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Capital is back, without Marx

1. The debate on inequality before Piketty

Up to the 1990s, the economic literature neglected inequality, except for a few scholars. After World War II, the strong economic performance of advanced countries went hand in hand with an expanding welfare for the working class. Looking at the evolution of the Gini index, the most standard measure of inequality, was like observing the grass and pretending to see it grow. Moreover, those that studied inequality have never had strong causal claims and the peculiarity of income distribution, with all the complexities related to institutional settings and other contextual causes – such as labor market participations, unemployment, wage distribution, demography, capital-labor conflict, state intervention – calls for a more detailed analysis of the proximate determinants and for a careful detour into the technicalities of measurement.[1]

Thomas Piketty, *Le capital au XXI siècle*

Of course, within the economic discipline, there has always been a tradition of unorthodox scholarship of less free market orientation. This tradition has always insisted in rejecting the methodological assumption underpinning standard economic models, according to which aggregate phenomena are to be explained as the compatibility of choices among rational agents – a notion that is to be defined in strictly mathematical terms. However, despite having always put more focus on inequality, this unorthodox economic tradition has rather emphasized functional distribution, i.e., capital versus labor distribution, more than personal distribution, i.e., how income is shared across households.

This picture changed somehow in the 1990s, when mainstream economists formulated the so-called Skill-Biased Technical Change (SBTC) hypothesis. This stream of literature is important, because its theoretical setup is completely standard. In the 1990s, US data were showing that wage inequality, and in particular the premium for higher education, was growing. According to the SBTC, technology was shaping labor market distribution. In a nutshell, the idea is that technology tends to favor the demand for skilled workers, and if supply – determined by education – does not keep the pace, inequality increases. Strong causal claims were then back into the theory of inequality, which, however, avoided all the complexities – institutional arrangements, state intervention, cultural

1 In economics a cause is to be defined in the very limited sense in which cause precedes effect, cause covariates with effects and alternative plausible explanations are excluded (ceteris paribus). In this sense wage inequality is only a proximate cause of overall inequality: it explains statistically the large part of it, but both are typically co-determined by a third factor (e.g. institutional change).

norms, and so on – taken into account by the multidisciplinary literature on inequality.

Anyway, regardless of the approach, almost all the debates were related to income, i.e., with the flow of resources generated in a period of time, usually a year. And the problem with these approaches is that a rich person is usually defined as someone who has accumulated assets net of debts. In contrast to income, wealth is a stock, a picture of the activities and liabilities at a certain moment in time. The relative importance of flows over stocks in the debate on inequality was simply due to the lack of reliable data, in the sense of data sources that were comparable across countries and covered a significant time window that allowed economists to draw some meaningful conclusions.

2. The impact of Pikett's work on the studies on inequality

This is a sketchy overview of the debate on inequality when Piketty enters the academic field. Born in France, Piketty received his PhD from the LSE and the EHESS. His dissertation was a purely theoretical work in a very mainstream flavor. At a remarkably young age, Piketty moved then to the MIT, where he was offered a tenure track position, before returning to France, where he is currently Professor of Economics at the Paris School of Economics and Director of Studies at the EHESS. Piketty's background, which has influenced him deeply, includes both the standard theoretical approach of mainstream economics and the historical and multidisciplinary approach favored by the social sciences in continental Europe, which remain a bit skeptical towards the axiomatic approach and the analytical methodology of orthodox economics.

And this tension between the neoclassical reasoning and the historical method emerges throughout Piketty's major book, *Capital in the Twenty-First Century*,[2] where economic laws and theoretical hypotheses are formulated within the frame of the orthodox economic approach, to be later criticized in the name of the contradictory development of historical phenomena: "*one should be wary of any economic determinism in regard to inequalities of wealth and income*" (*Capital*, p. 21). And, of course, attention to the perception of inequality with the careful reading of novels by Balzac and Austen is quite at odds with the consequentialist bias of economics.

