Toward a Reconciliation between Economics and the Social Sciences
Lessons from Capital in the Twenty-First Century [1]

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I would like to see *Capital in the Twenty-First Century* as a work-in-progress of social science rather than a treatise about history or economics. It seems to me that too much time is lost within the social sciences on petty quarrels about boundaries and often rather sterile methodological positions. I believe that these oppositions between disciplines can and should be overcome, and that the best way to do so is to address big issues and see how far we can take them, using whatever combination of methods and disciplinary traditions that seems appropriate. I could not have hoped for a greater homage to my approach than this group of texts written by specialists from very different horizons and methodological perspectives.[2] Within the framework of such a short article, it is impossible to respond to all of the points raised in this book and to do justice to the richness of these essays. I would simply like to attempt to clarify a small number of issues and refine certain elements that were undoubtedly insufficiently developed in my book, in particular from the perspective of the multidimensional history of capital and power relations, and regarding the role played by beliefs systems and economic models in my analysis. I will then turn to another important limitation of my book, namely the fact that it is too much Western-centered.

Capital and the Social Sciences

First of all, I would like to briefly summarize what I have tried to do in this work and how it fits into the history of the social sciences, where several research traditions and schools of thought intersect. It is above all a book about the history of capital, the

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1. This essay has been prepared for the book *After Piketty. The Inequality Agenda Post-Capital in the 21st century* (edited by B. DeLong, H. Boushey, M. Steinbaum, Harvard University Press 2016).

2. I am grateful to Brad DeLong, Heather Boushey and Marshall Steinbaum for having assembled these essays and to the authors for the attention and time they were willing to devote to my work.

distribution of wealth, and the conflicts raised by this unequal distribution. My main objective was to bring together historical sources relating to the evolution of wealth and income in over twenty countries since the eighteenth century, thanks to the combined work of some thirty researchers (notably Anthony Atkinson, Emmanuel Saez, Gilles Postel-Vinay, Jean-Laurent Rosenthal, Facundo Alvaredo, and Gabriel Zucman). The primary ambition of my book was to present this historical material coherently. I began with sources and proposed an analysis of the economic, social, political, and cultural processes making it possible to account for the evolutions observed in the various countries since the Industrial Revolution. In doing so, I attempted to return the issue of distribution and the inequalities between social classes to the center of economic, social, and political thought.

Nineteenth-century political economy—particularly the works of Thomas Malthus, David Ricardo, and Karl Marx—already placed the issue of distribution at the heart of its analysis. These authors were often motivated by the profound social changes they perceived around them. Malthus was marked by Arthur Young's accounts of poverty in the French countryside on the eve of the Revolution and feared more than anything else that overpopulation would bring about poverty and revolutionary chaos everywhere. Ricardo based his analysis on clear-sighted intuitions about the price of land and the impact of the public debt accumulated by Great Britain following the Napoleonic Wars. Marx accurately observed the profound imbalance between the evolution of profits and salaries in the booming industrial capitalism of the first two-thirds of the nineteenth century. Even though they did not have systematic historical sources for studying such evolutions at their disposal, these authors at least had the merit of asking the right questions. Throughout the twentieth century, economists all too often sought to remove themselves from the social sciences (an illusory temptation, if ever there was one) and to pass over the social and political foundations of economics. Some authors—particularly Simon Kuznets and Anthony Atkinson—nonetheless patiently embarked on the meticulous task of collecting historical data on the distribution of income and wealth. My research directly stems from these studies and has largely consisted of extending the collection of historical data to a broader geographical and temporal scale (an extension that has been

greatly facilitated by information technologies, which have made available data inaccessible to previous generations of researchers).[3]

In my work, I also attempt to renew a tradition that used to be very prominent within economic and social history, and in particular within the French-language school of history and sociology that between the 1930s and the 1970s generated numerous studies devoted to the history of prices, salaries, income, and wealth in the eighteenth and nineteenth centuries. I am thinking especially of the major works by François Simiand, Ernest Labrousse, François Furet and Adeline Daumard.[4] Unfortunately, this history (sometimes qualified as "serial") died out before the end of the twentieth century—largely for the wrong reasons, it seems to me.[5] My approach is also inspired by sociological studies on inequalities of cultural capital and disparities in wages, notably those conducted by Pierre Bourdieu and Christian Baudelot (in different but, I think, complementary registers).[6]

Furthermore, in my book I tried to show that it is possible—and, in fact, indispensable—to simultaneously study the evolution of collective representations of

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3. In particular, see the following two foundational works: Simon Kuznets, *Shares of Upper Income Groups in Income and Savings* (New York: National Bureau of Economic Research, 1953); Anthony Atkinson and Alan Harrison, *Distribution of Personal Wealth in Britain* (Cambridge: Cambridge University Press, 1978). The different stages in the construction of the data assembled in my book are summarized in *Capital in the Twenty-First Century* (Cambridge: Belknap Press, 2014), 16–20.

4. In particular, see: François Simiand, *Le salaire, l'évolution sociale et la monnaie. Essai de théorie expérimentale du salaire, introduction et étude globale* (Paris: Alcan, 1932); Ernest Labrousse, *Esquisse du mouvement des prix et des revenus en France au XVIIIe siècle* (Paris: Dalloz, 1933); Jean Bouvier, François Furet, and Marcel Gillet, *Le mouvement du profit en France au XIXe siècle. Matériaux et études* (Paris/The Hague: Mouton, 1965); and Adeline Daumard, ed., *Les fortunes françaises au XIXe siècle. Enquête sur la répartition et la composition des capitaux privés à Paris, Lyon, Lille, Bordeaux et Toulouse d'après l'enregistrement des déclarations de successions* (Paris/The Hague: Mouton, 1973).

