels the functional scheme of the relations within and between generations. His altruism is hereditary, but not only that. Education also plays a big role. Two actors are commissioned with this mission: the family and the state. Parents' duty to educate their children appears to be sacred; not honouring it is a "moral delinquency" (Mill 2015, p. 67). This offence should be punished with a fine in minor cases and, if necessary, as we have already shown, by the decision of public authorities to forbid the right of procreation of those people who cannot prove that they can materially and educationally support a child during the process of becoming a well-functioning human being. In other words, Mill talks about a pedagogue state with a special mission in the field of population policy. On this level too, it is commissioned to secure the correct path for every generation to prepare the way for the coming generation.

Ricardo did not neglect the issue of intra-generation relations either. He spoke against the Poor Laws for the simple reason that they contravened the spirit of the free market. What troubles Ricardo is not just the law itself, but rather the effect of some habits gaining permanence. Because of it, the poor become dependent on the state; this is a sort of very damaging path dependence, against which measures must be taken. And from this point of view, Ricardo is crystal clear. "The nature of the evil points out the remedy. By gradually contracting the sphere of the poor laws; by impressing on the poor the value of independence, by teaching them that they must look not to systematic or casual charity, but to their own exertions for support, that prudence and forethought are neither unnecessary nor unprofitable virtues (…)" (Ricardo 2001, p. 68). In this case, prudence and foresight concern the policy on family. Just like Mill, Ricardo has no reservations to call for the intervention of the lawmaker in order to mitigate the populist zeal of the poor by "effort (…) to regulate the increase of their numbers, and to render less frequent among them early and improvident marriages" (Ricardo 2001, p. 68). Ricardo observes and keeps in mind the endemic, "natural" tendency influencing the birth and the dynamic of the necessary sentiment of societal care. He warns that, uncontrolled, this phenomenon may degenerate towards the "plague of universal poverty" (Ricardo 2001, p. 69). The situation is comparable to the stationary state, and he sees it possible to avoid it if the responsible forces of society hurry to implement the necessary measures. Among these forces, Ricardo does not forget to emphasize the educational, as well as administrative role of the Church.

2.2.3 A Founding Report on Social Harmony at About 250 Years Before the Brundtland Report

If we try to sum up this world of ideas and identify the hidden elements that could serve as support for a valid theory on equilibrium and social harmony, we are left with the following ideas:

- The keywords that define the preoccupation of the classicists in sketching the plan of a civilized society are harmony, order and progress. The propelling characteristics and the chances of the economic mechanism to become self-sustaining are dependent on interests. Speaking in a manner that everyone could understand, Bastiat (2007, p. 434) clearly states that "legitimate interests" form the basis of economic and social order. The order is alive, just like the people that breathe life into it, and cannot be constrained within the frameworks and dogmas of any system. The classicists are nowadays known as such because, from a temporal perspective, they left us abstractions that help us make sense of the world even to this day. They persuaded us that facts do not move within the cage of any system of ideas. They possess an intrinsic spontaneity, more powerful than the philosophical system in which, often, we may want to wrap them or by which we may wish to explain them. Bastiat persuades us that facts connect according to natural and harmonic laws, supported by individual interests, beyond dogmas and before words. The faith in free and rational people combined with scepticism towards the slogans of state rationality are the guides that lead the way towards a healthy and durable development.

- What unites them in their attempt to connect the critical dots of a harmonic economy and society represents the very backbone of the analysis: all the classicists adopt from their physiocratic predecessors the idea of natural order. Under its influence, they analyse and emphasize the characteristics of the competitive free market. They envision an economy animated by a liberal spirit, without restrictive laws. The world of the classicists is intended to be a civilized world. One enters it by acquiring a solid education and boarding the train of justice. Classicists' state is a veritable pedagogue; it enforces education or provides it to the poor. Education is also necessary so that everyone understands their own social condition, which is essentially dictated by the manner in which they use their energy and talents. Social harmony is based on the conscious acceptance of this reality: the rule is stratification, not equalization. In addition, the process is conceived in dynamic, not static terms. And the process is defined by progress. All classicists conceived social harmony against the background of increasing general wealth. They do not look for and do not believe in a maximal form of welfare and harmony that goes by the name of equilibrium and neither think of it as an endpoint. The search, the process and growth are more important than the actual level. But the level should secure the civility of every individual. For this to be achieved, the economic engine must work. And it does when people are allowed "to labor, to exchange, to learn, to associate, to act and react on each other" (Bastiat 2007, p. 442).

- The actual manner, the technology of the process by which natural order becomes social order and the pursuit of individual interests lead to the satisfaction of the general interest, determine the specific colour and nuances of the classicists' views. Judging from this perspective, Smith, Say and Bastiat are more individualistic; Mill is more justice-driven and "humanitarian". The pessimists Ricardo and Malthus do not get out of line with any special contribution. By and large, a supposedly egotistic individualism à la Smith competes against a sort of natural, innocent and humanized holism à la Mill.

  In clear and concise terms, Mill is convinced that "the desire to be in unity with our fellow creatures (…) is already a powerful principle in human nature" (Mill 2015, p. 144). It seems that, from the beginning, Mill's natural order is also social; the latter is melted into the first. It is only within the arcana of such alchemy that individuals become "unable" to disregard the interests of the others. Altruism brings people in line and chips away at their differences. And this happens in such a manner that individual interests do not become logical unless everybody alters their conduct to suit the collective interest. In addition, individual behaviour must also receive the blessing of general happiness. What Mill wants is tempting; but how achievable is it? He wants to have it both ways; he wants people with strong personalities, but only if they contribute to general happiness. He is concerned with harmony, but the differences in position and wealth bother him. He is friendly with the state, but, at the same time, he knows that the free economy is the mother of profit. He wants something that Maurice Baslé considered, in 1990, would be suitable for Germany: "a mixture of etatism and liberalism, responsibility and solidarity, associationism, institutionalism and individualism; by no means a pure mechanical and abstract liberalism" (Baslé 1991, pp. 59–60). This recipe suited Germany, but not Great Britain, Mill's country. Its insular liberalism does not go so far as to admit such infusions of governmental intervention and levelling tendencies. History has proven that Great Britain is faring better using ideas drawn from Smith's theories. And no wonder it is so. Mill's world of happy equals, connected by the umbilical cord of altruism, is closer to the utopians' picture than the concrete and realistic naturality of Smith's very earthly order, even though it happens under the baton of an invisible hand. It is a realistic order based on individual interests and enterprising spirit as compared to Mill's version, which does not work unless it receives its validation from the "morality of happiness" and gets its approval because it assumes the goal of "profit for the collective interest". Mill's holism is as evident as Smith's individualism is clearly outlined; yet the latter is not opposed to the general interest. On the contrary, it grants it a fair chance and a clear status, but only as far as results are concerned. In no way does it fiddle with the starting positions.

Mill's chance at minimum consideration rests on the fact that his utopia is insufficiently consolidated and reasoned. Conversely, it does not provide answers and it fails even when confronted with questions from "inside". For instance, how does the elitist spirit, clearly expressed by Mill, reconcile with his own levelling ideal of the happy equals? Mill even tries to provide examples. The great people of spirit, starting with Socrates and ending with Luther, are willing, he believes, to bow and wash the feet of the poor, as a supreme gesture of social equalization. Why did he not provide at least one example of a businessman, a great manager, willing to act this way? He was certainly convinced, as his texts prove it, that "great people"—not philosophers, but great businessmen—which made something of themselves by means of the division of labour and differences in performance cannot be part of the analysis, as they are not included in his representative sample. He knew that the latter favour the right to be different and expect their status, unhomogenized and unmixed, to be respected. And they invoke Smith, Bastiat or Say, not the socialist Mill. They can also pray to Christ, the Buddha or Mohamed. But washing one's feet is the occupation of those who possess them. The "salt of the earth" does not deal with the hygiene of the "stale lake"!

- Who is to assume responsibility for the managerial exercise of providing economic and social order and harmony? This is another issue not clearly settled. Annoyingly, Smith's "invisible hand" is more "touchable" than Mill's entity, invested (by whom?) with the authority to lead on the right path the humble, docile, mediocre population, whose "eyes are shut". A luminated monarch with the role of conductor of an orchestra in a physiocratic style seems reasonable to Smith. A state preoccupied with "governing the mediocrities" satisfied Mill. Smith's invisible hand is alive, natural and fair; Mill's one is silky and soft, but dead, a social construct animated only by the state and the general interest.

- We do not know the degree of universality that the classicists claimed to have woven into their models of order and harmony. It is well-known that nobody writes beyond realities internalized as lived or comprehended experiences. The notion of a model does not feature in their works. The cosmopolitanism of the "Western School" and its condition as a creditor of ideas for everybody else are known, but not blatantly claimed by the authors. It remains for us to wonder whether, living in the shadows of their thoughts, it is possible to mimic a model of harmony by copying the rules and metabolism of another! Our world's complex and complicated reality tells us this is not the way to go. On the contrary, it tells us that it would be a path condemned to fragility, not one destined for resilience. Good rules and healthy practices may be derived from a theory with universal characteristics, but they configure harmony and sustainability when they come from within to effect that which is within. A supposedly exemplary external model of order cannot replace the organic efficiency of one that self-forms, created by means of its internal forces and resources. As we already stated, what was befitting Germany, as M. Baslé well knew, was and is still not suitable for Great Britain. When Hayek intended, after the Walter Lipmann colloquium of 1938, to purge liberalism of the impure continental infusions and forms, he saw Great Britain as a good model (Ferry 1990). And this state of affairs seems to have remained the same. Brexit happened, we think, also as a reaction to the suffocation that Great Britain was subjected to by a bureaucratized European legislation, which was bothersome because it affected monetary, banking and tax policies. We also know, on the other hand, that before adoption models are passed through the sieve of ideology, with all the associated risks that it entails. An important part of this world, about a third, adopted a model of frozen communist harmony in perfect equality only to find out, half a century of experimentation later, that the organization of well-being according to coerced ideological madness proved to have deadly results. Nevertheless, the temptation to export or import models did not go away. If a dictatorial order is recognized as destructive, wouldn't one that ensures progress, an already proven one, be tempting? But who defines such an order? Those who have already done their homework? Are they to evaluate and re-evaluate and re-evaluate what is right or wrong in the CVs of Somalia, Bhutan or Pakistan? Aren't such operations risky?

Is it not likely to provide them with laws and rules in areas that cannot be regulated? Or do we take it upon ourselves to build social order and harmony in a "desert" whose peoples are governed based on a legacy of local wisdom with ancient roots, which proves to be sustainable without any connection to well-known, up-to-date models of sustainability?!

- In the paradigm that defines the physiognomy of order and harmony, an important role belongs to the relations within and between generations. We are entitled to say that, in classical manner, the relations between individuals pass through the sieve of egoism and altruism. In principle, altruism is an egalitarian appeal. The well-being of one's fellow people is very important. To Mill, it seems more important than individual well-being. How much rationality can be found in an exchange equation when one gives and the other receives, on egalitarian considerations, is a story with a dubious dialectic. Is it only on the grounds of infinite generosity that you give away something, moved by the thought and satisfaction that you have contributed to the general happiness and without concerns for a future acquisition? In the case of family relatives, it is true: parents leave behind inheritances. But they leave them to their own descendants. They have no reasons to give anything away for the future of the child of an individual who has stolen from them or has threatened their family. In other words, an a priori lump judgement fails here. Thus, do we indiscriminately take care of the future generations that our heirs may happen to be part of? Mill says Yes, with all his mind, but especially with all his heart. Out of altruism, he believes, you melt into the identity of your fellow human and share his or her fate. But it is well-known that this phenomenon does not work uniformly. It happens one person at a time! Various temperaments, very different philosophies, differences in age, race, needs, areas, etc. produce their effects and give this phenomenon its specificity. We can talk about an individual as being an egotist or a philanthropist, but we cannot talk in such terms about a whole nation. Not even regarding a community can we make such judgements. Then, in a crowd of egoists, there may be some altruists, and vice versa! In other words, the world is too varied, and within the confines of a generation disinterested equality is an illusion; between generations, it may be at most an altruistic, if not utopian, hope. The tone is set by interests, by their harmonization within the framework determined by the rules.

And the dynamic caused by this mechanism perpetuates hierarchies, including the transmissible ones. Relating to one another as equals makes sense only as HUMANS. Beyond that, we do not progress together, all at the same time, lest inequalities may occur. They do, they perpetuate even in societies with socialist-like political systems, where hypocrisy replaces philanthropy and where the architects of the philosophy act as though they do not see its "children"! These are "pornographic" societies, as Christian Michel (1986) calls them, which means they are against nature, possessing a reversed harmony; they treat society as a purpose, not as a means; a means by which individual interest is chiefly satisfied.

- The often-quoted Smithian text about the normal dimensions of the rich man's stomach, too narrow compared to his appetite, can be construed in various ways. Basically, if we oversimplify things, Smith implied the notion that the rich man behaves altruistically because he needs to, if not for any heavenly reason. He cannot eat with two spoons and therefore, feeding someone else becomes a question of redistributive logic, not of justice. Here, in this world, there is substance to be redistributed, he means to say, and the principle of redistribution works according to an elementary logic. Rather than throwing the excess into the sea, one can redirect it to the hungry. Apparently, the redistributive exercise and process described by Smith seem to be the result of the fact that people are condemned to resemblance on their animalic rather than their sentimental side. However, Smith's quotation should not be taken out of context. The rich man's stomach is a metaphor, one that is skilfully and pedagogically used to clarify that it is very likely for the poor of a free and rich world to get to be wealthier than the rich of a world in which the great lawmaker suffocates freedom and destroys the enterprising spirit by annulling personal interest. Basically, Smith proved to be convinced that inequality is part of the human condition both in its animalic and sentimental side. Because of these inequalities, a unifying criterion is needed. He saw this chance in the pursuit of individual interest. He observed and described it at the micro-level, in the conflicting relation between employer and employee. The free and consensual negotiation between the two takes place outside the gate of the company. Inside its premises, both are led by the same harmonizing criterion: the interest in maintaining the business in a logical, bipolar way. If for "human" reasons, the employer is ready to pay large salaries, the business would go bankrupt, and the chance to get a job would disappear with it. Myriads of such individual exercises result in a social order at the macro-level. Mill does not fail to understand this reasoning, but he avoids it. Fearful that too much freedom might lead to bothersome differences, he embraces the position of the egalitarian altruist. Social order seems to him to be obviously constructible. The axis of his construct is the general interest. A result for Smith, this becomes a premise for Mill. It is a tempting idea that would become a distinguishing source and comparison reason for all the proletary books on equality. And in spite of its large dose of delusion, this notion would be a permanent companion of the illusions about the sources of sustainability.

2.3 Concluding Remarks

How would a manual of economics begin if it were to exclude the apparently banal division of labour and its "child"—human cooperation? We guess that with a lesson on the attractive and deceitful intellectual delusion of human equality! And with what would we fill such a lesson? With a couple of sentences to outline the paradigm of harmony that could be found in a world of perfectly equal happy people. The starting sentence would read as follows: people are born equal and they stay this way. As they are equal so are the products of their labour. There are no logical reasons for discord in the brotherly sharing of what has been created. A collective conscience serves as a supervising chief so that the phalanstery-like morality of this world does not get out of hand. And done! Everything is nice, harmonious, sustainable and especially resilient!

There are things we should not joke about. Among them we can count the one that we have just mistakenly joked about. Closing our small detour, we have to agree upon the fact that it would be way too good to be true. Others, more eager to experience the charm induced by the empire of naiveties, did not end it so quickly. Consecrated utopians created their opera around this idea. Scholars such as Marx or Mill were intellectually delighted by the topic. The utopia of their thoughts would have remained a fascinating story, save for the desire of some courageous fools to find out, in practice, how sustainable were the saloon thoughts of the scholars. And this test lasted and hurt a lot. And it showed, once again, if it was still necessary, that we are, fortunately, different, as stated by the message of a modern commercial.

This is the truth, with or without a science to support it. Everybody knows it. It is true, some pretend not to be aware and try to grasp infinity's limits. Economics does not make a point of support out of the division of labour but a beginning, starting from which it defines its object. To teach perfectly equal people how to produce wealth you do not need a social science called political economics. A "Technology of wealth" would suffice. However, the division of labour, as a real fact, changes things; it complicates them. It is a solvable problem if you acknowledge it; an impossible and also illusory one if you deny it. The classicists acknowledged it and used it as a preface to their discourse; not by elaborating large texts about sustainable development, but by trying to show what should logically be laid at the foundation of the complicated economic machinery to provide it with the attributes of vitality, self-maintenance and self-development. In doing so, they served sustainability like no others; not uniformly and not without difficulties; often stammering, as is likely the case with every beginning. The troublesome attempt at accommodating the "salt of the earth" (the elite) with equality as part of justice is just one example by which Mill presents himself as an adorable dialectician of YES and NO compressed in the same moment!

The acceptance of the division of labour as a basic premise in the analysis about the creation of wealth and the experience of the good life was packed together with the ingredients with which it systematically operates. In this attempt, the classicists of economics realized that their science cannot do its job unless it becomes, in its entirety, a social science. Why so? Because it is not easy to draw the lines by which the division of labour intersects and, at the same time, claims symbiotic contingencies with a generous series of contradictory realities that constitute the subject of fastidious interdisciplinary analyses. As it is well-known, starting from the division of labour one can learn what happens within the relation between equality and inequality; quality and quantity; productive and non-productive work; specialized and joint work; qualitative hierarchism and quantitative egalitarianism; a carrier open to talented and industrious people, on the one hand, and the levelling promotion of clerks on the other, etc. Have the founders of economic science succeeded in finding answers to all these challenges? We would say that they did, albeit affected by imperfections typical of any pioneer work. How did they do it? By proceeding, in the good tradition of their time, to the study of economics by way of alternative paths. They were fond of philosophy, ethics, history, law and, in the case of some, factual experience also proved helpful.

They also acted as critical philosophers of their own creations. With such heritage, they were able to approach more and more difficult problems. Realistic and objective, they realized that the division of labour is a good companion to inequality, that inequalities stir revolutions, while equalities make life sweeter. They had the courage to go all the way to the roots of the problems and realize that inequalities have natural and social causes. The latter, namely the inequalities created by people for other people, they have considered to be the ugliest. They exemplarily studied issues that even nowadays stir passions precisely to show us why and how society is unpardonably guilty for inequality at the starting point. This is why they analysed the thorny problem of inheritances in the context of equality; the relation between sexes, with emphasis on the role and status of women in a society that wants to be dynamic, but forgets, to use Mao's words, that half of Heaven rests on the shoulders of women; the maternal and paternal responsibility of people who decide to bring offspring to this world, etc. They tackled and tried to solve such issues and challenges, considering both their economic and social aspects, anticipating from their position of ministers of a science that fuels the generalized economic and social progress, with great fidelity, the future Brundtland agenda.

In the classical landscape full of contradictory realities, we find out essential things about the special unequal that goes by the name of entrepreneur. Sketched by Smith, described by Say, unpopular but precious and rare, with the DNA of the innovative spirit running through his veins, he is a central piece, and the above-mentioned foster the conviction that sustainability is a chimera without the respect due to the entrepreneur. The innovative creative destruction owes everything to him. When an equalization is brought to the point where it annihilates the culture of quality and the innovative phenomenon, indirectly but transparently, we talk about the death of the entrepreneur. It is also in this world of ideas that, once we are invited to enter the gate opened by the division of labour, we find out that the diversity of goods that we enjoy is a consequence of the beauty in diversity of the physical and intellectual human potencies. The example of the manufacturing of pins is not just an eternally valid lesson on the primal causes of efficiency, but also about the chances to specifically produce specific, diverse and personal goods, as diverse and human as the needs themselves. Should we add that the specialization of thinking was also intended by the scholars preoccupied, as pioneers, by the natural character of the division of labour? Should we also add that the "eccentrics", the elite, have a major role to play in the promotion and construction of durable, beautiful and efficient things? The elites do not do this alone. They are supported by the majority, including the "unqualified workers". The respect for each other's position is the cement that coagulates everybody's energies towards useful goals.

Useful goals can be goods of various scopes. The large ones compulsorily involve cooperation. The classical sense of cooperation is that of a resultant. We ask for cooperation because on our own, or few in numbers, we are not enough to achieve great objectives. Engaging the energies necessary to realize them requires networking. In a global economy, the network is large and complex. All actors, small or big, cooperate. In many cases, they do not know each other directly. This is the replica at the global level of Smith's famous manufacture of pins, preserving the logic and the motivation of the way parts fit within the ensemble.

In a civilized world that accepts human inequalities, cooperation is a consented and mutually advantageous act; an act "between consenting adults" as it is any other capitalist transaction, to quote Nozick (1999, p. 163). Mutually advantageous does not mean equally advantageous, but it does mean consented and legal. The law of comparative advantage sanctions and directs capitalist ethics in the right direction. Everybody wins, unequally, it is true. Relatively, would call it Ricardo, but they win, and they do not lose. The result of the action is recorded as a plus. History has also recorded the situation of perceiving cooperation upside down. It is well-known that anyone who failed to understand cooperation as asked for and imperatively ordered it after previously having homogenized society by annihilating any differences, has brought this idea into the realm of ghosts that haunted the world and populated it with the dead of coerced collectivization campaigns. There is nothing farther away from the classicists!

Cooperation is possible against the background of social peace, equilibrium and harmony. This is another subject on which the classicists have written memorable texts. They did it without avoiding conflicting areas. The relation between individual and general interest, the nature of the political system and the role of the state in this system, the differences in wealth and social status, liberty and social justice, etc. are just some of the critical matters on which the classicists dwelled, and emphasized social harmony which they saw as a mirror of the natural order.

The pursuit of individual interest under the guidance of the invisible hand à la Smith intertwined with the "harmonic combinations" à la Bastiat came to be regarded as the background for the motivation of engaging in action; but it is not the only reason. The individual interests that the classicists were talking about are diverse, not contrary. The exception is Marx, in whose case everything seems to be in contradiction. Harmony is also a resultant situated at the end of a road on which people travel by complying with norms, rules and good practices. Anyway, the respect for rules is key for creating a context of trust. Social cooperation and harmony are related to institutional innovation. This is the only path which allows the functioning of the economy and society to take place in a permanently dynamic equilibrium.

The classical idea that the contradictory dialectic individual interest–general interest unfolds against the background of liberty is also salutary. If it is lacking, social peace can only exist in a frozen, dependent and supervised version. But even when liberty is certain, social harmony does not drop from heaven. The way in which individual interests and happiness coagulate and define the general happiness is an arduous craft. Its elucidation did not receive a unanimous position from the classicists. The supposition that nothing should prevail against individual interest is set off against the "natural love towards society"; Smith, Say and Bastiat versus Mill! Individualism and liberalism in unaltered forms versus liberal socialism with happy equals.

Harmony does not concern only the relations between individuals, between and within generations, but also the relations of individuals with the state. The idea of minimal state imposes itself and sets the pace of the analysis. The fear of the classicists was concerned with the potential danger of the creation of an assistential state. They have seen the possibility of transforming the existential dependence on the state of a large part of the population as a danger and an attempt on the health of the economy. Their message was: we cannot be sustainable when a majority of the population is dependent on the state budget!

The classicists spoke their mind even when it would have been more convenient to shut up. They wrote that harmony and equilibrium are related to the level of wealth. Through Smith's voice, we find out that the classical social peace belongs to people "well fed, clothed, and lodged"; and educated, would later add Mill. In other words, everybody must be doing decently! The problem is that not everyone can be as well off. Their harmony was stratified, supported by the mutual respect of each other's position. The important issues are sustained economic growth and the eradication of absolute poverty. The "Great Fact" described by Deirdre McCloskey (2010, p. 52) validates the reasonableness of the classical project. In absolute terms, people do live better, much better than in Smith's time.

On the whole, the classicists' equilibrium and order are derived from the natural order. This is the liberal vision inspired by the values of liberty, civilization and education. It is an order open to merits that can be affirmed under conditions of free market. The pedagogue state and the rule of law set the general framework of the entire system.

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CHAPTER 3

Institutionalism Drawn Upon Founding and Sustainable Roots

Despite the acknowledged methodological rigor, we will begin this paragraph with a quote by A. Smith, fully convinced that it provides a synthesis of the classicists' opinion about institutions, while also expressing our views. Here it is! "[I]n the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it. If those two principles coincide and act in the same direction, the game of human society will go on easily and harmoniously and is very likely to be happy and successful. If they are opposite or different, the game will go on miserably, and the society must be at all times in the highest degree of disorder" (Smith 2004, p. 275).

Functioning as a motto, the statements above serve as introduction for the book of the insightful institutionalist Masahiko Aoki in which he tries to answer the question *What Are Institutions? How Should We Approach Them?* (Aoki 2001, p. 1). The statements above could preface any speech on the topic of good, fair and sustainable economic and social organization of the civilized and prosperous world. As an arch over time, the quote sends its suggestive and explanatory force on a double track: (a) the intimate source of social order and harmony; and (b) the origin of the chances that the economic game stands in order to be successful when based on good practices and efficient institutions.

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Institutionalism, both in its old form and in the one of the New Institutional Economy, is embedded in this philosophy. Through its objectives, as well as through the means it relies on in order to achieve those goals, it proves this fact. When, not against the tide but, nonetheless, in a new formula, you intend to demonstrate that, first of all, the institutions are the ones that configure and influence the process of economic development, what do you do? You argue that the productive triad—labour, capital, nature—does not achieve much if the combinations of productive factors do not benefit from the emulating context of effective and stable institutional arrangements. It is only against such a background that the "principle of self-movement" initiates the ferment of economic dynamics encapsulated in the DNA of personal interest, and only if personal interest does not go against—nor is it hindered by the normative, governmental order—is progress achieved and people can access happiness. This is what established and recognized institutionalists say. That is what Smith says. It is not necessary to distil the Smithian ideas to realize that the analyses of the institutionalists—both old and new—are far from being unfamiliar with his ideas. However, they do not clearly, openly claim any classical origin. Except for Marx, whose social embroidery in dealing with property rights caught their attention (see Pejovich 1982, pp. 383–384) the name of the classicists is not mentioned. We believe it to be a loss. Direct reference to them would have been a source of increased authority. The school as such, already awarded five Nobel prizes, proves that there is no doubt as far as its celebrity is concerned. There is something else we are thinking about. First and foremost, we believe that Smith, Bastiat, Mill and, along the lines of the fundamental informal institution of money, Menger were fully entitled to be counted among the founders of institutionalism. We would equally like to add the fact that designing institutions and organizations in keeping with Smith or Bastiat's philosophy means offering a new perspective upon society building—a perspective that turns freedom glorification and the promotion of personal well-being into benchmarks. Equally, it increases the chances of achieving sustainability and resilience provided by mechanisms that are not obstructed by suffocating bureaucratic rules.

We have no reason not to consider the classicists—most of them—to be the pioneers of what we call today the New Institutional Economy. Their diversified conceptual and argumentative offer—truly valuable in carrying out clarifying analyses to support the theory and policy of sustainable development—is a testimony in this regard. Here are just a few bits.

3.1 Contributions to a Common Fund of Classical Institutionalism: Smith and Bastiat

In a predominantly implicit but charming way, Smith and Bastiat said what essentially had to be said about the origins, role and importance of institutions and organizations for economic dynamics, in determining and explaining human behaviour, and for the chance of reconciling—on this basis—social conflicts.

Let us begin with the title of the well-known book, *The Wealth of Nations: An Inquiry into the Nature and Causes of the Wealth of Nations*. Reading and re-reading it allows us to grasp the synthesis—in the form of rules—captured in this title, which might sound as follows: ***The rule to follow for achieving wealth***. A rule, if we agree, condensed into a few sub-rules, statements with the status of institutional arrangement. Here they are:

- Inequality defines the beginning;
- The division of labour has an objective determination;
- Exchange and cooperation result from division and they are fundamental economic determinants;
- Exchange and, by extrapolation, the market, entail efficiency;
- Efficient work leads to increased wealth;
- What is good for each individual cannot harm the community nor the country.

It is worth noting that these rules, routes to achieve wealth, do not work in all situations. They require a "civilized society". This is the leitmotif and the beginning of many paragraphs in Smith's analysis. That is, by mastering the terms and understanding the link between formal and informal institutions, he tells us that no matter how much we wish, good practice cannot impose its rigors on unprepared ground. Good practice cannot blossom on a deserted or barbarian soil. If the stage is set and the start is unhindered, the economic machine works. The route of economic dynamics has four stages: production, distribution, exchange, consumption. This is the natural order, and naturally logical! Say's *Treatise* (1971) ascertains that thinking otherwise, using another logic, means defying evidence. The process on which the result is reached is canonical; it approaches the methodological specificity of religious service. Do not start with the sermon! The path to affluence starts with work. This is the rule because, for the time being, humankind has not invented another rule worth pursuing in order to increase wealth. The culture, the matrix of wealth, usually has its “tools”: salary, profit, interest, rent, currency and price. These are all parts of the mechanism, analytically defined and accompanied by their dully filled in “datasheet”. They possess a margin of maneuver in terms of functionality, set within “normal” limits, which are established according to the rules of a fair competitive game from which all economic players win—both in terms of remuneration and stimulation. The state is not exempt from these rules. A mechanism which, provided it is well greased, will work well. Moreover, it acquires the virtues of resilience; it overcomes obstacles that are on the way unless prevented from doing so. Does this mechanism have a “godfather”? Yes, it is a human construction, designed to serve. People make the rules and it is also them who design a tool to watch over their application. This tool is the state, the government. It is designed to fulfil three main roles: order and public goods provider; guarantor of freedom and security; social support for those unfit for work. Had the modern contemporary economic structure and capitalist morality remained connected to the sources, origins and functions of the state, as conceived by Smith or Bastiat, the chances for greater sustainability would have been higher; higher and beyond the whiff of bureaucratic, anti-productive and anti-resilient rules; and possessing a contractual network between economic agents that is not altered and inflamed by unsupported claims.

Smith’s State is an “invisible hand”—minimal but firm and strong. Minimal because, in itself, it is an unproductive instrument through the mere substance of its construction and logic. The civil servant is not productive as such. Wealth does not increase by his generic “dilation”. The less numerous and more efficient the better. Bastiat thus calls the state a “fiction”, “that great fiction, through which *everybody* endeavours to live at the expense of *everybody* else” (Bastiat 2007, p. 99; author’s emphasis). Because, he adds, it is human nature to believe that “reciprocal plunder… that it adds nothing to the public good; that it diminishes it, just in proportion to the cost of the expensive medium which we call the Government” (Bastiat 2007, p. 100). The “calling” of an intermediary doomed to be expensive is not a classic invention. Smith or Bastiat only noticed it. The latter even made an inventory of what “cannot be seen” but costs each individual under state government. Alarmed by the fear that people are not tempted to distinguish between what can and cannot be seen, he warned against the “fatally grievous condition of mankind”

(Bastiat 2007, p. 2). A solid warning since, for over 170 years, we have been talking about Moloch or Leviathan (Buchanan 2000)! The state is a social construct that can become hideous, with deviant self-maintenance mechanisms, corrosive for everything that defines sustainability, and, if we are not careful enough to refer it directly to the job description, it may seize the chance to expand, in an almost smothering manner, while at the same time being "[s]ubject to the law of Malthus. It is continually living beyond its means, it increases in proportion to its means" (Bastiat 2007, p. 318).

Not just the state, an organization with recognized institutional tradition, is present in the configuration of the institutional arrangement meant to provide sustainable economic dynamics. Formal and informal institutions are not ignored. Interested in the concrete way in which laws appear, Smith speaks of a representative behavioural sample. In relation to it, we "lay down to ourselves a rule of another kind" (Smith 2004, p. 185). Alternatively, even more clearly: "[t]he general rule (…) is formed, by finding from experience, that all actions of a certain kind, or circumstanced in a certain manner, are approved or disapproved of" (Smith 2004, p. 185). Once established and acknowledged, the rules become benchmarks, "judgment criteria" (Smith 2004, p. 240). In relation to them, people's actions can be approved or disapproved. In relation to them, we know what can be considered fair or unfair. Carrying out a similar analysis, acknowledged institutionalists such as Ronald Coase (1937), Armen Alchian (1953), Oliver Williamson (1996), Douglass North (1990) reached the same conclusions. That is how rules are made—it was not just Smith who said that. Moreover, because this is how they are made, they cover and express the will of the many. It is only in this way that their respect offers a sustainable economic and social dynamics.

Following the rules is no less important than their architecture. The "sense of duty" (Smith 2004, p. 128) is made responsible for the way individuals relate to the rule. Lack of this sense of duty admits the existence of chaos. Smith rightly notices that education is the first factor that can consolidate this feeling. The same role is also played by religion. There is also a paradox in this context. Smith admits that the temptation to circumvent the law is inherent in the human nature. He notices that it takes a tangible form depending on social position. The poor, he believes, "(…) can never be great enough to be above the law" (Smith 2004, p. 74). Could religion or education (precarious in the case of this social class) explain such behaviour? It seems not, since in the case of the other class—the rich—immorality and circumventing the law are possible as it "sets the trend", the rules of the game (Smith 2004, p. 105). That is, the poor have no power. The idea that they are above the law is a utopia; however, this is not the case for the rich. In Smith's writings, we can catch a glimpse of the nature of state corruption. "In many governments [he observes] the candidates for the highest stations are above the law" (Smith 2004, p. 76). The relationship with the rule becomes a power relationship. If you are rich and powerful enough, you have a chance to vitiate. You just have to find someone willing to be vitiated. There are high chances to find that someone among those who "set the trend"! It is an analysis that is validated over time by the evolution of the political market, to rely on J. Buchanan's terms. An analysis that is essential for the theory of sustainable development, if not for anything else, for the sole reason that corruption is completely opposed to the logic of sustainability.

The positioning relative to formal rules is included in the logic that expresses the harmful role of corruption on economic dynamics. By the well-known example of the Guild Law, Smith puts forward a situation in which those lacking associative power, the villagers, accept monopoly prices from those who use it, the town traders. And they unwillingly accept high prices by giving up the shared belief that an exchange with equal benefits is reasonable and moral in favour of another "belief" according to which "private interest of a part, and of a subordinate part of the society, is the general interest of the whole" (Smith 1977, p. 182). Historians—and not only—are well aware of how exploited was the idea that in the name of the homeland, of the interests of the nation, any sacrifice can be invoked. However, not in order to support sustainability. In the end, the origins of totalitarianism (Arendt 1976) also rely heavily on such a hypothesis.

3.2 Mill—A Special Institutionalist

The institutions of Smith and Bastiat are made by people; they are neither faxed over by somebody, nor the result of any premeditated planning project. They come, organically, from the inside and impose themselves as shared beliefs, an expression of common experiences. Smith admits "a lawful superior" (Smith 2004, p. 192) which only states the rule, expressing it coherently. A "superior" appointed by God. The semi-divine origin is emphasized only in order to empower—to consolidate the whole construct.

Nothing, or almost none of this, can be seen in Mill's work. Stating that "[w]e cannot make the river run backwards; but we do not therefore say that watermills «are not made, but grown»" (Mill 2015, p. 188), he seems to place himself "in between"; his doctrinal perspective is also somewhere in "between". He believes, just like Voltaire, that there is someone responsible for the economic machinery, just as we have to admit that there is no watch without a watchmaker. He argues and firmly believes that institutions are made by people. "Men did not wake on a summer morning and find them sprung up" (Mill 2015, p. 183), he posits. He equally feels obliged to add that people did not get "carried away" and ended up producing them, based on a mere spontaneous whim; no, people created them consciously.

As we can surmise from the above, Mill puts forward a constructivist approach. It is true that he is trying to give the impression that he is keen on both the natural order and individualism. The individual life plan is highly valued in his construction. Self-development concerns the individual. If it is necessary to resort to the state, then he has in mind an educational state meant to teach citizens lessons of wisdom and self-government. Each individual is the result of his/her own actions, and not of the care provided by the state. The idea of progress itself is endowed with meaning thanks to personal growth. Even the prescriptions of the elite are reluctantly received with; so does the "tyranny of the majority". It is only during the "Creation" stage, during the transition from a primitive society to a democratic one, that the elites must be followed and "listened to"!

However, Mill only discusses briefly upon the importance of the individual life plan. Mill's liberal state is not really liberal. When choosing the form of government, he clearly suggests that we must leave the sphere of abstraction in order to be "highly practical" (Mill 2015, p. 187). Moreover, being practical means subordinating everything to general well-being. Individual well-being melts away; it cannot even find its reason to be, other than just as an indistinct piece of the general well-being. This is Mill's institutional world, an altruistic land in which general well-being is the background rule, aligning all the energies of the players populating the economy and society.