Piketty's first groundbreaking contribution is related to the top income shares. Piketty had the intuition of exploiting fiscal sources to investigate the very rich, defined income-wise. Technically, Piketty and his coauthors

2 T. Piketty, *Le Capital au XXI siècle*, Seuil, Paris 2013; eng. trans. by A. Goldhammer, *Capital in the Twenty-First Century*, the Belknap Press of Harvard University Press, Cambridge, Mass. 2014. *Capital* hereafter.

used the fiscal data as a base to estimate statistically a distribution of the richest families, and then using indirect sources on the population and the GDP, they computed the shares of the top 10%, top 1%, and so on.[3] Although the work was more descriptive than oriented towards the identification of causal determinants, the impact has been impressive. Piketty showed clearly that the emphasis on technology had little to do with inequality, at least on this part of the distribution, and that, while the top 1% was gaining back his control over larger shares of income as it was happening before the Short Twentieth Century, the structure of their resources was different, and resulted largely from corporate executives' pay increase (including Wall Street). Moreover, surprising as it can be in the age of superstars, of Forbes and so on, we actually knew very little about the super-rich. As a matter of fact, while there has always been an interest in studying the left tail of the distribution – i.e., monetary poverty –, by definition surveys are considered unfit to address the other extreme, because individuals are very difficult to be detected and because underreporting by the rich is overwhelming. In fact, the most common measures of inequality are almost or completely insensitive to what happens on the extreme tails of the population. This statement applies to the Gini index, which essentially responds to the change affecting the middle class, as well as to measures such as the inter-decile ratios.[4]

Thomas Piketty, *Le capital au XXI siècle*

Piketty's work has also significantly framed the critical discourse around the neoliberal state (or post 1980s politics): although the 1%-99% jargon should be probably attributed to Stiglitz, the graph by Piketty became a flagship in the *Occupy* movement.[5] The reason why I mention this is not only to understand the impact of Piketty's work on public discourse, but also because, as it will become clear in the conclusions below, understanding Piketty's major work entails the recovery of the category of power, and of the elite's role.

Of course, Piketty enjoyed a global success with the publication of *Capital*. Thanks to this book, the focus of the debate on inequality has shifted from flows to stock, from income to wealth. The beginning of this research should probably be ascribed to the investigation over the flows of inheritance in France,[6] coherently with Piketty's hypothesis that inertial effects

3 A.B. Atkinson, T. Piketty, E. Saez, *Top Incomes in the Long Run of History*, «Journal of Economic Literature», 49, 1, 2011, pp. 3-71.

4 The inter-decile ratio is the ratio of the income of the household richer than 90% of the population over the income of the household richer than the 50% (or 10%) of the population.

5 T. Piketty, E. Saez, *Income Inequality in the United Sates, 1913-1998*, «Quarterly Journal of Economics», 118, 1, 2003, pp. 1-39: p. 11, Fig. 1.

6 T. Piketty, *On the Long-Run Evolution of Inheritance: France 1820-2050*, «Quarterly Journal of Economics» 126, 3, 2011, pp. 1071-1131. Needless to say the dates of publication do not reflect the dynamics of the research, due to peer review system.

of wealth accumulation are at the core of the instability of modern capitalism. In his words:

> In other words, Liliane Bettencourt, who never worked a day in her life, saw her fortune grow exactly as fast as that of Bill Gates, the high-tech pioneer, whose wealth has incidentally continued to grow just as rapidly since he stopped working. Once a fortune is established, the capital grows according to a dynamic of its own, and it can continue to grow at a rapid pace for decades simply because of its size. (*Capital*, p. 310)

3. Capital in the Twenty-First Century

Piketty's notion of "capital" is neither defined as capital in the marxian sense of a social nexus, nor as the value of the means of production, as in the neoclassical tradition. What he is referring to is wealth, the stock of assets net of debts owned by the households, largely explained by the housing wealth. The title of the book is an indirect reference to Karl Marx's masterpiece and it is just an example of the politically incorrect stance adopted by Piketty. The traditional multidisciplinary literature on inequality tends to avoid clear political messages because of the lack of strong causal claim and the emphasis on the technicalities of measurement; in Piketty we clearly see a dismissal of this narrative approach.