5. See *Capital*, 575–77.

6. In particular, see: Pierre Bourdieu and Jean-Claude Passeron, *The Inheritors: French Students and their Relation to Culture* (University of Chicago Press, 1979); Bourdieu and Passeron, *Reproduction in Education, Society and Culture* (London: SAGE, 1990); and Christian Baudelot and Anne Lebeaupin, "Les salaires de 1950 à 1975 dans l'industrie, le commerce et les services" (Paris: INSEE, 1979).

social inequality and money in both public debates and political conflicts as well as in literature and cinema. I am convinced that such an analysis of the systems of representations and beliefs about the distribution of income and wealth, however incomplete and preliminary it is within my book, is essential when it comes to understanding the dynamic of inequality. To me this is the central interaction between beliefs systems and inequality regimes that should be studied more extensively in future research, and which I plan to further study in the years to come. Money and its unequal distribution constitute the supreme social object and cannot be studied from an exclusively economic perspective. In this respect, my work is akin to and feeds off the many studies devoted to perceptions of equality and inequality issuing from the fields of political sociology and intellectual history.[7]

In fact, the main conclusion of this work is that "one should be wary of any economic determinism in regard to inequalities of wealth and income. The history of the distribution of wealth has always been deeply political, and it cannot be reduced to purely economic mechanisms. ... The history of inequality is shaped by the way economic, social, and political actors view what is just and what is not, as well as by the relative powers of those actors and the collective choices that result. It is the joint product of all relative actors combined."[8]

The central role of politics and the changing representations of the economy is particularly evident when studying the evolution of the distribution of income and wealth throughout the twentieth century. The reduction of inequality observed in Western countries between the 1900s–1910s and the 1950s–1960s is largely explained by the wars and revolutions that marked this period, as well as by the new social and institutional compromise that emerged following such upheaval. Similarly,

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7. In different registers, see, for example: Michèle Lamont, *Money, Morals and Manners: The Culture of the French and American Upper-Middle Class* (Chicago: University of Chicago Press, 1992); Jens Beckert, *Inherited Wealth*, trans. Thomas Dunlap (Princeton: Princeton University Press, 2004; repr. 2008); Pierre Rosanvallon, *The Society of Equals*, trans. Arthur Goldhammer (Cambridge: Harvard University Press, 2013); and Jules Naudet, *Entrer dans l'élite. Parcours de réussite en France, aux États-Unis et en Inde* (Paris: PUF, 2012).

8. *Capital*, 20.

the rise in inequality observed since the 1970s–1980s owes much to the political and institutional reversal of recent decades, notably in fiscal and financial matters. I also tried to show that the belief systems surrounding the distribution of income and wealth as a function of the economy and society play a central role in our understanding of the structure of inequality in the eighteenth and nineteenth centuries and, in fact, within all societies. Each country has its own intimate history with inequality, and I tried, for example, to show that national identities and the representations each country has of its own economic and historical trajectory play an important role in the complex interaction between the dynamics of inequality and the evolution of perceptions and institutions.[9]

In particular, the "Social Democratic Age in the Global North (1945-1980)" (as aptly labelled by Brad DeLong, Heather Boushey and Marshall Steinbaum in their essay) can certainly be viewed an unstable historical episode, but it is also a product of deep transformations in beliefs systems about capitalism and markets. I fully agree with Marshall Steinbaum when he stresses in his essay that the World Wars and the Great Depression were decisive not so much in themselves, but because they "discredited the ideology of capitalism in a way mere mass enfranchisement had been unable to do so" in the decades preceding World War I. The crisis of the 1930s and the complete collapse of the European inter-state competition system during World Wars 1 and 2 led to the end of the 19th century political regime, which was based upon the laissez-faire ideology and the quasi-sacralisation of private property. This radical change in dominant beliefs systems is of course nothing else than the "Great Transformation" famously analyzed by Karl Polanyi in his 1944 book.

In his illuminating essay, David Grewal also stresses the central interaction between ideology, the legal system and institutional change. In particular, he emphaizises how the political philosophy of the 17th and 18th centuries first theorized private property as a legal construct and built up an ideology of capitalism to protect it. In my own research, I was particularly impressed by the way the French republican elite in the

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9. In particular, see the case of the conservative revolutions that took place in America and the United Kingdom, notably analyzed in *Capital*, chaps. 2 and 14.

late 19th and early 20th centuries used the reference to the French Revolution and the rise of modern property rights to oppose progressive taxation (an issue on which I will return at the end of this essay).

This intereaction between beliefs systems and inequality regimes results in a wide variety of political and institutional forms that are often only briefly touched upon within the framework of my book but which play a fundamental role in the dynamics of inequality and warrant further study in terms of both their intellectual and political genesis and how they were established in practice. I particularly insisted upon the role of educational institutions and the way in which they can sometimes reduce or, on the contrary, amplify inequalities,[10] as well as on the role of fiscal institutions, particularly the difficult and fragile emergence of the progressive tax on income, inheritance, and wealth.[11] A large number of other public and socio-political institutions also play an important role. These include: the development of the social state in the broad sense[12]; monetary regimes, central banks, and inflation; labor legislation, the minimum wage, and collective bargaining; nationalization, expropriation, and privatization; slavery and forced labor; corporate governance and the rights of salaried workers; the regulation of rent and other forms of control over prices and usurious interest rates; financial deregulation and the flow of capital; commercial and migratory policies; inheritance regulations and property regimes; demographic and familial policies; and so on. I will return to some of these aspects later on.