Just like any other thing, an institution can be "good" or "bad". "Good" or "imbecile", said Veblen (2006). Therefore, permanent corrective measures are necessary. Mill also agrees with that. What he believes is necessary for a theory—i.e. to receive the "necessary adjustments" in order to resonate with current experience—is also true for the institutional system. Not eternity, but dynamics define their status. Within this process, education plays a fundamental part. In particular, of utmost importance is the level of education of those who inspire and support a certain institutional arrangement. From this point of view, Mill is convinced that "(…) the government of a country is what the social forces in existence compel it to be" (Mill 2015, p. 190). This is an "aphorism" says Mill; a long-shot rule, we would argue, which will eventually unveil the truth—for some, painfully valid—that every nation has the government it deserves.

Sustainability, the chance for an institution or a social structure to last is also the responsibility of education. It is also responsible for the variety of government forms. It is clear that there is no single model of governance for Mill—in the case of neither civilized nor "rudimentary" nations.

In the former case, the distinction refers to the degree to which representative institutions can become places or instruments of those who corrupt or are being corrupted. The following text signed by Mill would harmonize perfectly with an analysis by J. Buchanan (Buchanan and Tullok 2009)! Here is what our classicist says: "representative institutions are of little value, and may be a mere instrument of tyranny or intrigue, when the generality of electors are not sufficiently interested in their own government to give their vote, or, if they vote at all, do not bestow their suffrages on public grounds, but sell them for money, or vote at the beck of someone who has control over them, or whom for private reasons they desire to propitiate" (Mill 2015, p. 185). Why does the citizen vote, will Buchanan explicitly ask? Anticipating this question, Mill answered hundreds of years before, and the answer foreshadows the perverse mechanism of a social disease with real and dangerous self-sustaining abilities—corruption—that will prove to be completely against sustainability and, for some countries, against survival.

For nations "unfit for freedom", Mill does not recommend the same rules that apply to those already civilized. A "foreign conquest", a "despotic" regime "to discipline them into regular obedience" (Mill 2015, p. 184), these are the rules suitable for those who build their individual life plans on "indolence, or carelessness, or cowardice" (Mill 2015,

p. 184). Mill leaves no door open; he does not imply that the stage of conquest and submission is transient; that after harsh rules reinstate order, more gentle rules, consonant with civilization, would be appropriate! However, he slips up and lets us in on a detail that is far from insignificant. An external despotism seems to him more advisable in the case of India than in regard to people sharing the same European blood and race. With "brothers" you can play, at least to some extent, by the same rules! Moreover, you impose different rules upon the others, the "barbarians", even though they do not "expect you" (Coetzee 1980). Such a forceful civilizing action could only have one excuse, and Mill points it out on page 13 of his *On Liberty*: "Despotism is a legitimate mode of government in dealing with barbarians, provided the end be their improvement" (Mill 2015, p. 13). It remains to be seen who defines progress and in relation to what and whose aspirations!

3.3 Does Mill Think We Need a Social Contract in Order to Be Sustainable?

Freedom is good for the individual and the society. However, even if the individual is allowed to live freely, some boundaries must be established. That is, we need to answer the following question: "How much of human life should be assigned to individuality, and how much to society?" (Mill 2015, p. 73). An explosive question, one that sends the economist Mill towards the rule of law. He seems to reject the idea of a social contract, sum of rules intended to facilitate or fix behaviours drawing on J.J. Rousseau (1985). He seems determined to believe that "(…) no good purpose is answered by inventing a contract in order to deduce social obligations from it" (Mill 2015, p. 73). However, he deems compulsory a line of action for all, a general rule. As a priority, the rule must determine the share that each must bear from the "(…) labours and sacrifices incurred for defending the society or its members" (Mill 2015, p. 73). This is not an easy task. A principle of equivalence would establish the middle line—what the individual offers society should be equal to what he receives. Yet, this is not Mill's "arithmetic". The levelling temptation operates again. It sends the "line of conduct" to a boundary dear to his heart, towards the general interest. It does so because "(…) self-regarding virtues; they are only second in importance, if even second, to the social" (Mill 2015, p. 74).

In other words, if Mill's contract does not want to be a real contract, there is no doubt that his state, his form of organization, is the social state. Mill plays shell games with the "moral police", the "human inclinations", but in the end, his inclinations are towards the state. In addition, beyond his political philosophy, Mill, unlike the other classicists, was particularly concerned with "the art of ruling". He thus set rules that could work anytime and anywhere for what would be a bureaucratic but efficient state machinery endowed with self-development virtues. For example, in Mill's *On Liberty* (2015, p. 106) there are ***three rules*** meant to provide long-term sustainability to a state organization and which prohibit the state (the government) to interfere when:

- Things can be done better by individuals;
- It is about the spiritual education of individuals;
- It is about the unnecessary increase of public power and bureaucracy.

Optimal ruling is also an important part of this institutional arrangement. Mill is interested in the judging criteria for determining the optimal dimensions of the "state machinery". Here they are: (a) the greatest dispersion of power compatible with efficiency; and (b) the greatest possible centralization of information, with its dissemination by the centre (Mill 2015, p. 167). The purpose of these criteria is to help us find the point beyond which evil begins to prevail over good: when the "machine" works well but only for itself, not for the citizen. To push the point as far as possible, Mill believes we need efficient clerks. The job description for an efficient clerk, as presented by Mill (2015), is another classical offer which can provide inspiration for a desired sustainable dynamics of the economy and society; anywhere, anytime, because it is complete and pertinent. Mill believes that the role of a good civil servant is vital for the functioning of the state machinery. He is convinced that the forms of government that have enjoyed sustainable support and functional efficiency have been "without any exception, aristocracies of public functionaries" (Mill 2015, p. 251). The history of factual evolution will fully confirm it. There were and still are enough civilized states (Italy is an example) where, amidst political instability at higher levels, "public servant aristocrats" ensure(d) the normal functioning of the state; this is where sustainability has found the springs of its own dynamics. And it has even found its ultimate purpose, that of turning state functioning into a service for the citizen—for both today and tomorrow. Because "in the long run, [the value of the state] is the worth of the individuals composing it" (Mill 2015, p. 111). A sentence, we believe, worthy of being inserted in "Our Common Future".

3.4 Informal Institutions in Support of Sustainability

Even if the vocabulary of the classicists does not include words like reputation, public opinion, moral conduct, etc., under the name of informal institutions, these are working tools and are used in the same sense that would later be ascribed to them by future institutionalists. This is also the case for "strong" informal institutions, such as property, the market or money. Let us analyse them one at a time, with the intention of identifying the supporting side of a sustainable economic dynamic, as it results from the approach of the classicists.

3.4.1 Property

The classicists were supporters of the theory of property as a natural right. With two notable exceptions: Mill and Marx. The echoes of property as a natural right have remained an ideal but have become increasingly pale with the passage of time. Instead, property as a social relation—as interpreted by Mill and Marx—has been invoked by both the old and the new institutionalists.

In fact, Mill was not the only one concerned with the substance of property, its origin, forms and dynamics. J. Locke—as well as his contemporaries, Proudhon and Marx—accompanied him in his quest. Locke strode on winding paths, garnering both agreement and disagreement from Mill; Proudhon and Marx, however, led him into temptation. In the *Second treatise of government* (2016), Locke argues that what distinguished and decompacted the initial common and natural goods—available to everybody—into private goods, with a private address, was work. Direct work carried out by the interested party, or employed work, carried out by others. Here is an idea that will write history, an idea by which the future entrepreneur, employing paid work will put his name on the goods, which thus become his. If the idea—acknowledged for its potential—is embraced by the majority of economists, Proudhon and Marx flatly reject it. Proudhon sticks to the hypothesis that the true and sole owner can only be the great creator. Everything that goes beyond this can only be a "fiction of the law" (Proudhon 1876, p. 99). Fiction to be reluctantly accepted as temporary possession, because it implies leaving others out, and it is still blameable since it is well known that at the beginning there were political abuses, economic abuses and moral abuses (Proudhon 1876). His challenging judgement "property is theft!" can also be found, in other words but with the same meaning, in *So-Called Primitive Accumulation*, a special chapter in Marx's *Capital* (1990). Capitalism seems to be based on an original sin, with private property as fundamental institution. This explains the anthem that the author of the *Capital* sings to collectivist property. It also explains the requiem of the capitalist society that relies on theft. Not far from Proudhon's idea—that of the unique nature owned by God—there are nowadays those who follow in the footsteps of Georgescu-Roegen. Degrowth is preferable to a limited nature. The substitutability of nature is unconceivable. Its uniqueness prohibits such an approach.

What did Mill borrowed from this philosophy? He borrowed the idea of nature with a divine owner and wrapped it in a liberal cocoon with a rosy core, and he did not reject Proudhon, or Marx or Locke. The ideological vicinity with Ricardo probably prevented him from acquiring 100% of the Proudhonian message. However, his socialist disposition accounts for the fear of owners' domination in perpetuating a governance exercise based on unjustified inequalities (Mill 1975). This provided that, he observes, "[p]rivate property, as an institution, did not owe its origin to any of those considerations of utility which plead for the maintenance of it when established. (…) [tribunals] naturally enough gave legal effect to first occupancy, by treating as the aggressor the person who first commenced violence, by turning, or attempting to turn, another out of possession" (Mill 1885, p. 183).

With such origins, land ownership, as the main asset at the time, is submitted for analysis under the heading of distribution, not production, in Mill's famous *Principles*. In his reference work, Mill outlines a clear principle by which he judges private property, its early nature, dividing assets into two broad categories: those coming from work (industries) and those pertaining to nature—which are indivisible according to Genesis.

The text we consider probative is to be found in the *Principles* on page 201, "[t]he essential principle of property being to assure to all persons what they have produced by their labor and accumulated by their abstinence, this principle can not apply to what is not the produce of labor, the raw material of the earth". We could thus infer from Mill's writings, that what results from work can be associated with property, in its private form. What derives directly from nature can only be societal. Society, its customs and laws, decides in this matter—although we need to point out that its decisions are by no means eternal, in either time or space. Equally, we could add to this that society needs to make the necessary updates whenever required in order to "place on equal footing" its members as far as ownership is concerned.

Mill's doctrinal inconsistency, his opposition to inheritance seen as an infringement upon equality at the starting point and which he recommended for severe taxation, his comebacks to the same idea, etc., all of these created a favourable context for interpretations opposing his very beliefs. It is clear that Mill was not a passionate supporter of private property such as Smith, Say or Bastiat. However, he neither saw the common, socialist property—not even formally—as a trampoline towards a society with real chances of attaining sustainability.

However, we have grounds to believe that Mill is a special institutionalist on the topic of property. Confining property to law, not treating it as a natural right but as one that can be easily modified, he not only breaks with the classical tradition in which he set out his ideas but he also opens new avenues to theories that turn permanent distribution and redistribution into the essence of economic dynamics. The new institutionalists resonate with this idea. However, they point out that this institutional dynamic must have the attributes of normal "flow", not of *ex-ante* state engineering. North (2005), for example, sees the state as an institutional construction empowered to define property rights under conditions of civilized contractual behaviour between the state and the citizens. If the state's monopoly right to legislate is perverted by the influence of pressure groups, the result is also corrupted; the property right completely loses touch with its "natural" component, becoming a derivative of the form of state organization. Such a path is clearly not sustainable. We could also add the fact that Hayek also discussed work as a principle in granting attributes to the origin of private property. He also considers that "individual property must have appeared very early, and the first hand-crafted tools are perhaps an appropriate example" (Hayek 1992, p. 30). An "adequate" example because these products incorporate a cost, an expense that personalizes and, at the same time, empowers. It is, therefore, obvious that only manufactured products enjoy this status, to gain favour with private property.

This idea, which is likely to affect the philosophy and conduct of countries that are rich in resources but undeveloped and aspiring to sustainable development, draws on the theoretical register of property put forward by Mill. He focused his analysis on the main production factor at the time—land. For the countries left behind, the land remains a chance to this day—the land as such with all its resources. The great creator did not tackle distribution with the tools of equality between people. On the contrary, he preferred an arrangement based on criteria that he was the only one aware of. What is Mill's answer to the problem of alienating these resources to foreign third parties, who do not own them, but have the *capability* (a concept treasured by Hayek) to exploit them? Can they escape the state of natural assets, doomed to be common? We know the answer, but it is not Mill who delivers it to us. The new institutionalists, Grossman and Hart (1986), Rajan and Zingales (1998), Hart and Moore (1999) or Blair (1999), specialized in the movement of property rights, yet not of property as such, but of residual control rights clarify the problem. However, they do not say for whom such a move is sustainable.

3.4.2 The Market

With nuances that do not affect the basic principle, the classicists conceived and used the concept of market in the same sense as the new institutionalists. They perceive it as an institution of crucial importance, together with the private property of the free world. A world that has looked for and found in these institutions pillars with a fundamental role in supporting its entire architecture. This was a shared belief among the classicists, except for Marx. His objective theory of value, with its normative component, suggested a path for economic evolution that voided the market and invalidated private property. The practical consequences of the policies deriving from his theoretical register are known; they were not occasioned by either sustainability or resilience. The other classicists, however, pointed out another path. Taking into account the modifications it has been subjected to, but boasting an unaltered fund, Smith's road, via Ricardo, did not prove to be a path towards "serfdom" (Hayek 2005). On the contrary, it offered credibility and high chances in acquiring the attributes of resilience and solidity.

What does the market represent for the classicists? We could not find any paragraph or definition in their work on this subject. They probably thought that its naturalness did not require a definition. It is normal, it belongs to the non-contractual natural order and, consequently, its refusal to be organized must be taken as natural. From all the classical works but, in particular, from the *Theory of Moral Sentiments* (Smith 2004) and the *Harmonies of Political Economy* (Bastiat 2007), it results that the market has its origins within human nature and construction. A nature that deals with differences, with pluses and minuses, with the limitations of rationality, that, in the end, proves to be insufficient to itself at the level of the individual. "[M]an has almost constant occasion for the help of his brethren" writes Smith (1977, p. 30). Men need help, because they are not good at everything; the goods resulting from one's own work are not enough and, therefore, the division of labour forces exchanges. The sum of the millions of visible and invisible exchanges is the market. Its objectivity, its naturalness, cannot be questioned. It has been working ever since individuals understood, at elementary level, the rationale of the Smithian equation: "[g]ive me that which I want, and you shall have this which you want" (Smith 1977, p. 30). Smith does not send the beginnings of exchange and, therefore, of the market, to archaic times. Polany's remark that "the alleged propensity of man to barter, truck, and exchange is almost entirely apocryphal, [and in addition the author states that] he does not act so as to safeguard his individual interest in the possession of material goods; he acts so as to safeguard his social standing" (Polany 2001, pp. 46–48) goes against Smith's thought and is malicious, if not logically incoherent. The market is the exchange itself; they are synchronous. Personal interest has always accompanied the individual; this is how he has defined himself as an individuality, distinct from the social mass. Then, it is not the gain but the objective need to cover all needs that represented the first impetus for the exchange; the gain, including that obtained through resale, is already a matter of mercantilism. Smith and the other classicists talk about the market under the circumstances of a modern society. They do not start, anthropologically, from the beginning. They talk about a market to which individuals resort out of need, but also in order to "get immunised" against difficulty, the inherent minuses of their imperfect nature. Here, they learn a simple, objective lesson of elementary hedonism: if you do not open your eyes and pay attention, you do not recover your expenses, you lose, and you suffer. For such reasoning, there is no need for training in high-level education establishments. Individuals can "feel" this. They behave "AS IF" they knew. The minimal rationality specific to their intelligent and aware human nature doubled by a "dowry" transmitted from generation to generation and which defines the atmosphere of the market helps them face the threshold of market selection, to varying extents. This will be proven by the institutionalists Alchian (1953), Friedman (1953), Demsetz (1996) or Tintner (1941), etc.

The idea of the market as a component of the natural order is highly relevant for our topic. It does not accompany economic dynamics; it is the very core of it. Thus, starting from such a hypothesis, we believe that a doctrinal position that seeks arguments for more or less market does not go against a trend, it goes against nature. It is like trying to prove that it takes more or less heart to live. The "invisible hand" or the visible hand—the state—is allowed to interfere only for the initial impulse phase, in order to get the market up and running and make sure it functions properly. To provide the rules of the game and act as a referee; no more, no less. It is true, Keynes has shown us that the state is not only tempted to help but to replace and make control permanent. This is a place of lively and endless doctrinal approaches. Sustainable development also aims to be resilient. In such a scenario, beyond any theoretical dispute, it needs self-maintenance mechanisms, capable of overcoming any omissions that might occur. No factual experience shows that such mechanisms pertain to the state, or the government. When the economic machinery fails (because of too much interventionism or too little regulation) the government has only one mission; allow those who break the law to be sanctioned by bankruptcy, and prepare the ground for the market to follow its path. This is the remedy the state is required to administer. If it throws away the engine rather than fixing it, and, instead, it just takes its place, the result is a horrible mechanism—unwilling to accept self-regulation, vulnerable to the temptation of the sin of corruption, willing to lend on selfish criteria, and, of course, destined for recurring crises.

The non-contractual nature of the market does not mean that those who populate the market are not aware of the importance of complying with the contract. On the contrary, they quickly note that nothing or almost nothing in human action is consumed outside the confines of a contract. The apparent contradiction between the natural refusal of the market to be organized and its functioning through the competition of perfectly organized companies was revealed by Coase and Williamson. The first, looking for an "earthly" alternative to the Smithian "invisible hand", accepts the existence of "areas of planning within organisations of the appropriate size" (Coase 1993, p. 230). The second, in the context of the analysis of the main governance structures, and contrary to Klein et al. (1978) admits that the market is and remains an organized structure. However, it remains organized not in the system of macro-centralized planning but in the formula of a ***classical contract***. The classical contract, in the matrix provided by Williamson, means that it is not governed by state order but by "collective coercion", agreed upon, and based on reputation, moral hazard and civic spirit. An exercise of mutual "surveillance" and "intimidation" but permissible for interchangeable assets and agents whose identity does not matter, a contract of free competition restricted only by rules shared by the players (Williamson 1996). Overall, the two Nobel-winning institutionalists, and not only them, show us that this is how an economy with the attributes of sustainability works like: micro-level planning; competitive market between organizational structures at macro-level; a regulated market, characterized by an atmosphere in which mutual responsibility sets the tone.

The non-contractual nature does not also mean that everything can be sold on the market. Smith's followers have dealt with this issue. Mises (1998) will provide an answer to whether by allowing the selling and buying of drugs, the market remains a place where "the fruits of human effort" can blossom. We will have to show, and we will, if selling and buying "balloons", toxic financial derivatives, the market remains what Mises said it had to be.

Furthermore, the fact that the market is the meeting place of agents with separate and often divergent interests and goals makes it seemingly the place of insoluble contradictions. On solid grounds, Hazlitt (1972) notices that if this were the case, society simply would not exist anymore. By extrapolation, Hayek (1958) also captures the quality of the market to coagulate and, in particular, to ***optimise*** the complex, diversified and complicated human effort that is consumed within its frameworks. He believes it to be an alternative to the claim of centralized planning to achieve such an objective. A claim that, if we are not careful, can also issue the mark of scientific rigour. For instance, this is what Fichte (2012) believed. Faced with the imagined generalized hazard that can take over by leaving the "invisible hand" to work—as Smith showed—it provides the option of a "closed state" with a fully planned economy which "allows" freedom as well as trade equity. This is what Marx, Lenin, Stalin, Mao or Fidel Castro had in mind; free life within a closed fortress! No macro-experience in the world has validated such a project; on the contrary, all attempts have failed miserably. Sustainable development has no reason to seek out sources in such attempts.

3.4.3 *Money as Institution in the Classical and Neoclassical Founding Discourse*

None of the founders neglected the intense, oftentimes tangled but very important problem of money. The quantity theory of money, Say's Identity and Say's Equality (Baumol 1977) and Patinkin's (1989) famous idea about the separation of the pricing process on the market for goods and for money represent a collection of almost all opinions regarding money from the time of the founders and to the present day. In this subchapter, we are interested only in those founding opinions about the origins and functions of money that would later be adopted as rules, as accepted practices, within the institutional paradigm. The prefaces provided by Aristotle, Locke, Cantillon, Turgot, the Salamanca School are worthy of all consideration. They were used to the benefit of our intent by Smith, Ricardo, Mill and Marx, on the one hand, and by Menger on the other. The division is based on the technical conception regarding the role of money and it has less to do with any kind of doctrinal vision. Their connection with the institutionalist school and methodology is proven by the two great ideas used as underpinnings: (a) money appeared out of the need to reduce transaction costs for exchanges; (b) once manifested and its existence commonly accepted, it became a "shared belief", a religion in the sense put forward by Veblen. If on these two levels they thought and argued in a similar manner, the division manifested itself in regard to the main function of money: standard of value or means of exchange? The known protagonists of this schism are Marx and Menger.

Before pitting them against each other and ascertaining the consequences of their opinion differences regarding the role of money in a development project, we have to also remember the part played by the coquetry of Smith, Ricardo and Mill in outlining the position on the purpose of money.

All the three aforementioned classicists clearly grasp the idea that, beyond the "veil" of money lies the real world of goods; goods that money, in a certain quantity and possessing a certain velocity, is called to help them pass from the seller to the buyer. The quantity theory of money inspired by the mercantilists did not seduce them completely. They did not admit the possibility of a total division between the world of money and that of goods; that each increase in the volume of transactions could be absorbed by a modification of the speed of circulation or that an increase in the quantity of money could be absorbed by a change of the price levels. In other terms, the two worlds appeared to be interdependent. Their version of the quantity theory of money is not absolute. It is exactly in this area of the impure quantity theory of money, that they refuse to play with money. The ratio between the circulating amount of money and the volume of production that needs to be moved using it has captured their attention up to the point of making statements that sound like laws. Smith, for instance, starting from the assumption that one million pounds would suffice to move around the whole annual production, says the following: "[w]hatever (…) is poured into it [the channel of circulation] beyond this sum cannot run in it, but must overflow" (Smith 1977, p. 386). In other words, do not bring extra money over the quantity deemed to be strictly necessary. Ricardo can be quoted in many instances to prove that he placed himself within Smith's array of thoughts. Limiting the quantity of money to the bare amount necessary to ensure the circulation of goods turned into an obsession for him. He thinks that the quantity of money (made of precious metal or paper) depends on three things: (a) the value of money; (b) the sum or amount of payments to be made; and (c) the degree of savings maintained while making these payments (Ricardo 2001). Ricardo takes into account something more. He is not only concerned with the exchange function to ascertain how much money the economy needs; the second point refers to the payment function, a function that is directly related to money as a store of value. Mill (1885) is even closer to this idea by claiming that the utility of money is dependent on the circumstance that allows the buyer to buy at the precisely right moment. Until this moment arrives, what is the role of money? Isn't it, maybe, to store value before becoming means of exchange? To sum up, we may say that the departure from the pure quantity theory of money has facilitated a deeper understanding for the three economists of the organic connection between the world of money and that of goods and, following this line of thought, of the function of money as a store of value. Their proximity to the quantity theory of money has brought on their side all the advantages and drawbacks associated with it. We consider, in M. Blaug's terms, that "[t]he merit of the quantity theory had been to demonstrate that money as such does not constitute wealth; in focusing exclusive attention on the medium-of-exchange function of money, however, it led to a neglect of the interdependence between commodity and money markets deriving from the function of money as a store of value" (Blaug 1990, pp. 153–154).

The phrase above is defining for signalling the danger and loss brought about by evading the standard of value function of money. The denial of the interdependence between the market for goods and that for money based on the exclusive acceptance of the role of money as a means of exchange and the relativization of their function as a standard of value represents a loss; it ends in a state of monetary illusion, in all its perverse forms. The independence of banks and today's "relaxing" injections represent the end of the road of this exclusivism.

Smith, Ricardo or Mill did not think it through all the way to this point. Their analyses do not indicate them as favourite authors to endorse the future game of money, on the contrary. The one who deserves such an honour is not a classicist but a founding neoclassicist. We are talking about Menger, whose guiding baton will command obedience from all the disciples in the Austrian school. The forcefulness with which he argues the exclusivity of money as a means of circulation deserves to be weighed against another obsession, of the same magnitude, that of imposing the prime importance of the function of value standard. When writing the previous words, the name of Marx comes to mind.

If we are to point out the main sequences that have shaped the process whose goal was to present money as an institution and from which we can deduce the main ideas likely to support a sustainable development policy, then we can synthesize them as follows.

Marx and Menger's lesson—in chronological order—on how and why money appeared is unmatched in regard to logic and argumentative force. The former develops the idea in the chapter *The Value-Form, or Exchange-Value* within *Capital* (1990), the latter in Chapter VIII of *Principles of Economics* (2007), under the title *The Theory of Money* and the article *On the Origins of Money* (2009). Although from completely different doctrinal and methodological positions (without quoting one another!), the two make, up to a point, the same argument: direct exchange, barter is costly and complicated; it involves, as the institutionalists will say, great "determination expenses". On such grounds, a single unit of measure is necessary. This is the point reached by all those who preceded them in the demonstration. The two economists will prove to be more institutionalist. They take the analysis further. Marx reveals the sequential logic by which money, as a general equivalent, is first accepted by a small group, then, through imitation and generalization, by the whole society. Although it is not somebody's creation, but based on a "historical process" (Marx 1990, p. 194), money acquires "its specific social function… fitted to perform the social function of a universal equivalent" (Marx 1990, pp. 183–184). The general equivalent is a value equivalent. This is the main function; this is why money appeared—to measure value by incurring the lowest costs. However, from this leading function derive all the others: means of exchange, payment, credit, hoarding, etc. Without the main function, the others do not exist. Social recognition is not performed automatically. The "fundamental heterogeneity of individuals", and, from there, their extremely different behavioural differences in recognizing and appreciating money also invoke state recognition. Money is invested with authority and, this way, it becomes pecunia, said Cantillon (2010).

The idea of the objective nature of the emergence of money is just suggested by Marx, but clearly emphasized by Menger. In the case of Marx, the idea could not break out of its ideological cocoon. As a supporter of the natural order, Menger did not have this problem. However, there is another aspect here that is worth noting. They each have their own theory of value; objective in the case of Marx, subjective in the case of Menger. It has to be admitted that philosophy on value influences directly and overwhelmingly all associated categories, including money. It is worth noting that the logic of the reasoning was the same, leaving aside the general philosophy under the influence of which they operated: money appeared due to objective considerations imposed by the need to reduce costs and simplify exchange operations. So far, the exchange led them both to the same conclusion. "Money is not the product of an agreement on the part of economizing men nor the product of legislative acts. No one invented it" says, in his turn, Menger (2007, p. 262), making use of other words, but expressing the same idea as Marx. Money is the result of a natural process, consumed "in an exchange environment". A product of the same natural process, however, money plays different roles. In the case of Marx, first and foremost, it measures values. In the case of Menger, it only mediates exchange. It is the same line of argument with different conclusions—one in relation to which, theoretical-doctrinal confrontations on the subject have not exhausted their ammunition.

If no one invented money, can anyone abolish it? Or can anyone influence its functionality? Is the state—while called to grant money the authority, which makes its recognition compulsory—allowed to "play with it"? Is the state allowed to regulate the amount, speed or destination of money? This is indeed a topic with a long history; one that determines whether the economy is more or less sustainable. The "historical" voices of the past argue that money needs to be left alone to do its job, as required by its natural environment. We have more values to measure, we need more money; and vice versa. Legislative intervention can only blur the quality of this idea. "Nothing is more entertaining than the multitude of laws and rules made in every century on the subject of the interest of money—always unnecessarily" Cantillon argued (2010, p. 174). The price on loans should be a result and not a starting point.

Money has an objective nature but, in order to fulfil its mission, it must be issued, manufactured by the invested authority—usually a central bank. The central bank issues money, and it is responsible for the health of monetary policy. Inflation targeting is a modern formulation by which such an authority must take the necessary technical measures to make sure that there is neither too much nor too little money. As an "organic institution", Menger was convinced that, at the end of a natural trend, money acquires the characteristics of an optimal choice. How does this aspiration fare when the monetary authority has the ability to determine both the dimension of the monetary unit and the total amount of currency in an economy; this is another question that has stirred ongoing controversies. Apparently, it is not easy to identify which of the arguments accompanying the birth and evolution of money, of their functions, as a theory but also as an applied economic policy, can be selected to support a sustainable policy. This is how things appear at first sight because, in reality, the situation is quite different. Where does this difficulty come from? None of the cited economists considered that the objective, natural origin of money also presupposes state neutrality. No, to them, the process appears customized and targeted. In addition, they clearly point out that the direction of the causal relation is from the real economic world to the nominal one, not vice versa. Marx expresses this idea when he writes that exchange, which constitutes the origin of money, is a "juridical relation, whose form is the contract, [and that] whether as part of a developed legal system or not, is a relation between two wills which mirrors the economic relation" (Marx 1990, p. 178). The text may seem labyrinthine, although it is not. The relation between wills must mirror the economic relation—this is the interpretation. Otherwise, the movement of money breaks away from the movement of facts and its main function is altered.

Along the evolutionary path of the idea, as well as on the path of practical action, the tendency was precisely the one unwelcomed by the ancestors of money theory. Money was helped to forget why it appeared in the first place. At least two hypotheses provide an explanatory perspective on this issue.

(a) Money does not measure the value of goods and services in a homogeneous, unitary way: goods sit together on the shore and the wave of money floods over and puts a price on them. No, this process takes place at the level of ideas and when reporting occurs, goods and money are not only in very different forms and structures, but also in different places. The goods are in their final form or on the way—as intermediate goods. The difference between static and dynamic analysis is equally important. Real economic processes do not appear as a string of time-frozen sequences; they are linked through interdependence relationships and in causal circuit relations. It is interesting, on the subject, that all goods have a value and price but for the final price, intermediate goods matter as costs. Commodities are produced by means of commodities, Sraffa notices (Sraffa 1960). The reflection of this objective process is that in nominal terms we need to establish whether costs determine prices, or prices dimension costs. The Austrian school noticed the nature of the problem and its representatives have a strong say on the topic of sustainability (de Soto 2006). The costs refer to past work or living work. Ricardo was particularly concerned with the way in which these elements participate in forming value, and thus, find their expression through money, in the form of price. Ricardo was convinced that an absolute measure of value would have tremendously simplified the reasonings. However, he did not believe in the idea until the end, since he is listed among the leading protagonists of the quantity theory of money (Ricardo 1810). On the other hand, money does not have a homogeneous structure either. Its multiple functions place it in various hypostases. Money supply does not equal the money demand by reporting strictly homogeneous quantities. When M. Friedman, the acknowledged leader of standard monetarism, transforms the classic formula of I. Fischer (2006) $MV = PQ$ in $M = KPQ$ where $K = 1/V$ to give mathematical shape to his assumptions that "Perhaps the most obviously important example is the evidence from inflations on the hypothesis that a substantial increase in the quantity of money within a relatively short period is accompanied by a substantial increase in prices" (Friedman 1953, p. 11), what does this tell us? First, it tells us that the subject that he intends to analyse is not suitable for absolute values calculations; it is suitable, mostly for approximations. This is what "sensitive growth" means. "The river, which runs and winds about in its bed, will not flow with double the speed when the amount of water is doubled", Cantillon (2010, p. 156) had already argued in order to suggest the relativism of the relationship, the fact that doubling the amount of money does not mean doubling the prices. Then the truth revealed by Friedman through his magic formula is one of current practice, not one indicated by a good theory. Theory teaches us, correctly and logically, that we first produce the goods and then measure their value; the direction of the causal relation is from Q to M, not vice versa. We could also add that the formula—with claims to significant findings—compares different determination indicators. M, for instance, is a monetary aggregate and we do not know which of its components (possibly all of them?) are based on the value of the PQ goods and the currency's speed of circulation, V. Equally, V is an *ex post* indicator; the money supply comes exogenously from the issuing bank and Q and P, endogenously. It can thus be seen that we compare the terms of an allegedly clarifying equation; however, apart from the fact that the problem is complicated, it takes us away from the original natural background: that money measures values; it does not complicate them by placing them in scholarly equations. We also note in this context that money does not move by itself, free of charge or in its primary form, just as it was perceived by those who had offered it theoretical background. On the contrary, its movement has a price—the interest rate, an area invaded by contradictory positions and arguments. The organizations with a strong institutional vocation have specialized in its management. Specializations in this area is often synonymous with a technical inclination turned into the complicated extraction and removal of the monetary phenomenon out of the pool of common knowledge. Very few people truly understand the mystery of money. Moreover, when they understand it, they do not feel any desire to share their knowledge. On the contrary, they keep it and complicate it into methodologies that are specific to the financial-banking bodies for which they work. The "secret" of knowing, and not sharing the knowledge is what grants status, reputation and respect. Everything has a price. It is the price we pay for the gap—imperceptible, yet increasingly growing—between the science of money and economic science in general and, in particular, the gap between the nominal economy and the real economy. If we are still waiting for the overspecialized monetary experts to explain the danger of cloistering within artificial—but firmly built—boundaries of monetary analyses, we are fantasizing. They will feel ever more comfortable as they climb the steps of the ivory tower of monetary illusion. They are not the ones who will fall in the trap of liquidity.

(b) In their efforts to technically transform the analysis and policy of money and its merits, not even the experts in overcomplicating things managed to reach common ground; they did not use the same method and, obviously, they failed to reach the same conclusions. The eclecticism of their positions makes it difficult to choose the ideas that resonate or not with the demands of sustainability. This is what happened in the past, and the exact thing is happening today as well. This is even more so since the theoretical offer is itself extremely rich—both on the subject of money, and as regards all the concepts derived from money.

Thus, following the line of Aristotle, the School of Salamanca gives primacy to the function of money as a means of exchange. Money will act as a means of exchange for most traders as well. Turgot or Petty open up another avenue (route). One merely articulated by the classicists Smith and Mill and heavily exploited by Marx for which, as we have shown, money appears to measure values, regardless of the special circumstances of its forms (payment, credit, etc.). Pigou (1920) invokes the passive nature of money, while Keynes breaks down any previous outline convinced that "its utility is solely derived from its exchange-value" (Keynes 2018, p. 203). The standard of value function was standing in his way. He could not speak the language of the lawmaker—politics—using money as a measure of value. With money functioning as a way to change anything, and especially in any way, he could! It was a truly charming idea, as it is today, though its "charm" could only be seen through the eyes of the lawmaker. Cantillon thought that the amount of money needed for the economy depends on the speed of movement and the way of living (Cantillon 2010). The more and "better" money, the lower the interest rate and, hence, facilitating the loan, it increases the chances of development. This is what scholars like Josiah Child (1693) and William Petty (1690) argued. The fully accomplished form of such a logic is put forward by John Law (1750) and then by David Ricardo (2001). The latter embraces the idea of money fulfilling the primary function of means of exchange. Moreover, the quantity theory of money that his name is dully associated with has a lot to gain from this association. However, his money philosophy does not resonate with the laxism that will be promoted during the two major crises. The obsession with the absolute measure of value restrained him, it imposed some boundaries. He advocates for the quantity theory of money—not a fluid, slippery, limitless theory, but one with clear limits. Limits that, over time, will find their place in Milton Friedman's (1953) economic policy: the amount of money can only increase at the rate of economic growth.

The price of money—the interest—did not enjoy unitary treatment either. The School of Salamanca emphasized its reasoning in a system in which the church interpreted the principle of equivalence—in a way that is as canonical as it is anti-economical. A low interest rate is encouraging for business start-ups, the mercantilists believe; however, it may also be the reflection of a weak demand for capital, as shown by Th. Mun (1930). Also unanimously, urged by their doctrinal statism, the mercantilists did not consider that the interest rate would set itself; intervention is needed. On the contrary, Cantillon is convinced that the price of money must be determined by the market, not through laws (Cantillon 2010). High interest rate, he believes, could also be the sign of large gaps in wealth and power; this clearly illustrates the logic according to which money attracts money (Cantillon 2010)! In the works of the liberal classicists, the interest rate can only be a result of the tension between the demand and the supply of money; this is what Turgot also believed. In addition, he sees the interest rate as the "price of waiting", of postponing consumption today for higher consumption in the future. This will be the Austrian perspective on the theory of money, and, implicitly, on the interest rate.

The two hypostases, a and b, amount to a minimal example of the circumstances that support the hypothesis that the world of money has acquired autonomy from the world of commodities and that within this autonomy it is not the unity of opinion that sets the rule—on the contrary. From this perspective, what would be the set of ideas—enjoying not only doctrinal representativeness, but also logical basis—in supporting a version of development without insurmountable syncopes?