Capital in the Twenty-First Century is made up of sixteen chapters organized in four parts. Although measures of inequality constitute an extremely complex and highly technical topic, Piketty has managed to write a book that is readable even by the largest possible public. And one of Piketty's greatest merits is definitely his ability to be both precise and simple.

The first two chapters set the stage. Piketty presents most of the definitions that will be used in the following parts of the book, usually referring to both the historical origin of the statistical procedures and to their implications. Implicitly, Piketty makes a certain number of assumptions regarding the stability of the aggregate law of development across countries. In other words, the reasoning over the long run, and in particular the GDP per capita take-off and the demographic transitions are assumed to take place in all countries, although at different times. This allows predicting the evolution of other countries through the analysis performed on France, UK and the US, which are the country cases most deeply analyzed. Again, this method is typical of Piketty's work. E.g., he considers the early-nineteenth-century France as representative of all developing countries.[7]

7 T. Piketty, G. Postel-Vinay, J.L. Rosenthal, *Wealth Concentration in a Developing Economy: Paris and France, 1807-1994*, «American Economic Review», 96, 1, 2006, pp. 236-256.

In the first part of *Capital*, Piketty spells out his first economic law. The share of income that goes to capital is equal to the rate of return on capital (r) times the capital-labor ratio. The former is a measure of the "productivity" of capital: if I own assets worth $100 and manage to get $5 as remuneration, the rate of return on capital is 5%. The latter is the stock of wealth divided by the flow of income. This variable can be interpreted as the number of years that a country needs to reproduce its entire stock of net assets. This law is the result of an identity: profits-over-income is necessarily equal to the product of profits-over-capital and capital-over-income. As a result, it holds necessarily in every moment of time.

The second part of *Capital* concerns the dynamics of the capital-income ratio that I have just defined. In this part, Piketty presents the changes that occurred in the composition of wealth, with the declining importance of land and the increasing role of housing and productive capital. It then moves on to consider the structural differences between Europe and the United States. Finally, he concludes by presenting the long-run evolution of the capital-income ratio and the conflict between capital and labor in the twenty-first century.

Thomas Piketty, *Le capital au XXI siècle*

Piketty establishes his second law, which describes the evolution of the capital-income ratio. Every year wealth increases through households' savings. Let us call s the average proportion saved out of each dollar. On average, the national product increases every year as well, i.e., the income of year $t+1$ is one-plus-g times the income of year t, where g is the average growth rate of income (e.g., 2%). If s and g are stable, the capital income ratio is stable as well in the long run, and is equal to s over g. For example, if the average propensity to save is 10% and the average growth rate is 2%, in the long run the capital income ratio is 5: it takes five years to produce the stock of assets net of debts of the economy.

Two consequences can be drawn from Piketty's laws. On the one hand, we can combine the first and the second law since the capital-income ratio appears in both. Algebraically, it turns out that the share of income accruing to capital is positively affected by the saving rate and the rate of return on capital, and is negatively affected by the rate of growth of income. This implies that if the rate of return on capital (r) is larger than the rate of growth (g) there is a tendency for the capital share to increase, for a given saving rate. However, the number of households that own capital is much smaller than the number of households that receive some income. This is due to the fact that age affects a lot the amount of assets owned,[8] i.e., an

8 V. Maestri, F. Bogliacino e W. Salverda, *Wealth Inequality and Accumulation of Debt*, in *Changing Inequalities and Societal Impacts in Rich Countries: Analytical and Comparative Perspectives*, eds. by W. Salverda, B. Nolan, D. Checchi, I. Marx, A. McKnight, I.G. Toth, H. van de Werfhorst, Oxford University Press, Oxford 2014.

older person has saved more for years than a younger one. Therefore, if the share of income that goes to capital increases, the overall distribution of income becomes less equal.