A Multidimensional History of Capital and Power Relations

Let us now turn more precisely to the notion of capital that I attempt to develop in my book. I have tried to write a multidimensional history of capital as well as of the relations of ownership and domination that accompany different forms of possessions and assets. I attempt to show how, at each stage, the different metamorphoses of capital lead to new social and institutional compromises that enable the relationships

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10. *Capital*, chaps. 8 and 13.
11. *Capital*, chaps. 14 and 15.
12. *Capital*, chap. 13.

between social groups and the relations of production to be regulated. It should be clarified from the outset that this is ultimately just an introduction to such a multidimensional history, since numerous aspects are only outlined in my book.

Unidimensional economic models describing the accumulation of capital, abstract concepts, and equations (such as the inequality $r > g$, which I think makes it possible to better grasp certain invariables within these metamorphoses) also play a certain part in my analysis. However, this is only a relatively modest and limited role—one that, in my view, corresponds to what theoretical modeling and equations can bring to research in the social sciences. This kind of extreme simplification of the real occasionally isolates some interesting logical relationships between two given abstract concepts. It can be useful, but only provided that one does not overestimate the scope of this type of abstract operation, nor lose sight of the fact that all the concepts in question are ultimately nothing more than socially and historically determined constructions. Theoretical models form a sort of language that is only useful when they are solicited in conjunction with other forms of expression that participate in the same deliberative and conflictual process. I will return below to the specific and limited role which economic models play in my framework – an issue on which I was probably not sufficientely clear in my book, and which I have generated some confusion. In my view, capital is best viewed as a complex, multidimensional set of property relations.

As I note as early as the first chapter, where I define the main notions explored in my book, “The boundary between what private individuals can and cannot own has evolved considerably over time and around the world, as the extreme case of slavery indicates. The same is true of property in the atmosphere, the sea, the mountains, historical monuments, and knowledge. Certain private interests would like to own these things, and sometimes they justify this desire on the grounds of efficiency rather than mere self-interest. But there is no guarantee that this desire coincides with the general interest. Capital is not an immutable concept: it reflects the state of development and prevailing social relations of each society.”[13]

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13. *Capital*, 47.

The fact that the forms assumed by the possession of capital and the nature of ownership rights are historically determined is clearly demonstrated in my analysis of the importance of slavery and slave capital in forms of wealth in the southern United States before 1865, without a doubt the most extreme example of relations of ownership and domination by owners over others.[14] As Daina Ramey Barry rightly stresses in her essay, my book does not devote sufficient attention to the crucial role of slavery in the formation of modern capitalism. I should point out however that the estimates of total slave value in pre-Civil War United States that are reported my book, as well as the comparison with other forms of private wealth, are to my knowledge the first explicit computations attempting to do this kind of comparison and to point out in this manner the central role of slave capital.[15]

The fact that property rights are historically and socially determined is equally evident when I examine the relatively low stock-market capitalization of German companies compared to their Anglo-American counterparts,[16] a phenomenon undoubtedly linked to the fact that German shareholders are less omnipotent than shareholders elsewhere and must to some degree share power with employees, regional governments, and other stakeholders (though this evidently does not prevent a certain level of productive efficiency). This clearly demonstrates that the market value and the social value of capital are two quite distinct things, and the importance of the legal system in shaping property relations.

More generally, I tried to show the multitude of forms assumed by capital and its market valuations throughout history, from agricultural land to real estate and professional, financial, and immaterial modern capital. Each type of asset has its own economic and political history and involves relations of power and specific social

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14. *Capital*, chap. 4.

15. Note also that these computations are based upon total numbers of slaves recorded in censuses, whether they are owned by private individuals, corporations or municipal governments, so I am not sure they are as strongly underestimated as suggested by Daina Ramey Barry (they are already quite large). In any case, these are clearly issues that deserve a lot more attention and research.

16. *Capital*, chap. 5.

compromises. Thus, large-scale movements in real-estate prices and rent levels, whether upward or downward, have played a decisive role in the evolution of real-estate capitalization over the course of the last few decades, just as they did during the first half of the twentieth century.[17] These movements are themselves the result of a complex group of institutional, social, legal and technological forces, including the contrasting evolution of rent control policies and other rules governing relations between landlords and tenants; the changes in economic geography and residential segregation; and the varied rhythms of technical change in construction and transportation compared to other sectors. There are, however, other examples. On several occasions in the book, I examine the importance of petroleum capital and its distribution worldwide, the accompanying relations of domination and military protection (notably in the Middle East), and its impact on the sometimes unusual financial investment strategies employed by corresponding sovereign wealth funds.[18]

The hypertrophy of gross asset positions between countries, which has been one of the main characteristics of the process of financial deregulation during the last few decades, is another recurring theme in the book.[19] I also analyze the extremely high levels of foreign assets held by Great Britain and France during the late nineteenth and early twentieth centuries, a time when both countries possessed an important share of the rest of the world. The very substantial rents, dividends, and interest that this brought in—the equivalent, in Belle Époque France, of the production of the country's industrial east—enabled them to finance a permanent commercial deficit while continuing to acquire a growing share of the rest of the world (which did not fail to stimulate tensions between colonial powers). I compare these levels with those reached in the early twenty-first century by the net asset positions of Germany, Japan, China, and the oil-rich countries, which to date remain markedly lower but are rising very rapidly (prompting, in countries such as France, fears of one day becoming that which is owned rather than the power that owns).

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17. *Capital*, chaps. 3–6.

18. *Capital*, chaps. 12.

19. *Capital*, chaps. 1, 5, 12, 15, and 16.