We strongly believe that the idea of money as a measure of worth must not only set the tone, but also provide the method and logic of the economic mechanism. A mechanism as a whole, not one divided into two slices—economic and financial-monetary—broken pieces possessing their own laws of motion. The image of Quesnay's *Table* (2006) can serve as the backdrop for any economic policy project in which the movement of money (the blood of the body) can only follow its course in close connection—dependence and proportionality—with the movement of goods. A body does not need more or less blood, thought the doctor-economist Quesnay; it needs just as much as it is required for normal functioning. What normality means—its level—is something that no government can set. In other words, it is the natural order, not state engineering that stands chances for self-development in this instance as well. Money has to fulfil the functions for which it was issued. It is only when you intervene, normatively, on the course of its action, the following statements may actually acquire meaning: money has a passive or neutral role; inflation is a fundamentally monetary phenomenon; the crisis came through as a financial crisis, etc. It is true that we do not relate many goods to a lot of money; that the two terms of the necessary equality are complicated aggregates. However, this does not justify constructs with false claims to scientific rigour. The experience of the two major crises showed that, in both cases, the economy became inflamed and the spark lit the fire exactly in the places where playing with money replaced healthy economic behaviour, where the game of nominal values proved to be unsupported, because the real support of the measurable world was left behind and where the institution called money had no say. In summary, the policy of sustainable development has to choose between sending the money wagon to those who ask for it and cannot be left to go bankrupt because they are too big to fail, or send money into the economy as the economic dynamics requires. The first option satisfies the current political reasoning in the form of social immediacy which is not consistent with long-term sustainability and solidity. The second one clearly contains seeds of rationality; money is cast in the role for which it was born—to measure real values. This is its religion, in the institutionalist sense, usually born out of the common will of the people to find a standard of value to facilitate their exchanges. This is its true religion. It is true that contemporary economic practice has imposed on money yet another belief. It is known that even a less good habit can be institutionalized. We are thinking about the road towards Veblen's "imbecile" rules. When organizations with a weight in the power structure intervene in the name of supposedly major interests, this becomes possible. And when such initiatives are based on the authorized voices of renowned scholars, they also receive academic polish. Referring to our case, the practice of quantitative easing involving huge amounts of money with support at the highest political level has also become an institution, a rule that fewer and fewer doubt. In other words, it became another religion, a second nature; relying on renowned names and supported by the exclusive idea of money as means of exchange. We will find out in the second volume how this false institution feeds the losing and anti-resilient contemporary game of money.

3.5 Concluding Remarks

The institutionalism of the founders belongs to the early stage of civilized society. Nevertheless, it remains a vigorous and inspiring one; for the theory and practice of sustainable development, it remains a necessary one. Aggregating a world with the attributes of sustainability is only possible around a hard core of rules, of good practices. Relying on Lakatosian terminology (Lakatos 1978), the "protective cover" of freedom and property must be placed in this core. Reading the works of the founders, we realize that neither freedom nor property, or progress, can be outlined and acquire meaning in the absence of good formal and informal institutions. The project of sustainable development is relatively young. Centuries have passed since the founders' discourse until today; this passage has recorded serious changes—in both substance and form—of the inherited institutional supply. Basically, nature gave into the state. More specifically, the invisible hand or the social fiction, the state of Smith and Bastiat, has become a massive and often hard to digest social presence. Mill was more influential in this regard. The unseen evil, the lack of productivity of the state in spending public money would give Bastiat the same material for analysis even today. The most serious concession concerns money and the market; they have both lost a great deal of their "naturalness"; their origin has almost been forgotten. Only great crises remind us that bad things are happening because rules have been neglected or perverted. Property has not escaped this trend either. From "a man may do as he likes with his own property" (Domingo de Soto in Grice-Hutchinson 1952, p. 83) to "property does not mean «the right to do what you want with what you have» but the right to freely decide how to use resources, provided that this does not infringe on the similar rights of others" (Lepage 1939, p. 324) there is a long way to go, cutting across the field of liberalism. It remains to find out that at the end of this road, parts of property, residual control rights, not actual properties are sold and bought.

Classical institutional architecture shows us—not just for the benefit of knowledge—that school, education and culture play a fundamental role. Reputation and "public opinion" are their results. The level of "intelligence" of the rules, as well as the chance of obeying them, falls into the same matrix. The presence of education supports ideas, the capitalist morality and that of the rules; equally, it drains and disqualifies mediocrity and the vocation of trifles; it welcomes the rationality of honest gain but it also approves the bankruptcy of those who fail to play by the rules of an honest game. At the same time, "submission" on cultural, religious, underdeveloped grounds, etc.—even if it takes place under "human" circumstances—does not fit into the paradigm of sustainability. Social progress—as all the classicists remind us—relies on rules that also have consequences; the respect of human dignity is not negotiable on cultural or religious grounds, however "progressive" these cultures/religions may be.

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CHAPTER 4

Economic Dynamics According to the Thoughts of the Founders

The causes leading to the enrichment and welfare of a nation have preoccupied all the classicists without exception. This was the most important topic. Even when they did not deal with it directly, it served as a background and a landmark; the topic has subordinated all their efforts.

4.1 Intimate Sources and Sequential Order

4.1.1 Framing the Issue; Determining Factors and Limits of the Market

The classicists said everything that fundamentally had to be said about the economic dynamics with desired finalities. In addition, through its coherence, logic and argumentative support, their theory preserves the signs of modernity. This has not been and is not agreed by everyone—either in regard to the whole theory or to its sequences. A case in point is Daniel Martina (1991), who argues that Smith does not put forward a theory of accumulation in the modern sense of the word. More specifically, Martina believes that Smith had sinned, by not saying enough and not making it clear when discussing about the division of the "assets reserve" between consumption and accumulation and the factors likely to influence this ratio (profit rate, interest rate, etc.). We know that what Smith had not done, the others did. Otherwise, this is not the only

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place where the classicists complete one another. While a mere primary product for the trailblazers, for the others it was the end-product. The process of positioning sequence by sequence, in the theory of international exchanges, is a very good example. However, it is not the only one. Mill only made some adjustments to Ricardo-Marx's objective theory of value and focused on distribution. Distribution was also Ricardo's main focus, thinking that Smith and Say had already said everything about production. Within this discourse, accumulation is an important piece, to which he devotes his full attention, assigning it the main and healthy role of source of growth. However, he may not have explained accumulation in the terms of the modern economy, as he was accused of. However, he did so relying on the tools he had at the time—those of the classic economy. We also claim today that he did so in terms of sustainability as well. Since the time of his writings, economy has faced two major crises because of the modernism that was at odds with the sound logic of Smith and the other classicists.

In other words, what we are saying here is that the classical theory of economic dynamics has all the attributes to stand on its feet. It is clear in regard to the starting conditions and the factors it depends on. The interdependence relationships between the factors are explicit and clearly emphasized. The "productive trinity" is surpassed. Not only nature, labour and capital are likely to offer, as the "classicists" believed, support for dynamics. Technical progress is present: "[t]he productive powers of the same number of labourers cannot be increased, but in consequence either of some addition and ***improvement to those machines and instruments*** which facilitate and abridge labour" postulates Smith (Smith 1977, p. 456, author's emphasis). The conditions, the starting points, are just as present in the analysis: the state (the system), the nation, health, the market and private property, the "collective force", etc. are part of a well-articulated mechanism. A couple of cultural elements also enrich the motivation of enrichment: "love of distinction" and "the desire to avoid poverty" (Smith 2004, p. 213) enjoy all the attention. "Trust" is no less important; therefore, it is paid remuneratively (Smith 1977, p. 460). However, our study is not concerned with the detailed analysis of all these factors. We are only interested in the issues that send back to the theoretical framework supporting sustainable development—and here, too, we will only remember some representative sequences.

For instance, in regard to the labour factor, some areas of reflection relate to present-day sustainability. It is known that labour productivity is related to the degree of division. Smith rightly notes that the chances of dividing labour and making it more productive are higher in industry than in agriculture. This finding constituted the starting point in analyses on absolute costs, relative costs and the endowment with production factors. Arghiri Emmanuel (1972); Prasanta Chandra Mahalanobis (1953); Mihail Manoilescu (1931) or Raúl Prebisch (2016) exploit Smith's idea regarding unequal exchanges. Drawing on the works of Smith and Ricardo, Paul Samuelson (1953) and Bertil Ohlin (1933) explain, in turn, the importance of equipping with production factors, abundant or scarce, in the projection of an economic policy. Neo-institutionalists are also paying attention to Smith's signal when trying to explain where a revolution in the economy should start: agriculture or industry? For those starting to grow—but also for those who are merely emerging—such milestones remain very important. And, directly or indirectly, through those who have updated his thoughts, Smith remains a motivator.

He turns out to be just as inspiring with regard to the issue of market limits. He notices that "[w]hen the market is very small, no person can have any encouragement to dedicate himself entirely to one employment" (Smith 1977, p. 35). Specialization is justified only if "another" requires its fruit. This "other"—believes our classicist—is easier to be found in the city rather than the village, in a rich country rather than a poor one. What does such an idea tell us today? It tells us that in a globalized world it is not easy, as a country or a company, to find the route that will help you reach sustainability. In tough competition, it is not enough to have a flair for producing a certain type of goods or services. Equally, you have to ask yourself in what part of the world is that "other" who needs the good you produced but can buy it from a producer who has better understood the classical lesson. A workshop country such as China offers an example of understanding this lesson on a large scale—and it ensures its success.

4.1.2 What We Are Counting on: Accumulation—A Revolutionary Idea

As regards the chances for dynamics to acquire the characteristics of self-development, the integration of the issue of productive or non-productive labour within the bigger issue of the accumulation and use of capital wears the mark of a revolution. Just as revolutionary and pioneering is the analysis of the classicists regarding the following choice: complementarity or substitution. Without a doubt, the capital-labour relationship appears to them as symbiotic; the two factors do not replace one another, they only combine. They combine in the most profitable way to increase the "number of useful and productive labourers" (Smith 1977, p. 13). This two-way relationship between the two factors has to pass through the stage of accumulation. The classicists believe that only in this way the health and success of the process can be ensured. Moreover, accumulation appears to them as a *prerequisite* for the preparation of any production process. That is, one dares to set up a business based on what one has saved; then he invests and expands the size of the business. You start from an "assets reserve" and from a "wage fund" that you advance. What is this idea based on? ***First***, the classicists tell us that it is healthier to grow using your money rather than somebody else's. Banks and loans were not new to them. You can borrow to start the business, but it is less risky and more stimulating to start it on your own strengths. Their message is clear: it is more convenient to be a creditor than a debtor. The crisis is a sequence of the economic evil, and the Brundtland Report argues it is better to find solutions in order to avoid it. After all, who was most affected by crises? The debtors or the creditors? The classicists' lesson can be applied here as well! ***Secondly***, all kinds of assumptions—mostly critical—were issued regarding the "wage fund". A positive aspect that is less visible but exploitable in analysing the springs of sustainability becomes perceptible when we probe the destination of the "wage fund". If it is advanced in order to employ productive workers, the benefits are manifold. The entrepreneurs recover their costs from the sold production, and they also turn in a profit. Workers are also paid from the same source. That is, the process is self-sustaining. The self-development quality is assured. If, on the contrary, the advance targets the non-productive workers, their salary is not an investment. It is paid from a source that does not feed it back but exhausts it. In this context, the distinction between productive work and non-productive work has a special connotation. Not only is it better to have many workers and few servants! Packed in the wrap of a purportedly sustainable national policy, the classical idea demonstrates that the public sector jobs are not related to self-development. They can be useful and indispensable, but it is natural to be as few as possible. The state does not only appear as a potential creator of fake jobs, without any backup, but also possible co-author of his own and the economy's infestation. We can infer from here, as a ***third*** message, that the need for the privatization of everything that can be privatized follows logically. Moreover, above everything, healthy growth is revealed: saving, accumulating and investing in those who create, in the productive workers (generically speaking). ***Last but not least***, in relation to this picture—the picture of some sort of normality that starts with savings and ends in growth and well-being—emerges, in all its splendour, the strange idea of growth through consumption. How is it possible to grow by consuming more? Even for the most unskilled in matters of economy, the idea of growing by consuming seems suspicious; one of the "deceptions" attributed, not completely groundless, to economists. A simple task for Thomas Carlyle, who tried to diagnose the health of a "Dismal Science", economics (Carlyle 1899, p. 44).

Mill's interest is stirred by a special start. He is concerned with the way in which uncivilized people start their journey. Its development must be "superinduced from without" (Mill 2015, p. 205); it can only be exogenous. The "slave nature" renders everything void, it seizes the inner impulse. The "submission" followed by a necessary "paternal despotism", required to teach the lesson of self-governance would be the main steps to follow. The three case studies analysed by Mill lead to conclusions that, freed from the uncertainty of time, rightfully claim to have an echo and deserve contemporary recognition; to show, through different examples, what drives, or does not drive a people to sustainability. The Jews, for instance, compared to the Greeks and listed as one of the most progressive peoples in ancient times, succeeded because they had created, from the very beginning, good rules, institutions that "subdued them to industry and order, and gave them a national life" (Mill 2015, p. 206). The Islamic world, Mill (2015) argues, is suited for an authoritarian government, run by a military leader accompanied by a religious leader, or vice versa. Russia is also meant to develop under the rule of despotic leadership. The colonies from the exploitation of which England makes a profit, says Mill with no remorse, by far claim despotic ruling. Internal or external despotism! The country playing the role of mentor is to be included in the same area of choice. From this point of view, England seemed to him the most suitable country. The natural acceptation of the leading role of the elites and the anti-bureaucracy as a native feeling, among others, recommended it, he believes, as a "mother" country (Mill 2015).

Roughly extracting Mill's ideas and filling in any Sustainable Development Program of countries left behind are invalid. However, we cannot help but notice, history proves it, that an important element of abandoning the "path dependence" and finding one's own way consisted in the country that provided the progressive ideas and practices. Even more important were, nevertheless, finding one's own way, independence and freedom to define it. This is also what Mill had in mind when, allowing for a concession on his part, he writes that "It is always under great difficulties, and very imperfectly, that a country can be governed by foreigners" (Mill 2015, p. 395). With difficulties and without too many chances for sustainability.

4.1.3 Labour or Capital: A False Choice!

It was clear to all the classicists that they were starting from a "reserve" of labour and capital. They were not particularly concerned with the egg-hen hypothesis. From this point of view, it was convenient to talk about the origin of the labour reserve, without making too much effort to explain the origin of capital. And they did not do so because the problem of priority, of establishing the role of technical or human capital in supporting dynamics, seemed pointless to them. However, they found ***complementarity*** meaningful—the objective co-participation of all the factors involved in the economic process. Or, logically, they thought that technical capital can only be the result of using human capital. Long afterwards, through Schultz (1961) or Lucas (1988) the problem got complicated. Except for Mill and Marx, the other classicists have not attempted to provide straightforward answers to the question of the primacy of labour or capital, nor have they entered the detailed dialectics of this relation. They suggested indirectly, but quite transparently, that there was an area of unnecessary theoretical complications. In other words, they were aware that, in this case, practice beats theory and it is more "aware" that we cannot set fixed time frames in order to see from where and how much work x derives capital y. That is, causality transcends a predetermined horizon of analysis and the "which is which" verification is difficult, if not impossible. Moreover, the verification process cannot always be circumscribed—from the perspective of time—to the investing generation. Just as each generation takes over from the previous generation a stock of capital—both technical and human—so does it bequeath in its turn, handing down to those who come skills, competences, along with technical capital. We are talking about a kind of intergenerational externalities. In the case of such transfers, it is difficult—if not impossible—to set the limits of private property; it is hard to establish, exactly, how much of an idea belongs to the present generation and how much belongs to the previous or next generations. On such reasoning, the idea of cancelling the right to inheritance and starting from scratch seems obsolete. Only a socialist like Mill and the others who followed him found here a functioning kernel of reasoning. Marx and Proudhon, so deeply concerned with the origin of technical capital and private property, drove the issue towards the conflicting area of "primitive accumulation" and theft. For the other classicists, the issue belongs to a pre-existing game that has already ended. The past, with its nebulous and primitive beginnings, was left in the care of the historians of economy. They did not find the perpetual bitterness nourished by those moments to fit among the circumstances favourable to sustainability. We will not forget, they seem to tell us, but let us not turn this painful memory into an addiction that goes against the collaborative and emulative spirit. What is done, is done! Let us enter the new stage of the free market and get down to business.

4.1.4 Classical Sequential Order; Canonical and Sustainable

What is the ***process logic*** of economic dynamics and what does it support? With the exception of Malthus, all the classicists agreed to the following economic sequence: savings—investment—increasing wage fund—increasing production—increasing consumption. It is understandable that under this simple way of seeing things, the relationship between labour and capital goes through accumulation and investment. What remains after consumption is invested. The concrete way in which accumulations become investments did not constitute a major concern. Starting with Smith and Say, the classicists were convinced that the accumulation itself was at odds with logic; only investment, the productive use of money and goods gives savings reason and meaning. Malthus alone doubted the automatism of this metamorphosis, and his doubts stimulated Keynes's inventions. As far as the internal conditions and laws of the process are concerned, the need to replace the consumed capital and the sale of the goods produced so that the cycle is continued, Smith's *Wealth of Nations*, Ricardo's *Principles* and Mill's *Principles* build and explain convincingly. Nothing or almost nothing is missing. Just as in Quesnay's *Tableau économique* (1759), the relationships between money flows and commodities are present. Ricardo comes with an agio, with a particular aspect, which does not contradict the logic of his fellows. He is interested in the effects that the length of the production period has on the internal alchemy of accumulation and on the structure and size of the resulting values. He correctly understands the meaning of "preference for the present" and sees profit as a reward for deferred consumption. Using the terms and meaning in which Böhm-Bawerk will present his well-known *Positive Theory of Capital* (1930), Ricardo highlights how "expectation" rewards. The different uses that capital can take in the extended period but, especially, the fact that the profit accumulated in the meantime allows the use of an increasing number of workers means, overall, higher production of goods, more valuable goods, more jobs and more profit. It is worthwhile to reap the fruits of technical progress through rational behaviour; not to consume everything today, save some of the income to invest it with benefit. Time works in favour of this initiative. Here is the key sentence by which Ricardo explained where the surplus of value comes from in relation to the period of production and in regard to which Böhm-Bawerk did not have much more to say. "The difference in value arises in both cases from the profits being accumulated as capital, and is only a just compensation for the time that the profits were withheld" (Ricardo 2001, p. 28). Mill also explains, as an agio, that the extent of accumulation—the main growth factor—depends on the "net product" and "the will to accumulate". Equally, he speaks to us, in context, about the effectiveness of a system based on rules, good practices, anti-bureaucracy and fighting with the "indolent routine" (Mill 2015, p. 109).

From the technical way in which they analysed and presented the process aimed towards consumption and people's happiness, the classicists seem to have favoured a single element of the game: accumulation! Otherwise, the big stages of reproduction are not numbered and framed within any hierarchy; they flow sequentially, and they are imposed by the very logic of things. Production, distribution, exchange and consumption have registration numbers that are dictated and set not by them, but by this logic. You cannot distribute what you have not produced just as you cannot consume before the asset is subject to trade, except for self-consumption. And yet! A seeming inconsistency, generously but not admirably valorized, occurred in the writing of two of the classicists, namely Ricardo and Mill. In full analysis of the process of producing wealth, they emphasize the exceptional importance of distribution. Ricardo does this in the most direct and also confusing way.

Right in the Preface to the *Principles*, he writes that "[t]o determine the laws which regulate this distribution, is the principal problem in Political Economy" (Ricardo 2001, p. 5). Ricardo's statement is based on the finding that his predecessors "afford very little satisfactory information respecting the natural course of rent, profit, and wages" (Ricardo 2001, p. 5). "Determining the laws" and bringing more light demanded by the complicated problem of the natural level of the main components of the natural price does not equate to assigning distribution the status of ***cause of the causes of enrichment***. On the contrary, from the quotation above, it results that there were incompletely clarified or even unresolved issues. Therefore, the "logician of the school" insisted on distribution, in order to clarify what was still unclear. However, he did not become thus the distribution economist "par excellence" but remained the production economist "par excellence" as noticed—in an insinuating and opportunistic way—by Marx himself (1904, p. 287).

It is well known that Marx was not generous as far as praising is concerned—on the contrary. He wanted to find a "bourgeois" economist who would send the problem of value formation in the social arena. Ricardo served him wonderfully. Nevertheless, in this case, Marx remains only an opportunist, not a mere apologist; he admits that production had been the main concern of the classicist. On the other hand, Schumpeter (1986) was rather strange. He accuses Ricardo of separating the issue of distribution from that of production, thus producing an inconsistency that was quite hard to digest and that by this he had "generously" opened a gate. A gate through which, once passed, the good intentions of some economists interested in sustainable development—starting with Knight (1935) and ending with present-day Nobel Prize winners—are perverted and are losing their original support. They lose it because they send the sources of sustainability to origins that—unless correctly appraised—are likely to convert and distort. It is impossible to support a judicious distribution and social peace within and between generations in the absence of production. Nor is it fair to hide behind Ricardo or Mill and set ourselves as some sort of vigilante for a society with correctness issues. The political economy of sustainability has reasons to be a political economy of distribution, given that the big issues in this area temporarily demand it. This does not mean that, with the permission of Ricardo or Mill, we put the cart before the horse. How about making a change in the concise equation through which we summarized the classical logic of economic dynamics sequence—a change treasured by all the advocates of redistribution—and write: accumulation—equitable distribution—increased consumption! It does not sound so bad, but it sounds broken; it seems to have too much of a predictable end! Such a scheme would have to face Mill's logic, including at times when the social ideal of distribution sends us back to socialism.

In short, both Ricardo and Mill had in their sights unity through logical interconnection of economic phenomena. Unity through which the problems of distribution—so delicate and conflicting—are related to issues of production. They both excelled at Logics and it would be offensive to attribute them serious inadvertences, using the "scientific" pretext that under their umbrella, we turn our speech "sustainable", making distribution the starting point.

4.2 Say: The Pure Form of Self-Development

Say's law remains unmatched as internal logic closely connected with everything that regards the core of economic dynamics. The key sentence by which the small industrialist and knowledgeable economist stimulated Marx, Ricardo, Malthus, Mill, Keynes, Laffer, etc., generously and in various ways is, we believe, the following: "It is worth while to remark, that a product is no sooner created, than it, *from that instant*, affords a market for *other* products to the full extent of its own value" (Say 1971, p. 134, our emphasis). We highlighted the words that provided support for endless queries meant to dilute the force with which the ***Law*** defines the source of economic sustainability. As an industrialist, Say realized something elementary: he does not employ saints, but people. People that have to be paid. Money paid as wages ***also*** means demand; either for his products, or for ***other products***, belonging to other entrepreneurs. The other businesspeople are driven by the same logic. Overall, demand is implicit in the offer; on the whole and not for each individual company. Nowhere has Say said that supply creates its own demand. This is the "translation" offered by Keynes, whose popularity contributed heavily towards the replacement of the original with the copy. If any small inadvertence occurs, the market solves the problem. Its balanced mechanisms make the possible sectoral imbalances provisional. The issues of ***time*** and ***money*** stirred disagreement. Marx was interested to convince (impose the idea) that the Law was merely a "truism". He was not fond of the little industrialist who laid a broken brick to the scaffolding of Marx's construction. Once introduced in Say's logical schema, the "bourgeois" from Marx's *Capital* (1990) could not be so stupid as to ignore the fact that paying the worker the minimum wage would only ensure subsistence, and not create the necessary purchasing power; for their own goods and the goods of others. And this, based on an unwritten convention, one belonging to the bourgeoisie, deduced not from the subjective will of the contracting parties but from the logic of things. When Say's workers get their pay, this automatically represents demand for the goods of others, finished or in the process of being finalized. Salary is money. With the money received, the employees can buy immediately or postpone the purchase of other goods, for various reasons. It is not necessary for purchases to follow the payment of the salary immediately in order for the Law to be verified. It is however compulsory for the entrepreneurs to sell their goods. They will not achieve their objectives if they produce "blindly" for a market that does not exist or for buyers who are not interested in their offer. This cannot be described as normality. Say's normality involves that everyone "wishes" to sell and get rid of the money obtained by buying "some product", and all this because "capital (…) will seldom remain long unemployed" (Say 1971, p. 350).

Short, logical and comprehensive! But not for everyone. The separation, possible, in time, of the act of sale and purchase and the "slippage" that is likely to be triggered by the reserve function of money have somehow tangled Marx, Sismondi, Malthus and Mill.

Turning this logic upside down in the manner of Hegel, Marx noticed the inevitable danger of overproduction. If all the "bourgeois" pay wages driven only by the minimal care of the "animal" perpetuation of the labour force, the overproduction crises become permanent, they become endemic. Only class struggle can solve the problem; the union of the proletarians in their struggle for higher wages, just as the bourgeoisie is united in their fight for lower wages.

The delay of demand in relation to supply was also feared by Malthus and Sismondi. They believe that the additional production resulted from the surplus of productive workers employed by increasing accumulation and investment would not be met with a matching increase in purchasing power. At this point, Malthus proves that he only understood half of Say's lesson: non-productive workers receive wages without producing anything. They carry demand but not supply. With this hypothesis, logical and consonant to that of his fellow Say, with whom he corresponded frequently, Malthus goes on to conclude that with the increase in the number of productive workers, the number of non-productive workers decreases. The result is clear; there is an additional offer without a correspondent in consumption. At this point, Malthus theorizes about the productive role of the non-productive. Greediness as an inclination towards saving, even the avarice of those who have money and could increase consumption, adds to the causes of under-consumption—or over-supply. He liked the idea of encouraging public spending as a solution. We should notice and keep in mind the Malthusian embryo of the effective demand deficit, a guiding principle around which the Keynesian logic gravitated. A logic blessed by the politics of the years '29'–33 and 2008–2012. This politics, supported by a demand doomed to perpetual insufficiency, stimulated the marketing in its offensive on the irrational component of consumption behaviour aimed at wasteful consumption. It was signalled and sanctioned starting with the Third Report of the Club of Rome [… Let us end the waste era] by politics which, keeping up appearances in rough times, was constantly preparing a new "meeting" to prove its false paradigm.

It is possible that Malthus, like Keynes, may have noticed that this was the way of the world at the time—that there was a demand deficit. None of them, but especially Keynes, would see a solution in the market. Even more so, those who followed Keynes turned the marked "excess" into a cause of evil, making it accountable, among others, for public expenses. From the perspective of the theory of sustainability, the discussions can comprise a wide and varied range of arguments. Here, in the area of Say's philosophy, we tend to believe that precisely the poor understanding of the Law of market and promoting—as formal politics—the principle of demand stimulation coincided with the beginning of an erosion, from the inside, of a logic that turned self-development into the alpha and omega of the classical economic dynamics. Separating demand and dealing with it as a set of distinct elements was just a beginning. The "saving" continuation, over time and the promotion of supply (Laffer 1981), which this time was left behind, completed the exercise. It was an exercise with a logic that would only fold onto a single scene of the evolution of the economy; nevertheless, it was one that broke the logic of the whole construct built by Say. That "at the same time" present in his analysis, means: demand and supply are interlocked, and they reconcile at thousands of levels, with sellers and buyers from all over the world selling and buying millions of goods at the same time. Even though the supply of Ceylon tea is in line with the demand for tea from the UK, the scene completes the whole; it completes it without contradicting the *Law*! No mind can grasp the whole magnificence, diversity and apparent complexity of the show. Start working and let it work its ways, Say argues. Run rings around it, Marx tells us. And plan both the supply and demand will add all the planners and engineers of the economy and society! Keep things going, say Malthus, Keynes or Laffer. Where is sustainability and on what sources does it draw? And above all, what is resilience based on and why is economic dynamics doomed to recurring crises?

After all, what did Marx, Malthus or Mill have to notice? They had to notice that, in fact, relating demand to supply—and vice versa—cannot be achieved by confronting two compact entities. The market means millions of interconnections, circuits, not a global confrontation between sellers and buyers. Not even the excess demand for money can be globally related to a surplus of goods, as Walras thought. The division of Say's alleged barter into two distinct operations and the claim of levelling supply by its own demand goes against the author of the Law. It was enough for the aforementioned scholars to look at economic life as a set of circuits and let the market settle the accounts in order to see that, from a market perspective, overproduction makes no sense. It only makes sense if you do not allow this unrivalled institution to reconcile, not as a whole, but piece by piece, the buyer and the seller; it only makes sense if, instead of letting the market work its ways, you are concerned with Say's findings.

Within this context, it is interesting to see how Mill raises the question of the possible surplus of demand or supply. He did not understand it correctly, we believe, but intuitively and under the impulse of a liberal spurt, he saw where the solution was. Mill the philosopher was confused by money. Their function of value reserve sent the sale-purchase dynamics to distinct and irreconcilable tempos. But Mill the liberal is mesmerized by free competition. Just like Say, he conceives the demand and supply law as a solution to possible mismatches. A competitive market finally "absorbs" all the offered and expected quantities. Let the market run freely, he argues in the same way as Say does!

4.3 Dynamics—A Desired Goal

Without exception, all the classicists understood prosperity and welfare as the result of economic dynamics. They did not connect happiness, in absolute terms, to the increase in welfare, but they did not see another source of economic progress outside its dynamics. Sustainable development demands not only economic progress but also generalized social progress. The classical offer is consistent and exploitable in this regard, not with the same sustained enthusiasm but inspiring for *Our Common Future*. How can people be satisfied or even happy, what should the economy or the state do in this regard, considering that matter is more important than spirit in shaping the sources of happiness, etc., all these issues came to the attention of the classicists, especially Smith, Ricardo and Mill.

Dynamics is important because once it starts functioning its benefits flow naturally. This is what all the classicists seem to say. Movement and growth are beneficial for both work and capital. Combined in different ways, the two factors produce material and non-material values; they attract resources and make life beautiful—this is what all the classicists believe, insightfully explaining what are the sources of value and why their size varies. Smith is the most motivated in proving that movement and dynamics are good. Not only is the generous "reward of labour" due to growth, but also population growth appears to him as a sign of public prosperity against this background (Smith 1977, p. 118). His clear message is that we should not expect high wages at the peak of the wave, but only while the wave is growing "It is not the actual greatness of national wealth, but its continual increase, which occasions a rise in the wages of labour" (Smith 1977, p. 103). Substantial salaries are conclusive for all of Smith's ideas and good intentions that can be creased onto the social area of sustainability. Even tuition expenses can be compensated for in a future higher salary, by delaying present consumption (Smith 1977). Only in such conditions does one have the chance to see how a trained employee can receive five times the salary of an untrained one (Smith 1977). In order for these things to happen, wages must be left to the market, says Ricardo (2001). Afterwards, the dynamics allows for boasting; you can provide indicators of your superiority as a country, compared to others! You can pride yourself on the high efficiency of your work. A high rate of profit can in turn allow a high rate of interest. Comparing England and the Netherlands, Smith is convinced that this can define the brand (the country risk, as we call it today!) of a country (Smith 1977). The examples are superfluous in proving that the classicists saw good signs in economic dynamics and they linked to it the chances of economic and social growth. Smith's next quote has been conclusive: "It deserves to be remarked, perhaps, that it is in the progressive state, while the society is advancing to the further acquisition, rather than when it has acquired its full complement of riches, that the condition of the labouring poor, of the great body of the people, seems to be the happiest and the most comfortable. It is hard in the stationary, and miserable in the declining state. The progressive state is in reality the cheerful and the hearty state to all the different orders of the society. The stationary is dull; the declining, melancholy" (Smith 1977, p. 118).

The whole history of economic evolution after Smith has confirmed this idea. The "vast majority of the population" did not live well at times of economic stagnation. On the contrary, they lived poorly during times of false economic growth, artificially inflated in the communist competitions of catching up.

Two issues emerge from Smith's analysis. ***First***, it is important to see what is happening to the other part of the population, the one that is not included in the "vast majority". If in absolute, or in relative terms, their journey through the three hypotheses—savings, accumulation, investment—changes their standard of living, and to what extent. And this, considering that the gaps (in terms of wealth and social position between social categories, countries, regions, etc.) constitute one of the hottest issues of sustainable development. ***Second***, it remains to be seen what is the social category held in view by the proponents of zero growth or even of degrowth when looking for arguments, and which countries do they refer to? Are there areas where the "vast majority of the population" has reached their needs and must stop?

4.4 Progress and Happiness Beyond the Material

Without the "goods necessary to make life easier", it is hard to think about happiness. This results from all the classical writings. Material wealth is very important, but it is not everything. The plea for the role of education, family, the attitude towards the importance of health, the status of the poor, the attention paid to democracy and the inherent ideals of progress, the efficiency of state management and, even, the reduced but unrelenting care towards nature support this idea. They support the classicists' assertion that man conceived fulfilment not only in material terms. Man's happiness exceeds this area.

Mill argues that "[b]y happiness is intended pleasure, and the absence of pain" (Mill 2015, p. 121). The purpose of human action is conceived in the same terms. Thus, actions are right if they promote and bring happiness, and incorrect if their effect is contrary to happiness. If it is only on the way to happiness that human activity has the chance to acquire a moral basis, it remains to be seen what makes people happy. The answers provided at the time by Smith and Mill encourage reflection. All the more so, as the main idea which defines their judgements and serves as backdrop, points to a principle that any policy in search of success should adopt: “pursue riches and avoid poverty” (Smith 2004, p. 61). In other words, it is illusory to seek happiness in the area of poverty. Poverty is ugly, it “causes pain” and, in classical terms, has no moral basis. Wealth is the path to the progress of man as a person, and society as a whole.

A first distinction pointed out especially by Smith is aimed at the material and non-material nature of needs. He is convinced that “the needs of nature”—the biological needs as we call them—do not seem difficult to achieve: “The wages of the meanest labourer can supply them” (Smith 2004, p. 61). From this point of view, equality seems to define the normal human condition. No matter at what level of the social hierarchy you find yourself, you rely on the same terms: “food and clothing, the comfort of a house, and of a family” (Smith 2004, p. 61). From here on, the differentiation effect (Chamberlin 1956) comes into play. Smith calls them expenses on “trappings”. He is thinking about expenses that support vanity, the desire for distinction, boast and rank, etc. Two human behaviours overlap and are distinguished here: that of the rich and the poor. The first “glories in his riches” (Smith 2004, p. 61); the second “is ashamed of his poverty” (Smith 2004, p. 62). The chances of happiness for the former are infinitely higher. “Overlooked” and “disapproved” (Smith 2004, p. 62), the poor remain disappointed in the “the most ardent desire, of human nature” (Smith 2004, p. 62). And this, even if sleep is by no means sounder in a palace than in a shanty! It is not in relation to the poor but to the rich that Smith configures “the most ardent desire, of human nature” (Smith 2004, p. 62). This is the model to follow and the model that needs to be respected. Smith believes it is on this respect that social order is based. An order in which wealth is to be followed and poverty is to be avoided. A key statement in Smith’s discourse represents the possible change of the condition and the transition from one state to another solely on the basis of an honest game of competition. What is important to remember here is the pattern, the path to happiness. Even if he admits that the road to wealth is less virtuous than the road to poverty, the entire Smithian construction sends a clear message: it is better to be rich; do everything to avoid poverty. Avoid it because it is neither moral nor normal. Abstinence, virtue in poverty, does not lead you to heaven.

Mill is not far from what Smith thought. However, unlike Smith, Mill does not aim at the content, but the destination. Vexing and confusing—in his well-known style—he sees, in a first hypothesis, that freedom in diversity is what brings happiness to man, man as a distinct individuality. Supporting this idea, he claims that it is diversity, not uniformity, which made Europe civilized. This is why care should be taken so as not to turn the continent Chinese. From the danger of the grey, standardized model, embedded in an institutional order that is foreign to individualism, Mill goes on to plead for happiness as a common good in his *Utilitarianism* (2015). Invoking divinity to "sanctify" his utilitarianism and promote it as a deeply human doctrine, Mill produces the following text: "All honour to those who can abnegate for themselves the personal enjoyment of life, when by such renunciation they contribute worthily to increase the amount of happiness in the world" (Mill 2015, pp. 129–130). This would be, Mill believes, an embodiment of the golden rule of Jesus of Nazareth: "To do as one would be done by" (Mill 2015, p. 131).