On the other hand, whenever the rate of return on capital exceeds the rate of growth, the "fresh" savings, which result from labor or entrepreneurial income, are relatively less important compared with resources coming from the flow of inheritance. This argument can be understood completely only by making reference to another fundamental contribution by Piketty.[9] Under the orthodox assumptions, the motives to give inheritance[10] are rather limited, which implies that their relevance per se is marginal – and under certain restrictive assumptions bequest should not be taxed. In contrast with these assumptions, Piketty and his coauthor show that two things happen in the more general case. First of all, there are a lot of motives to save (love for wealth, wealth is power, precaution, etc.), so there are a lot of reasons for which a bequest may be left. Secondly, the decision to work is also affected by inheritance, i.e., there is a certain behavioral response of labor supply to inheritance, in the sense that inheriting wealth decreases the incentives to work. In other words, under a more general set of assumptions regarding savings and bequest, if the rate of return on capital is larger than the growth rate, the weight of transmitted wealth in total wealth increases and diverts incentives to work.

The third part of *Capital* is the longest of the book and is the one in which the author moves from aggregate magnitudes to personal distribution of capital and labor income, and wealth. In this part, Piketty introduces in the analysis part of the work carried out over top incomes, in particular, the trend over time with the post-1970s recovery, the change in the nature of top income people, from *rentiers* to managers,[11] and the questioning of the SBTC hypothesis to explain inequality in the labor market.

Piketty claims that institutional diversity, and in particular the diversity between the English-speaking and the continental model, explains the variety of profiles across countries, and he insists on the exceptionality of the inter-war period and the three decades after World War II, when inequality first decreased dramatically and then stabilized at a very low level.

This section also examines questions of inheritance and its demographic, as well as institutional and behavioral determinants.[12] The *r* ver-

9 T. Piketty, E. Saez, *A Theory of Optimal Inheritance Taxation*, «Econometrica», 81, 5, 2013, pp. 1851-1886.

10 «Preferences for bequest» in the economists' jargon.

11 The argument is not completely convincing. As Stiglitz (*The Price of Inequality. How Today's Divided Society Endangers Our Future*, Norton & Company, New York 2012) argues, these remunerations of the working rich are mostly performance-related pays that are aligned with profits trend. In other words, it is just an institutional change that makes a part of the profits appear as labor remuneration.

12 This part is built on his previous work on inheritance cited above.

sus *g* story comes back more and more in the discussion. The argument is mainly empirical, but it is important to understand that Piketty's point is not about competition, or the lack thereof. Even under competitive assumptions for any known economic model (orthodox and unorthodox) the $r > g$ inequality holds; henceforth, it holds *a fortiori* when competitive assumptions are violated.

Piketty concludes this part by suggesting that, since the 1980s, inequality trends have been pushing wealth inequality upwards, even though it has not yet recovered with respect to the *Belle Èpoque*, when it had reached its peak, because of the emergence of the middle class and the differences in the structure of taxation – which, however, has proven to be inadequate in the face of increasing wealth stock.

Finally, the fourth part discusses the policy proposal. Piketty takes for granted that the globalization is not reversible. His proposal is twofold: strict regulation and data exchange with tax havens and a global progressive tax on wealth.

4. The critiques raised by Capital

The book is a bestseller. With more than 1.5 millions copies sold, its public success has been undeniable. The work carried out on data has been generally appreciated, although there has been a tough polemics with the Financial Times, whose economic editor suggested that one of the stylized facts was a statistical artifact. After a careful examination of data, it turned out that Piketty was right.[13]

A number of authors criticized the use of the term "capital", for the reason explained above. This critique has been raised by a number of Marxists or heterodox scholars (e.g. Galbraith)[14] for whom "capital" is the sum of the means of production, and is to be defined either as a process or as a social relation. This is not just a problem of definitions, since in fact the return to housing explains the increase of the capital share at least in the US.[15] It is true that Piketty is describing wealth, largely affected by the stock of housing, but this does not change his main predictions.

A very technical debate, which is beyond the scope of this review, is related to the relevance and interpretation of the *r* versus *g* inequality. Piketty himself

13 T. Piketty, *Technical Appendix of the Book «Capital in the Twenty-First Century», Appendix to Chapter 10 «Inequality of Capital Ownership» Addendum: Response to FT*, published online on May 28, 2014, available at: http://piketty. pse. ens. fr/capital21c (accessed on April 20, 2015).