On a number of occasions, I insist on the fact that relations of international ownership always come charged with multiple tensions and are light-years away from the calm theoretical models of economists, regulated by natural harmony and mutually profitable exchange. In general, relations of ownership are always complex and difficult to organize calmly within the framework of a political community. It is never simple, for example, to pay rent to one's landlord and peacefully agree on the institutional framework of the relationship and the perpetuation of the situation (hence the multiple systems in place for controlling rent, lengthening leases, and taxing inheritance). But when an entire country is paying rents and dividends to another country, the situation can become even more tense and the means of regulating this relationship are generally less peaceful. This often results in relations based on military domination by those in the position of ownership. Or else, the country in the position of being owned goes through unending political cycles in which phases of triumphant ultraliberalism and authoritarianism alternate with brief periods of chaotic expropriation—a phenomenon that has consistently undermined the development of numerous countries, particularly in Latin America and Africa. The peaceful regulation of social inequality and relations of ownership represents one of the most important stakes in the construction of a rule of law and legitimate public power, and involves developing norms of justice and complex institutional structures. When inequality and ownership are largely external to a given political community, this construction can find itself lastingly impaired. Economic rationality in fact tolerates the perpetuation of inequality rather well, and in no way leads to democratic rationality.

Public capital also plays a central role in my analysis of the history of capital.[20] This can be positive or negative, depending in particular on political and ideological cycles of public investment and nationalization or, on the contrary, public deficit and privatization. In the former case, public capital diminishes the hold of private capital over national capital and society; in the latter, it reinforces it by adding government bonds to private assets as an additional element of ownership and domination. I also analyze the importance of inflation when it comes to the dynamic of public debt and, more generally, the role of monetary creation and the different operations involving

20. *Capital*, chaps. 3 and 4.

the redistribution of national capital performed by central banks.[21] I stress the diversity of national experiences and trajectories when it comes to public debt, in particular by contrasting the cases of France and Great Britain in the eighteenth and nineteenth centuries and then Germany in the twentieth century—a development that is not without interest in the current European context, as countries that never reimbursed the public debts they incurred during the twentieth century (notably France and Germany) explain to countries in southern Europe that they must pay more in interest to bondholders than they invest in their school system for decades to come (just as the British did in the nineteenth century). Phases in which evolutions converge can also be observed. For example, public capital represented a significant part of national capital in most European countries during the postwar period (between a quarter and a third) and has fallen to very low levels over the course of the last few decades (and even to negative levels, as in Italy). In many instances, these movements of public debt and privatization favored particularly rapid private enrichment, not only within developed countries, as one would expect, but also and above all in post-Communist countries, beginning with Russia and China.

Throughout the book, I have tried to show that the history of capital is multidimensional and that each of these categories of assets and possessions involves a wide variety of institutional mechanisms and compromises. Ownership assumes multiple forms that are historically and socially determined and which trace just as many social relationships. The fact that it is also possible to add up all these forms of wealth—by using, for example, the current market prices for the different assets (supposing that they are well defined, which is not always evident)—in order to calculate the total monetary value of the stock of capital in no way changes this manifold reality. This abstract operation can certainly be useful; it enables us, for example, to observe that despite multiple metamorphoses in the forms that capital takes, in the early twenty-first century this total market valuation (expressed in years of national income) appears to have returned to a level nearing that observed in the patrimonial societies that prospered from the eighteenth and nineteenth centuries up until the Belle Époque. This provides a language that enables the overall scale of

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21. *Capital*, chap. 16.

market valuations to be compared in societies that are otherwise very different from one another. However, such an overarching measurement does not make it possible to take into account the multiplicity of relations of ownership and production that develop in these different societies.

The approach that I develop in my book is in fact only an introduction to a multidimensional history of capital and forms of possession, since it neglects a large number of essential aspects and touches on others only briefly. For instance, as Gareth Jones rightly points out in his essay, the geographical and spatial dimensions of capital would repay further examination. While much attention is paid to possessions outside of France and Great Britain, nothing has been said about possessions within countries—for instance, between the northeastern United States and the rest of the country. More generally, it would be useful to vary the scale of analysis, from the national level to the imperial level up to the world-economy. In particular, this would make it possible to examine much more directly than I do in my book the impact of colonization on development and the overall effects of domestic and international inequality on the construction of a legitimate public power. As Ellora Derenoncourt emphasizes in her essay, global integration in the form first of the Atlantic slave trade, and then of direct and indirect European colonial rule over the Americas, Africa, and Asia, has been defined by extraction and a stark imbalance of power, from the 1500s up to the 1960s. My analysis of foreign possessions is largely Western-centered and neglects to study the impact on inequality regimes and state formation in the South (an issue on which I will return below).

The Limited Role of Economic Models: “Domesticated Capital” vs “Wild Capital”

I would now like to clarify what I mean by the *limited* role played by economic models (and in particular by the neoclassical model of capital accumulation and the notion of production function) in my book and in my research. In his essay, Suresh Naidu offers an interesting distinction between two forms of narratives and interpretative frameworks which (according to Suresh) are simultaneously present in my book: on the one hand, the “domesticated Capital” (based on the neoclassical model and the assumption of perfect competition); and on the other hand, the “wild Capital”

(emphasizing the role of power relations, political conflict and institutional change). Let me make very clear that I feel much closer to the “wild” interpretation than to the “domesticated”. Had I believed that the one-dimensional neo-classical model of capital accumulation (based upon the so-called production function $Y=F(K,L)$ and the assumption of perfect competition) provided an adequate description of economic structures and property relations, then my book would have been 30-page-long rather than 800-page-long. The central reason why my book is so long is that I try to describe the multidimensional transformations of capital and the complex power patterns and property relations that come with these metamorphosis (as the exemples given above illustrate). I should probably have been more explicit about this issue, and I am grateful to Suresh for giving me the opportunity to clarify this important point.