What is left to do?! It is unreasonable to criticize Mill right here! Yet, briefly, can we ask ourselves how big Mill's "world" is? Is it the whole world? Using this as a starting point, how can I give up some of the pleasures of my life to a beneficiary in Saharan Africa? Should I also trust the possible redistributive mechanisms meant to intermediate the path of my sacrifice? Am I sacrificing myself for the welfare of a future generation or for my own generation? And then, sticking to the biblical terms used by Mill, shouldn't I first love myself and, once armed with this reference system, love the other? In economic terms, before being able to help anyone, shouldn't you first make sure that you are able to do so? If you are poor, what can you give to somebody else? This is not the only case where Mill fails to provide us with certainties we can settle comfortably for. However, related to its entire construction, we can only think of the altruistic side of human generosity. More precisely, we could think about the generosity of the rich that Mill was referring to. In this way, the attempt to achieve happiness, in its form of common good, appeared as a moral purpose of government. This is the only way in which the two means he considers indispensable to reaching the ideal of happiness may gain coherence and logic:

1. "… laws and social arrangements should place the happiness, or (as speaking practically it may be called) the interest, of every individual, as nearly as possible in harmony with the interest of the whole";

2. "… education and opinion… should so use that power as to establish in the mind of every individual an indissoluble association between his own happiness and the good of the whole" (Mill 2015, p. 131).

Smith was also familiarized with the general interest and the happiness of the nation. However, he saw them fulfilled through personal happiness. Everyone, rich or poor, happy in his own way. General happiness is a result. For Mill though, general happiness is important and the way to reach it is redistribution. He believes in the law of communicating vessels that allows for the abundance of one category to flow into the other's category deficit. If education and social institutions do their job and function properly, there is a chance for everyone to benefit from the joy of life.

No less important and for the benefit of the theory of sustainability is the distinction between animal pleasures and happiness. According to Mill, happiness seems to be an exclusively human attribute. When writing that "It is better to be a human being dissatisfied than a pig satisfied" (Mill 2015, p. 124), he believes, in the common spirit of his age, that since animals have no soul, the feeling of happiness is foreign to them. If they are likely to enjoy something great, that something is called "contentment". The choice between the bodily or physiological and spiritual pleasures is synonymous with the distinction between animal pleasures and human pleasures. Mill is afraid of man's strong temptation towards animal pleasures and the consequent loss of "high aspirations". Beyond this less grounded fear, Mill provides an explanation resembling a perennially self-evident truth, one that cannot be ignored by the policies aimed at reducing disparities in the world. In short, hunger and bad living dehumanize. "Men lose their high aspirations…because they have not time or opportunity for indulging them; and they are addicted to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access, or the only ones which they are any longer capable of enjoying" (Mill 2015, p. 124). In 1973 Edgar Morin was writing that "man is by nature a cultural being" (Morin 1973, p. 100), announcing, by the very title of the book cited above, that the great loss recorded at the level of paradigm is human nature itself. A loss caused by cultural deficit. For the poor countries, the precarious life full of servitude and humility lowers the cultural level of human nature. The miserable condition freezes everyone's appetite for superior pleasures. If one's basic needs of food, clothing or housing are not met on the daily priority list, higher pleasures appear as a whim or do not matter at all. In other words, Mill accepts that the relationship between wealth and poverty also has something to communicate on this level. He tells us not to condemn the poor for the little things that define their cultural mentality; when faced with the hardship of life, these minuses lead them to a lesser understanding of what beauty is and why nature must be respected. If, however, they go for "education and social laws and ordinances", this may help them acquire their true nature; value the beautiful and respect nature. Helping them move from survival to a normal life, we have reason to believe that the demands of sustainable development can find a place in their list of priorities.

Mill was not interested only in the fate of souls suspended by the miserable condition of life. Human health completes its contribution on the social level of development. He does not miss either the possible conflict between personal rights and freedom guaranteed by the law and the danger, based on this misunderstood freedom, of abuse with harmful consequences. He states that "[i]t is not freedom, to be allowed to alienate his freedom" (Mill 2015, p. 100). A memorable sentence, if we may say so. Freedom is not associated with the unhindered pleasure that people choose to abuse alcohol. A commodity which, Mill believes, "consumers can best spare" (Mill 2015, p. 98). In such cases and in the name of preserving health, the state initiative to impose prohibitive taxes on spirits or even limiting the number of premises where spirits are sold appears to Mill "is not only admissible, but to be approved of" (Mill 2015, p. 98). As a result of such interventionist measures, personal pleasures remain personal, with better state of health.

4.5 The Stationary State Within the Trend of Economic Dynamics

4.5.1 The Obsession of a Dead End

Perhaps except for Bastiat and Say, none of the other classicists was convinced that economic dynamics was infallible. Not even the father of the "invisible hand" believed that he was on the highway to happiness. They all had doubts and saw obstacles. They saw them as reconcilable and they stayed realistic, or they treated them not with optimism but with a reasonable pessimism. Freedom, the free market and private property remained pillars in their search for solutions. Against this background, they analysed the chances of overcoming obstacles. Some have tried their luck with distribution—not as an equalizer, but in search for more fairness. They were aiming for both the individual and the collective well-being—in sometimes very distinct nuances. But they all wanted it. In their pursuit, they have also caught glimpses of obstacles. We are not thinking here about the classicist Marx. A price had to be paid for the original sin; he believed that free market capitalism was by no means likely to bring happiness. The system had to be changed completely, in order to open the door to happiness for everybody—equally, planned and with no exception from the rule. We are thus thinking about the other classicists; we are thinking about Ricardo, Malthus and Mill in particular. But we do not get Smith out of the equation either.

Although of low amplitude, blind distrust in the system, in the self-propelling and self-regulating forces of the free market send the thoughts of the aforementioned scholars towards less optimistic horizons. An earthly force, in the presence of the state, saw it as more empowered to reconcile the economic and the social peace, the individual and the social interest. It is not, however, where their pessimism came from! Other limitations worried them.

The limitation of nature appears to all, an important limit in the way of economic dynamics; grounded in the conditions in which agriculture occupied a major place in the world economy at that time. Wheat was a universally recognized exchange currency. It was natural to ask how far, under what conditions and in what way could this dowry of nature be exploited to better nourish (feed) a growing population. Smith is aware of such a thought when he talks about the possible situation in which a country "had acquired that full complement of riches which the nature of its soil and climate, and its situation with respect to other countries, allowed it to acquire" (Smith 1977, p. 136). Therefore, the peak of wealth is not the one desired but the one which is possible; the limits of nature dictate the amplitude. Even more concerned, Ricardo and Malthus raised difficult questions regarding the limited character of the agricultural areas subject to the assault of a growing population. The former "specialises" in decreasing productivity; the second, in the "reproductive instinct". Their analyses are well known and exploited. Primarily, the excessive reliance on the numerical, quantitative aspects of the analysed factors sent them to stationarity. To this point also contributed the lack of vision, and the extrapolation in time and space of random phenomena and factors, without a verified or verifiable trend. The case of the unnatural migratory population excess is just one example. We cannot impute their lack of means to explore larger horizons and not even their lack of information. However, we can keep in mind a basic idea: population growth is a challenge. One related to food, housing, clothing, etc. Irrespective of how we look at things, it remains a challenge! The technical progress that they did not neglect but underestimated can be interposed to sweeten the relationship between the "avarice of nature" and the "pleasure to live" of a growing population. Hats off to those who started the discussion on a topic that nobody will get away from. Even if they did not give us practical and applicable advice in every respect, they warned us that this is a place where something must be done. And it is not difficult to verify that sustainability has, precisely in this place, concerns, analyses, projects and forecasts, which validate the interest that the classicists have shown.

Predominantly, in an area of strong emotional load like that of population, most of the studies and works produced in the social area of sustainability are aimed at what has attracted particular attention, the tip of the iceberg—Malthus' *Essay* (1983). *The Limits to Growth* (1972), the Report of the Club of Rome represents an example of gathering support for the preoccupations in this direction. Other classical sources are less exploited. We are thinking about the cultural component as a determinant of the vital minimum; the attitude towards the poor, the status of women and the possible and necessary sustainable means for ensuring normal living conditions to newcomers. The classicists were present on all these levels.

Both Ricardo and Mill are sensitized by Malthus's theory. His *Essay* surprises them but it also engages them on other coordinates. They are not willing to rely on the biological component alone, on the reproduction instinct in establishing demographic balance. They find the cultural component just as relevant. "Habits and manners" in the case of Ricardo and education in the case of Mill carry a lot of weight. These can raise the level of the "vital minimum" according to which the natural price of labour is fixed. An educated population relies on preventive, conscious means to reduce birth rate. It will avoid falling prey to the reproductive instinct and realize, *post-factum*, that "it is too late", to use Malthus' language. From this perspective, Mill gives ample consideration to women—their status and role as an important decision-maker in the act of human creation. As already noted, together with Ricardo, they are thinking about what the state could do in two major areas: establishing, institutionally, an attitude towards the poor; elaborating measures, still formal, meant to guarantee decent living conditions to those who come. The theory of sustainable development is indebted to Mill for the status he attributed women—as individuals capable of self-promotion, without relying on any formal or informal support. His beginnings in theorising in the field of the obligation to first assess the possibility of a decent living and only then make the decision to bring forth children can also be a legacy for sustainability.

Their attitude towards the poor also constitutes a strong cause for reflection. They considered the poor on a global scale. Moreover, the poor, as it results from their texts, was an individual who would not really accept work as a source of subsistence. In relation to such an individual, Ricardo, the most severe in expressing his point of view, believes that the laws on the aid offered to the poor will have the opposite effect, will impoverish everybody; he believed they "are calculated to make the rich poor" without amending "the condition of the poor" (Ricardo 2001, p. 68). Such a "plague of universal poverty" (Ricardo 2001, p. 69) leads him to the "steady state"; a distant one, but possible if "progress was slower". However, the aforementioned laws will be even more "harmful" in such a situation and would add "additional burdens". This is a good opportunity to notice something essential: just like Smith, Ricardo and Malthus do not like the steady state. They see it as possible, but they do not want it. They perceive it in grey-black colours, as something that should definitely be avoided. This is not, however, Mill's case.

Another area, equally exploitable and less investigated as far as the support of the actual sources of sustainability is concerned, refers to the internal, intimate mechanisms of dynamics; places with a destabilizing, unbalancing potential—as the classicists believed—and which, neglected, can induce stationarity.

In such a place, the relation between the real and the natural profit rate is looking for its balancing characteristics. Everything that is saved is invested if there is a motivation for profit—this is what all the classicists believe. It exists but not in itself. A double game is played to determine the extent of the profit rate. One links the natural rate to the real profit rate. The natural profit rate dictates the minimum conditions for which an investor takes risks. In principle, the interest to accumulate and invest exists when the real market rate is higher than the nominal rate. When equal, motivation drops. There are reasons for the market rate to drop until it reaches the natural profit rate. Smith sees them in saturating the economy with capital and increasing wage costs because of free competition between entrepreneurs on the labour market (Smith 1977). At the same time, the author of the *Wealth of Nations* sees the solution—preliminary, indeed: technical progress lowers wage costs and, consequently, it removes the perspective of the stationary state.

There is another level of the game that discourages Ricardo. It saddens and confuses him because it relegates his reasoning to the logic of the zero-growth game dictated by the objective theory of value. Within this paradigm, any growth in one party means the corresponding decrease in the other. However, the "wage fund" is also a starting point. In its capacity as the primary source of employment but also as the "fund of a new capital", the salary plays a major role. The profit appears as a "residue"; it increases or decreases as the wage increases or decreases. And since wage costs rise due to declining profitability, the general trend for profit is declining. At the same time, the profit rate is the main factor that dictates the "will to accumulate". A low rate sends the economy to the steady state. Technical progress does not get Ricardo out of the deadlock as it happened to Smith. It remains to be seen and analysed what is left of this scheme when we relate it to contemporaneity. Values and prices are relative. However, wage costs are part of every entrepreneur's calculations. He can only offer salaries on efficiency criteria. The market and the institution of bankruptcy will always remind the entrepreneur that high costs equate hard-to-sell products.

4.5.2 J.S. Mill: Stationary State—A Well-Deserved Respite?

No other subject has inflamed and "supported" the pro-degrowth analyses like the one regarding the "stationary state". The pages placed under the heading "Stationary state" of the *Principles* are stubbornly denounced; here, taking the position of the dreamer, Mill allows himself a reverie regarding the seventh day that follows the six days of hard work.

If all the other classicists display a rather gloomy perspective on the stationary state, Mill presents it as beautiful and well deserved; but too beautiful to be true. The pages of the *Principles* in which the subject is treated could be cited in full; thus, we also rely on them. There is in the pages of the Principles a mix—so characteristic to Mill—that puts together realism and surrealism, reality and fiction, as well as the scientist, the wizard apprentice and the unvaccinated utopian.

From the way Mill prepares his entrance to stationarity, it creates the impression that this is a stop, a well-deserved stop to taste success. The sentences marking this check-in speak of full satiety. The huge progress and the power that people exert over nature, the continuous increase in the security of the person and property, the increase in production and accumulation, people's competence in business, etc.—all this demands a break, a time for appraisal and joy. After delightfully drawing this balance sheet of civilization, Mill believes that it is time for a "confession"! He takes the floor and says that it is not normal for the ideal in life to be defined as an endless struggle for business and profits, a life in which we trample each other.

Pleased to notice success in all areas of civilization but dissatisfied that not everyone is able to enjoy success as he thinks they should, Mill has high hopes for distribution. He does not think of a definitive end of growth. Or, at least this is deduced from the picture he "paints" on the topic of "Stationary status"! "[A] well-paid and affluent body of laborers" (Mill 1885, p. 594), we believe, is not indicated for a still-life painting, but one in full movement. "[A] great increase of population, supposing the arts of life to go on improving, and capital to increase" (Mill 1885, p. 594) is found in a painting where everything flows! Distribution and redistribution reveal Mill as the moralist and animator of social justice. One by one, he invokes "the joint effect of the prudence and frugality" (Mill 1885, p. 594), "system of legislation favouring equality of fortunes" (Mill 1885, p. 594), "no enormous fortunes, except what were earned and accumulated during a single lifetime" (Mill 1885, p. 594). All this, combined with the support of good institutions, will make an end out of "improving the fate of all"! In order to make this happen, Mill does not promote the recipe for absolute egalitarianism. He does not dispel completely the sources of emulation and material efficiency. Levelling wealth should not dilute freedom for everyone to benefit from the considerable or mediocre result of their work. In other words, without "enormous" wealth but only "considerable", not complete independence, but "moderate" independence, limiting inherited assets and donations. If we succeed in all this we can rejoice—body and soul, dream of flowers in the desert and happiness for people, animals and birds!

In a distinguished, realistic and sober note, Mill also points to an objective cause of the stationary state: large-scale production and the alarming population growth causes "the earth [to] lose that great portion of its pleasantness" (Mill 1885, p. 594). Here, indeed, we need a break. Otherwise, we need to change the technical mode of production.

4.5.3 How Do We Interpret the Classicists' Stationary State?

It is not the classicists that were the pioneers of the stationary state. The socialist utopians preceded them. Marx scientifically consecrated their writings. However, Marx was not a stationarist in regard to neither rhetoric, nor the objectives he pursued. Or, more correctly, he was not in the sense that the other classicists were; he was, in a way, when he sent the economy to the grey area, depriving it from its basic growing agents—individual interest and profit—thus, depriving it of the beneficial fervour of the entrepreneur. And, no less important, restricting, until annihilation, the area of development: private property and the free market.

The English and French classicists did not look at the stationary state from this perspective. The basic premises and conditions of the free economy and the free society have been solid benchmarks in relation to which they crystallized their thoughts and formulated their statements. They did their research in this common sense, which is fundamental as an inspiring indication and support for the theory and practice of sustainable development.

Adapting to this philosophy did not mean lining-up. It gave rise to stylistic and reasoning spirals. The Malthusian "populist inflammation" or the red ink irrigation of some pages, "angry" at hard-to-stomach inequalities and wealth obtained without work, in Mill's case, are examples of "unity in diversity". However, beyond these areas of high social cholesterol, their tone, note and purpose remain common. What is worth remembering from this common baggage to use as benchmarks in sustainability analyses?

We believe that Mill appears, among the classicists, as the main supporter of stationarity, one with a calling, although that is not the case. It is true that he is the only one who has dedicated a special paragraph to this issue, while the others have dispelled the problem in the structure of coherent analyses and conclusions on economic dynamics. However, the fact that he wrote a few pages under this title does not make him worthy of a statue. The other classicists tackled areas that are more important.

In fact, briefly speaking, it is worth noting that Smith, Ricardo and Malthus admit the possibility of a stationary state but do not wish it. On the other hand, this is precisely what Mill seems to be doing.

Smith sees danger in a quantitative saturation, a sort of blockage caused by excesses. He is keen on self-propelling resorts and the chance of an institutional arrangement to overcome any possible stumbling. Technical progress makes him quite optimistic about the chance to remove the spectre of a society humiliated by hunger. He wants a society in which the joy of life is accessible to the last worker—those who are hardworking, he adds! Or the sweet hope of improving one's fate is illusory in a stationary world.

Ricardo and Malthus are concerned with something else. To a certain extent, their approach to stationarism is similar. Beyond this point, Ricardo seeks solutions and finds them in the theoretical registers of a settled, civilized and inspiring (imitable) liberalism. Malthus, on the other hand, probes nebulous areas and draws conclusions, which—it is known—have attracted the contempt of his contemporaries and not only. The demographic issue bothers them both to varying degrees—population, considered both numerically and structurally. The issue of the poor draws them both towards solving an equation with too many variables. Do they suggest changing the system? No! In order to remove (not to eliminate) the grey horizon of stationarity, they resort to the free market. Removing protectionist barriers and free movement of goods could make them cheaper. And that was desirable, cost reduction. The Ricardian theory of relative costs remains, in this case, an example of a search looking for sound, well-argued economic solutions on how to achieve social peace in a world full of unequal people, and unequally equipped at the starting point. Gaining relatively, more or less, but gaining by moving, exchanging, not standing still—not stationing. The global optimum Ricardo was thinking about was just as inspiring for predictable sustainability; but it can only be conceived as the result of a world invited to move freely, economically. It is not a politically engineered world government empowered to bring justice to the world by waving the magic wand of redistribution that is likely to reach it. This global optimum is reached by the free market, restricted only by law. Malthus also sends the population issue towards the free market, but in a completely uninspired way. He believed that the demand of people could regulate the production of people. The result: those who arrive too late to the "royal feast"—one way or another—had to clear the way. Thus, balance could be achieved. With such thoughts, Malthus cannot be included in either category—supporters of the stationary state or the economic dynamics, and even less in the category of those who argue for sustainability.

What about Mill? He wrote and signed those four pages that brought him the fame of an expert in the field of stationarism! Rightly, though? Before answering the question, let us first look at a few hypotheses. When suspecting the danger of stumbling, the other classicists thought about the rich and the poor alike. What was the invisible hand supposed to do? The surplus in the "stomach of the rich" had to be redirected to the poor; that was its mission. But in order to do it, there had to be a surplus in the first place—and it had to exist continuously, without disturbing interruptions. When Mill writes about the stationary state, he seems to have in mind only the rich. We say this because only in this way, only in relation to a state of fulfilled wealth does his disappointment with the devilish and tiring cadence and rhythm seem logical; his disappointment with the "human ideal" thought of as a perpetual struggle for gain. However, appearances can also deceive. Mill never neglected the poor, he always kept them in mind. Regardless of the name he used for them, even when he considered that their "nature of slaves" condemned them, Mill remained sensitive to the fate of the poor. In fact, the "invisible hand" becomes an earthly hand precisely through its call for the state, in which he saw the main instrument of redistribution. Mill hoped the state would protect the weak against the powerful and reduce inequalities.

We make these assertions to show that Mill really wants a stop, but not anytime and anywhere. He wants a stop when the excess of wealth allows it. Is there anything unsustainable in this thought? It may indeed be when you intend to enjoy nature, art, beauty in general, write poems and catch butterflies but you have nothing to eat! Establishing the extent to which material existence remains a fundamental determinant in human life depends on the cultural paradigm, time and space, on generation and tradition. Mill was too human to ignore the fact that the smile of a hungry child was sad. He was not thinking about the country of this child when he wrote about stationarity; this would have been endless hypocrisy. We cannot suspect he would do such a thing. His whole work confirms it. He thought of a rich country, which, having reached material over-saturation, allows a slowdown of the engines to find enjoyment in the non-material joy of life. As an essential argument, he spoke about the effects of growth on the environment. Beyond or alongside material existence at the level of decency, the relationship with a surrounding nature, in the generic sense of the term, which, itself, must remain healthy, can dictate the cadence and manner of growth. Mill welcomed this.

We believe that we cannot suspect him of a freezing stationarism, meant to fasten the economy forever in the state in which it was caught by the frost. No, the engines are running, maybe at lower speeds. In other words, we would like to emphasize that it is a merely apparent contrast between him and the other classicists. Apparently, it can be entailed from the writings of Smith and Ricardo that harmony and prosperity result from increased wealth; in Mill's work, they result only from fair redistribution. If Mill "helped" us become the slaves of such a perception, honesty, towards him and the science he served, forces us to put his judgement in its place, in the area of logic. Mill could not believe he was redistributing wind; he redistributed the surplus of prosperity, a result of economic dynamics. In *Considerations on Representative Government,* he clarifies in this meaning, speaking about ***continuity***. This is synonymous with the word ***order***, a word he uses as a working term (Mill 2015). The symbiotic link between order and continuity seems to him so strong that any syncope in continuity nullifies the idea of progress. If he admits a distinct nuance between the two concepts, he does so by pointing out that order means preserving "of all kinds and amounts of good which already exist" while progress would mean "the increase of them" (Mill 2015, p. 193). What "wealth" is he talking about? The text clarifies it; Mill is talking about what we call human capital today. In his terms, "industry, integrity, justice, and prudence" (Mill 2015, p. 193) plead for continuity. "[T]he qualities of mental activity, enterprise, and courage" but, above all, "Originality, or Invention" (Mill 2015, p. 194) send back, in a Schumpeterian manner, to progress. The chance to reach progress based on continuity is seen in the "virtue and intelligence of the human beings composing the community" (Mill 2015, p. 199). However, it is important to bear in mind that the "quality of the machinery itself" (Mill 2015, p. 199), the way in which it was designed to work so as to "take advantage of the amount of good qualities" (Mill 2015, p. 199) is no less important. Mill exemplifies this in context, putting forward the case of fair tax that can engage the productive forces of the nation towards the increase in wealth by educating "the moral sentiments of the community" (Mill 2015, p. 195). By contrast, the "errors in finance and taxation", "obstruct … in wealth and morals" and lead to poverty (Mill 2015, p. 195).

Thus, where should we place Mill? We can let ourselves deceived by appearances by settling for the few pages where he urges people to rest and joy for mind and soul. Strictly speaking, from a methodological point of view, this would not be correct. It would be a brutal cut from the general context in which he worked as an economist and philosopher. And the general context is of the economist who aims for the dynamics of things; a river, not Dutch channels, as he would say! Even relegated to the pages about the stationary state, even there, we believe Mill is not what he seems to be for the catastrophic stationary eccentrics who deformed his thoughts. Once placed between these lines, what do we see? We see Mill in all his splendour as a slippery dialectician. We see a doubtful Mill, the man who dynamites his own assumptions and conclusions, remaining contradictory but alive and interesting. We see, in other words, a "successful" synthesis of a man who blatantly contradicts himself. However, is it here alone that he contradicts itself? Consistency is not the strength of our author. What is the battle of the socialist views against the anti-collectivist tirade? Hot ice! What is the ode to freedom versus the strong statism he sees both beneficial and counter-productive? Are the elite private schools compatible with his claims for equality through redistribution? Etc. We could go on with the queries, but it would be in vain. What is known is known to all. Mill remains the analyst of "*Yes*, but" as rightfully noticed by Heilbroner (1994, p. 4), which is hesitant and serves us a mix of ideas. Between Owen and Tocqueville it is hard to see what impressed him more. Then, let us not forget that the wind that animated the mid-nineteenth- century ghosts was the same one that brought, in the same year, his *Principles* and Marx's *Capital*. Beyond that, if we were to conclude, Mill can inspire in the right direction. Provided you approach his work as a whole.

Going back to the picture painted in the terrible subchapter on stationarity, we are forced to notice that he is encouraged by the large number of well-paid workers. It is true, the entrepreneurs are missing, but who makes the payment? The entrepreneurs appear as an implicitly understood topic. Moreover, they are not paying workers to relax. Someone has to work. The inherent message is that they work. Only by working do they ensure the necessary continuity without which progress described in *Considerations on Representative Government* is impossible. The mechanism, he adds, must set in motion the "sum of human qualities" so that against this background we can rejoice and talk about happiness. No doubt, Mill is talking about social progress. Or, in his own terms, "human progress" that the stationary state should not hold still. More room for the moral progress of society and for the art of beautiful living is created on such a background. But remember, think of this progress as possible against the backdrop of growth that may slow down after total wealth has reached a high level. Not against zero growth or degrowth. He does not tell us what it means and how big the wealth must be for a country to take a necessary break. So far, the history of economic dynamics has not recorded such initiatives. Not even the warnings on the suffering of the environment have induced such decisions.

It remains for the history of facts to talk about the realism of Mill's hunch. In the meantime, we believe that invoking his name to argue the logic of zero growth or degrowth is inadequate. Mill does not prove to be a partisan of degrowth or of some *ex abrupto* resting state. He talks about a desired state when we can afford to slow down! His urge is not: stop the engines! No, he wants—and who doesn't?—economic dynamics to make us rich enough so as to stop struggling to get more, because it is no longer necessary. You keep going, but at a different pace! His stationarity flows. The word was just wrongly interpreted. And they did it by eluding its ripeness.

Instead, Mill has been relied on in supporting the degrowth in economic dynamics for ecological reasons. But from the economist's position, of the classicist within a science that can serve politics without it being metamorphosed into bioeconomy, ecological economics, environmental economics, etc. At the same time, we believe that inconsistency plagues the attempts to turn inconstancy into the core of Mill's reflections. And then, we forget that the other classicists also dealt with the subject, perhaps even better than Mill. No less random seem to be the attempts to interpret the global crises of the last century as a confirmation of Mill's intuition that the dynamics of wealth has "natural" limits and that by all means, progress is followed by a steady state, i.e. crisis. We may acquire recognition by joining the classicists. However, we should not do that by any means, by distorting their thoughts while unnecessarily "valorising" it!

4.6 Concluding Remarks

The movement, economic dynamics and, in close connection, social dynamics were pivotal concerns and keywords of the classic discourse. The result of these searches (discomposure) constitutes the wreath of a coherent and consistent theory of economic growth. The classicists were not the first in this endeavour; they were preceded by the mercantilists.

However, unlike their predecessors, they were complex in providing all the elements that define the philosophy of growth and development. They did it in a modern way, deeply anchored in the realities of life and designed to serve its entire range of needs. Dishonest intent alone can justify denying the valence of a theoretical construct inspiring for sustainable development, such as the classical legacy. A legacy within which policy practice is embedded in a philosophy of self-development that can be imitated beyond time and space. No one, for example, can ignore the importance of the "initial supply of goods" and the "wage fund" when starting a business. At the time, the importance of saving and one's own effort were emphasized. The classical approach attributes accumulation the status of invention. So it is, and, if we may, so it must remain. In the classical accepted meaning, accumulation means saving; not saving in itself, sterile saving, but saving that fuels investment. You do not use everything, you put something aside, that is, make a sacrifice to start or, as the case may be, grow your business and live better in the future. You can borrow to do this; it is not forbidden; it is just riskier and even cooler, it induces a rush of adrenaline. The classicists do not suggest that this is the ideal route. Their message is transparent: it's better to invest your savings. It is better to be a creditor than a debtor. In the logic of the same time, we find a truth that is difficult to manage even today: if the wage fund is oriented towards those who produce, we stand good chances for self-development; the orientation towards the non-productive sector, tempting and populist, turns investment into cost. We have here, indirectly, an impeccable demonstration of the reason for the minimum state, carried out with the tools of economic science!

Besides the primary factors for wealth production, the philosophy adds technical ingredients ("equipment improvement"), the allowed institutional arrangement (state organization, market, property, etc.), the incentive system, as well as the cultural mobiles. These moving productive forces are mainly national! Cloistering within one's own borders is not indicated but it is good to note that "[i]t is always under great difficulties, and very imperfectly, that a country can be governed by foreigners" (Mill 2015, p. 395). National productive forces do not have the same potential. Industry intrinsically appeared to the classicists as possessing higher productive potential than agriculture. The theory of international trade was seriously nourished by this classical conjecture; national development policies, no less. Any kind of production has to meet some demand. The issue of markets was therefore approached. Within this context, the possible limitations of the market were also analysed. The painting is now complete!

Where does the power of this philosophy come from? At least two sequences plead in this direction. First, there is the sequential order of the moments that define the anatomy of economic dynamics. An order that nobody sets—as it can easily be seen through the lens of the classical texts. The logic of things is responsible for this. And logic says that the beginning is called production. This is where all the other stages derive from: distribution, exchange, consumption. You can only start from production. Otherwise, you are left with no object for the other stages. Acting otherwise, that is, staring from the distribution, is neither an act of generosity nor of nonconformist rebellion but rather just a stupid gesture. If something is privileged in this whole story, that something is saving, accumulation. And that is because it fuels investment and production. If distribution becomes an issue, as pointed out by Ricardo, turning it into the main engine is not a viable solution. Nothing can take the place of production.

If the classicists were clear in regard to the sequence of stages that must be completed in order to serve the consumer, there is a whole different story with the relation between work and capital. Here any discourse about primacy turned out to be void. On the contrary, the complementarity of the two factors has proven to be the right relationship. They were concerned precisely with identifying how these factors could combine more profitably. A positioning that, along with the philosophy of the right to inheritance, influences the relationship between generations. It is impossible to cut off 100% in all cases of the capital created over the time span that covers the life of a generation. It is a problem that is impossible to solve by mathematics or accounting. What the father created by investing, is cushioned by the son, or, possibly, by the grandson. In these circumstances, reducing or prohibiting the right to inheritance remains merely a social action with equalizing purpose. It should be noted, however, that such an initiative can transcend the social and collide with sound and acknowledged economic practices.

The classical economic dynamics is directed towards the material area, but it also aims beyond it. It is clear to all the classicists that well-being is, first and foremost, material. It is on this basis that the fruit of social welfare flourish, grow and mature. However, material welfare is not enough. Something else is needed. In the writings of Smith, Mill, Bastiat, etc. happiness is more important than material wealth. Distinction, rank, vanity, health, social relations, etc. occupy generous spaces in the *Theory of Moral Sentiments* and all the classical *Principles*. It is, however, a good idea not to deceive ourselves. And those we referred to were not deluded. The happiness they speak of belongs to the wealthy dynamic world. It is not the tip of the wave, but the road to it that generates emulation and brings satisfaction. Poverty and hunger bring no happiness; they are neither beautiful nor desirable. The classical lesson is clear: wealth alone can receive the attributes of virtue.

The classical economic dynamics is not a relaxed march on a paved road with no traffic lights. There are enough barriers and speed limitations. Even more so, in Mill's case, a stop for those who worked with reasonable results is well-deserved. No less present are also the circumstances under which the physical limitations of the production factors impose restrictions. However, it should be noted that the dynamics is assured. Driven by reasonable optimism or pessimism, the classicists have come up with solutions—both internal and external. Their theoretical offer was and has remained a source to be exploited!

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CHAPTER 5

The Convoluted Sustainability of the Neoclassical Discourse

It is not easy to appraise what elements of the theoretical offer of marginalist neoclassicism can constitute certain and traceable support for sustainable development. Although homogeneity is a word with leitmotiv status in their analyses, we need not use it to characterize their theoretical offering, quite the contrary. Divided into three major branches, they "quarrel", although they claim to not know each other. The marginalists of the Austrian school obstinately refuse mathematical calculation, in contrast to English utilitarians, geometers or the "mathematicians" of Lausanne. Mengerian causal links are opposed to the organic ones of the utilitarians and mathematicians. Psychological introspection, which leads to the abstract sentences of unparalleled stylistic accuracy of the Austrians, is intended as a reply to the pages full of mathematical equations of Walras or to the extravagant schemes of Edgeworth. Some, implicitly or explicitly, refuse the classicists and others, on the contrary, regard them with admiration. Just as some of them, even within the same school, embrace the views of their peers in order to provide syntheses. Marshall and Wicksell are two well-known examples in this regard.

What is it that unites them? Methodology and doctrine seem to be the answer. In regard to methodology, they claim an innovation: judgements à la marge. They are applied against the background of a new theory of subjective value and also in a new environment. An abstract one, separated

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from the socio-economic conflict present in the works of the classicists. The doctrine of the neoclassicists is fundamentally liberal. The nuances of such "heretics" as Walras, Barone or even Pareto do not impair the general idea: the increase of wealth is brought about by free competition played out in the context provided by private property, freedom of thought and of action. However, when they descend from the ivory tower of mathematical abstractions and prescribe recipes for economic policy, some scholars' liberalism severely pales. It is infused with statism and socialism, thus serving as inspiration for mixed-type economies. The Austrians do not commit any doctrinal compromise. Their liberal creed remains a landmark, in both theory and doctrine.

Against this background, the neoclassicists have toiled. They have created recognized, influential science that seriously competes against one of the classicists. In the direction pursued by us, we are interested in what inspires and what does not inspire from this science, the theoretical and practical approach of sustainable development. A few sequences will plead on their own for one answer or the other.

5.1 The Celestial Landscape of Economic Analyses—An Incompatibility with the Theory of Sustainability?!

If the three mentioned branches refer us to economists with different opinions and theoretical positions, this does not necessarily mean that they do not belong to the same common doctrine, quite the contrary. The umbilical cord of the marginalist calculation connects them to the common doctrine—an extravagant calculus, unsettlingly logical but not able to stomach validation. Nothing seems more distant from reality than the boxed diagrams of Edgeworth (1881), the Walrasian equilibrium model (Walras 2014) or the Paretian optimum (Pareto 2014).

The ones that extravagantly "defy" analyses are, first of all, the "heroic" ***starting hypotheses***, as critics call them. Their array is not infinite, but it is large. Neoclassical engineers and mathematicians believed that economics also operates with constants and laws just like those in physics and mathematics. The renunciation of the objective theory of value and of the supposed homogeneity of goods and capital allowed them to use mathematics both where it was needed and where it was not called for. Thus, the economic game loses part of its qualitative dimension and becomes more about the movement of measurable, perfectly substitutable quantities. The elasticity of the substitution of production factors becomes an arithmetic that is as easy as it is fascinating. Optimization is even more attractive. Who would not like to know which additional unit of a homogeneous factor ceases to generate profit? Otherwise, marginal utility, Wieser's concept (Wieser 1893) or the "differential coefficient" in the Wicksteed version (Wicksteed 1894), as well as Pareto's ophelimity (Pareto 2014) mean nothing if not related to homogeneous stocks. The big problem is that homogeneous stocks do not exist. But do we heroically accept that they exist only to satisfy the need for a starting point for the aforementioned economists or for Gossen (1983), Walras (2014), Menger (2007), Jevons (2013), etc.? And who would profit from such an initiative? Or, what becomes of the problem of choosing in such a market? Is it reduced to a simple mathematical problem of establishing the "coefficient of choice"? (Schumpeter 2009, p. 119).

Interestingly, their mathematical inclination developed in contrast to the basic philosophy and theory. It is a paradox to see that mathematical calculus is not developed within the confines of a theory that has suggested fixed landmarks of value, but in the enclosure provided by the subjective theory of value. This was made possible by a "surgery" performed on two levels. First came the homogenization of goods. On its own, the homogenization of desires would have appeared as a bizarre, not a "heroic" hypothesis. Therefore, their perfect division in ever smaller fractions to ensure double judgement and the ability to operate in an equation with two compatible factors—substitutable homogeneous goods versus needs divisible in units fit to the sizes determined by the calculation requirements—was the second operation. One that they did not find strange. From this point, the step towards the supply-demand pendulum with perpetuum mobile qualities, a barometer of an economy capable of surpassing on its own any obstacle that comes its way, was a trifle.