14 J.K. Galbraith, *Kapital for the Twenty-First Century?*, «Dissent», Spring 2014, available at: http://www.dissentmagazine.org/article/kapital-for-the-twenty-first-century (accessed on April 20, 2015).

15 M. Rognlie, *Deciphering the Fall and Rise in the Net Capital Share*, Brooking Papers on Economic Activity Conference Draft, 19-20 March 2015, available at: http://www.brookings.edu/~/media/projects/bpea/spring-2015/2015a_rognlie. pdf (accessed on April 20, 2015).

anticipates that the rate of return on capital that he is estimating is a gross measure, while the relevant variable is the net one. The gross-net difference is due to taxation and depreciation, i.e., the loss of value of capital stock. Secondly, there is some implicit assumption that the return on wealth will be reinvested by capital owners at least at the same pace as by the rest of the population.

According to Larry Summers, as capital increases, the rate of return on capital should be decreasing, because capital becomes less scarce and as a result will grab lower returns on the market. Moreover, depreciation will be proportional to the stock of capital, so the net return on capital (gross minus depreciation) will be *significantly* decreasing.[16]

Piketty responds that the decrease in the rate of return on capital is empirically small, or to put it another way, the elasticity at which capital is substituted for *other things* in the production process is small.[17]

The magnitude of this *elasticity of substitution* of capital is ultimately an empirical problem. Nevertheless, it seems to me that Summers' point is misleading. Piketty's argument is *a fortiori*: the scarcity principle for which capital will become less capable of raising high returns is based on a competitive assumption, which eliminates bargaining power from the story. However, when there are frictions to competition and there exist actors in the economy that own bargaining power, these are likely to be the capital owners. This is what Piketty argues when he suggests that rich capital owners are more likely to get higher return that small capital ones, as the beautiful example of the *«The Pure Return on University Endowments»* in Chapter 12 illustrates.

Finally, Piketty's point is not about *r*, but rather about *r* versus *g*. If the net rate of return on capital decreases, the incentives to invest will be low and thus will affect negatively the growth rate of the economy. When the economy does not grow, labor is more negatively affected than capital, because unemployment decreases workers' bargaining power.

5. Concluding remarks: what is wrong with our future?

Capital in the Twenty-First Century is a milestone in the study of inequality. It puts together a few pieces of evidence that literally could not exist without

16 L.H. Summers, *The Inequality Puzzle*, «Democracy», 33, Summer 2014, available at: http://democracyjournal. org/magazine/33/the-inequality-puzzle/ (accessed on April 20, 2015).

17 Technically, the negative relationship between the stock of wealth and the rate of return is based on weak premises. Since wealth is heterogeneous, we cannot compute wealth in physical terms, but must rather recur to a value measure (in monetary terms or in relative terms with respect to a single commodity). This creates problems in applying the scarcity approach: prices includes the rate of profits, thus if the latter changes, the price system and the monetary value of capital change as well and there is no guarantee that wealth and rate of return go in opposite directions. Regarding the propensity to save, on average it increases with income because some of the consumption is not income related and thus cannot be reduced even in poverty.

Piketty's work. It is true that the story of increasing inequality has been told several times even by international organization such as the OECD.[18] Nevertheless, it is usually based on the bulk of the distribution, which leaves out the very poor and the very rich, and is mainly related to income flows. Piketty puts the pieces together, linking stock with flows, covering the entire distribution, and presenting the evidence in a cross-country and more transparent way. Finally, it should be recognized that Piketty has created a bridge between the academia and the general audience regarding inequality. While the mainstream neoliberal economists were rhetorically successful in proposing the trickle-down story, namely that as the rich got richer the growth of the economy will benefit everybody, the progressive side was rather incapable of telling an alternative story that could generate pro-equality consensus. Piketty has somehow changed this perspective, because the $r > g$ story is quite simple, and seems to point to a new political horizon by drawing the attention to taxation and tax havens.

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Piketty's book has been criticized for some theoretical weaknesses, such as the inaccurate use of some notions or lack of clarity of some theoretical assumptions. Despite the importance of the book, I would like to stress three theoretical issues, which remain unsolved and somehow need some clarification, in order to make sense of the literature on inequality.