In particular, as David Grewal aptly notes in his essay, the “two fundamental laws of capitalism” that I present in chapters 3-6 of my book should be viewed as “a way of organizing the data”, and nothing more. The “first law” is nothing more than a definition: it says that the capital share α can be decomposed as the product of the average rate of return r and the capital/income ratio β. The objective is simply to help the reader to remember the basic orders of magnitude and logical relations between core concepts (e.g. $\alpha=30\%$ in case $r=5\%$ and $\beta=6$). But this does not alter in any way the fact that capital is fundamentally multidimensional, and that rates of return vary enormously across types of assets, societies and epochs, depending in particular on the institutional and legal environment, the balance of power between owners and workers, etc., as the historical narrative provided in my book amply illustrates.

To summarize: models should be used with parcimony, i.e. only when we really need them, and their role should not exagerated. Models can be useful to organize the data and clarify simple logical relations between basic concepts; but they cannot replace the historical narrative, which in my view must be the real core of the analysis (and which I consider as the core of my book). The complexity and multidimensionality of historical, social and political processes in real-world societies are so great that there is no way it can be adequately described by mathematical language alone: one needs to use primarily the natural language of the social

sciences (and sometime the language of the literature and movies, which as I try to show in my book can be viewed as an additional and complementary way to grasp social and historical realities, just like mathematical language).

The same remarks also apply to the "second law" (according to which the capital/income ratio β tends to approach the ratio s/g between the saving rate and the growth rate, under certain conditions - no change in relative asset prices, no natural ressources - and in the very long-run) and to the discussion about rising capital shares. According to best available historical series, aggregate capital/income ratios and aggregate capital shares tend to move together: they are both relatively low in mid-20th century, and they are both relatively high in 19th century and early 20th century, as well as in late 20th century and early 21st century. If we were to use the language of aggregate production functions and the assumption of perfect competition, then the only way to explain the fact that β and α tend to move together in the long run would be to assume an elasticity of substitution that is somewhet larger than one over long periods (so that the rate of return r falls less than proportionally as β rises). Standard estimates suggest smaller elasticities (as rightly argued by Devesh Raval in his essay), but they are typically not long-run estimates. It is also possible that technical change and the rise of new forms of machins, robots and capital-intensive technologies (along the lines described by Laura Tyson and Michael Spence) lead to a gradual increase of the elasticity of substitution over time.

Let me make clear however that this is not my favored interpretation of the evidence, or at least of the long-run historical evidence. Maybe robots and high capital-labor substitution will be important in the future. But at this stage, the important capital-intensive sectors are more traditional sectors like real estate and energy. I believe that the right model to think about why capital-income ratios and capital shares have moved together in the long-run is a multi-sector model of capital accumulation, with substantial movements in *relative* prices, and most importantly with important variations in bargaining power and institutional rules over time (see *Capital…*, Ch. 3-6). In particular, large upward or downward movements of real estate prices play an

important role in the evolution of aggregate capital values during recent decades,[22] as they did during the first half of the 20th centuries. This can in turn be accounted for by a complex mixture of institutional and technological forces, including rent control policies and other rules regulating relations between owners and tenants, the transformation of economic geography, and the changing speed of technical progress in the transportation and construction industries relative to other sectors. More generally, the main reason why capital values and capital shares are both relatively high in the late 20th and early 21st centuries is that the institutional and legal system has gradually become more favorable to capital owners (both real estate capital owners and corporate capital owners) and less favorable to tenants and workers in recent decades, in a way that is broadly similar (but with different specific institutional arrangements) to the regime prevailing in the 19th century and early 20th century. In contrast, the legal and institutional regime prevailing in the mid-20th century and during the "Social Democratic Age (1945-1980)" was more favorable to tenants and workers, which can contribute to explain why both capital values and capital shares were relatively low by historical standards. This does not mean that changing production functions and elasticities of substitution are not important: I am convinced that this form of mathematical language can be useful to clarify certain concepts and logical relations between concepts. But these notions need to be embedded into a broader social-institutional framework and historical narrative if we want to be able to account for observed evolutions. In some cases, institutional change directly interact with technological change, e.g. the decline of unions and the evolution toward a "fissured workplace" analyzed by David Weil in his essay.

Finally, the same remark applies to the relation between r-g and inequality. In my view, the gap between r and g is determined by a complex set of historical, legal and social forces. In particular, the rate of return is largely influenced by bargaining power and changing institutions, while the growth rate depends upon fertility and innovation,

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22. The fact that rising housing values explain a large fraction of rising capital/income ratios in recent decades (with large variations across countries) is not particularly good news for inequality dynamics. In particular, high housing values make it difficult for new generations with limited family wealth to access property. Also, note that booming top billionaire wealth (or booming top financial endowments) has little to do with housing values.

which are themselves determined by a broad set of social and institutional factors. In standard economic models, the fact that r is always bigger than g is mechanically determined by simple technological or psychological factors. For instance, in the benchmarck dynastic model of economic growth, the equilibrium rate of return is well known to be given by the modified "golden rule" $r = \theta + \gamma g$ (where θ is the rate of time preference and γ is the curvature of the utility function). E.g. if θ=3%, γ=2, and g=1%, then r=5%. In this framework, the inequality $r>g$ always holds true, and it follows mechanically from supposedly universal psychological laws (namely, the existence of human impatience, which implies that r has to be positive even if g=0, and also the fact that $r<g$ would lead utility-maximizing agents to borrow infinite amounts from their future incomes, thereby leading r back above g). Such models certainly capture some of the basic psychological reasons why r is bigger than g in historical series. However the full story is much more complicated and involves a broad set of institutional and social factors, with large historical variations in both the rate of return and the growth rate.