The surgical homogenization of goods and human needs was not an end in itself. It was a means of achieving abstraction, and abstraction allowed mathematics and models to pass on, throughout time, affirmations that defined their message. Here, the positions and instruments of the neoclassicists were different. Jevons (2013) tries with true delight to set off Bentham's "pleasures and pains" (Bentham 2000) against each other. Marshall (2013), on the contrary, although he does not dislike the model, is not full of admiration for the excessive mathematization of the economy. He dislikes eternal economic laws and the starting hypotheses of the Lausanne scholars. His model is dynamic and focused on the long run. Walras (2014) likens economy to a branch of mathematics; he builds in a static and short-term manner. Pareto (2014) sees man as a physical phenomenon; he builds an optimal model that will forever fuel the seed of discord in the field of distribution. On the other hand, the Austrians will initiate the group of literates. They will stubbornly try to prove that economics can find its argumentative sources within its own substance. And they will achieve something that not many others are capable of: to come up with texts in which every sentence, by its high degree of abstraction, "says" what a mathematical equation would communicate—myriad of facts grasped in the synthesis of a thought. Following the example of their ancestors, the descendants in a straight or collateral line do not take up the same position. As an example, the omniscient individual who animates Walras's model of general equilibrium is criticized by Friedrich Hayek (1958) or by John Hicks (1934). Irving Fisher is enchanted by Edgeworth's logic of "indifference curves" and has a similar approach in *Mathematical investigations in the theory of value and prices* (2006).

The internal logic of economic mechanics needed a force carrier, an indistinguishable atom that conformed to the laws of the model. The neoclassicists found it in the person of an omniscient individual, endowed with everything that was necessary to deal with the turmoil of the free market—a *homo oeconomicus* not confused by feelings and metaphysical concerns. For him or her, the theoretical economist prescribes the behavioural recipe based on the "*caeteris paribus*" hypothesis, while he or she, the practicing economic actor, ignores whatever would hamper him or her on the way to the sole objective: maximizing profit and, correspondingly, satisfaction.

In classical economics, *homo oeconomicus* was only present as generic. It is not the concept and construct of Smith, Say or Mill, even though those who believe that are not few in numbers. And they believe it deceivingly helped by the general context in which the above-mentioned have expressed their ideas. For instance, the economic man is present in *The Wealth of Nations*, but he is not a caricature. Beside the egoistic pursuit of his own personal interest, he also experiences human feelings: gratitude, love and solidarity. Ethics and morals are operant concepts, which carry significant weight in *The Theory of moral sentiments*. It is admittedly not moral and altruistic principles that fundamentally coagulate energies under the guidance of the invisible hand, but economic needs. This does not mean, however, that the man, the character who populates the splendid playing field of the Smithian free market, is glacially at odds with the goodwill and generosity characteristic of mankind. Smith's man is a whole man. Mill's economic man is just as human. The economy of happiness, its utilitarianism impregnated by altruism, its exhortation with biblical connotation to love your neighbour, etc., do support this assertion. Both Smith and Ricardo or Mill were convinced a priori thinkers. Their theoretical construction is intended as an ode dedicated to rationalism. But by aiming for something like this, they did not deny the human dimension of economic actors, they rather embraced it. In the exercise designed to produce wealth, it had its share of contribution.

The neoclassical *homo oeconomicus* is no longer generic. The need of schematization and mathematization is befitting of a world populated with identical individuals, namely on two levels: one of the producer and the other of the consumer. Reading their texts between the lines, English utilitarians and Lausanne mathematicians induce the idea that the perfectly rational *homo oeconomicus* seems to be the right characterization for the producer, the entrepreneur. The consumer, destined by the Austrians for introspection, seems to elude this reductionist scheme. But when Menger (2007) enters into his private psychology to dictate, even in a cardinal manner, his needs, we deduce that his consumer also enters the general hora of perfect rationality. It is only in this role that he was able to inspire Gary Becker's (1974) Nobel-deserving revolution in this area. We are forced to ascertain that the sentimental trepanation is widespread. Trepanation, castration and quantification of the human psychology, this is the meaning of Galiani's words when he states that "the value of human talents is appraised by the same means as the value of inanimate things" (Galiani 1977, p. 31). The typical models of producer and consumer, the extravagant exercises of economical mathematics or mathematical economics that can be found in such manuals as Paul Samuelson's (especially in their first editions of 1948, 1955, 1967) have the same meaning: scholarly and solemn economic science with all the features of coveted scientific rigour, but markedly lacking in its relationship with the real world.

Irrespective of the used analytic instruments, the goal of the neoclassicists has been the same: they have searched for areas of optimality and balance in a celestial world, aware that the real economy rejects them, while at the same time craving them! Every scholar adds a special trait to this search. As a notable exception, Marshall (2013) comes closest to reality. By refusing the stationary state à la Mill, he is more interested in the causalities and factors of economic dynamics, and the technical, economic and social progress. He looks for reasons to sustain a continual growth. He sends the entrepreneur (that he distinguishes from the capitalist) into the fray and attributes him the initiative, the inclination towards saving and investing as growth-inducing actions. He also remunerates his/her actions with profit (which does not include risk, probably because it was not very high in a starting economy, open as it was to all opportunities). Keynes would congratulate him for his thoughts. On the other hand, Walras seems to be the farthest away from reality. He disarmingly aims at analysing and offering "an ideal and not a real state" (Walras 2014, p. 209). Even though it is based on a system of unrealistic axioms, which has drawn endless criticisms, his model has a particular practical value. It is from this viewpoint that we think he has been least exploited. In this instance, we are interested in the way this mathematical model has been used, as a simple working instrument, to determine the price levels with the status of ***natural prices***, prices of goods, but also prices of money. They are similar to the ones of Smith and Ricardo, resulting from free competition on all markets. From this perspective, we shall remember Walras, by subsuming him to the general line started by the Jesuits from Salamanca and continued by Cantillon, Turgot, Smith and Ricardo, would end in Wicksell's synthesis and would pallidly reverberate back to us through Mises and Hayek, and, vigorously, through Keynes. From a certain perspective, the elitist Pareto (2014), at odds with common human sentiments, forces his analysis towards an optimal model by which he introduces the reader through the gateway of social welfare theory into his theory of distribution, which is nowadays seen as a workhorse with powerful explanatory force in the dialectics of sustainability.

Therefore, after this compendious draft of the neoclassical theoretical offer, we again ask the question: How much bearing does their attempt at being original in method and so abstract in their theoretical constructs have on the economy of sustainability? It is more than obvious that no sentence in their elegant and extravagant discourse on positive Economy is befitting or can be grafted on the ideational structure of *Our Common Future*. It would be bizarre to find in the discourse of Mrs. Brundtland references to indifference curves or ophelimity! We do not think it is necessary to even look for them! Neither those who deliver the discourse on sustainability nor their addressees, especially the latter, seem to be the proper recipients for economy lectures impregnated by the logic of the box diagrams. However, this is not how things stand at the normative level on which they have built. Here, we shall see that their offer is interesting with respect to the prescribed practical policies. In both the social and environmental areas, they provide names and ideas of reference, exploitable by the theory of sustainable development.

Marginalism is assimilated to a revolution in science. This is not the case and place to make assertions on this subject. One way or the other, nowadays we are all marginalists, to paraphrase a thought by Keynes. From the perspective of our theme, we have some doubts in regard to the gains in sustainability of science as such brought about by the aforementioned moment. By adding a new theory of value, salary and interest, a new concept of capital, etc., to what the status-quo had already acquired and by imposing them with insufficient force to make the old ones disappear, the new revolution has opened new horizons, but has also disseminated confusion. It has revealed that in its very core, in the hard areas of conceptual armature, the science of the neoclassical economists is labile. In addition, that moment has split economists, has fuelled criticisms from the inside on a large number of issues and has shown, as far as it was not already evident, that the territory of economics is neither clearly marked nor sufficiently protected by its servants.

Certainly, we must not register the moment just as a minus under the rubric of sustainability. No, the marginalist revolution and neoclassicism come with upsides too. Marshall's synthesis enjoys recognition. So do the bridges that it opened for the organization of the company (Marshall 2006). The opportunity cost proves to be operational, inclusively in the case of sustainable development theory. They have all used scientific abstraction to confer increased status to economic science; to refuse normative approval and bring it closer to the hard sciences, by means of its positive characteristics. "*Caeteris paribus*" is an unpardonable bypassing of the social and environmental elements, an operation as futile as it is stupid; however, it remains an open door for a plea on the ground of rationality—a ground where *homo oeconomicus* is an instrument of analysis like the atom in physics and the water formula in chemistry. Without it, the model was inconceivable. And the neoclassicists build models—some mathematically and others literarily, qualitatively. The texts of the Austrians are examples of the latter. Optimum also remains an exploitable idea as long as it can be more than the result of calculations embedded in a soulless mechanics.

The theory as well as the politics of sustainable development cannot make use of the formal scientific coldness of neoclassicism, however inviting it may be. Rationalities in the domain of sustainability can be neither limited, as are the ones with which the New Institutional Economy operates, nor perfect, as the ones of Jevons or Walras. They are both! They ultimately belong to the real, diverse, heterogeneous world, not subsumable to equations and very differently positioned in the territory of knowledge. What would be the impact of a neoclassical lesson in economics full of rationality, extracted from Samuelson's manual, in a school from hungry Africa? We would force to meet and converse two worlds of ideas revoltingly different. And, nobody knows for how long, irreconcilable! A pupil's refusal—"civil disobedience"—to learn such a lesson might be catalogued as irrational, but it is not. In this case, irrational and inadequate is the lesson, as it is far from his or her existence and concerns. The pupil is not irrational. And he or she is not so because life, as Mises greatly put it, is "a reactive response to stimuli on the part of the bodily organs and instincts which cannot be controlled by the volition of the person concerned" (Mises 1998, p. 20). Those who are starving, the ones that fate has forsaken, the humbled, etc., have their own rationality! A rationality without any connection to the criteria underlying Menger's table of needs, and also totally indifferent to the Edgeworth's curves of indifference. If *Our Common Future* should also concern the underdeveloped world, and we think it does so with priority, then the programme should acknowledge that out there, where people still starve, rationality has a different colour. From this multicoloured perspective, one cannot pretend total rationality in setting a scale of priorities and responsibilities for the current generation towards future ones; nor can one allow limited rationality in building a school, a hospital or a road, etc., when there is a total lack of such facilities. In the first case, Lakatos may help by telling you which propositions deserve the adjective "hard core" if they support a coherent and successful policy in securing for the people that are to come a better life than the one of those in the present, considering that current life is precarious. Testing is no longer a matter of protocol in the second case. Neither Pierre Duhem nor Quine can inspire you at this point. But a bulk, Popper-like testing seems adequate. In other words, we think the field of sustainable development is one of multicolour rationality. And these realities cannot be approached with the same policies as in developed countries. We also think that the theoretical realms of neoclassicism are the least prepared to offer such dedicated, standard, specific and adequate policies for undeveloped countries.

In the field of abstract speculations, mathematics and neoclassical models can feel at home. The approach to environmental problems and their inclusion in the theoretical structures of neoclassicism also have no reasons to refuse quantitative calculus, alongside qualitative one. The social aspect, however, calls for qualitative analyses. It is noteworthy that, whatever its methods, when economic science is called to provide theoretical explicative records on the grounds of sustainable development, it is forced to become again what it was in the beginning. It becomes political economics; it comes back home to the classicists rather than the neoclassicists. Irrespective of the neoclassicists' denial of normative economics and their followers' attempt to objectivize its status, including taking man out of the analytical scheme à la Schumpeter (see Kirzner 1960), economics is forced to remember its original name even when sustainable development is also included in its area of interests—or even more then. The statism of measures on all three levels of sustainable development, especially in environmental and social matters, constitutes a current reflection of the fact that Antoine de Montchrestien (1889) has encompassingly named it. He has called it political economics not because it combines with politics, but because politics does or does not validate it; it comes to life or disappears through politics. The classicists remained faithful to this idea. However, not all neoclassicists have resonated with it.

If the theory of sustainable development cannot deny abstraction or the model because otherwise it would cease to be scientific, how can it make use of these methodological instruments in a domain that has its own specificity? An authorized voice, artisan of the degrowth idea, Nicholas Georgescu-Roegen seems to have the right answer. An economist with solid studies in mathematics, Roegen does not refuse mathematics as it orders the thought process and reduces reasoning errors. For the body of economists, such refusal, he thinks, would amount to an act of defiance, equivalent with "running counter to the principle of maximum efficiency" (Georgescu-Roegen 1971, p. 331). However, he knows and proves that in economics, not everything can be reduced to mathematical equations. Ignoring this truth, eluding the fact that formal cannons are not always welcomed, amounts to "[being] apt to think—as, by and large, we now do —that locomotion, machines to make machines, is all that there is in economic life. By thus steering away from the very core of the economic process where the dialectical propensities of man are mainly at work, we fail in our avowed aim as economists—to study man in the hope of being able to promote his happiness in life" (Georgescu-Roegen 1971, p. 94). An enemy and a virulent critic of neoclassicism, nevertheless Roegen accepts the arithmomorphic model, but only as an instrument and nothing more. This is because, torn from social anatomy and philosophy, as well as from human nature, the model remains an empty sketch. Roegen does not choose between arithmomorphism and dialectic; he supports both, depending on the context. "We should keep reminding ourselves that an arithmomorphic model has no value unless there is a dialectical reasoning to be tested" (Georgescu-Roegen 1971, p. 341).

In his analyses on the subject of degrowth, Roegen does not resort to modelling; dialectics seems to him more at hand. However, models do not lack in other works on this subject or on sustainable development in general. If anything is to be seen and analysed here, it concerns the level of model adequacy in this area. The model is a model not to describe reality, but to catch its guiding lines. Its construction, the art of building models, as Keynes put it, is not within the reach of just anyone (see Hausman 2012). The abstraction and synthesis, the detection of the power lines of economic phenomenology from a very rich and complex empirical realm, in order to see what is representative for its movement amount to, in short, the "making" of the model. What we mean here is that the model is a resultant and not the end of a road. It mirrors the synthesis of reality. Only thus conceived can it prove its utility; otherwise, it cannot. Therefore, taking the carcass of a model from another reality and filling it with environmental and social data to check the sustainability level of an economic action proves to be a doubtful enterprise. Unfortunately, recognized analyses in this area claim brilliance precisely through such methods (Pearce and Atkinson 1993; Boulanger and Bréchet 2005; Dietz et al. 2009; Arrow et al. 2012; Spaiser et al. 2017).

In total, the sustainability of a theory and of the economic phenomenon it explicates cannot be inspired by the excessive propensity of the neoclassicists for the micro-level, complete rationality or the elegant models of the producer and consumer, populated as they are with an omniscient character, an accountant, a master of pleasures and interests, but bereft of the context of complex human nature. The separation of such characters with generic names and their encapsulation into distinct models are not inspiring either. Extravagant economic analyses, if bereft of the social and environmental context, once more, fail to inspire.

On the other hand, the neoclassical position with respect to capital, interest, money and business cycle remains interesting. This is true inasmuch as we find out that saving is the main source of accumulation and investments. Even the "roundabout production technique" and the chance of obtaining growth this way remain areas worthy of reflection. However, statements that support the hypothesis of capital homogeneity, in particular of the physical kind, are left hanging and lacking utility. Complementarity and sustainability, weak or strong, of production factors—subjects embraced by today's sustainability scholars—cannot rest on such foundations. All production factors are heterogeneous. They are more or less substitutable in these circumstances. And the extent to which this is feasible is not set by anything other than the competitional market. As the accumulation and investment of surplus over consumption is a revolutionary idea that Smith glorified, the idea that it is only by competition that savings, through investments, lead to the best results has earned in the same way its place in economic science thanks to Walras. Equilibrium or optimum with maximization spikes? "Popperian" reserves would be necessary (Popper 2002). Reaching a point of maximum satisfaction and staying there, unmoved, in order not to affect anyone's welfare, is a phantasm that cannot inform the theory of sustainability.

Marshall remains a place worthy of respite and inspiration. And he remains so because of his extension towards macroanalysis and the long-term dynamic perspective of economy, with his faith in the virtues of the competitional market as a mechanism of self-maintenance of this dynamic; with his successful beginnings for a new theory of the firm; and with his famous synthesis on the theory of value and prices.

5.2 Social Concerns—The Metamorphosed Side of the Neoclassicists

5.2.1 Sketch of Thoughts

A sort of dialectic perversion animates the neoclassicists whenever they leave the field of abstract speculations to jump into the applied world of economy and society, which is visible and staggeringly complicated. In the game that facilitates the intersection of Pure and Applied Economy, they allow themselves to be construed and transformed to the point of unrecognizability. The liberal vocation and the faith in the forces of natural order that accompanies them into the ivory tower of Pure Economy get lost or considerably pale when they take on the role of promoting social policies with egalitarian flavour and enhanced responsibility of the state. Their trace as dwellers of the normative level of Political Economy conflicts with the footprint they left when they built its positive level. They started with the acceptance of the ethical dimension of economics but ended by conceiving it as an aggregate of factors, of half-animated particles.

We have tried to persuade whom? that the temptation of the theory of sustainable development to be informed by the mathematical schemes that have given a name and a brand to neoclassical analyses can only be illusory and risky. The remaining chance is to find points of support on the social level. And, are there such grounds? Where may neoclassical analyses, liberated from the mathematical-abstract convenience and connected to the empirical world of the real economy and social life, constitute sustainable reasons for reflection and pursuit?!

If we were to place in a potential order the neoclassical offer in the domain of Applied Economy, we can start by observing that, as a general note, the tendency towards social issues seems to be related to maturity or ageing! In his youth, Jevons (examples may be extended) is "pure", a maverick revolted against public expenses when writing a pamphlet like the one written by Bastiat on the subject of a tax on matches applicable for all (Jevons 2015). In his old age, he becomes emotional and thinks it reasonable and proper to protect the poor! (Jevons 2017). As we have said, as a general note, all or almost all write, in the second part of their lives, works with an emphasis on social aspects, some of them "uneconomical". They announce their intentions by titles that do not include anything sibylline. *Studies in Social Economics* (Walras 2010), *Social Economics* (Wieser 1927), *The Economics of Welfare* (Pigou 1920), *Economic organization and social disorder* (*Organisme économique et désordre social*, Colson 2010), *The Socialist Systems* (*Les systemes socialistes*, Pareto 2012) or *The state and the railways* (Walras 1980) are works in which Economy appears as a science with great emphasis on social and ethical aspects, a science that must face problems related to the welfare of all people—problems that do not make wealth in itself the alfa and omega of its objective, but rather attribute it to the social ideal of equitable redistribution (Haller 2004).

In the name of this ideal, the neoclassicists find reasons to revolt against the current agenda of facts (the status-quo). Cournot (1897) believes that the source of discontents lies in the shortcomings of free competition—a competition guided, he thinks, by the upper classes at the expense of the inferior ones. Marshall, the man of great syntheses and passionate for long-term equilibria, does not remain unimpressed by the leftist, Fabian movements of his time. This is probably why he thought solving social issues was the main current task of Political Economy. Another properly revolted maverick is the great scientifically abstract thinker Walras. The French administration of his time is charged with having confiscated or suffocated the values of the revolution! The lack of concern for the public interest and the blocking of economic and social education are also, for him, two great points of discontent (Walras 2010).

On such grounds, the neoclassicists do not hold back their proposals of public policies that may be framed, in principle, in the context of state interventionism and with pronounced socialist emphasis. Jevons is preoccupied with social dwellings, municipal parks and the nationalization of postal services. Marshall encourages the state to subsidize those economic branches with growing performances and to tax the others. This is meant to be done in the name of growing welfare and of a liberalism grounded on economic, not ideological bases. A. Cournot sees the syndication of workers and public intervention as solutions for improving the situation of lower classes. C. Colson accepts the intervention of the state in the domain of social security and the prevention of workplace accidents. Walras, the great abstract thinker, but also the most ardent reformist among the neoclassicists, leaves aside the elegance of econometric models and invites the state to take radical measures on taxes and duties. He proposes the nationalization of railways and natural monopolies; he militates for the participation of employees with shares in the capital of the company; he even founds a journal of cooperatives; and, as a global note, he sees all this as corrective measures that bring a plus of social justice. Subsumed to the series of advocates of public policies' recipe can also be the professed anti-Marxist Eugen von Böhm-Bawerk. As he considers the state as a beacon pointing towards good, he gives it the task of making laws for sweetening the labour-employer relation meant to reduce income inequality, but also such laws that are conducive to the distribution of public goods without discrimination.

The argument for public policies belongs to a context more general and more generous within social ideas—a context in which ***social welfare*** represents the key piece of the ensemble. And to achieve it, the main issue is not production, but ***distribution***. The neoclassicists cannot be accused of not taking an interest in production, its role and the way it can lead to well-being—quite the contrary. The roundabout production by which Böhm-Bawerk (1930) explains the variations of interest rate is an evidence of this. The production engaged on a sinuous way to gain the necessary time to receive the infusion of investments into innovations is conducive to surplus, not the distribution. The distribution is responsible for the result as long as it is, first and foremost, a distribution of production factors. And for the neoclassicists, this is what it is about. At least in the texts that serve as background, it is not a distribution in the classical acceptance, as a phase of a process by which the participants in creating wealth are to feast on it according to certain criteria. "It is unlikely [Karl Pribram also believes] that the problems of the distribution process were the main concern of the creators of the marginal utility analysis" (Pribram 1986, p. 285). We think this is about appearances, the image they wanted to create about a non-conflictual world, suitable for their mathematical analyses. Wicksteed and Menger make it clear for us that this is the case. They make it look like distribution does not happen among the owners of production factors, but among the production factors themselves (Wicksteed 1933); namely, we deal here with a world in which it is not people, but production factors that move, and those need to be remunerated, as they are rare (Menger 2007). Yet, upon discarding the cloth of formalism, we can see that it is man, not machine, who represents their object of analysis.

Linked to their mathematical schemes of pure economic science, this idea enables them to be cold and geometrical marginalists. It suggests a ***glacial social picture*** which is non-conflicting. However, it is noteworthy that even when they intend to be very socially preoccupied, their methodology baffles them. A human full of sentiments, not just needs, cannot be framed in schemes. And they work with such schemes. The subjective theory of value compensates in this regard with its laxity that cannot be framed between the milestones dictated by production costs. And, if the social pie is not clearly marked by an objective theory, and if there are no people, but factors, to participate in its division, the "class struggle" has no meaning! Production factors do not go out into the streets to revolt! In other words, distribution is an axiom of a mathematical analysis, applicable in an atomized world and imposed by the need for a calculus with a demanded result. And the result is ***social welfare***, definable in the known terms of marginalism or in terms of the economic-social optimum.

In its first version, distribution fulfils its mission if the goods are distributed so that the last unit of a good that reaches a person grants them the same satisfaction perceived by another individual based on the last unit of a similar good! Incredibly logical and elegant thinking! It remains to be seen who ascertains which is the last unit of a good and according to which method goods are distributed to prepare the context of analysis and thought for Gossen (1983) and his followers on the idea. And they are not few.

In the second version, optimum takes centre stage! From Pareto's pen, we learn "that the members of a community enjoy, in a certain situation, MAXIMUM OPHELIMITY when it is impossible to move slightly away from this position [in such a way that the ophelimity enjoyed by each member of the community increases or decreases]" (Pareto 2014, p. 179). Neither more, nor less! We retain that Pareto was prefaced in an inspiring and interesting manner. The first was Edgeworth, the author of the geometry of pleasures. His fundamental work *Mathematical Psychics: An Essay on the Application of Mathematics to the Moral Sciences* (1881) offers the blueprint of welfare in a box. A box in which the "contract curves" and "contract renegotiation" announce Pareto's story and, respectively, Walras' tâtonnements. As the "contract curves" are nothing more than geometrical loci sharing the same property, one cannot cut oneself loose from them without taking the risk that pleasing someone would displease someone else to the same extent! The second was the mathematician philosopher and the economist A. Cournot. His warning is pessimist, but realist. He does not consider the optimum of distribution as an optimal scale of wealth distribution that satisfies all economic actors and, in addition, supports both democracy and production efficiency. This path seems illusory to him—a formula that no one can know (Cournot 1897)! However, Pareto thinks he knows it! His goal is "the optimal collective satisfaction of needs". For this, there is no other way than aggregation; collective welfare is the sum of individual welfare. As a specialist in the "Equilibrium of solid bodies", the subject matter of his Ph.D. thesis, he does not seem to be annoyed by adding up cardinally arranged utilities. However, being the philosopher that he is, he does not allow himself to add up what cannot be added up. It constraints him to see that every individual has their own appreciations of things. In his wish to add up individual utilities to obtain total social utility, this is a problem. He solves it by appealing to a scientific sleight of hand: he takes out Political Economy from the array of usual social sciences and casts it in a greater role: to compare various sensations that things arouse in an individual. However, interpersonal comparisons of such things would be the object of social sciences rather than economics.

As a measure of appreciating the man-things sensation, Pareto proposes the notion of ophelimity. From his *Manual of Political Economy* (2014), it is obvious that only the name is new; as for its substance, ophelimity is the same thing as Jevons' ultimate level of utility or the marginal utility of the other utilitarians. Weighted with the merchandise price, it becomes weighted ophelimity. Through this operation, Pareto unveils himself; he shows us that the refusal of cardinality is just a whim meant to baffle those who might fault his hypotheses for lacking realism. In fact, it is still conceived within the space of mathematics in whose confines he builds the well-known graph of "the indifference lines of tastes" (Pareto 2014, p. 83). From this point forward, the way to determine wealth (whether that of a market or a socialist economy—it does not matter to him) is open.

It is important, in regard to methodology and not as result, splitting the analysis into two levels and the subsequent attempt to synthesize them. One level concerns the exchanges. Here, equilibrium is reached when the fundamental ophelimities weighted with the prices are equal. Which prices? Pareto gives the impression that he has in mind natural prices. From his analysis, one can ascertain that the Paretian exploration is similar to the Walrasian one; the adjustments are made through prices, not through quantities, as Marshall did it. His *commissaire-priseur* explores until he reaches just prices and it is only with these that he weights ophelimities. The other level is that of production. By competition between producers, a monetary equalization of costs is achieved. Noteworthy is that Pareto is interested in a common optimum, for both producers and consumers. And furthermore, the optimum has to be independent of the social organization form, be it capitalist or collectivist. This is the context in which he comes up with his famous definition. A static context in which, by accepting his definition of the optimum, we cannot change anything with respect to neither production nor exchange. If we did, we would take the risk of ameliorating the situation of one to the detriment of the other. All we can do is freeze in the system, with maximum ophelimity.

Pareto deserves a more consistent halt. Before that, however, we have to keep in mind an important thing: he is confirmed by other marginalist neoclassicists. By extending his ideas, Wicksteed and Pigou ascertain that the good distribution of factors contains the source for a satisfactory distribution of incomes. Factors are sent towards production; incomes go towards consumption. Therefore, factors must be oriented towards the most efficient branches (Pigou 1920). The way to do so would consist of taxes and subsidies—subsidies where decreasing returns are recorded, an idea that would constitute subject of criticism for Frank Knight (1923).

In essence, both Walrasian equilibrium and Paretian optimum want to reach economic Nirvana: distribution must be fair, but it must not affect the efficiency of production. Between them, there is to be found the pillow of a warm compromise, one on which Walras peacefully rests his head after suggesting that we must edify a doctrine capable of reconciling liberalism, which ensures the expansion of production, with socialism, which achieves more justice (Walras 2014). On such a compromise, also fuelled by the classical liberal socialist Mill, the attempt will be made at a project, a theoretical-doctrinal mixture, called social market economy.

5.2.2 Neoclassical Social Concerns—A Pro-sustainability Discourse?

It is probably extravagant to teach a lesson in economics in a strictly neoclassical style. A caeteris paribus condition, some derivatives, curves, indexes, maybe a graphic, and the conclusions just draw themselves. As in physics! The polished didactical recognition of marginalism finds solid support here as well, especially in regard to the method. It gives the impression that the complicated economy can easily be moulded into mathematical formulas and made simply, clearly and deeply understandable. Just as probable is that the neoclassicists realized that remaining within the boundaries of the quantitative, arithmomorphic brightness of analyses would imply a major risk. To show that their methodological protest was not just conjunctural, they have entered in all together into the social arena. By doing that, they meant to give roundness and sense to their dry and soulless analyses. In their own way, they wished for a liberating moment and for knowledge that is compatible with ethics, social justice and welfare for all. Have they succeeded? Yes and No. It is not easy to discern and find out where their ideas aim at; what type of development and what sort of economic health they support. And this is because their social offer is a vexing mixture of real and imaginary—a mixture with clear areas, but also damaging indeterminations, with limpid, human messages, but also bleak suggestions. Not something to be imitated. Let us see why!

The first great halt in Brundtland's Report is on the topic of ***Poverty***. This is because it is a big, serious problem that generates dangerous imbalances. It is not really credible that when they wrote their lessons, the marginalist "engineers" had accounted for the cruel reality of the poor people of their time. And it was real! They anchored their analyses to the great Science of the West, with its origins in English and French classicism, universal creditor of ideas. Very well! They enforced its positive aspect and gave it an aura of prestige. They garnished it with mathematical formulae and abstract, impressing propositions. But, repeating the question formulated in the previous pages, what do you make of their lesson in a school in Ethiopia or Niger? The problem there is not of optimal choices, but mere survival. The pupils of such schools never come to the last units of a consumed good to find the geometrical loci of the pleasures they have been offered. In the best-case scenario, they stop at the first units! Such a lesson, full of phantasms about optimums and balances, would be nothing more than a form of defiance. Their few pleasures and many sorrows have no echo in Bentham's propositions or in Edgeworth's curves of indifference. They find themselves in the area of the indifference curves of an ingrate world that condemned them to humiliation. In other words, we are saying that the sentences in Brundtland's Report which define the social sequence of sustainable development with respect to poverty clash against the marginalist-like analyses as if going against a wall. This happens even though the Report was intended to be universalist and to solve problems where they occur. And problems are not the same in Gossen's or Jevons' country as in sub-Saharan Africa. There are no marginalists there! At the same time, sub-Saharan Africa does not possess its own Political Economy. But it is possible that a school like the German Historical one to be more useful there than one of neoclassical origin.

Welfare, social justice and ***distribution*** are by far the cement that gives substance to the social dimension of the neoclassicists' works. Most of them are sensitive to inequalities. Their pure economics passes them by as if they were mere residues; they are not cut to be objects of marginalist ultra-mathematized calculations. However, their applied economics has its eyes set on them, and it especially considers the people of the inferior classes. As far as attitude and instruments go, the neoclassicists do not operate following a common denominator. Walras is discontent with birth-given, original inequalities. He finds suitable a socialist-like solution for their elimination: the nationalization of goods with monopoly characteristics, especially land. Land and the related rent belong, rightfully, to the state. Only it, Walras thinks, can be the guarantor of transmitting this good from a generation to the next one. The rent can be used to cover public expenses. There is no need for employees to pay taxes to support the public budget. Rents fulfil this duty. Exempt from taxes, employees retain the entire result of their work. This way, they can live well and also save and invest. Under the dome of state ownership over land, tax-exempt private agents may fully exercise their free initiative. And, this way, their right to be different (Walras 2010). In this philosophy, Walras includes his own answer to the well-known Weberian interrogation: rich or free? It is a false problem, Walras replies! And this is because on state-owned land, tax-exempt workers will all become investors and small enterprisers; they will be both free and rich, at the same time (Walras 2010).

Walras was fond of this heterogeneous mixture, but not only him. Thinking with one foot in socialism and the other in capitalism has charmed many scholars. Renato Cirillo finds Walras to be a special innovator in “his insistence to allow free enterprise to operate unhindered in spite of the ‘socialism’ he advocated. He was as liberal as he was ‘socialist’. *And, our author adds*, His liberal instinct was, in fact, strong enough to make him even refuse to permit government agencies to administer land property after nationalization! This is what makes Walras’ social thought unique” Cirillo concludes (Cirillo 1980, p. 303)! This is the measure of the utopia of Walras and of all those who eulogize a hot ice, we should add. We do not know the sort of introspection that can be used to determine the extent to which an individual can be moved by both socialism and liberalism at the same time. However, we do know for sure—and experience has proved it—that in the places where socialism, mainly by nationalizing land, put on the cloth of communism, it killed the free initiative. And this is the main reason it succumbed. Scholars interested in the path of sustainable development need not be misled by such phantasms.

Also noteworthy is the fact that, to correct inequalities, Walras invokes social justice. Free and free-of-charge education for all people can also be highly helpful. J.S. Mill, with his special school for the elite, is left behind. Pareto, though, does not forget him. For the latter, it is only the elite that can sustain equilibrium in the long term. Poor people in his social pyramid are always in an ingrate position. His *Manual of Political Economy* (2014) provides the evidence. The three social classes it identifies occupy a place in society according to their income. The change of position and the social dynamic appears to him as a compromise between stability and selection.

Correct and sustainable are his arguments that stability rests on two great institutions: private property and inheritance. No less credible is his idea that selection is determined by the ability of each individual, by the efficiency of earning his income. However, the force of such reasoning pales in front of the evolutionary selection mechanism *per se*. The middle class is the true and only melting pot endowed with efficient selection mechanisms that creates either elites, the occupants of the upper positions, or the people destined for the base of the social pyramid. This is the normal situation à la Pareto. The corruption of the "the upper strata" by "inferior elements" is synonymous with social decline; the descent of "superior elements" to "lower strata" is equivalent to social disequilibrium (Pareto 2014, p. 218). What Pareto means to say is that it is good for everyone to know their place. If this does not happen, even democracy would suffer. We leave the detailed analysis of this topic to sociologists. We only retain the Paretian conclusion of this analysis: democracy is born and functions against the background of wealth increase; the increase in wealth conduces also to the increase in the power of workers; however, this may also be the cause of destruction of the source of wealth.

Pareto's idea, disarrayed of any stylistic elegance, is that poor people are not and cannot be efficient; they cannot as poverty corrupts and destroys; it is not constructive. Furthermore, the improvement in poor people's condition is not an accompaniment of democracy's functionality. Helping poor people, even less. A humanitarian ethic can be presented to the lower classes, but only as a formal gesture. If aristocracy promotes a policy of real support, then the tribute, Pareto thinks, can be found in the sentence of Friedrich Julius Stahl, which he cites in the following terms: "if the arbitrary expression of my will is the principle of legal order, my happiness is perhaps also the principle of the distribution of wealth" (Stahl *apud* Pareto 2014, p. 71). A tribute that society would pay in regard to the "scum"—Pareto's term (2014, p. 214); these people will catch a "durable" disease: the revendication-mania, which has no cure. We can see here how a mixture of Malthusianism in brute form and an extreme cynicism supports a notion that a classic like Mill, but not only him, has argued for elegantly and much more humanly. There is no need for such an approach to understand the role of the elite. Anyway, the conclusions derived from Pareto's analysis are cold, algebraic. Whatever does not fit his arithmetic and has no logico-experimental nature passes as "residues" or "ideological reasons". Down with feelings, long live reason! And reason belongs to the elite alone. That is why in Pareto's social structure, the elite holds a forever privileged position. The chance for a social fabric with ups and downs, virtually possible for every individual, is dramatically reduced. Smith is forgotten. Poor people, and their uncreative destruction, should know their place. It is not the mere ascertainment, but the idea of inequalities' permanence, which goes against sustainability. A generation that foresees the future with a social pyramid à la Pareto offends the idea of sustainability. However, sustainability does not suffer if Pigou acts as a poster head on the theme of the social pyramid. His most important book, *The Economics of Welfare* (1920), attempts at persuading that social welfare grows truthfully and credibly when those least favoured are the main beneficiaries of the surplus of national income. His judgement in terms of ***absolute and relative wealth and poverty*** is one of high analytical commitment. The fact that the perpetuation of inequalities still occurs while relative poverty is reduced thanks to economic growth is a confirmation and an echo, over the years, of Smith's and Pigou's thinking, not Pareto's.

It is difficult to find common ground, from the perspective of the promoted ideology, regarding the way in which the neoclassicists have thought about social equilibrium and harmony. It can as well be deduced that it was not a world of equals that represented the axiom of their thinking, just as a sort of equality with socialist flavour seems not to bother them, at least not all of them. Finding that social utility and social, not individual optimum, achieved by means of competition, was the leitmotiv of their main propositions, we have reasons to believe that they were tempted by the illusion of egalitarianism. This sentiment may also tempt and confuse us because of the manner in which they thought about the process of achieving social order: like an engineer or a soldier, according to a scheme. And the scheme, it is well known, belonged to a state, a socialist or capitalist one, having a minister of production (Barone 2012) or a Central Committee for prices, as Nikolai Bukharin used to imagine Walras' *commissaire-priseur* operating in USSR (Luxemburg and Bukharin 1972).