First of all, for how strange it may be, it is never clear in the book why we should care about growing wealth stock or wealth/income inequality. Although aspirations for a more equal distribution of resources are obviously legitimate per se, understanding the logic and the consequences of increasing inequality is the only way to define a counteracting political strategy and viable policy measures. If we dig deep into Piketty's theoretical background, we never really understand whether the concern is related to the distribution of either wealth or income, given that the two do not coincide.

Similarly, we never really understand whether the problem is an economic or a political one. Is the economic power derived from either wealth or income that matters? Or is the political influence of increasing inequality? Throughout the book we get various hints at the nature of the problem. The chapters on inheritance suggest that in polarized societies, such as France or UK during the *Belle Èpoque*, the incentives to work, innovate and invest may be low (*«Vautrin's Lesson»* in Chapter Seven). In many other

18 *Growing Unequal? Income Distribution and Poverty in OECD Countries*, 2008 OECD Report, OECD Publishing, October 21, 2008, available at: http://www.oecd-ilibrary.org/social-issues-migration-health/growing-unequal_9789264044197-en (accessed on April 20, 2015); *Divided We Stand: Why Inequality Keeps Rising*, 2011 OECD Report, OECD Publishing, December 5, 2011, available at: http://www.oecd-ilibrary.org/social-issues-migration-health/the-causes-of-growing-inequalities-in-oecd-countries_9789264119536-en (accessed on April 20, 2015).

sections, Piketty points out that increasing inequality may threaten the legitimacy of the capitalist system, as when he states:

> the force for divergence at the top of the wealth hierarchy would win out over the global forces of catch-up and convergence, so that the shares of the top decile and centile would increase significantly, with a large upward redistribution from the middle and upper-middle classes to the very rich. Such an impoverishment of the middle class would very likely trigger a violent political reaction. It is of course impossible at this stage to be certain that such a scenario is about to unfold. (*Capital*, p. 309)

Finally, in other parts the French economist claims that the emergence of a global oligarchy is actually possible, weakening the very existence of democracy; in his words:

> an oligarchic type of divergence, that is, a process in which the rich countries would come to be owned by their own billionaires or, more generally, in which all countries, including China and the petroleum exporters, would come to be owned more and more by the planet's billionaires and multimillionaires. (*Capital*, p. 326)

The second point is that although Piketty understands that, besides the general underlying tendency, there is nothing deterministic about the evolution of inequality, he never makes sense of the political choices. The state of affairs in the Short Twentieth Century was certainly chaotic, but Piketty misses two things. Firstly, the destruction of capital that drives down inequality between the two World Wars was the unintended consequence of the explosion of the contradictions of the first globalization.[19] Secondly, most of the forces that kept inequality stable in the post-war period, namely high growth, progressive taxation and partial socialization of the cost of the reproduction of labor, were triggered by the existence of a geopolitical alternative that seemed to be viable.

If this is the case, then, the political implementation of measures against increasing wealth owners' power cannot be based on the utopia of a transnational or supranational agreement as in Piketty's proposal of a global tax on capital. Even more so, since the transnational agreements that we know since the 1980s have been the very instruments of weakening labor and increasing inequality – the Washington Consensus, the European integration project, and so on.

Last but not least, while it is clear why the political legitimacy of the capitalist system is weakened by the increase of inequality, there is nothing deterministic in the relationship between rising inequality and the loss of

19 K. Polanyi, *The Great Transformation. The Political and Economic Origins of Our Time*, Farrar & Rinehart, New York 1944.

political legitimacy, because there are counteracting tendencies resulting from the influence of the distribution on the political system. In a recent book, Stiglitz[20] proposes a political theory for the top 1% government, in which he states that the increasing inequality will encourage the rich to pursue the manipulation of the political system, through lobbying and rent seeking, instead of working, investing, and innovating. Moreover, he suggests that the increasing inequality provides resources to those who want to frame the policy debate in their favor, as in the case of the debate on health insurance in the US. Much more work should be done in these directions, but certainly we should start after carefully reading Piketty's book.

20 Stiglitz, *The Price of Inequality*, cit.