In the same way, dynamic models of wealth accumulation with multiplicative shock can be very useful to understand and quantify why a higher r and a lower g lead to higher steady-state levels of wealth concentration. For instance, as Mariacristina De Nardi, Giulio Fella, and Fang Yang show in their essay, the impact of higher rate of return and lower population growth rate or productivity growth rate are not fully symmetrical. But these models must not overshadow the fact the relation between rates of return, growth rates and inequality dynamics are determined by a broad set of political and legal factors that are largely outside the model (and on which formal models have little to say).

Financial Capital and Cultural Capital: Reconciling Marx and Bourdieu

I would now like to turn to another essential aspect of the multidimensionality of capital. Throughout the book, I distinguish between two social hierarchies, that of wealth and that of labor income. Both hierarchies are, of course, closely related and in some societies they largely coincide. However, they are never exactly the same, since the 50 percent at the bottom (sometimes designated within the framework of my book as the "lower class" for clarity and to allow for comparisons across time and

space), the 40 percent in the middle (the “middle class”), and the 10 percent at the top (the “upper class,” within which I frequently distinguish the 1 percent at the very top, or the “dominant class”) do not exactly correspond to the same social groups depending on which of the two hierarchies is being examined. Sometimes they are even completely different, as in traditional patrimonial societies where those in possession of large fortunes are unembarrassed about not working and dominate most of society.

Above all, in each society these two hierarchies mobilize quite distinct mechanisms of domination and inequality production that are potentially complementary as well as cumulative. The hierarchy of wealth is determined by multiple processes that contribute to the accumulation of real-estate, professional, and financial capital, already mentioned above. These include placement and investment strategies, inheritance regulations and property regimes, the functioning of financial and real-estate markets, and so on. The hierarchy of labor income notably depends on rules and institutions contributing to the formation of salaries and different work statuses and contracts; the inequality of skills and relations; the functioning of the education system; and, more generally, the hierarchy of cultural capital. Both hierarchies—that of financial capital and that of cultural capital, to put it simply—also correspond to different systems of discourse and justification. Traditional patrimonial inequality generally does not seek to base its domination in merit or in cultural superiority, at least not primarily. On the contrary, modern inequality aims to justify itself through an ideology resting on merit, productivity, and virtue. This system of justification, based on stigmatizing the “undeserving poor” and what I call “meritocratic extremism,”[23] has ancient origins. It can be traced back to the Middle Ages and perhaps even to the end of slavery, forced labor, and the pure and simple ownership of the poor classes by the rich classes (when the poor person becomes a subject and not just an object, he or she must be possessed by other means).[24] However, it reaches its maximum extension in the modern era. A particularly distinct expression of this can be found in an astounding declaration by Émile Boutmy, who created the École libre des

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23. *Capital*, chaps. 11, 12, and 13.

24. Giacomo Todeschini, “Servitude and Labor at the Dawn of the Early Modern Era: The Devaluation of Salaried Workers and the ‘Undeserving Poor,’” *Annales HSS (English Edition)* 70, no. 1 (2015).

sciences politiques (commonly known as Sciences Po, on the most elitist French schools) in 1872 and set out its mission: “Obliged to submit to the rule of the majority, the classes that call themselves the upper classes can preserve their political hegemony only by invoking the rights of the most capable. As traditional upper-class prerogatives crumble, the wave of democracy will encounter a second rampart, built on eminently useful talents, superiority that commands prestige and abilities of which society cannot sanely deprive itself.” [25]

Are we witnessing in the twenty-first century the emergence of a new inegalitarian model that combines a return to the patrimonial and capitalistic inequalities of the past with extreme forms of domination based on cultural capital, symbolic capital, and blaming the victims of the system? That is in any case one of the hypotheses I formulate in my book. In particular, I note the gaping hypocrisy of contemporary meritocratic discourses. For example, the average income of parents of students at Harvard University currently corresponds to the average income of the wealthiest 2 percent of Americans. In France, the most elitist educational programs recruit their students from among social pools that are barely any larger, and three or four times more public resources are invested in them than in programs open to ordinary students, without anyone batting an eyelid. [26] Besides this privileged access to cultural and symbolic capital, over the last few decades these ruling groups have increased their capacity to award themselves extravagant pay packages and bonuses—with weakened unions and fiscal policies incapable of providing effective resistance.[27]

Recent work by Raj Chetty and Emmanuel Saez in the context of the “Equalily of Opportnity” project have shown the extreme inequality of access to higher education in the US: the probability of going to college rises almost linearly from barely 20% for children with bottom decile parental income to over 90% for those with upper decile parental income. The gap with the official meritiocratic discourse and values is particularly abyssal. I fully agree with Eric Nielsen that strongly egalitarian policies at

25. Cited in *Capital*, 487.

26. *Capital*, 485–86.

27. See *Capital*, chaps. 8 and 14, especially pp. 508–12.

the level of early education are part of the solution, probably in conjunction with more transparency and affirmative action policies in higher education admission systems.[28] Note also that the extreme inequality of the U.S. education system is probably a big part of the explanation as to why income inequality increased so much more in the U.S. than in Europe and Japan in the recent decades. In turn, it it likely that rising inequality has a number of negative long-run consequences, not only from the viewpoint of financial stability (as rightly stressed by and Salvatore Morelli and Mark Zandi in their essays), but also from the viewpoint of long-run growth potential.