In this context, we should not forget that Pareto's ideal was not far away from the socialist state à la Mussolini—a socialist state that claimed not to have been egalitarian. At page 63 of his manual, the artisan of this project says clearly: "[t]he statement that men are objectively equal is so absurd that it does not even call for a refutation" (Pareto 2014, p. 63). That is, we deal with a socially stratified world. At the same time, it is noteworthy that the social well-being of the neoclassicists, including

Pareto's, is achievable by a method that they used while demonstrating great engineering talent: aggregation. The individual and his preferences were not denied. But they were only important as support to establish the intensity of tastes and ophelimities. What mattered was the total social ideal; the net social product; and not the individual one. And what does aggregation mean, after all? Does anyone ask the question, in a democratic manner, if you agree or not to participate in the process? And if you do not, can you still be happy individually without knowing the common happiness that your community enjoys?

Sustainability does not resonate with social engineering. Its world is diverse and does not come together according to some unifying principle. In addition, it makes neither individualism nor holism distinct pillars of this process. However, it places social man at its foundation. And from this point of view, the real advocates of sustainability were not the marginalist neoclassicists of the beginnings, but today's descendants on the Austrian line—with Hayek and Mises serving as examples. Until they made their appearance, however, individualism amounted to a broken tune played on a piano accustomed to the melody of aggregation. When Walras pits against each other individual rights and state rights in order to discover who are the great actors in the field of distributive justice, what remains of individualism amounts to a sort of perversion. And this happens in spite of the fleeting exercise induced by some social reflexes that prompt him to believe that "[h]e will work how and when he pleases, living prosperously or not, according to whether or not he succeeds in gaining a high wage and become rich or not, according to whether or not he saves and accumulates capital" (Walras 2010, p. 142). He will work and prosper with the state's approval! It is man and not the labour production factor that seems to encapsulate Menger's behavioural ideal (Shaus and Jacobs 2011; Burns 2018). It just seems so, as Menger's man is, essentially, *homo oeconomicus*—full of reasons and stingy when it comes to feelings. It is in this role that he serves as an instrument for analysis. It is with this man in front of his eyes that he completes his famous table.

It is no doubt that the ***state*** of the neoclassicists is intended to be an enlightened state—a guiding beacon, a *commissaire-priseur* with a counselling gaze. The philosophy of free market remains the appanage of Pure Economy. It serves as a background for the creation of elegant models. For real life, neoclassicists put on a different coat. And in this coat, they attempt to transcend the liberal ideology. Their statism is direct and discernible in areas where you would not expect it from descendants of the classicists: the nationalization of land, railways, postal service, etc. It is possible, as we have already mentioned, that their gesture was intended to be liberating—a flight from the world of abstractions to receive an infusion of beneficial empiricism. The problem with performing this pirouette is that, by paying reverence to the state, by diluting individualism on the normative level up to its negation, not so much as a behavioural norm but as a principle of judgement, their gesture led to an organized and imposed well-being. This is the meaning of the three phantasms descended from the heaven of pure science and signed by Walras, Pareto and Barone: a way in which liberty allows itself to be organized on course to a society—socialism—where the equalization of demand and supply is easiest to accomplish; in a military manner à la Barone!

It is interesting that these great constructors of social systems operate with consistent recourse to imagination. Actually, all constructors of social systems, starting with the socialist utopians, experienced first in the mental plane the magnificent story of that which social engineering would come to implement. Walras transforms, in his imagination, national economy into a huge bourse where, he presupposes, a *commissaire-priseur* iteratively sets prices until they reach the equilibrium level; Barone imagines a ministry of national production on the example, also imaginary, of a collectivist economy; Pareto, in his turn, imagines a society in which individuals might be ready to make some sort of compensatory payments until they would all end up to be equally stuffed with ophelimities! It is true that against this tempting background (dreams are, in principle, beautiful!), their judgements seem fantastically sustainable. Using capitalism in production and socialism in distribution to make sure that economic efficiency amounts to nothing unless it includes social efficiency sounds good. Walras is thinking in the same terms as the authors of *Our Common Future*! Pareto seems to be sustainable as well, in thinking that the point of optimum also implies maximum efficiency both for the producers and for the consumers—an efficiency for the real man, not for the one in the abstract analysis schemes. And the real man is handled not by Pure Economy, but by the Applied Economy, which is based on Psychology and History. These viewpoints are credible and may raise the level of credibility and sustainability of Pareto's sentences.

References to a ***national area*** for the purpose of validating these ideas may go unnoticed. Apart from A. Cournot (1897), who sees in a great and consolidated nationality a sign of economic progress, in the works of other neoclassicists, we find no direct references to nation and nationality.

However, as a compensation, we find strong preoccupations for the ***state***. After all is said and done, it is made responsible for everything. Its job description includes tending to maximum efficiency. It measures interpersonal sensations and it also has at its disposal the measure of collective welfare.

That the state, the foundation stone of the economy of social welfare, did not appear to them as a milestone may be explained by context. We talk about the circumstance that finds them on the ground floor, in the area of the real economy, leaving the pure science of economics to deal with the pedantry and meanders of liberalism and individualism. Here, on earth, their faith in the state was great. They had reasons to see it as an important competitor, maybe more important than the market, in the process of constructing a society more egalitarian in the distribution of wealth. Even though they claimed to have stopped seeing ideas instead of facts once they stepped on the field of Applied Economy, this is actually what they saw! At the beginning of the twentieth century, Gaston Bachelard, when he came across the issue of the epistemological obstacle, intuited the risk of such a mental experimentalism, of the pedant pleasure to push the horizons of knowledge by any means up to the point where utopia, excessively unrealistic, punishes the thinker. Or it punishes the people to whom the thinker prescribes the recipe. Bachelard explains such attitudes in a reasonable, conciliatory way; he considers them as moments of "miserliness of cultivated minds (…) victims of the gold they so lovingly finger" (Bachelard 2002, p. 19). It may be so! It is just that the reasonableness of such thoughts, when they inspire macroeconomic constructions, becomes a dance on a wire. Pareto's or Barone's socialism inspired only Mussolini, not his post-war compatriots. Walras' socialism is melted into the critical mass of ideas that shape the physiognomy of the social market economy—one that is fundamentally geared towards free markets. Thus, it is tough to select long-term ideas from the works of these thinkers to construct a recipe of sustainable policy. A slight restraint, more discernment, an inventory of benefits à la Popper would sound more reasonable. Their ideas are scientifically interesting; there is no reservation about it. However, testing them is problematic. To phrase it in Popperian terms, the "bold attempt" of Pareto, Barone and others respects the criterion of scientific research, but is troubled by the truth—a truth that would be unveiled during Popper's life, but not at the hands of Pareto or Barone, nor of some other utopian thinker, but rather at those of a scholar. We are talking about K. Marx. Adapted for Asia by Lenin, Stalin, Mao or Pol Pot, the Marxist doctrine godfathered communism—a dictatorial communism, ugly, "warlike", militarist or of the "stone age".

The Brundtland Report presents at page 58 the list of the main objectives of sustainable development. The first point wishes for "a political system that secures effective citizen participation in decision making" (World Commission on Environment and Development 1987). Past experience in this matter shows that dictatorships do not give chances for the accomplishment of such an objective. Democracies do. And from this perspective, the neoclassical social and political discourse is not a dictatorial one, with the necessary reserves related to Pareto's latest coquetries on this subject.

5.3 Concluding Remarks

What is left of the glory of neoclassicism bearing noteworthy influences for a sustainable development?

- General equilibrium is an ideal state. You can aspire to such a thing. If you reach it by a process involving the formation of natural (just) prices that requires, as counterbalance, normal quantities to match demand with supply, then Walras' abstraction may be inspiring.
- Relating sustainability to Paretian optimum is dubious and risky. It also points towards an ideal state. However, one that is caught in a vice, which means that if you move anything, you affect someone's welfare. The concept, as well as the phenomenon it draws upon, has validation problems. If you reach the optimum state through the selection process described by Pareto, it is certain that Brundtland's philosophy does not endorse it.
- Menger's table seems innocent and useful, even construable from this last perspective. Robert D. Johnson (2017) joins the names of Menger and Abraham Maslow to emphasize their complementary role in defining the concept of scarcity starting from the human needs classified in his table. We have no doubts that Robert Johnson's eulogy has its grounds. It is still to be seen what sort of scarcity is meant to determine its boundaries and its nature starting from the Table. We add another opinion. The decreasing state, from 10 to zero, of satisfactions in relation to the needs concerns *homo oeconomicus*, rational up to the end. The classification of needs in categories of importance, starting from food, dwelling,

etc., all the way to *loisir* has a seductive logic. But it is much too reductionist in relation to the incommensurable diversity of human preferences. Considering age, sex, religion, culture, etc., their hierarchy is infinitely aleatory. Menger serves us a universal menu in whose name he summarizes choices and aggregates tastes. The Easterner and the Westerner, the Christian and the Hindu, the poor and the rich, etc., eat à la carte according to the Mengerian menu and experience the same satisfactions. The Table is intended to emulate the aura of Maslow's, but for the study of the consumer's behaviour it proves to be dull—a box in the confines of which we are invited to order our satisfactions according to the criteria of a standardized man. In other words, it rests upon unrealistic premises and a saloon pedagogy, estranged from the behavioural diversity of the act of consumption; in short, its claims are unsustainable.

- The economy of welfare is a heavy piece of the discourse. Situated on the social level, it is interesting to note that it is not production, but distribution that carries the role of well-being locomotive for the neoclassicists. In a way, this resonates with their great objectives—not the productive trinity, a classical obsession, but equilibrium and optimum.
- In the matrix of well-being and its creation, the state is certain of a privileged place. Neoclassicists build on the premise of a state with good intentions—uncorrupted, trustful and very wary of the citizens' interests. Such a state is also needed for sustainable development. But where can one find it? James Buchanan might guide us in this search! "Wellbeing for the poor" might be a good axiom if we ignore Pareto's "scums". Through Pigou, the discourse on this subject gains qualification; poverty and wealth can be absolute in themselves or relative in regard to the other people. Absolute poverty is recognized to be the ugliest predicament—a predilect target of sustainable development.
- Optimum and equilibrium are imaginary objectives. The short-term (Walras) or long-term (Marshall) economic dynamics is the path towards them, towards the "golden age!" Without it, without dynamics, nothing is possible. At the same time, economic dynamics is accompanied by inequalities. Most neoclassicists are bothered by them. Redistribution is required in this context as objectively necessary and permanent. Another factor demands it, in a conflictual

manner: the past. It matters! Accumulations from the past transmitted as inheritance are generally not looked upon favourably. Pareto accepts this situation; Walras does not. The latter invokes the nationalization of land on such grounds as well. Land originates in nature; it is not the result of labour and so it cannot make the object of transmission between generations as inheritance. This is a place where J. S. Mill would feel at home. It is still to be seen whether reality can wrap around such ideas. Until now, it has shown that it cannot. The idea of sanctioning the right to inheritance every year or asking for efficiency and entrepreneurial initiative when you know you cannot leave anything behind after you die, for the sake of equality at the starting point, proves to be a chimera. A chimera is also the free market without private property, including, or especially, over land. Against such a background, the conjunction of economic effectiveness and social effectiveness is manifested only as a wish.

- When we talk about the problems of distributive justice, the neoclassicists find it convenient to become once more social and humane. Production factors seem to make place for their masters, the people. The sequence is not defining; it is not sufficiently emphasized to inspire the social landscape. The marginalist calculus does not allow it. Wicksteed and all the other marginalists told us that the factor, not the man, must be remunerated ***exactly*** with respect to the level of the marginal productivity. The intention to inspirit, we repeat, is not absent. The indifference or contractual curves reflect wishes that are satisfied proportionally to the way in which distribution shapes up. Human wishes, of course, but expressed with an included subject. It is only through someone as Rawls (1999) that this veil is set aside, and justice, redistributive or not, takes the form of a play performed by actual people. Up to Rawls' filter, the neoclassical theory has many things to say regarding society, but not as convincingly.
- The role of property rights in the non-conflicting support of economic dynamics would have been remembered as a notorious neoclassical contribution if Menger's approach had not been overshadowed by Walras with his peculiar vocation for nationalizations (Cordato 2004). In lack of such an attenuating counterbalance, Marshall's but especially Menger's contributions on the institution of entrepreneurship—social for Menger (Okpara and Halkias 2011)—would have stood out more prominently. And it would have more directly and more generously inspired sustainable development.

As a ***whole***, the neoclassical offer on the social dimension is convoluted. We do not have a compact piece from which we could "bite" to the use of sustainability. Quite the contrary, we only have dispersed thoughts, floating in the space between the two levels that it visits by changing, as case may be, its tone, method and discourse—the level of Pure Economy and the level of Applied Economy. With the intention to excel in both, the neoclassicists left a diffuse legacy that can hardly be used as a whole.

We shall see in the second volume of this book that their few thoughts on nature and the environment are better outlined. Pigou's externalities, Marshall's city embellishment plan or Jevons' rebound effect have more clarity than the social aspect distorted by their doctrinal pirouettes.

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CHAPTER 6

Free Competition: An Invitation to a Less Explored Type of Sustainability

The aim of a competitive market is to provide the person at the end of the road, that is, the consumer, with high-quality goods and services at the lowest possible prices, in other words, with competitive goods. Eventually, all individuals are consumers. From this stance, they no longer care about the "harshness" of the fight led by the ones that greet them with the offer. In two chapters of *Economic Sophism*, namely "Abundance – Scarcity" and "Obstacle – Cause", Bastiat irreproachably captures the fight between the two self-centred entities, two contradictory rationalities—that of the producer and that of the consumer. The first, characterized by "antisocial drives" (allegedly, will the quoted classicist show) "have an interest in dearness, and consequently in scarcity; as buyers, in cheapness, or what amounts to the same thing, in the abundance of commodities" (Bastiat 2007, p. 177). Therefore, rarity at high prices, versus abundancy at low prices; hedonistic and selfish gain versus social harmony, achievable through the full satisfaction of individual consumption needs. This is the game, and it has to be played according to the consuetudes of the market. It is a game that stands high chances of self-sustaining and balance, provided that "[t]he laws, which should be at least neutral, take the part of the seller against the buyer, of the producer against the consumer, of dearness against cheapness, of scarcity against abundance"

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(Bastiat 2007, p. 182), further adds, not without satisfaction, the same author.

Sustainable development involves a wealthy lifestyle and widespread social progress, for both producers and consumers—for now and later on. This can be achieved by satisfying their preferences and creating conditions for each to receive, according to their talent and the consumed efforts, their share of the final result—from the GDP, as we call it today, relying on Kuznets' (1934) famous instrument.

How is this possible? How can we please them all, since everybody is pursuing different goals? Moreover, how could we feed them a consistent slice of a full GDP, instead of a mere delusion wrapped up in a bubble-filled balloon? From this point of view, the work of the founders is still enlightening. Bastiat and Say set forth arguments supporting the subjective theory of value. They are not marginalist, they are not concerned with what happens to the last unit of an asset, but they let the market determine the value and dimension of prices. From this point of view, values and prices are subjective. To various extents, Ricardo, Malthus, Mill and Marx advocate for the objectivity of values. Smith is 90% subjective and 10% objective. Marshall, Walras or Wicksell also suggest inspiring syntheses. What makes them interesting and relevant for our discussions? The concepts they use and the way in which they describe the competitive mechanism based on which the values created through work receive the appropriate reward. Neither more nor less, but the exact amount to make it natural, fair, legal.

6.1 Preclassicists and Classicists on the Way to the Sustainability of Natural Price of Commodities

As put forward by the pioneers in the field, the road to the natural price goes through the real price and the market price. The real price is similar to the cost price; expressed in money, it becomes nominal price. The selling price of a product takes the form of the market price. "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" (Smith 1977, p. 83). Thus, Smith directs the analysis to the core of the problem. Ricardo defines the natural price in the same terms. They both rely on an already elaborated theory of the natural (just) price they do not refer to and to which they do not make any revolutionary additions. We mean here the contribution of the School of Salamanca on this subject. Luis Saravia de la Calle puts forward the most comprehensive definition of the fair price provided by a non-marginalist, but absolute proponent of the subjective theory of value. Here it is: "the just price of a thing is the price which it commonly fetches d? at the time and place of the deal, in cash, and bearing in mind the particular circumstances all manner of the sale, the abundance of goods and money, the number of buyers and sellers, the difficulty of procuring the goods, and the benefit to be enjoyed by their use, according to the judgement of an honest man" (Luis Saravia de la Calle in Grice-Hutchinson 1952, p. 79). Although Luis Saravia's just price is synonymous with the classicists' natural price, we should add the fact that Smith's definition is aimed at the process; it captures the movement of the intermediary, adjacent values and the routes that these values have to take towards the objective represented by the fair price. Luis Saravia de la Calle's definition offers in addition the high determinants and the basic hypothesis for the beginning of the road: "the judgement of an honest man". Similarly, just like the great majority of the representatives of this remarkable school, the quoted author does not associate the fair price with the actual costs involved by the production of goods. "Common estimation" has this role (Luis Saravia de la Calle in, Grice-Hutchinson 1952, p. 82). This is precisely where Francisco Garcia, relying on a notarial, enumerative style, tells us that the following circumstances need to be considered when we want to determine the just price: the abundancy or scarcity of goods, buyers, sellers, money, and the intensity of the demand (Francisco Garcia in Grice-Hutchinson 1952).

Once the main working concepts have been established, it is easier to identify the mechanism that makes value cohesive and distributes it among the participants in the process. It is easy to distinguish in an area where the competitive market directs natural, fair values towards the final macro-result. This occurs through a process that is far from lacking contradictions, paradoxes or "dogmas" but which, free from irredeemable and unwanted state interventions, ensures its own dynamics.

We find out, at first sight, that the first price, the real price, is not free from "animosity". It looks different from the point of view of the employer and that of the employee. For the first one, it is an actual cost, while for the second it is the financial equivalent of subsistence—the salary. The self-motivated employer knows that the employee is only interested in the level of this subsistence, just as the employee knows that the employer is particularly concerned with product competitiveness, the chance to sell it quickly and profitably and, if possible, with minimum wage costs. Before stating that the market is the only one able to reconcile such a relationship, the classicists, through Smith's voice, tell us that subsistence is a variable measure. It varies according to the degree of development of the society and the state in which it is: in dynamics or in stagnation. In order to obtain a complete image of the mobile dimension of subsistence, we are informed that only "[a]t the same time and place, (…) money is the exact measure of (…) value" (Smith 1977, p. 59). At different times and places, they "change" the level of subsistence. If subsistence in Tunisia is more "modest", a German employer may choose to outsource there. If, over time, the Tunisian worker becomes more "precious", the business changes location. This, of course, if the international immobility of assets, "Ricardo's dogma", is reconciled and the apparent mist thrown on the subject by Smith himself, when he speaks about three salaries, is also dispelled. In fact, it may even dispel itself once we enter the depths of its analysis. Gilles Campagnolo notes that Smith's digressions on the subject of wages were likely to "disorient science" (Campagnolo 2010). It disorients it, we could add, only if we look for it in the wrong place. So did Ricardo when he criticized him for deducting profit from a theory of salary that did not comply with the objective theory of value. Fact is that when he talked about the "current salary" as the result of the demand-supply ratio in the labour market, the "salary fund" that the employer afforded to spend and the "natural salary", Smith was far from the objective theory of compact values. He was in his field—that of the composite values, as a sum of revenues ought to the participating factors. Within this field, the three concepts with which he operated were not at odds with anything; not even with the profit of the employer.

We also noticed that Smith and Ricardo put forward the same definition for the natural price. We deem just as necessary to point out that there are large differences in their *modus operandi*. In Ricardo's case, as in the case of Marx, the price is generally the monetary expression of a compact value, of a fact. Once the manufacturing cycle is completed, the finished good has a value (total amount of work carried out, current and past) and, automatically, a price. The exact extent of this value remained an obsession for Ricardo and a victory without glory for Marx. They were not concerned with the way in which value was obtained but, above all, with how it was broken down into proportions shared to those who had participated in its making. Ricardo did not go as far as the conflict area of the zero-sum game in which the resolution of the conflict between the participants is possible only through class struggle. He "let" Marx exploit the subject. He only gave the lead. However, another aspect is required here. The fact that the finished good leaves the factory, already bearing a price, severely dilutes the role of the market; it remains a mere vehicle carrying the good from the producer to the consumer. Such a philosophy inspired the macro-policy of the states characterized by a super-centralized economy. Communism wanted perfection in this area as well. It relied on the hypothesis that demand, as well as supply, can be thoroughly studied, scientifically, before they meet. The role of the meeting is to prove their perfect reconciliation, both in level and structure. The hard-selling production did not fit in any logic. What is interesting, vexing, and stupid from a historical perspective is precisely the fact that the fundamental economic law of socialism was decreed in terms of increasing the material and spiritual well-being of workmen (Nagel 2013). However, these workmen did not play any role in determining the value, the price or the quality of the goods attained. Under the circumstances of a fixed supply and a humiliating scarcity of these goods, they would purchase without actually choosing. In so doing, they would rely on a salary without questioning its normality. The state-party knew better what, how and how much they deserved. It is not hard to guess how "natural" and "scientifically" calculated was everything that each person got! We do not consider here the predisposition to calculate the results in physical terms. The exclamation is aimed at something else: without market and competition, is it not possible to reasonably form, estimate and measure, relying on prices, the macro-results not even in a socialist economy. There are enough models, built on (correct?) empirical data pertaining to these realities, which have tried to convince that this is possible. The fact that the communist world had and operated with its own macroeconomic indicators proves that it tried, but without any success, to devise its own rationality in this matter.

We considered necessary to digress tackling the Ricardo-Marx version of the topic prices—market in order to argue that sustainable development, in theory and in practice, cannot be inspired by such an offer. The prospect of benefit commissioned by an omniscient authority in relation to a system that jokes about the danger of liberal hazard in price formation can be appealing. Nevertheless, this price arithmetic, purportedly geometric, failed lamentably wherever there was an attempt to validate it. The proven failure of this path is sufficient as an explanatory argument. It is enough and easy to notice that those who adopted Smith's theory and the supporters of the subjective theory, testify today that it was a good choice.

After all, where does the rationality of this last path come from? What makes its argumentational core compatible with the philosophy of sustainability? The key sentence with the vocation of catalysing principle in this different arithmetic is that the economic measures are not absolute; they are relative and totally interdependent. If we operate with another classification, we do it for strictly pedagogical, understanding and analysis reasons, cautious, at the level of conclusions to remember where we took the slice and forget that it can be, de facto, an independent measure. The form that this logical structure takes is the following: work remains the source of value, but it cannot measure value. All the classicists and neoclassicists supported the idea that work was the source of value. Additionally, Ricardo and Marx insisted on arguing that work also measures values. For others, as noted, values are subjective. For example, Smith struggled with the torment of going from one version to another. Ricardo died obsessing about the absolute value but left his guard down regarding natural price; here he completely agreed with Smith. Actually, Smith tells us that "it is not easy to find any accurate measure either of hardship or ingenuity…[i]t is adjusted… by the higgling and bargaining of the market" (Smith 1977, p. 52). The mission of the Great Planner is taken over by the "the higgling and bargaining of the market". The great Cartesian spirit is cast away by total subjectivism; subjective but claiming logic, coherence and, of course, sustainability. How is that possible? It is possible because the market has its own rationality and because the market is the only place that can host what a planned economy is unable to support. Only on the market, and with its help, the prices on their route—real, nominal, market, etc.—follow the natural tendency and aim at the natural price as a gravity centre, towards a geometric locus of the pillars of a functional economy. The mechanism is the well-known mechanism of the demand-supply pendulum. One that forces the market price to be higher than the natural price, so that the participants in the process to be jointly interested. This is possible, Smith argues "where there is perfect liberty" (Smith 1977, p. 84). Even Mill, who is usually nicer to the state, admits that "[w]hatever individual competition does at all, it commonly does best…and that is where pay is in proportion to exertion: not where pay is made sure in the first instance, and the only security for exertion is the superintendence of government" (Mill 1985, p. 132).

What gives weight to the analysis of the aforementioned classicists is the technical way in which competition is used to reach the natural price. This is the point that recommends it, without denial, to the logic of sustainability. It is important to keep in mind, as the classicists tell us both directly and indirectly, that competition does not occur between total natural prices. Competition manifests itself during the process and it relates to the factors of production. Here, salary, profit, rent, etc., by means of free competition on these sub-markets, must acquire the natural, just level so that later it is "added" and "poured" into the total natural price. This is the only reading that gives meaning to the statement "[t]he 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" (Smith 1977, pp. 93–94). The naturalness of the whole price depends on the naturalness of the prices of its composing parts. It should be noted that the prices of the composing parts are variable. Smith lists the determinant factors for each of them. He suggests that natural prices for similar products vary by area and country, depending on the circumstances. However, the axis principle remains standing: under the circumstances of free competition "[a]ll the different parts of its price will rise to their natural rate, and the whole price to its natural price" (Smith 1977, p. 86). In the absence of competition, the principle remains uncertain. The Spaniards of the Salamanca school had warned against this fact. Domingo de Soto argued at the time (Aristotle thought the same!) that the "iniquity of monopolies", of both the sellers and buyers, was incompatible with the natural price as the "basis of justice" (fairness) in the sale-purchase process (Domingo de Soto in Grice-Hutchinson 1952, p. 87).

Within the context, the mumbling, specific to and admitted in the case of some beginnings, on the subject of "composition" or "decomposition" of value are of less interest. We find Smith and those who have followed him to be coherent and, especially, profound, despite the quarrel on this subject from their time and beyond. At the limit, Smith's "composition" and "decomposition" are not time-separable operations for a particular product, as they are presented for a pedagogical analysis. The manufacturer receives a full price from the consumer. The latter must have been a manufacturer before, quality that gave him his purchasing power. Who is the author of "composition" and who is the author of "decomposition"? As a common denominator, the consumer is not interested in acquiring this piece of information; he is interested in finding the lowest price, adapted to the purchasing power! Purchasing power that he has acquired, we repeat, in his turn, as a manufacturer! However, this price can be "neither more nor less" than the price from which the seller of the finished good—or the intermediary, if necessary—will pay for the services of production factors and make a profit. Otherwise, the operation has no support. It acquires support and reason to be if the price we are talking about is close to the natural, fair price. This is the only price that is able to satisfy all the players involved. ***And the market price acquires this ability and becomes natural, on the way, not at the end; in the end there is nothing left to do***.

The "proportionality" of slices is a task of the journey and it is established by the baptise of the market. The elements that compose the price—salary, profit, rent, etc.—are each assigned a dimension on their own market: that of the labour force and capital. Once prepared, formed and polished by the market, they take the path of the natural price. Proportionalities result from the tensed supply-demand ratio in each individual market; they are not established at the end and are not established by some authority. In such a case, the whole idea of natural price would be suspicious. *In extremis*, we can submit the analysis to the one who initiates, as a manufacturer, the production cycle of a good. He may be interested in the exercise of composition, but he does not master it alone. If he is a good manager, he is cautiously making sure that the expenses, the composite recipe, are neither more nor less than what gives him the chance to make a profit. Moreover, the chance to make a profit is validated after: (a) the payment, at usual rates, of the used production factors; (b) the consumer tells him that the product is also useful; and the feedback is received on the market, not during a feast. It is true that in time, the market separates these instances of reasoning. Nevertheless, he is not allowed to separate them in his managerial policy. If he does so, he will enter the market short-sighted and may be severely penalized. The managerial logic forces him to connect the two ends of the reasoning. In addition, he acts as a dependent, not an independent player. The market is the one to force him into this dependency. That "no more, no less" imposing the natural price excludes the position of Robinson Crusoe, because such a hypothesis is false; the market started with at least two players. The actors, whether they like one another or not, are connected by the "umbilical cord" of interests; the producer is tied to the consumer, and the employer is tied to the employee. Each is linked to someone and they are all linked to a network—the market.

6.2 Strong Points of the Dialectics of Natural Price of Commodities at Preclassicists and Classicists

The lesson of the above-mentioned founders is sustainable! It teaches something very important for the healthy functioning of an economy: if the competitive market is left to its devices, it imposes its logic; a logic by which all the players in the production and reproduction chain receive what they naturally deserve. Nothing more and nothing less than what they need to secure a dignified life and the continuation of their activity. They are rewarded proportionally with their "effort". The algebraic amount of the value correspondents of this "effort"—one we statistically call GDP—should represent the expression of a natural macro-price. A GDP that is not divided, like a pie, at the end of the year. It was divided along the way, into slices and proportional shares, to those who participated in the process. At the end of the year, resorting to money, we add up what has already been created, distributed and consumed. Smith, Say and Bastiat are all present in this exercise; Ricardo and Mill to a lesser extent, while Marx is completely absent. Just as those who, claiming to draw inspiration from their work, individualize a sequence of the route, preferably the distribution, they break it out of context, and rage against it arguing that its "rules" do not satisfy their egalitarian ideals.

The Adamist lesson is not eternally perfect, and neither is the institution it resorts to for validation—the market. In a way, the authors themselves help us identify the sources of these weaknesses:

First, we are informed that the "invisible hand", taking a visible form, does not refrain from intervening in the corridors that lead to the natural price. Obstructions in the free circulation, both of labour and of capital, are signalled by Smith, Bastiat and Ricardo, both internally and internationally, when building on the theory of absolute and relative costs. The laws, so numerous, Bastiat refers to in his pamphleteer essays to reveal the trauma endured by economy and society when free trade is hindered, constitute an exemplary and sufficient empirical proof. Trade law, Home law, the Poor law for the poor are just a few examples of areas meant to cause distortions from the journey to the natural price.

Second, although present in other analyses, the state is missing as a player in the process of "composition" and "decomposition" of the natural price. It is called to stand aside only so as not to contaminate the process. Even though at the time of the birth of classical science the state was a smaller economic player, its presence was real. Moreover, in exchange for its presence, it had the right to get something as well. Something to fit between "nothing more, nothing less" and likely to keep it in office, without affecting the most important process—the "natural price". The theory of sustainable development has to compensate for this shortcoming. It is supposed to compensate for the drawback, not build a completely new theory. All it has to do is to include another player in the Smithian logic of the free market. It is true, not just any actor. Everything related to the state—lucrative or non-profit activities—must be subject to the ruthless yoke of competition. That is no easy task. Opposing reasonings find fertile ground in this area. However, if state-driven activities do not pass through the gears of the same fair-price mixer, the chances for sustainability can be dangerously affected. All the more compelling since, inflated to the dimension to which it aspires constantly, the state can introduce "administered prices", which are very tempting for the very social reasons they rely on, and possibly assuming a guiding role—that of aligning all the prices, thanks to their relative level of influence. In addition, this is due to the wide addressability of prices related to fundamental goods. The representatives of the school of Salamanca, interested in the subject, found it necessary to split the problem by classifying the goods into ordinary, common goods—addressed to those with low and medium incomes—and luxury goods targeting the rich. Domingo de Soto argues that in the case of common goods "excluding fraud and malice (…) jewels and other precious objects (…) may be sold for whatever price (…) for the adornment, dignity, and splendour of the nobility" (Domingo de Soto in Grice-Hutchinson 1952, p. 88). Do we need a Walrasian *comissaire-priseur* who is qualified to vet what is common or luxury, fair or unfair in terms of prices? M. Grice-Hutchinson believes that, theoretically, the economists from Salamanca agreed that fraud and maliciousness could find their cure in the presence of the state! As such, it would be appropriate for the state to set the price to for strictly necessary items; conversely, the price for luxury goods should be dictated by the market (Grice-Hutchinson 1952). There is also a friendly signal for J.S. Mill: "[n]o price is just [says Pedro de Valencia] if it is against the public interest, which is the first and principal consideration in justifying the price of things" (Pedro de Valencia in Grice-Hutchinson 1952, p. 119).

We are convinced that the Spaniards were thinking, or dreaming, of a normal state. One in which it was normal for the king to set the price of corn, staple food, just as it was normal for the pharaoh to set the level of taxes according to the flood level of the Nile. That is to say, they were well intentioned and better informed! Could such an idea be adapted to our contemporary times? Could sustainable development start from the hypothesis of a good state? Its social records, otherwise deeply human, do not seem to be adverse. However, economic records say something else. Once that door is opened, history proves it, the state no longer leaves the scene. On the contrary, it strengthens its presence, suffocating with its bureaucracy and fuelling high-level corruption. The question is: How much sustainability is left after such an exercise? Or, in the same vein, and following the line of argument of the representatives of the school of Salamanca, would a "natural price" in the public sector be welcomed and appropriate? How would "officials" respond to such a challenge? Moreover, what would be left of the public-private partnership after implementing such an idea? Are there any questions for the theory of sustainable development? Why not?

Third, the process of forming the natural price was not described and analysed in physical, but nominal terms, through and by means of money. The classical economic calculation is a monetary one. All three main types of income that compete for value—salary, profit and rent—are expressed in money. Capital, in all its forms, likewise. The agreement of the classicists in this regard is unanimous. Not even Marx left the line. The intention of the economists of the former communist countries to determine the gross or net global income in physical terms was not based on the work of Marx or Engels but that of Lenin, Stalin or some local dictator. The idea as such seemed reckless and in line with the concern to ensure maximum fidelity to the results, precisely by removing money from economic calculation. To a large extent, despite Mises's (1998) convictions, communism made its own calculations. Some of an internationally recognized scientific aura, enshrined in sophisticated models. M. Kaletsky (1970), J. Kornai (1971), and the Nobel Prize winner L. Kantorovich (1965) are some names that contradict Mises's distrust. However, this logic is not contradicted by the excesses of practical policy, which led to the odd idea to calculate USSR's national income in shares, in physical units, surely, at the suggestion of Stanislav Gustavovici Strumilin. The hideousness of a statistic compiled on this thought has disavowed everything, including the minimum logic of an economic calculation in physical terms.

6.3 The Natural Price of Money Within the Preclassical and Classical Paradigm

The complexity and assortment diversity of a production carried out in the modern world demands monetary estimation; an estimation by money—with its pros and cons but, apart from another choice, the only sustainable one. Once at the core of classical analysis, we discover their concern with what is, or what should be, a natural price of the loan and what is considered normal behaviour in forming the right levels of securities traded on a capital market.

As regards the first aspect, the interest rate as natural price of the loan, comes from the classicists, carrying sustainable arguments. But the field was not empty. There were many bricks laid at the foundation. Through Francisco Garcia, the School of Salamanca had rightly argued that the price of money is an element of the natural price of goods. To be fair, it should be somewhere at the intersection of rarity and abundance (Francisco García in Grice-Hutchinson 1952). In the same tone, Martin de Azpilcueta Navarro (Grice-Hutchinson 1952) argued that money becomes more expensive when demand is high, and supply is low. The term "estimation", just as in setting commodity prices, is present in the works of all the scholars. From this perspective, interestingly, the aforementioned Francisco Garcia speaks of an accidental, estimated value, and a natural value of money (Francisco Garcia in Grice-Hutchinson 1952). The idea of regulation did not escape the Spaniards. Luis de Molina (Grice-Hutchinson 1952) believed that money can be more or less valuable, as a price, "by virtue of public law". Cantillon (2010) also makes his contribution on the subject by means of two important ideas acquiring the status of law: (1) The obsessive preoccupation to multiply the laws and regulations in establishing the interest rate has proved, in time, funny and useless; (2) One of the main roles of banks is to accelerate the speed of circulation of money and thus prevent hoarding, which is unproductive on the long term. As a clearly explained example, in his turn, Turgot (2011) enriched the theory of the natural price of money with the following seven statements: (1) The reputation of money is not based solely on the stamp of the authorities; (2) High interest absorbs profits; (3) The argument according to which only the creditors always take advantage of the interest while the borrowers do not always benefit from the loan is invalid; (4) Interest is a consequence of the property of the creditor on an object (money in the present case) and of the right to take advantage of this property; (5) Usury should be forbidden not because it gets interest from lending money, but because it practices excessive interest; (6) "[N]ot the value of the money when it has been repaid that has to be compared with the value of the money when it is lent, but that it is the value of the promise of a sum of money which has to be compared with the value of a sum of money available now" (Turgot 2011, p. 216); (7) Money trade must be free, based on competition, beyond the will of any « Controleur-génial » .