This combination of the effects of both financial capital and cultural capital appears to constitute something new on this scale—particularly in comparison with the postwar period, when patrimonial inequality played a lesser role following the military, political, and social upheaval of the years between 1914 and 1945. It was precisely during this time - more precisely in the 1960s - that Pierre Bourdieu developed his analysis of forms of domination based on cultural and symbolic capital. These concepts have clearly lost none of their relevance in the early twenty-first century—in fact quite the contrary. It is simply that now they are combined with the return of real estate and financial capital to a level comparable to that observed in the late nineteenth and early twentieth century. To understand the relationship between production and power in the twenty-first century, it seems to me that it is necessary to combine Marx's observations with those of Bourdieu in order to develop a real political and historical economics of capital and inequality between social classes.

Moving beyond a Western-centered Approach to Inequality Regimes

Let me now turn to what I view as the most important limitation of my book, namely the fact that it is too much Western-centered. This is partly due to a data problem: historical data sources on income, inheritance and wealth are much more numerous

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28. Generally speaking, I fully agree with Eric Nielsen that the diffusion of knowledge, skills and human capital is the most powerful force to reduce inequality in the long run (as I frequently mention in my book). However I am not sure that it is particularly useful to capitalize human capital into monetary values and add it to other asset values; both dimensions of capital (human and non-human) are very important, but they raise different issues that ought to be analyzed separately.

and accessible for Western Europe, North America and Japan than for the rest of the world. One positive impact of the global success of the book (which as Art Goldhammer notes in his essay is relatively balanced over the planet, with about one third of total sales in the English language, one third in European languages other than in English, and one third in Asian languages) is that it induced more governements and tax administrations in emerging countries to make their fiscal files and financial archives more accessible. Thanks to this, many important countries that were not covered by the World Wealth and Income Database (www.wid.world) at the time of the book, such Brasil, Korea, Taiwan, Mexico, Chili, Ivory Coast, and many others, are not part of the WID (or about to be part of WID). More data was also released by South Africa, India and China, although in this latter case progress is very slow.

More generally, as emphasized by Emmanuel Saez in this essay, we are permanently trying to update and extend the WID, first in the direction of emerging countries, and also in order to better cover both the bottom part and the top part of the distribution of both income and wealth (with the development of Distributional National Accounts), and to include other dimensions of inequality which were not properly addressed so far (such as gender inequality, which as Heather Boushey rightly points out in her essay is largely absent from my book). By coering more and more countries, we will also be able to aggregate inequality measures at broad regional levels or even at the world level, following and extending the pioneering work of Christophe Lakner and Brank Milanovic. In the future, we will all have access to a much more developed global inequality database, and this will make it much easier to go beyond Western-centered approaches, and also to go beyond *Capital in the 21st century*.

It should be recognized, however, that the lack of data is not the only reason why my book is excessively Western-centered (although this is certainly a big part of the explanation). In part, my book is Western-centered, or even European-centered, for deeper reasons. To a large extent, this is a book which tells the story of inequality in the West during the 20th century: it is centered around the central role played by World Wars 1 and 2 in the reduction of inequality during the past hundred years. It is

centered around the fact that it took violent political shocks, wars and revolutions in order to force Western elites, and particularly the French, German and British elites, to accept fiscal and social reforms which they largely refused until World War 1, and which finally led to a prolonged compression of inequality in the post-war period. This is an important fact, and it carries lessons for the rest of the world as well - either in India, Brasil, South Africa or China (and of course for the U.S. today). But this is not the end of the story. It is important to move beyond Western-centered approaches, first and foremost because inequality regimes can take very different forms in various parts of the world. The basic structure of inequality is not the same in post-apartheid South Africa, ex-slave societies like Brasil, oil-rich kingdoms and Islamic republics like in the Middle East, post-caste societies like India. Lessons from European, North-American and Japanese inequality trajectories during the 20th century are certainly useful to understand inequality dynamics in these other countries; but to be honest they are not necessarily hugely useful.

In any case, it is important to reverse the perspective and ask the opposite question: what can the West learn from these other historical experiences with inequality regimes? According to dominant Western ideology, modern inequality in the West takes a radically different form: it is supposed to be based upon individual merit and equality of rights and opportunities, as opposed to ancient inequality regimes (the inequality regimes that existed prior to the Atlantic Revolutions in the West, and which supposedly still exist in non-Western countries), which are supposed to be based upon rigid inequalities of status or ethny or caste. In practice, this set of beliefs clearly includes strong self-serving elements: the rise of the West came with violent forms of colonial domination and coercion (which had little to do with equality of rights and opportunies), and modern hyper-meritocratic discourses often look more like a device for the winners to justify their position than an objective description of the reality. In addition, post-colonial societies are often plagued with massive labor market discrimination, e.g. regarding populations with Muslim names in Europe. It is common in the West to look down at the kind of explicit affirmative-action policies that have been developed in a country like India in order to improve access to education, jobs and political office on the basis of gender, parental caste or parental income. These policies are certainly not perfect. But Western countries also suffer from

massive gender, racial and social discrimination, and they are not in a position to give lessons to the world as to how to solve these difficult problems. On the contrary, Western countries have to learn from looking at the experience of India or other parts of the world. More generally, all countries in the world have a lot to learn from adopting a global historical approach to the study of inequality regimes. For all these reasons, it is urgent to move beyond a Western-centered approach to inequality, and to move beyond *Capital in the 21st century*.

The Regulation of Capital and Institutional Change

To conclude, let me reiterate that one of the main weaknesses of my book is undoubtedly that - in addition to the limited geographical and historical scope - I did not analyze in great enough depth the social and political conditions of institutional change and their impact on inequality dynamics. As Elizabeth Jones rightly observes in her essay, changes in social norms and political outcomes often appear exogenous and exterior to my analysis: “politics is everywhere and nowhere in the book”. While I have tried to show that changes in representations and belief systems involve both the short and the long term, my analysis of political change would without a doubt benefit from further exploration.