In the attempt to come up with a definition of the natural rate of interest, some ideas coming from these predecessors of classicism ***should be taken into account***. Thus, it is worth remembering that the price of money is involved in commodity price formation. Only a fair, natural commodity price can enjoy the same property. Entering the process, they preserve a permanent link with the production structures; their relationship is symbiotic (Hayek 1967; Sraffa 1960). Interest is a price—result of free competition on the money market—a market price. In order to be able to give a loan, one should own money. The idea of acquisition, a priori, by voluntary saving, is implicit. Interest is related to the profits of those who use the money. Both sides can win from the operation, provided that the interest rate is a normal one. Loan sharks practice abnormal interest rates. Removing these anomalies is one of the bank's reasons of being. Another one is to "help" money realize its potential as capital; circulate fast to avoid the consequences of their long-term hoarding. The lender bears a sort of renunciation; present consumption is postponed in the hope of a greater one in future, with all the risks and possible losses, value and satisfaction. It is the perspective through which interest appears as an intertemporal price for waiting.

What did the classicists retain from this legacy? Too little. In fact, Smith writes on the subject no more than six pages: "Of Stock Lent at Interest" (1977). The "technician" of this problem, Ricardo, discusses the topic with Say, Malthus and others, makes additions but generally takes cover under Smith's umbrella, agreeing to his line of argument. And, clearly, using some of the logic of the formation of the prices of goods, Smith writes that "[t]his rate ought always to be somewhat above the lowest market price, or the price which is commonly paid … [adding that] the law, in order to prevent the extortion of usury, generally fixes the highest rate which can be taken without incurring a penalty" (Smith 1977, p. 470). The "highest rate" emerges as a reference in money lending. It aims to dispel usury and place the two business partners in an equation in which they are protected and likely to make "nothing more, nothing less" than what is natural. Just as the market price of a good cannot be below the natural price without jeopardizing the business, to the same extent and on the same grounds "[n]o law can reduce the common rate of interest below the lowest ordinary market rate at the time when that law is made" (Smith 1977, p. 475). It is clear that the market interest rate is a resultant; the competition between those who borrow and those who lend money has the final word here. Smith himself writes that "[t]he progress of interest, therefore, may lead us to form some notion of the progress of profit" (Smith 1977, p. 128); however, he does not reverse things, although it may seem so. This results from the fact that Ricardo (2001), who claims that interest is regulated by the profit rate, is in full agreement with Smith. In his own terms, Smith argues that any entrepreneur does not utopically estimate his possible profit, but bases it on an already performed exercise. It is an exercise in which the "credit score" may give you high-value information. In other words, the market interest level cannot operate in a limitless range, on the contrary. There is a boundary, which determines the normal level of the parties' earnings; it is precisely the market that is responsible for this architecture. The other sets the limit beyond which usury begins. This is where the law steps in.

Smith does not say where the law comes from; if this is the responsibility of the legislator, the government or the parliament. Practice made this clear and showed the way: from the central bank! It also showed it to Ricardo. When asked whether the government or the central bank should take over the prerogative of issuing money—with everything that derives from here—he turns to the bank. As a "representative of the people", the state would have this right. Except that, he argues, "[t]he danger, however, is, that this power would be more likely to be abused, if in the hands of Government, than if in the hands of a banking company" (Ricardo 2001, p. 263). The fact that such a banking society could be held under the control of the law easier than the government itself, and that the latter "would be too apt to consider present convenience, rather than future security" (Ricardo 2001, p. 264), on opportunity grounds, justify his position. Unlike the government, the bank inspires trust! Not complete trust though. He is aware of the great danger of excessive money issuing. "There is no point more important in issuing paper money, than to be fully impressed with the effects which follow from the principle of limitation of quantity" (Ricardo 2001, p. 257). Bank control is imperative; it is a great danger that money issuing depends "solely on the will of the issuers" (Ricardo 2001, p. 261). Anticipating the consequences, he "deprecate[s] the facility with which the State has armed the Bank with so formidable a prerogative" (Ricardo 2001, p. 261). He considered the obligation to tie money issuing to the gold and silver reserves as an objective and safe limit.

Reflecting on Ricardo's words, we have to bear in mind that today neither gold nor silver stands guard. The circulation of money is free. Banks are claiming total independence everywhere. What Ricardo anticipated turned out to be true. The "monetary relaxation"—a trademark of the ECB—is both disproof and defiance. In a separate chapter of the second volume of our study, we will discuss in more detail about the damages caused by the failure to stick to Ricardo's paradigm. Here, we deem it necessary to find out Ricardo's opinion about the natural rate of interest. In a logic following Turgot (whom he does not actually mention), he links the natural level of interest to what is happening in the real, not the nominal economy. He writes, clearly and to everyone's understanding, that "the interest for money; it is not regulated by the rate at which the Bank will lend (…) but by the rate of profits (…) and which is totally independent of the quantity, or of the value of money" (Ricardo 2001, p. 265). By taking this position and, agreeing with Smith, the two classicists established, once and for all, the symbiotic link between the natural rate of interest and the expected rate of profit. They clearly saw that "interest on money" becomes natural only when related to the rate of profit. An estimated rate, obviously, yet not estimated utopically but based on an already performed economic exercise. Based on a "possible experience", as Kant would say, functioning as "a posteriori truth" (Kant 1958). The entire economic game, objectively cyclical, is carried out according to the following rules: "The applications to the Bank for money, then, depend on the comparison between the rate of profits that may be made by the employment of it, and the rate at which they are willing to lend it. If they charge less than the market rate of interest, there is no amount of money which they might not lend,—if they charge more than that rate, none but spendthrifts and prodigals would be found to borrow of them"(Ricardo 2001, p. 265). The bank can ask as much as it wants. But it will only be appealing if it lowers the guard, below the rate of profit, to keep the interest of the borrowers alive; otherwise, "the clerks of that office have no employment" (Ricardo 2001, p. 265).

Ricardo thus tells us, *in brief*, some essential things. The starting point is not set by the bank, but by investors. The natural, normal level of interest does not depend on intrinsic scholar calculations of the bank, but on circumstances pertaining to the real economy. Its profit interests matter, but they are subordinated to the profit interests of those who create the real source of profit payment, including the banks. If the economy is doing badly, it is unlikely for the bank to be well. It remains a mere instrument, not a stakeholder. It should be concerned with finding out what is the interest level that allows businesses to thrive; it should take the natural level of profit, as a mirror and a landmark. In addition, in order to get the big picture of it, it should start from the real economy.

Considered together, the two lessons by Smith and Ricardo, even if written in a few pages, clarify the problem. There are two interest standards that operate on the market for loans. One is the "legal percentage"—with two limits. The maximum protects the borrower, the minimum protects the bank. Between these two limits, the index of "naturalness" is given by the rate of profit. Nobody borrows money by avoiding profit reasoning. No one lends money for philanthropic reasons. The loan, for the borrower, becomes logical if its price is below the rate of profit. The natural level of the interest is neither an illusion, nor a scientific abstraction—it is synonymous with profit. In order to acquire its natural character, profit itself needs to be obtained in natural conditions. This is possible through the competition on the capital market, the labour market, etc. It is possible when prices are natural. The prospect of considering the natural interest rate as a function of stable and natural prices is thus open. The interrelation of interest-prices-production structures is another perspective. Mathematical modelling in such an area becomes one of the most fertile grounds likely to feed the theory of sustainable development with ideas related to its organic structure.

6.4 The Neoclassical Way Towards the Natural Price of Commodities and Money. A Less Visible Kind of Sustainability

With Smith and Ricardo in particular, the classicists outlined the general framework for analysing the formation of natural interest. Without taking advantage of the valuable legacy that prefaced their approach, their lesson remains nevertheless a milestone. The School of Salamanca, Cantillon or Turgot—although deserving much more attention—are barely visible in their analyses. References are made, instead, to the names of some mercantilists, and even those are quoted in places with little contribution on this topic. More consistent reference to Turgot's work, for instance, might have endowed the economic development theory with a less slippery and less mysterious philosophy of interest. The reference to mercantilists seemed unmistakable to some of those who followed the classicists. Therefore, instead of taking advantage of the work of the classicists or that of Turgot, they started directly from the mercantilists. Keynes is an example. Others, on the other hand, used them profusely, taking inspiration directly from the founders. Without quoting them, they "invented" the two levels of the interest rate. In *Interest and prices. A study of the causes regulating the value of money*, Knut Wicksell comes up with this "innovation". However, it refines the theory, giving it mathematical rigour and clarifies it like no other. He is, in turn, referenced by Mises, Hayek and Keynes. The first two borrow from him the idea of the relation interest-prices-production structures to which they add the idea inspired by Turgot, via Böhm-Bawerk: the interest as an expected return. The third one praises the mercantilists and finds direct inspiration in Ricardo, though he also mentions Wicksell's name. He borrows from the mercantilists the idea of regulation. "Mercantilists' thought never supposed that there was a self-adjusting tendency by which the rate of interest would be established at the appropriate level" (Keynes 2018, pp. 303–304), as he notices. The "adequate level", we find from the text of *The General Theory* is in relation to the expected rate of profit. The ratio between the interest rate and the profit rate is one between a determinable parameter and a standard one. We are in full Ricardian logic.

Fischer will attempt to reply to the Wicksellian analysis. Probably on simplicity grounds, his performance is more present in textbooks and treatises compared to that of the Wicksell. His attempts to refine the theory through Malinvaud or Tobin embellish the theory, but it does not change its substance. However, beyond this theoretical dispute, we are interested to identify which of the many theoretical offers in this area better support sustainable development.

Situated at the level of pure Economy, no neoclassicist is disconnected from the market. They all have seen the game of competition as a chance for market prices to fluctuate according to the unique index of economic health: the natural price. To move within its limits "not more, not less", but enough to make sure that each participant in the economic game, producer or consumer, is satisfied. As such, equilibrium becomes possible. The attempt to reconcile the price level with that of the quantities is a common desideratum for neoclassicists. What is different about them is the extent of their audacity, as well as the practices they resort to in order to validate their assumptions. We consider necessary to take a sequential approach, in order to preserve only what is visibly supporting the edifice of economic sustainability.

6.4.1 Neoclassical Attempts at Achieving Price Sustainability

1. **A. Marshall** (2013) moves within the typical marginalist logic of explaining how to reach a natural level of the prices of goods or money. A logic that Jevons had already validated, one that shows us that prices and interest can only reach natural levels by means of the game of competition. Against this background, Marshall's specificity resides in dividing the analysis period: short term or long term. He does not have the courage to claim "normality" over long-term time spans. Only in the short term does he allow for appreciation of what would mean "normal production spending", the constancy of money purchasing power and the "rational" behaviour of sellers and buyers. He is willing to guarantee for the solidity of the theory on this short-term time span only. One in which the healthy game of competition makes possible combinations between requested quantities and offered quantities, until a balanced price is reached—one which corresponds to the interest rate as an expression of the tension between the demand and supply of capital. Also, in the short term, it is possible to notice what remains to be done in order for the savings to be absorbed by investments. He is interested in what will happen in the long term but, in this situation, judgments are nuanced. If in the short term it explains the formation of interest according to the same rules as in the case of prices, here, the "vision about the future" turns the interest into a price of sacrifice, of postponing the satisfaction of a current need.

The point up to which this postponement can be considered is when production costs remain "normal"; that is, they are covered. Within the framework of these premises, Marshall turns the interest into a barometer of the balance between the tendency to save and the volume of economies as such. A barometer that can indicate the direction to normality if it is high enough to encourage saving. This belief, however, does not place us in full Keynesianism, but only at its gates. Marshall, however, prefaces his apprentice and teaches him to speak his language when he argues that in the short term, the demand plays an active and decisive role in price formation and in training the economic mechanism as such. It thus let supply play this role in the long term.

Marshall appears to be a supporter of sustainability when he imagines equilibrium based on natural prices. However, separating supply from demand, and assigning distinct roles in the formation of prices amounts to leaving this route. This also opens a door to analyses designed to be in disagreement with the future. "In the long term we will all be dead"—this is the phrase that reveals, through Keynes, the threads of this philosophy—a philosophy of the present moment. If today actual demand is suffering, all the energies and marketing must be committed to stimulate it. If tomorrow the offer is pale, Laffer resorts to Say or Bastiat! Then, the economy will function "hand to mouth"! In such a context, normal prices and interest are obsolete. Or, supply and demand should be inseparable. Their separation over time spoils the game. When separated, they no longer lead to normal prices neither for the goods, nor for money.

Marshall remains a trademark in the history of economic science. The same cannot be said in regard to the theory of sustainable development. What we mean to say is that, by suggesting the possible autonomy of supply and demand and assigning them distinct roles depending on the horizon of analysis, he offers an inspiring line of argument for non-resilient policies. The history of economic dynamics later on and, in particular, Keynes' contribution, confirms this statement.

2. **A.C. Cournot** (1897) takes an econometric stance, adapting his thinking to the principles of the free market. Essentially, the analogy he makes between economics and rational mechanics relies on a game for two players: demand can only exist as a compulsory counterpart of supply! And vice versa! Although it seems doomed to self-maintenance, by its internal logic, this game does not lead to a social optimum because it does not lead to an optimal distribution of wealth. However, even if no one holds the secret of this optimum, as Cournot believed, the path

to it is suggested. Arguing that the basic unit for wealth measurement is the price paid by the consumer, Cournot hints at sustainability, as it has the attributes of the natural price. It satisfies the consumer and ensures business continuity. What does Mises, adopting the message of the "insignificant" Cournot, actually mean when he turns the consumer into a sovereign? He intends to convince us that the willingness of the person at the other end of the line—whether to buy or not—exhibits the signs of sustainability. He is the "master of the ship" because he has the necessary investment to validate the health of the entire economic exercise.

. **L. Walras** (2014), with his fantasies instead of realistic hypotheses, remains the most confident economist in the abilities of the free market to satisfy everybody; to trigger automotive and self-regulating mechanisms to bring not only prices but also quantities of all goods and services to their natural level. An acceptable level for both sellers and buyers. Introducing us to an ideal state, which he himself admits, he "does not deal" with real prices. However, he points the way towards natural prices, both for goods and for money. The road is one of playing around and exploring the possible options, exclusively under the guidance of the free market. A path marked further by Edgeworth's "renegotiation of contracts" (Edgeworth 1993). Walras also looked into the fact that within supply, demand is implicit not only in the real economy, but also in the nominal one. He extends Say's Law by his own law—the Walras Law (Lange 1942). Just as in the case of Cournot, the consumer assesses and gives marks.

No concept is as full of shadows of realities as the theory of general equilibrium. Moreover, none is more criticized and appreciated to the same extent. In a way, from a strictly scientific point of view, it is difficult to say who was satisfied and who was not. With the large amount of tautologies and conceptual inventions, without real, visible support, it could not be otherwise. It is however certain that he opened bridges and aroused considerable interest. What catches our attention here is that Walras has checked an ideal. With a genius intuition, he devised a system of equations whereby he sought to find out the natural level of all prices, including money. Not looking for a special cause of the formation of the natural level of the interest rate (so will those who followed him, with Pareto and Barone at the helm) he integrated this process into the general process of price formation leading to general equilibrium. He conceived it by relying on the same logic as the process of price formation for goods and factors. In doing so, he offered, according to Schumpeter's appreciation (1986), a complete theory on the role of interest rate in economy. More consistent with our goals is nevertheless the appreciation of the circumspect Mark Blaug. While agreeing, in broad lines, with Schumpeter, he is better informed about the shortcomings of the Walrasian analysis and provides a valid diagnosis which we deem definitive: "we ought to be charitable in overlooking his weakness since the one big thing he did know, namely, the interdependence of all prices and quantities, was perhaps the first really novel big idea to emerge in economics since Ricardo. Of course, economists had always known that everything depends on everything else but the full implications of this generalization were not grasped before Walras. When we complain about Walras' formalism, we must also remember that nearly all economics nowadays is Walrasian economics" (Blaug 1990, p. 584).

To ***conclude***, the three neoclassicists, Marshall, Cournot and Walras, were concerned, to varying extents, with attempts to find out what the natural price for goods and money means in a free, competitive economy. Marshall takes considerable steps when he turns natural prices into a basic assumption of equilibrium. Separating supply and demand based on the time spans proves to be incompatible with the logical support on which sustainability and resilience are based. Econometrician Cournot, driven by the laws of mechanics, of the mechanism as a whole, makes up for this omission. For him, demand and supply can only be considered as a whole, as if reflecting one another in the mirror. Just stopping at demand in order to stimulate it—thus breaking the mirror—is nonsense. The same holds true for the reversed scenario. To stop, distinctly, upon supply, is similar to holding a mirror no one looks into. Placing the consumer in the position of an assessor of everything that happens on the route and at the end is a sign of the "naturalness" of the path through which natural interest and prices are reached.

What would be worth remembering from the Walrasian theory of general equilibrium? Definitely not the model as a model. Walras relied on it in order to create the outline of the ideal image of a mechanism. A mechanism whose dynamics relies on the interdependence between economic parameters; none is autonomous. In other words, the world of physical goods and the world of money are not parallel. Neither the fetishism of goods nor that of money is healthy. Marx saw the capitalism of his time as a "huge pile of goods". He talked about the end of it, explaining it also through the large quantity of goods that would be thrown away in the absence of demand in money. Today, we talk about the over-financing of the world economy; money got ahead of goods. The bubbles created to pose a threat to the system itself. Walras's thought remains here just as healthy and sustainable: money as well as their price, the interest, should not be taken out of the system. The assumption that money is a commodity like any other, whose price must bear the fees imposed by the free market, has nothing primitive in it. The specialization of the area and the over-engineering of the financial system gives it a high status, but it takes away its resilience. The road to interest sustainability follows the same logical path as the price of all goods. The rest is accessory.

6.4.2 *Böhm-Bawerk—The Sustainability of a Special Neoclassicist. The Link Between Generations Through Interest and the Roundabout Production Technique*

Böhm-Bawerk remains a complex author, full of spinning, nonconformist assumptions and tumultuous conclusions, displaying a wide variety of appreciation and criticism. His place is well established in the history of economic thought. He is, however, less mentioned—if at all—in relation to the theory of sustainability for which it puts forward arguments that send it back to its foundations. In our attempt to mark his contribution in pursuit of sustainability, we find some circumstances to be representative.

We could basically find an explanation for the hypothesis that Böhm-Bawerk does not break away from the classical philosophy of the natural price: for goods in general, for interest in particular. He explains the latter in the context of a new vision of capital and production technique. The central idea of his analysis is that nominal amounts are the instruments of the real economy and that the processual character of economic dynamics employs interdependent parameters based on a symbiotic connection between past, present and future; against a background in which the generations are "linked", logically bound to interconditions with biunivocal or circuit causalities.

Thus, the distinction it makes between the direct production path, for immediate goods, and the roundabout, longer one, for durable goods is of real significance. The roundabout method is the path of efficiency; it is the path of capitalist production. It is the path to follow, Böhm-Bawerk tells us. All the more so as this direction is also shown by the supreme court, the consumer (Böhm-Bawerk 1930).

Among many other confrontations, the theory of sustainable development has to prove that profit and efficiency are not everything; there are other things that make life beautiful, and they are just as important. This is, without doubt, true. However, profit and efficiency stand for alpha and omega in the projection of quality of life. Without them, the rest is poetry. Böhm-Bawerk contributes more and in a unique way to convince that this is the status quo. Only by accepting a sacrifice in the present, can one achieve full measure and quality. The roundabout method allows, at the same time, the exploitation of the "productive powers of the past" (Böhm-Bawerk 1930, p. 93), increasing the chances of present saving, preserving and even improving consumption, and, of course, enhancing the production of more and better goods in future. This is the background, informal but logically consolidated, against which inter-generational relations are entrenched and maintained. The roundabout method, more sophisticated but more efficient, is the glue that keeps them together. There is no need for a law to state this; not even an explanatory theory. Over time, sustainability acquires its own engines and self-maintenance capacities.

This belief is reinforced by the fact that generations are "bound" to interconditions with stronger support in the logic of goods, encapsulated in the idea of ***capital***, rather than in human feelings. Böhm-Bawerk emphasizes the link between capital and real production. According to him, capital is only an instrument; it is a necessary "impulse" (Böhm-Bawerk 1930, p. 93) for productive forces and not an end in itself. The idea of speculation, of producing money out of money is obsolete! Capital bears interest only because it is linked to the production of goods; not bubbles! It is only within this logic that capital produces "eternal" interest (Böhm-Bawerk 1930, p. 359). Capital in itself is an accumulation, a sacrifice, a condensed material past; condensed, not consumed! Its presence is a good sign. Fruit of the past, its valorization feeds the present consumption and guarantees future consumption. To make this happen, saving becomes indispensable. It is "following" production. If this production follows the roundabout path, it is worth a present (or past) sacrifice for the sake of a better future. To this purpose, "[i]n terms of this rule 'parent wealth' should, economically, almost always be saved" (Böhm-Bawerk 1930, p. 414). How different this view is from Mill and all the angry supporters—past and present—of succession!

What does interest have to do with all this?

A strong idea that references one of the most delicate and hectic, politico-doctrinal areas of economic theory, including that on sustainability, consists in the fact that interest is not the fruit of independent capital and, as such, it cannot claim a status of total independence. Nature and labour do everything from start to end. These are the true factors of production. Capital is not an independent production factor, along with the others, but an "intermediate product" (Böhm-Bawerk 1930, p. 22). Closely connected to capital, the interest receives Böhm-Bawerk's attention in a chapter entitled "Present and Future in Economic Life" (Böhm-Bawerk 1930). Under such an umbrella, he argues that "the natural difference that exists between the value of present and the value of future goods (…) is the source and origin of all Interest on Capital" (Böhm-Bawerk 1930, p. 285). In other words, interest arises because roundabout production is time-consuming. A sacrifice is needed—to the detriment of present—in favour of a promising, recovering and wealthy future.

What stirs the interest and deserves to be remembered from Böhm-Bawerk is the fact that interest, its measure and influencing factors do not belong exclusively to the game of nominal economy, "engineered" to grow autonomous and claiming independence. No, Böhm-Bawerk's interest is linked to determinants belonging to real economy. The first three are the size of the subsistence fund, the number of productive workers that can be supported by this fund, the position of the efficiency scale related to the extension of the production period. "The extent and the intensity of the desire for consumption loans, [t]he existence of a numerous capitalist class living on their interest, [as well as] the economical habits of the population", only complete the inventory without changing its meaning (Böhm-Bawerk 1930, p. 411). The significance is the following: something is happening in the real economy and that "something" alone determines interest, be it higher or lower. It starts from the "subsistence fund"! As you can see, the classical echo is present! The subsistence fund is important for two reasons: it powers consumption and it is a source of savings. Thus, Böhm-Bawerk's logic is simple and clear: "The greater the subsistence fund, the longer can the social period of production be extended, and the more completely can the demands for consumption credit be satisfied" (Böhm-Bawerk 1930, p. 410). As an accompanying determinant in the creation of durable goods, interest has nothing to hide. It will always exist, because there will always be reasons to justify an exchange between present and future goods. In addition, within this exchange, interest is estimated according to the rules of natural price formation; with a maximum and a minimum limit. The "difference of appreciation" is Mises' phrase to explain the presence or absence of profit and interest. Böhm-Bawerk argues that "the valuation of the borrower for productive purposes directly gives the upper limit of the economically possible rate" (Böhm-Bawerk 1930, pp. 379–380). The level of the (decreasing) yield scale considered against the length of the production period is another index that may lead to interest variation. Everything revolves around one core idea: how much of the work is purchased (engaged) with the stock of wealth.

Therefore, interest is not a start, but a resultant. Its extent is not given by an outside organization, but by the economic process itself, by appreciating the two main players; the lender and the borrower. In any case, the assessment of the real economic result estimated dictates the scale of the interest. It is only in relation to this result that interest acquires a natural level. Moreover, in acquiring its natural character, successive generations are self-involved. A generous, engaging and strong topic that should hold—as Böhm-Bawerk, and not just him, recommends—an important place in the theory of sustainable development; unfortunately, it does not!

6.5 Knut Wicksell—The Neoclassicist That Advanced a Synthesis Infused with Sustainability Substance

We have good reasons to consider Knut Wicksell a landmark and a solid reference for the theory of sustainability in one of the most intimate but also the most important areas, the monetary one. On the route that, by means of competition, leads to natural prices for all production factors, including money, he holds a special place. Classicism and neoclassicism find in him one of the most interesting, difficult and, to the same extent, useful synthesis. Contemporaneity is bound to bear him in mind. Failure to do so is justified by the fact that his statements always reconcile with economic logic, but not to the same extent with economic policy. This is why Wicksell's work and name do not always come up in economic debates and analyses in difficult times such as great depressions. Although, at such times, he can be a source of rich, unfriendly but healthy ideas and policies. Let us take them one at a time.

6.5.1 Wicksell's Synthesis: From the Natural Rate of Interest to the Lending Rate of Interest and Vice Versa

The Wicksellian synthesis is an attempt to find the line that unites Ricardo to Walras and Böhm-Bawerk. The other names mentioned in *Interest and prices. A study of the causes regulating the value of money*, such as Mill, Say, Bastiat, Jevons, Marshal or Marx are additional, not fundamental references. Wicksell is concerned with the formation process of the natural price of money, with all its consequences on the "cumulative process", on the overall economic mechanism. He is particularly interested in the quantitative theory via Toock-Ricardo; the Walrasian price "tatonnement"; the time, preference for the present and "endogenous" money, saved as a healthy source for investments—adapted from Böhm-Bawerk. Exploring these areas, he is interested in the economic nature of natural interest and the twin concept—bank interest.

Defining these key concepts, by means of which he later explains the "cumulative process" and suggests monetary policy measures, does not belong to the scope of academic rigour. The natural interest rate is linked either to a general objective of price stabilization or to the return on used capital. In fact, Wicksell's analysis reveals that the natural rate must meet both requirements. It is, in other words, a reflection of the desire of the entrepreneurs to obtain a normal profit against the background of price stability. If Wicksell does not stop in a particular point and say that, essentially, the natural rate is synonymous with the expected rate of profit, he proves that he thinks it when trying to find out its determinants. The determinants belong to the real economy. The starting point consists in the calculations of the entrepreneur. The market informs him about the way in which, on average, the natural price for wages and rents is formed (Wicksell 1962). It also points to the average production periods for the goods that stir the entrepreneur's interest. It shows how much the entrepreneur should collect so that after paying a possible loan, he remains profitable at an average, normal rate (Wicksell 1962). Of equal importance are also the available value of the fixed and liquid capital left after saving, as well as the supply of labour force and land, as prime factors at that time. Similarly, as Wicksell shows, "all the thousand and one things which determine the current economic position of a community" (Wicksell 1962, p. 106) also contribute to determining the amplitude of the natural rate. It should be noted, up to now, that the judgements for determining the natural interest are the same as those needed for determining the expected natural rate of profit; the analysis is carried out on the "premises" of the real economy and the computing player is the entrepreneur. Estimations are made against the background of permanent competition, which forces him to admit that the natural rate of expected profit is dynamic. Particularly important, Wicksell's profit, its size, comes up as a difference of appreciation in relation to the other competitors. It is an estimated difference regarding another difference, between the expected rate of profit and the bank rate (Wicksell 1962).

The lending rate or bank rate appears, at first sight, as a financial engineering construction. It is a function of the rarity and fluidity of the money supply (Wicksell 1962). From this point of view, the bank rate can be as high or as low as it can go. The bank's unquestioned freedom to offer money—that Ricardo was warning about—does not seem to affect its solvency. Banks can lend any amount. However, in order to be able to lend, banks need borrowers. That is why Wicksell complements the reasoning and, following the logic of Say, he writes that "[t]he 'supply of money' is thus furnished by the demand itself" (Wicksell 1962, p. 110). The desired expansion of the bank lending supply must correspond to an expansion of the demand. The tension between the demand and the supply of money seems to determine the bank rate level. And that is not all. Wicksell is quite clear when he tells us that the natural rate is the baseline, a "parameter" that institutions must refer to when setting the bank rate (Wicksell 1962). In other words, the bank rate is caught between two straps. Directly, the scarcity of money (the demand-supply for the loan capital) gives its measure; indirectly, the natural rate serves as a guide. In other words, the unrestrained freedom of banks is not exactly unrestrained.

Logically, the natural rate must be known in advance! Otherwise, it could not play the role of baseline, or "parameter". The bank rate has to adapt, through revisions (Walrasian iterations!), not the other way round. Wicksell uses different terms but he follows the same logic—that of Smith, Say and Ricardo. When Ricardo states that the rate of interest is governed by the rate of profit he draws on Say's arguments, he supports and comments as follows: "M. Say allows, that the rate of interest depends on the rate of profits; but it does not therefore follow, that the rate of profits depends on the rate of interest. One is the cause, the other the effect, and it is impossible for any circumstances to make them change places" (Ricardo 2001, pp. 326–327). It is desirable, Wicksell believes, for the lending rate of interest to follow "only very slowly and with considerable hesitation" (Wicksell 1962, p. 119) the natural rate of interest. The balancing mechanism is based on a *rule*, a product of competition. And the rule, he believes, is that the bank rate indirectly follows on movements of the natural rate. The "pursuit" is permanent and the equality between the two rates is a desired exception. The "imbalance" seems to be the usual state; just as the permanent search for balance.

At such a point, we can hope for price stabilization. Echoes from the classicists talk to Wicksell about the "golden triangle": economic growth, stable prices and full employment. Wicksell uses full employment as something we receive for granted. There is, here, a niche that Keynes will build on generously. Instead, the issue of price stability holds particular attention.

Neither Smith nor Ricardo were indifferent to price and purchasing power stability, especially the latter. For the budgetary projection, the salary policy, the realistic assessment of the public debt exercise and the evolution of the exchange rate, monetary stability remained an important goal. Ricardo containedly states that one cannot invent a system that can maintain money at an absolutely stabile value. The currency is moving, reducing its value with a monetary expansion that leads to price increase. This is a major statement of his quantitative vision. For Wicksell, price stability is no less fascinating. Indeed, this is the place where he attempts a mutation of the classical quantitative theory. Operating, like a mathematician with the antiderivative of a function, he observes, with all due admiration for Ricardo (Cantillon would have also deserved a reverence), that an increase in the quantity of money does not induce an equal increase in prices for all categories of goods. The effect is not tidal! Price structures respond differently to monetary expansion. In a memorable phrase, Ricardo had offered the essence of quantitative theory in the following terms: "If by the discovery of a new mine, by the abuses of banking, or by any other cause, the quantity of money be greatly increased, its ultimate effect is to raise the prices of commodities in proportion to the increased quantity of money; but there is probably always an interval, during which some effect is produced on the rate of interest" (Ricardo 2001, p. 215).

Following Ricardo's example, Wicksell tries, in his own words, to think like the classicists. The result, believes Mark Blaug, is a "careful restatement of the 'indirect mechanism' linking money to prices via the rate of interest" (Blaug 1990, p. 637). Since Wicksell's terminology is "neat" but, at the same time, tangled, it is difficult to understand the size and content of the critical nuance as it increases or falls in relation to Ricardo. It is necessary, first, to analyse closely Ricardo's work and see where he thinks about the natural rate, talking about the "money rate" or "interest rate" and where he mentions the borrowing rate. The text quoted above is about the natural rate. It is the expected rate of profit that will change after "a period of time". Moreover, this happens as an effect of changing prices, which differs in the case of capital goods compared to consumer goods. These increased prices will influence the entrepreneurs' profit calculations. They will charge the purchasing salary or services costs but will also offer the opportunity to sell at higher prices and make a profit. However, the rate of profit, that is, the natural rate of interest, is the one that receives influences from the increase of prices; not the lending rate.

If things seem clear here, there are also doubtful places where Wicksell objects without clearly understanding Ricardo, without knowing what kind of interest rate he is talking about. Here is, for example, a text from volume II of the Ricardine Principles: "I do not dispute, [*he wrote*] that if the Bank were to bring a large additional sum of notes into the market, and offer them on loan, but that they would for a time affect the rate of interest (…) they would be sent into every market, and would every where raise the prices of commodities, till they were absorbed in the general circulation. It is only during the interval of the issues of the Bank, and their effect on prices, that we should be sensible of an abundance of money, interest would, during that interval, be under its natural level; but as soon as the additional sum of notes or of money became absorbed in the general circulation, the rate of interest would be as high, and new loans would be demanded with as much eagerness as before the additional issues" (Ricardo 1810, pp. 22–23, author's emphasis). Ricardo is clearly talking about loans and the borrowing rate, just as clearly stated at the beginning of the text. He does not mistake the mechanism of the lending rate with that of the natural rate although it does not name them that way. This is proved by a page before the quotation when he states that "[i]t can, I think, be made manifest, that the rate of interest is not regulated by the abundance or scarcity of money, but by the abundance or scarcity of that part of capital, not consisting of money" (Ricardo 1810, p. 21). The classicist points here to the natural rate. Had he relied on these notions, Wicksell would not have felt the need for refinements of the classical theory; or at least only very few. What is actually happening? In the *Preface* to *Interest and prices*, commenting on Ricardo and referring to the above text—although he does not make the exact statement it is easy to see that he refers to it—he notes that the increase in money determines the increase in prices, while it also induces a decrease in the interest rate. Wicksell does not say which interest rate! The decrease is not lasting. After money expansion raises prices and reduces interest, things calm down. A self-regulatory mechanism, Wicksell believes, brings interest to the starting level. In his own words "… as soon as prices have accommodated themselves to the increased quantity of money, the excess of money no longer exists and the rate of interest must return, other things being equal, to its former level. To bring about a fall in the rate of interest that is in any way ***permanent***, the excess of money would have to be constantly renewed and the relative amount of money would have to be continually increasing" (Wicksell 1962, preface). The causal link in question is only valid if one considers the bank loan rate on which Wicksell, in other places, was sufficiently clear. Only this rate fluctuates in relation to a plus or minus in the money supply; a decrease is only explained in relation to an excess. If the excess disappears, the cause of the lending rate modification disappears as well. It remains to be seen whether the evolution of the economy and its passage through major crises bring the rate back to the starting level. However, something else is important here. It is important to note that Wicksell was not consistent enough in "translating" Ricardo's texts into his language. As such, in addition to the formidable synthesis effort, he created confusion. It was no secret to Ricardo and Wicksell that the surplus of money reduced the lending rate of interest. Good, plentiful money—the mercantilists had long said—was an easy and cheap loan; low rate on loans. Their analyses and ideas were clear—what caused confusion were the concepts.

6.5.2 The "Cumulative Process" According to Wicksell's Logic

Conceptualising the two interest rates does not have a purely enlightening purpose, that of acquiring knowledge. With the two concepts Wicksell goes on to analyse the "cumulative process", how the economy accumulates and grows. Wicksell's analysis is interesting both for economic theory and politics, and for the healthy and sustainable dynamics of economy. Sustainability, as an economic phenomenon and theory can find solid grounds here. For Wicksell, the playing field is competition. It is in this context alone that he captures the dimension of what can be called "natural" in terms of prices, interest, profit; as well as those he draws on in his analyses. Only on the background given by competition is he able to identify what reconciles all the players. It is also where he finds out what the natural purpose and normal place of the issuing bank is in relation to the economy, the government and the other banks. And all that in order to seize and amend the instances where quantitative theory turns out to be unsatisfactory.

Wicksell's (1962) game has a starting point, with two ends. ***One*** amounts to accumulated stocks. Salaries, annuities, land, etc.; they are sacrificed to the present and consecrated to the needs of the future. Saving, that is, is very important. How much we save and why we save are two very important questions. There is a logical answer in the nature of the goods we want to produce. Are we saving for extra capital or labour? As "there are no two commodities of which the production requires exactly the same proportions of these two factors" (Wicksell 1962, p. 131), the saving is structured; even more so as the aforementioned factors can "to some extent be substituted for one another" (Wicksell 1962, p. 131). Competition between entrepreneurs plays a major role in aggregating, sizing and placing the factors where they are used most efficiently. We are then interested in a transversal or longitudinal enlargement of the capital; a simple or enlarged reproduction. Do we have endogenous sources, sufficient voluntary savings, or do we have to borrow? The distinction is important because Wicksell's analysis suggests that only the surplus money from the bank loan carries inflation. The length of the production period is also related to the nature of the goods to be produced.