In particular, I insisted upon the role of violent political shocks (wars, revolutions, and economic crises) as well as the role of longer learning curves and the cross effects of national identities when it comes to perceptions of inequalities and the economy. In the early 1920s, one of the most right-wing Chambers of Deputies in the history of the French Republic, the Bloc national (National Bloc), voted the most heavily progressive tax on the rich (with rates reaching 60 percent for the highest incomes), even though these very same political groups had stubbornly refused to adopt an income tax with a top rate of 2 percent before the summer of 1914. The ideology whereby France—a country of small landowners rendered egalitarian through the Revolution, according to the dominant ideology held by French elites at that time—had no need for a progressive and spoliating tax (contrary to the aristocratic and inegalitiarian United Kingdom) played an important role in this refusal, or at least in the intellectual system that made it possible to justify it. Yet inheritance data unambiguously demonstrates that the concentration of capital had reached extreme

levels in the France of 1914, not so different from those observed at the same time in the United Kingdom or even in the France of 1789. While the nature of capital had completely changed (land-based fortunes had become real-estate, manufacturing, financial, and international fortunes), the degree of concentration was scarcely different from what it had been on the eve of the Revolution, firm proof that formal equality before property laws and the market is not enough to lead to equality itself. The French republican elite did not accept, for better or for worse, to completely change its point of view concerning fiscal progressivity in the early 1920s simply because of the human and financial impact of the war: the Bolshevik Revolution and social movements had also completely transformed the political and intellectual landscape.

In a different way, I tried to show that the neo-conservative revolutions of the 1980s were fed not only by the financial crises of the 1970s and the end of the exceptional growth that had followed the war, but also and perhaps above all by certain countries' fear of losing their leading position—or at least the fear that those who had been defeated during the war would catch up. This fear was especially pronounced in the United States and the United Kingdom, and Ronald Reagan and Margaret Thatcher knew how to use it to announce a return to pure capitalism, freed from elements of the mollifying social and fiscal state imposed by interventionists at the end of the Great Depression and World War II.

However it is clear that the role of long-term, underground movements in these changes should have been more strongly emphasized. For example, the role of the ideological debates about progressive tax that took place in the late nineteenth and early twentieth century should not be underestimated, for in many respects they laid the groundwork for later developments. It nonetheless seems to me that without wars, revolutions, and social movements, the political and economic elites in both France and other countries would have continued to deploy their persuasive skills and their influence over the media in order to oppose any substantial move toward progressivity. Nor would it be outrageous to consider that the inequality and extreme social tensions that characterized European societies in the twentieth century could have contributed to the rise in nationalism and even the war itself, which certainly

should not be considered exogenous to the socio-economic dynamic of the accumulation and distribution of capital during the previous decades.

Given the essential role played by financial crises, revolutions, and social movements in the history of inequality over the past centuries, it would be surprising if the same elements did not exert the same influence in the future. The advent of the modern social and fiscal state, which made it possible to develop a system of fundamental social rights that profoundly altered the logic of the capitalist system during the twentieth century, was not the product of a peaceful electoral process. In my book, I did not seek to study the forms that social movements and political reversals will assume in the future, but I have proceeded as if they will play an essential role. I also hope that the democratization of economic knowledge can contribute to the overall process of the democratization of the economy and society. I should also stress the project for economic and fiscal democracy that I support cannot be fully achieved without a change in the system of political representation itself. Democratic institutions must be continually reinvented. For example, within the framework of current European institutions, it is strictly impossible to put in place policies for fiscal justice at a European level, for the simple reason that fiscal decisions are taken according to the rule of unanimity. This is why it is essential to debate the concrete organization of democracy on both the local level and the European level.[29]

Another important limitation of the book relates to the fact that I have not analyzed in sufficient depth the possible ways that forms of ownership themselves might evolve. I insisted above all upon the social state and its system of rights as well as on the progressive tax on income and capital. It should be noted that, correctly applied, the progressive tax on capital would enable capitalism and private property to be surpassed in a relatively profound way, since it would transform the latter into a temporary rather than a permanent reality—particularly when it comes to the most sizeable possessions, which could be taxed at very significant rates (for example, 5 percent or 10 percent each year, perhaps even more according to the reproduction rates observed and the desired social objective). This tax is in many ways the

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29. *Capital*, 558–62.

equivalent of a permanent agrarian reform. Furthermore, the financial transparency that would accompany a true progressive tax on capital would contribute in a key way to a democratic reappropriation of capitalism. Finally, I have not sufficiently studied the way in which new forms of ownership and participatory governance lying between private property (which would itself be democratized, thanks to the increased participation of salaried workers in the wielding of economic power) and public property (which must continue to play a role in numerous sectors—not easy when public debt exceeds meager public assets) could be developed in the future (for example, in education, healthcare, and even the media).[30]

The final chapter of my book concludes with the following statement: “Without real accounting and financial transparency and sharing of information, there can be no economic democracy. Conversely, without a real right to intervene in corporate decision-making (including seats for workers on the company’s board of directors), transparency is of little use. Information must support democratic institutions; it is not an end in itself. If democracy is someday to regain control of capitalism, it must start by recognizing that the concrete institutions in which democracy and capitalism are embodied need to be reinvented again and again.”[31] The fact that I did not explore these new forms more thoroughly in the chapters that precede this statement is undoubtedly the main reason why my book is, at best, simply an introduction to the study of capital in the twenty-first century. Imperfect as it is, I hope this work can contribute to make a little progress on the long road toward a gradual reconciliation between economics and the social sciences.

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30. On this topic, see Julia Cagé, *Saving the media. Capitalism, crowdfunding and democracy.* (Harvard University Press, 2016).
31. *Capital*, 570.