The other end concerns the actual state of the economy. Is it in the process of growth or in an equilibrium phase? The dynamic state of equilibrium gives Wicksell a chance to restart. On such a trend, "[i]f entrepreneurs continue, year after year perhaps, to realise some surplus profit of this kind, the result can only be to set up a tendency for an expansion of their activities" (Wicksell 1962, p. 143). This "propensity for investment", as Keynes (2018) will later call it, triggers a mechanism for expanding everything that is involved in a production process: capital, labour, land, rents, wages, demand, etc. and finally, the prices. It should be noted though, that the impulse comes from the real economy; the expected rate of return gives the signal. The first to answer is the natural rate of interest. The borrowing rate should follow. Level differences between the two parameters regulate the game and are responsible for the health of the economy. If the bank rate is below the natural rate, this may occasion economic boom, but also inflation. Reversing the report results in deflation. Equality restored, at other levels, every time after a boom phase, would ensure the balance in the commodity market and price stability. Wicksell, and not only him, gave special importance to the cumulative phase, when the (banking) "money rate" is below the natural one. Then, the demand for investments would exceed the accumulated savings. It is an opportunity for banks to give loans, by creating deposits, thus "creating" the money needed to cover the difference between the voluntary savings and the demand for investment. The exogenous growth of the money supply is synonymous with a monetary injection that, ipso-facto, supports the surge in economic growth while leading to higher prices. Balance is restored when the production structures reconcile with the new price structure. However, the levels of the two interest rates remain in question. What is clear, and the Austrian school will take up the idea, is that the monetary injection from the banking system reduces the lending rate of interest. This will have to take into account a new natural rate, as a benchmark, which draws on a new profit rate. In this context, a negative natural rate is also possible when the expectations of the entrepreneurs are pessimistic. "[M]uch will be given for the use of money, when much can be made by it", observes Ricardo (2001, p. 214). If the state of the economy is bad, so is the state of credit. In such a situation, no matter how much the banks lower the interest rate, no one borrows. Wicksell photographed the moment. Others noticed it, many others (Boianovsky and Trautwein 2006).

For our analysis, the moment is important because it tells us something about the alleged banking independence in expanding the credit without limits. It is clear that if the lending rate of interest is a dual function, depending both on the natural rate and on the loan supply-demand ratio, a situation such as the one noted above or a "liquidity trap" indicates logical indeterminacy on the from the bank. If you find out that the average rate of return is declining, where is the extra money directed to? It is important to identify the range of the profit rate in order to behave rationally as a bank. It is also important to acknowledge that you are a part of an ensemble with causal relationships in the circuit, and that you are on the path of this circuit and not at the starting point of a chain you direct through impulses of "independent authority". That is, nobody will woo you unless the borrowed money stands real chances of producing profit in the real economy.

We will come back to this last point after briefly noting what Mises, Hayek, Hicks and Keynes had to say about this topic. Until then, we should at least highlight a few outlines of the Wickelian analysis.

6.6 Concluding Remarks

Even though he was not an innovator in the true sense of the term, Wicksell remains a model of thought worthy of interest. His work has not been quoted and fructified to the right extent, either because of the difficulty of the topics he tackled, or because, in many ways, it is not "convenient" to know him. We will see in volume two that the central banks do not like him. He made a significant contribution to the positive area of economic science and, without explicitly intending it, he undermined the areas where it might have been too normative; too assertive to a policy, be it state or bank-driven. In these areas, he is deemed to be unpopular and confusing. However, we would argue, in precisely these areas he is also the most long lasting. From this last point of view, the theory of sustainable development can benefit from being exposed to Wicksell's ideas.

Wicksell's work can be exploited in the sense that it has made price stability a benchmark. Not only the "social injustice"—he was sensitive to the subject—led him there. Stability is seen as compatible with normal prices for goods, money and production factors. You cannot think about a natural level of interest if you do not associate it with a normal level of profit—gained, in its turn, through competition which implies normal prices on capital, labour, etc.

Introducing the natural interest rate on the scene of the cumulative process analysis has a detonating effect. It forces us to admit interdependencies with an important role in ensuring the healthy dynamics of the economy but it puts the banking system, the central bank in particular, in a difficult position. Smith, but especially Ricardo, warned against its thirst for independence and for assuming functions that are far from its specificity. Ricardo clearly expressed his distrust of this alleged independence. He writes, clearly and memorably "[i]t is said indeed that the cases are dissimilar: that the Bank of England is independent of government. If this were true, the evils of a superabundant circulation would not be less felt; but it may be questioned whether a Bank lending many millions more to government than its capital and savings can be called independent of that government" (Ricardo 1810, p. 26). We know today that Ricardo's fear is justified. Wicksell disciplines the bank by confronting it with the natural interest rate. It forces it to realize that the nature of its behaviour means taking into account the average rate of return and liquidity. It forces it to understand that the loan rate is subordinate to the natural rate, not the other way around. It remains to find out how many bank executives bear in mind Wicksell's arguments when they meet on the Boards of Directors, or whether they consider the natural rate an illusion, or a ghost. The evolution of the idea, through Keynes, Hicks, the Austrian school and others, as well as the confrontation with reality, will provide us with an answer.

Through the arguments brought to the quantitative theory—in areas that are closely connected to the health of economic dynamics—Wicksell paved the way for endless debates. The references he made to Say, Mill, Toock, Bastiat, Marshall or Marx are worthy of reflection. The possible disproportion between a global monetary demand and the supply of goods deserves attention. The same attention to a theory that wants to inspire a sustainable dynamic, deserves the idea that the equivalence savings = investments may be problematic. Its automatism can be hit by the fact that those who save are not always the ones who invest.

By making the natural interest rate the main determinant of economic stability, Wicksell was very sustainable. Why? He thus subordinated, of course, the nominal economy to the real one. The impulses come from the latter. The nominal economy is the instrument, and the real one is the objective. Wicksell did not speak much on the subject, but he provided some basic rules and principles according to which the economy goes through the "cumulative process" phase without self-generating problems. His scheme is logical and it provides support for sustainability. In this context, the main rule, fundamentally resilient, is that the lending rate of interest should follow slowly and through a tatonnement process the natural rate of interest. Here, the entrepreneur has the last word; the feedback! If the rule is not followed, inflation will prove to be a purely banking phenomenon. The business cycle theory owes much to Wicksell. This is despite a methodology that has grounded the analysis on landmarks that challenge reality. The "pure credit" economy does not exist. However, is there such a thing as pure and perfect competition or moneyless economy? And what solid conclusions that are well anchored in the real-world economy have been drawn in these frameworks! The connection between the lack of realism of the initial hypotheses and the undoubted realism of the conclusions was explored by Popper! Let us clarify the issue. Wicksell also explained the harrowing business cycle enigma (Wicksell 1962). Even if he did not clear things all the way, at least he offered a generous starting point for Fisher, Lindhal, Ohlin, Woodford, Keynes, Mises, Hayek, Schumpeter, Friedman and many others.

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CHAPTER 7

Instead of General Conclusions—A Few Additional Thoughts

It is hard to believe that it is possible to write a text that could exhaustively summarize the theoretical offer of the founders of economic science. Not even in trying to find out how they may serve the theory of sustainable development do we dare say that we might cover the issue in a couple of conclusions. Hence, our intention is to only add some thoughts here. This is also because we hold dearer the applied conclusions at the end of every problem we discussed; they go to the core of things.

We have started our journey with the intent of finding the sources of sustainable development in the places where we believe the theory on the subject has strayed away from. It strayed away or it avoided the hard core of the founding works, both classical and neoclassical. Thus, we have searched for the mirror that might tell us, if we look into it, where to currently find the theory of sustainable development and where it is heading. We shall make dismal observations in the second volume. In this first volume, we have tried to decipher texts and messages to find out what the "holy fathers" wanted to say and to record the echo of their thoughts as it reverberates into the up-to-date theory of sustainability. The feelings that such a project evokes are not easy to define. If you do not take into account the "authorities" and you just follow the quotes of the forerunners, you may easily end up watching how economics gracelessly overflows leaving behind its destined course. But if you allow yourself to

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be overwhelmed by great names and you do not take them down from the pedestal to converse with them, respectfully but also objectively, you end up swallowing canonized words and ideas, and you forget how intricate is the relation between theory and reality. Scientific compromise is held in high regard. We hope it will be obvious, especially in the second volume, that this was not our constant guide. We were guided by another thought. It is the obsessive idea that by reading the great thinkers that refuse to be forgotten and by overviewing the civilized world from a bird's-eye view, we can say: what you see is the splendid spectacle of the free market restrained only by law; people and things are beautiful; the sky is blue; Panta Rhei. When you read the interpreters, you see and hear a different story: Measure pollution! Count the rich! Consider the scandalous inheritances! How large is the wealth gap?

As we have shown in our Prolegomenon, we went back to the origins to track healthy roots that might really benefit sustainability. A version of sustainability as we perceive it. We find it in the message transmitted by the Brundtland Report, a message whose keyword is "ability". As we are writing these very lines, sustainable development with its architecture sketched by the said Report is already being seriously contested. Through "degrowth", a post-durability is to be achieved. We think that "ability" is also the critical piece of the craft of dynamically producing wealth, as perceived by the great founders, and adopted by the Brundtland Report. Filled with such conviction we have devised the structure of this book, concerned to emphasize at every level of analysis the specific response of this "ability": when we talk about the division of labour, cooperation and harmony; when we look for the power of natural prices and interests to support self-development; when we try to spot points of inflection between the bank rate and the natural rate of interest, or the line that, once crossed, provides inflammatory potential to a hierarchy of incomes, etc. Not all the themes of the Report have been directly included in the scope of our analyses in the book. However, we believe we have offered indirect support for matters not explicitly mentioned, such as the crisis of the African continent or the debt crisis in Latin America. Not all the things the founders saw and analysed belong to us as well. But we can all use their ideas, even as we, in concrete circumstances, construe them differently.

We have tried to express our opinions on sustainable development by conducting the analysis on three main topics. ***Firstly***, we have argued that what claims to be a definition in the Brundtland Report is actually a message. Once accepted, definitions gain a normative connotation: what is to be done must be subordinated to its meaning and text. However, a "done good which is sustainable for me" does not allow excessive generalizations. What is sustainable for a Nepalese is not 100% sustainable for a Dutch or a Turk. A unique recipe for sustainability is a suspect idea. It is the very recognition of diversity as perceived by the Brundtland Report that allows the acceptance of diversity in projects that are desired and achievable in specific circumstances. ***Secondly***, we have tried to avoid the debauchery of words. Sustainability, or if we were to use its French name, durability, has been wrecked after being bathed in all sorts of ideological waters and being adorned with adjectives pertaining to all linguistic levels. However, when you so assiduously push something into common use, though most often by means of a conjunctural protest, and that something becomes well-known by everybody, what is lost and what is gained? Popularity is gained, but by excessive vulgarization it ends up being trivial. Gravity and unicity are lost; force of persuasion is lost. The result? These are no longer proper places for dialectics and professional analyses. Economic science does no longer belong here. This is the way to explain the many pages in which we have "shaken" the useless adjectives from the concept so that it no longer looks like a garland, and we have taken it out of the fake conflict zone where X invalidates X in a sterile quarrel, while things smartly work out by themselves. ***Thirdly***, to insulate the subject from any uncertainty and platitudes of classifying nothingness, not à la Kant (1958) into four classes, but into two, yet driven by the same motivation of dividing the indivisible (see the division into quantity, quality, relation and modality), we have referred the subject to the past. We have sent it back to the founders to discover profound confirmations of the thoughts expressed by the Brundtland message. The entire academic world claims to have direct knowledge of the founding classicists and neoclassicists. If we claim this too, we do not risk drawing any attention. We also know that, by using Google and its information "brethren", it is possible to talk about books we have never consulted. Speed transforms the curiosity of browsing and reading patinated books into transient and plebeian propensions. Thus, analyses are of the second, the third, the *n* rank. This is partly the reason for the numerous and maybe tiresome quotations we have used. We confess this to be a sanitizing exercise we have used to discern truths expressed by scholars that were not in a hurry and saw their thoughts through the end; they were less spontaneous and dazzling, but rather arduous and profound, patiently sending us new thought syntheses for myriads of facts. By reading them again and again, we have validated our own hypotheses. We have convinced ourselves, once more, that they are worth reading and assimilating rather than forgetting; as they refuse to be forgotten, it would not be sustainable to neglect them.

Resorting to the founders due to the reasons shown above, we have ascertained that we could not treat them uniformly. Where possible, we did so, but we made distinctions where needed. The objective vs subjective value is the main separating line. From it stems the different conception about the role and functions of money. Marx and partly Smith, Ricardo, or Mill vs the neoclassical patriarch Menger; money as a measure of value vs money as a means of circulation. This subject has obsessed us (as will also be evident in the second volume) because it ties together deliberately unseen connections of sustainability. Because, without clear ground, by repudiating Marx when we should not and by idolizing Menger without reserves, we have come to forget what a bank does with money. Why does it print it and legitimize it with its stamp and with the governor's signature to then send it into the market? What does the bank "tell" money? You are as valuable as I want you to be, you have my paraph and my approval to go wherever you want, and everybody must acknowledge you. Be careful though! Once you reach your destination, no matter what M you fit into, take care: do not measure values! Only look for the good graces of people who regard you as means of exchange. Then, following the same line of distinguishing accents, it is hard to reconcile Mill with Böhm-Bawerk and put them both under the same rubric when the former lashes at the idea of inheritance, while the latter considers that savings inherited from parents are to be carefully invested. However, we have found even more places of shared opinions and preoccupations. It is refreshing to see that A.C. Pigou agrees with Mill when he talks about relative and absolute wealth and that he makes his case by quoting the latter's opus in the very place in which the classicist says that "Men do not desire to be rich, but to be richer than other men" (as cited in Pigou 1920, p. 48). And we have also found other common places that may be excellently used to explore the mass of argument in favour of sustainability. Wicksell, for instance, allied with Ricardo and Walras in constructing the unbeatable synthesis of the natural rate of interest, which is as unbeatable as it is ingrate for a bank that wants to preserve its independence! Marshall, the author of another synthesis, does not feel uncomfortable dealing with "normal production expenses" and suggests the future logic of the "production of commodities by means of commodities" championed by Sraffa, and the importance of costs in the process of price formation. On the other hand, Smith and Ricardo are in agreement with Böhm-Bawerk in emphasizing the role of accumulation, the importance of a salary fund at the start and the percentage of the reserve fund that is put to work. Let us go to work, but not anyhow! Everybody is interested in how much is allocated to consumption and how much to savings and investments.

Regardless of how we have studied them, separately or jointly, we found the founders to be full of insights and forever generous reasons for reflection. Never will the theory on sustainable development break away from them without starting to aberrate.

We have said that we will present some additional thoughts rather than conclusions to conclusions. We did so out of fear of coming off as unrefined by risking and claiming firm, adamant conclusions, but also because we were concerned with finding out the areas where posterity and current times provide a diagnosis that confirms the founders. Or, it confirms our insight that by invoking them we are doing the theory of sustainability a real service. Behold some of our thoughts.

- It is hard to claim on any reasonable grounds that the *development model* inspired by the discourse of the founders has any counterpart that may confine it to the pages of history. With imperfections and limits, admitted by the very people who sketched it, the model that followed the line of thought that considered free market, private property, competition, the profit motive, and freedom as axioms of economic and social dynamics, has proved robust, resilient, adaptable, and a harbinger of prosperity. Rejecting the idea of development patterns derived from the work of the founders, Landes unveils his thought when he writes: "Every country has its own resources and capabilities, and if it permits reason and the market to rule, its economic development will follow those paths that make the most of its means" (Landes 1999, p. 236). It is not at all difficult to guess that Landes did not think of Marx when he wrote these lines; rather he thought of Smith, Say, Bastiat and company. Reason and market rather belong to the Adamist school, not to the Marxist one. And, as an additional argument, the market itself is a synthesis, an algebraic sum of rationalities. It is the key institution, besides private property, that Smith and Mill have used as centrepiece and build around it the main rules, i.e. the good practices that the civilized world has followed.

The way in which every country has chosen to conduct its business within this schema of good and engaging practices is a particular matter. But beyond its specific concreteness and model of capitalism, the paradigm defined by free market, private property, rationality and efficiency remains valid. By pursuing their own way inside this paradigm, developed countries have proven that they can grow without smoke; they can solve both the problems of population and climate. The defining institutional culture for the model we have been analysing, both formal and informal, inspired by the works of the founders, has been proved adaptable beyond the places where it first occurred. The model and the philosophy of production, profit and finance, regardless of their Asian or European flavour have European, i.e. Smithian, origins. This model has changed and imposed the direction of the world's movement as its good practices have stimulated unknown energies in unknown areas. And it still does so today.

China is the most telling example of institutional revolution conceived to transform poverty into prosperity, following Smith's lessons. Its communist-capitalist miracle looks like neither fish, flesh, nor good red herring, but it is not. It formally admits this symbiosis, but the arbiter arbitrates according to the rules of the free market. The communist millionaires in this country seem to define the essence of an oxymoron; like hot ice. In reality, the said millionaires have stopped being communists a long time ago. The novelty of this country with an extremely large population set the formula: we mimic communism until the pathway-dependent, not few in numbers and possessing a rebellious potential that may hinder economic dynamic, will realize which is the correct path; meanwhile, we tweak institutions and enforce the free market, private property, initiative, the culture of profit and individuality. Within this process, it validated not just North's insight that people with clearly defined property rights succeed, but also, indirectly and over time, all the founders who have imagined no other path to prosperity. And it also confirmed the unreservedly market apologist M. Friedman, who was admonished by Krugman for his intellectual courage to support the exclusivity of the market balanced against his despise for the state (Krugman 2007). What is China actually doing? It establishes, without much fanfare, but definitively, the orthodoxy of the market. It has been poor when it lacked free markets, property rights, and it kept half of its female population at home. Even if it functions under the guidance of an authoritarian regime, and because of this it cannot unfold its full potential, the market does its duty and brings prosperity. Now it has chances to become the first economic power of the world by leaving all this behind, by saving, investing, encouraging profit and opening itself to the world. Pathway dependency is not yet a solved problem, but it is certainly solvable. And this can be done in a clearly observable cadence that is much faster than in other places where the dependence on another system, a revolute one, that denied the role of market and property, has left traces that are hard to erase. Blocks of flats resembling human silos, gross behaviours, attitudes of indifference towards dirty waters, flowers laid on Stalin's statue in Tbilisi, the museum-worthy Soviet cars in the backyards of the Armenians, etc., still evoke images of "father figures" difficult to send into retirement and of ideas difficult to bury. It is only the model of the free market that can confine these experiences to the pages of history books.

We add only one thought, which by itself bears witness to the model based on the virtues of the free market. We think no validation is more visible, but the trust garnered by the liberal scheme, according to which the life of a large city like Bastiat's Paris can be managed. Irrespective of how hard a "superman" mayor tries to set the price of candles or bread, he does not succeed in the same way that the rational forces of the market do. Both in the time of the founders and today, prices remain the coordinators of economy. Smith and Bastiat said it, Hayek also says it considering that "the knowledge of the relevant facts is dispersed among many people" (Hayek 1945, p. 526). When have facts been more dispersed than today? And when have prices been, as nowadays, the result of the action of very independent data processors, but connected by the unseen market networks? They are unseen, but they are "felt" by Bastiat and confirmed by reality.

- It is rather the ***dynamic*** than the ***stationary characteristic*** that is the heavy piece of the artillery used by the founders to search for the path towards development. Both during their time and ours, what consolidates the image of a country is its dynamic, not its stationariness and even less so degrowth. Back then as well as nowadays, zero growth was not a good sign. Stationariness is not a bad thing in itself, just as the right to laziness and commodity does not go against the complex human nature. The problem consists of the negative effect produced by the image of someone who, caught in the ocean of dynamic activity, allows himself a moment of relaxation. Then people "stare at you" even more than they do when you move. And before anyone understands this is an action within inaction, the image is strongly affected by the negative emphasis of the word stationary. In this phase of our discussion, it is worth remembering that leisure is fine and dandy, but you have to afford it. The rich can do it, after "fighting tooth and nail" and having been observed gasping by Mill. After experiencing dreams of profits that raise their level of cholesterol, they have the right to relax and go slower. The poor do not! Or they do, but it akin to the right of the fish to get out on the shore and rest.

The dynamic described by the founders receives the attributes of resilience and self-development by ***not dissociating demand from supply***. It is true that given the way salary funds and initial resources are distributed, corroborated with the action of Say's objective law, it is obvious that in the processual mechanism of this dynamic the bearers (subjects) of demand do not 100% overlap with the bearers of supply; they only do so in a reduced percentage. The correct understanding of Say's law is far away from the dissociation of these two moments. Neither in the days of said author nor today is the verification of its operation made at company level, but on the whole. Back then it was assessed predominantly at national level, nowadays the scale of the ensemble is global. Globalization does not cancel the law and does not suggest the segregation of these two acts. The demand in one country meets the supply in another country. Say does not die! Globalization can only change actors. The presence of monopoly does not cancel the law; it only changes its routes and its inner realization mechanism. Ultimately, this presence may bring additional flavours to the ***national-global relationship*** on the route of economic dynamics. For the founders, the start is achieved by one's own accumulations, with reserve funds concretized into material factors and wages. Using exogenous factors is an exception to the rule. National economies have nowadays diversified, becoming more complicated the more they modernize. The separation of endogenous from exogenous factors is today no longer part of the classical lesson. The economic world is more and more interdependent. And if things are like that, do we have reasons to marginalize the classicists? We do not think so! Would a country, not necessarily emergent, which using a text inspired by Mill announcing that "the land is almost the only thing that subsists" (Mill 1885, p. 94), pause before alienating its lands by privatizing them, just for the sake of bragging about having clearly defined property rights? We do not dare risk any sustainable answer! The problem of monopoly over land and, in general, over strategic resources has been and has remained a matter of theoretical debate. Nevertheless, we emphasize that the ***injustice of monopolies*** with which Coase struggled was just as uncomfortable for the classical analyses. This was so because it is a hindrance for free competition and the formation of prices and of natural rates of interest. A competition between those that demand and those that supply to be remunerated according to natural prices denies monopoly, including the state monopoly. Thus, results a *De lege ferenda*: to find out what is to be done and what is the state entitled to in an open economy, so that everyone receives exactly what they deserve, according to the philosophy of natural prices.

If anything serious intervened in the demand-supply relationship on the route from the founders to the present, it can be called a problem of sale. According to the Smithian scheme, the economy has become, to use a Marxist expression, "a huge cluster of goods". But it has become so by an uneven and baffling different process in regard to structure and level in various regions of the world. The first crises have shown that the issue is not the production, but the acquisition of such goods. Except Malthus and Sismondi, none of the founders thought that selling would pose such a serious problem. Following the idea of the insufficiency of actual demand, proposed by Malthus and developed by Keynes, a "consumerist" epoch has created a special discipline to solve its problems. With marketing following you as if it were your own shadow, you buy, whether you want to or not. The cycle must be restarted! Is this an ethics in harmony with the one from *The Wealth of Nations* or *The Theory of Moral Sentiments*? It appears not.

- ***The social issue*** has been a sensitive one, since the days of the classical founders and the neoclassicists until today. The theory of sustainable development does not avoid it and neither did the scholars that first tackled the issue.

In the ensemble of topics that populate this domain, that of ***equality*** (inequality) in liberty comes first. We learn from all the founders, except for Marx, that the world does not aim for equality. Smith, Mill and Marshall agreed in claiming that relative inequality is disturbing and hard to accept. Living among unequal people, it bothers me that X or Y becomes richer than me. It is just as true that the masses, a socio-economic category productively exploited by Marx, have always wished for equality. If current reality is pigmented with news brought about by globalization, such news does not concern the relationship between the rich and the poor. The rich-poor Smithian scheme has not changed fundamentally. The measurement units that Smith used were the "majorities". They were not rich, but also not "worthy of weeping". He did not find it equitable and commonsensical that the producers of goods live in poverty, quite the opposite. Has this idea been validated? On average, the people who faithfully followed and put into practice his message are better off. The differences have not disappeared, but the lower classes are also better off. The path to achieve this was economic growth. You can only be born poor and die rich in a free economy that cultivates the idea of growth. Fisher would say this is not so; you die just as you were born! We cannot deny he has handy examples of this, but since the days of Smith, people who set out to succeed and possess the necessary willpower, have passed the minimum threshold of biological poverty. It is true that people do not live "on average". They live concretely. According to Yuval Harari's statistics, the number of today obese people surpasses the number of hungry people. It is just that there is no law of communicating vessels for the transfer of the surpluses to the deficit places. World governments invoked to do this are mere phantasies.

In this context, a ***levelling and humanist message*** à la Mill has not lost its echo. Let us keep the bare necessities and share the rest of it with all of humanity! In addition, when you turn your face to the wall, it would be appropriate for you to be just as "free" as when you arrived! How validating is such an idea? Material acquisitions and the suffocation of one's personal space with excessive goods are harshly criticized by those who, using the syntagma of a "wasteful society", have urged moderation. Moderation is also Smith's urge in his *Theory of Moral Sentiments* when, ironically, he says that we have come to be more interested in the "perfection of the machinery" than in the clock as an instrument for measuring time; or that the son of a poor man, in order to forget about the humble hovel in which he was born, is not satisfied with a house, but builds a palace for himself. With sombre countenance, the catastrophe-driven supporters of degrowth are petrified by the possibility that every Chinese may buy a car for himself. What is to be said here? People who urge that the food surplus should not be thrown away but directed towards hungry mouths support a humanitarian idea. The problem lies with people who urge you at the end of your life's journey to hand over your properties and your businesses to the state rather than to entail them with the hope that they would increase through the skills of your inheritors. That is, for the sake of a path that brings about unanimity and equality, you should empty the slate and get rid of an essential impulse of this dynamic, namely private property. This idea has few chances of helping to pave the way for sustainable development.

- The ***population***, a major concern, has remained an object of reflection, even in its rough Malthusian version. In the formulas of the intra- and intergenerational relations, the theory of sustainable development has also produced judgements in these fields. Sustainable development is basically a function of resource quality, including labour. However, numbers are still a consideration. The issues of sustainability in China or India differ from those in Australia on such grounds too. Some people cannot work within their own borders and effuse other countries; other people have too many square miles allotted to them by national statistics. Thus, the ingrate dilemma, woeful for Malthus, Ricardo and Mill, a concern that is not less troubling nowadays. What do we do with the numbers? If we are too many, do we emigrate? Do we restrict the number of births? Between the right of a child to be born, on the one side, and the right to live under stable normal conditions, on the other side, the dilemmas of the classicists are also the dilemmas of the contemporaries. The lack of education, the morals according to which sex without procreation is a sin, customs and traditions, etc., have condemned millions of children to come into this world only to live on the threshold of malnutrition and abjection. The classicists' solution was education and state regulation. Education still is the key. However, using the law to enforce a responsible conduct to families who wish to have offspring, including the provision of material conditions for the newcomers according to a suggestion in the spirit of Ricardo or Mill is an idea that gets diluted or even lost under the wave of undifferentiated generosity of human rights, especially the rights of today's man.

- ***Colonialism*** was ugly, inhuman and unacceptable. "[L]eft a mixed legacy in the developing world, but one clear result was the view among the people there that they had been cruelly exploited" (Stiglitz 2010, p. 220). About the differences in colonial inheritance we were schooled, on the spot, by Smith and particularly Mill. According to them, it was a privilege to be a colony of Great Britain, and it was not at all unnatural. As it was common knowledge that the great civilizations admitted and depended on slavery, it is understandable that our classicists were talking about it with the ease of an observer who was perceiving the phenomenon with the same sentiments as those arose by observing the wind, sea, trees, etc. It was not biological reasons that entitled them to admit the naturalness of the "slave nature". Their cosy academism prevented them from seeing that this separation was severely and unforgivingly operating on racial criteria, and that the "slave nature" applied, mostly, to the population of colour. With respect to it, not even market judgements were functional. The chance that ragged men, cotton and the sugarcane workers rise up the social hierarchy if they proved to be hardworking and skilled was excluded by the "slave nature". The history of facts has invalidated their belief. Capitalism, the open society constructed on their watch has no colour. Initiative, inventiveness, enterprising spirit, etc., have little to do with biology. The biological differences between individuals do not explain economic differences. The historical and geographical circumstances as well as domination-based economy have more to say in this regard than biology. In the second volume, we shall dwell consistently on this subject.
- It is no accident that the founders were preoccupied with the ***happiness of people***. Growth, the theme of all themes, was meant to be charged with this purpose. Following the scholars with major contributions on the subject, we ascertain that their legacy is fructified ***in two main directions***.

A ***first*** attempt is to outline a new discipline—the *Economy of happiness*. It is a self-contained discipline that should offer credible explanations about the causes and forms of manifestation of happiness, account for it and, if possible, define it. That such philosophers like Smith, Mill or Bentham have dealt with the subject represents a marker of the fact that you need to be in a certain state to approach the subject. If the subject is completely wide open, is the economist the most qualified person to study its anatomy and to establish a diagnosis? We do not know which areas of interest related to the theme might be right for the economist to specialize on. The causes of happiness are incommensurate, unknown, special, incomparable, etc. We have an infinity of reasons for which a person may be more or less happy; or unhappy. It is a place where questions, rather than answers, prevail. Not even in the domain of basic preoccupations the economist does not possess definitive answers on the subject of happiness. Does he know how much happier the owner of countless companies, personal jets, holiday mansions, yachts, etc., is than the scholar or the programmer whose wealth consists of the grey cells in his head? The economy of happiness is meant, but also tempted, to deliver hints and to take measurements. And if it cheerfully does it, is this any help at all? We doubt that! If there are places in life where everything is not measurable, this is one of them. Our conviction is that measuring happiness means abusing the very idea and the very feeling of it. Imposing a definition amounts to the same thing. If economics claims to have chances to close the gap, on its positive side, to the hard sciences, this is not the domain to do so. Psychology, Sociology, Philosophy, Biology, each of them in its way and all together may do a better, more credible job. Economics may complete them. But even so, we do not know in what area it might offer sustainable analyses. Even when it offers hints, this does not benefit it. On the contrary, it raises suspicions. This is so because this domain refuses rationalistic, geometrical approaches. Not even Bentham suggested that an algebraic summation of pleasures and pains would be possible. With respect to the terms of comparison, even less so. What does an Indian know about our happiness? Exactly as much as we know about his: almost nothing!

If happiness is a complicated affair and is not subject to the pitiless constraints of rationality, we have grounds to believe that it is basically a ***personal*** matter. Following the classical line of thought to the present day, we can see that the philosophy of happiness has engaged a permanent duel between individualism and holism to also imprint this matter onto the direction of social dynamic. This is the ***second*** great direction we have referred to. Among the classicists, Mill, in particular, equated the large amount of happiness for most people with a victory of economic policy. When we propose the replacement of GDP with Gross Domestic Happiness (GDH) à la Bhutan, we do operate within this paradigm. Everybody gets their own portion of happiness from the common pile. Through the Declaration of Independence, Jefferson broke away with the popular philosophy of his days. He introduced the right to the pursuit of happiness; the right to a pursuit, not to a portion of it. Included here is the possibility of making a personal choice. Every person is happy on his or her own! Nevertheless, historically speaking, holism won the duel between these two tendencies. Happiness without pain has become more and more unconceivable outside of state intervention. The *General Welfare State* confirmed this victory. It devised well-being for all and transmitted its plans for happiness by organizing education, healthcare system, social security, etc., according to the pattern of "happiness in service of the state". Meanwhile, the state culture also became a pillar for all the supporters of "happiness through degrowth". None of their approaches refers to Popper, Mises or Hayek. That would put them on the wrong track. However, the Epicurean and Millian idea of the unhappiness caused by the blinded and uninterrupted pursuit of wealth is highly fructified. We need to stop and enjoy happiness! We have commented extensively on Mill's pages about the stationary state. In these conclusions, we add that Mill also found there a basis for the philosophy of happiness. Because after all, what is the key to this fragment? We are to leave aside the everyday tiresome things and take care of ourselves as people. We also enjoy some pleasures: nature, rest, cogitation, etc. We leave the world of robotic ascetics and we come back to the world of people. Nevertheless, Mill did not say that everybody should go on standby at the same time. Everybody should do it on his or her own. However, as we shall see, the philosophy of degrowth promotes the idea of collective rest. One does not "degrow" footloose!

We started this paragraph by saying that we primarily believe in personal happiness. If by means of public authorities we keep parks clean, water clear and the air respirable, we have sound grounds to say that there is also a common denominator, as our happiness is linked to the happiness of other persons. We can be happy together if there is peace, not war; unless a rare species of plant or animal goes extinct and unless a nuclear accident occurs. Thus, we are talking about the common area of life. As for the rest of it, common happiness is related to the perversion of human emotions. The maximum "success" in this matter was achieved by "communist happiness". For those who do not know, we are saying that Ceaușescu, the leader of one of the most obscure totalitarian regimes, died surprised! In the agony brought to him by absolute power, he was convinced that Romanians were happy. And he did not understand why they were furious. Statistics that he himself ordered were lying to him in a flattering manner. According to all indicators, Romania was presented as among the first countries of the world. In fact, people were starving. He was capable of having the entire world change, just not his own national economy, to fit into his ideal of communist happiness. Nicolae Steinhardt wrote *The Journal of Happiness* while locked up in communist prisons, a formidable example of what ordered happiness really means. He confessed he was happier behind bars than outside.

In other words, we consider it risky to try to paint lump happiness in positive colours; the same goes for the state predefined happiness. We cannot separate personal happiness from the life of the community or the world, but there are no reasons to applaud upon command and to laugh showing off the same number of teeth!

- Nothing seems at the same time as close to the underpinnings of sustainability and as eluded by the current theories on this matter than the issue of the formation and significance of ***natural prices of goods and money***. What are we talking about? We have in mind the two global crises that have offered the opportunity to ascertain that the great economies of the world were full of bubbles waiting to burst. Deceptions perpetrated using nothing more than money created out of thin air had come to maturity. The academia and the ideological gurus pointed fingers in all directions. Few of them actually pointed to the cause of causes. Which "crisis-driven" discourses in the time between 2008 and 2012 invoked such names as Turgot, Cantillon, Böhm-Bawerk or Wicksell?! Have they established that the occasion calls for a hard sanctioning of serious deviations from the normal formation of the prices of goods and, especially, money? Did Alan Greenspan leave the FED upon ascertaining that the lending rate of interest had dangerously departed from the natural rate of interest?! No! They only invoked human passions and the fundamentalism of the market. The only notable exception is the well-grounded allegation of having cancelled the provisions of the Glass-Steagall Act. For the rest of it, the already fainted discourse prepares the ground and the context to accept the "rationality" of a new crisis. And the world expects to be "surprised" again.

The subject matter of the formation of natural prices is one of the most generous in offering solutions for a sound dynamic. For various reasons, we are led to believe that solutions which mainly originate in the area of law-making, great ideas of scholars that should be put to good use, lay buried in the chest of economic theory history. It is actually from this source that sustainability and resilience can receive solid support.

Briefly, by thinking alongside the founders whose names we have invoked, we believe that only by following the path of the natural price can we be exempt from empty GDPs and rotten growth. The founders have persuaded us that nothing is more natural than assimilating and implementing the philosophy of competition on the free market. Only this philosophy can help form natural, normal, and just prices. Its blender must mix the contradictory interests of economic actors so that it may benefit the one that lays at the end of the road, the consumer. Such a market should suffer no monopolist interference from either the state or private actors. Without such a market, the sustainability in constructing values and prices remains an illusion. Beyond it or without it, we talk about growth through consumption, the stimulation of supply, etc., and we lose sight of the origins of durability. It is embarrassing not to think about Turgot, from whom we find out that raising the interest rate "shaves" the profit. One can also mention Ricardo, who draws attention to the fact that the government makes laws, but it is also the one to break them sooner than a bank; he also warns that the bank itself is not free from temptations. Wicksell shows the way to the bank, it has to follow through a tatonnement-like process the profit rate. From him and from Böhm-Bawerk, Walras, Marshall and the other founders, a powerful idea takes shape: the nominal economy is not the first violin. This role is reserved for the real economy. If you revert the relation and put money and the bank before the real interests of the economy, you end up in unsustainable waters. It is delicate, but necessary to analyse, from the perspective of the theory of natural interest, the relation between the behaviour of the bank and the sovereignty of the consumer. But this is not the only place where the sources of sustainability have not been explored. The clogged road of multiplying money through money, the connection between generations stitched by the logic of capital formation beyond human sentiments, the reason to save and invest the capitals inherited from parents, etc., are themes on which Böhm-Bawerk may help us be sustainable. That the interest rate may connect the present to the future if its formation follows the rules of the free market is also a beautiful lesson, unexplored in the domain of sustainability. That a position like that of Robinson Crusoe is not logical, that economic relations are of interdependence and that it is only the competitive market which polishes, accommodates, balances and "casts" into a final result newly created values formed around a normal and natural core and dimensions is an attractive lesson. We shall see in the second volume, by analysing the dangerous "play with money" mechanism in contemporaneous times or the unhealthy pressure induced by social aspects on the economy, what is left of these lessons that can be used in the service of sustainability.

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