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# Capital Accumulation and Policy Recommendations: A Review Essay of Thomas Piketty's *Capital in the Twenty-First Century*

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See table of contents

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## ÉTUDES CRITIQUES

## CAPITAL ACCUMULATION AND POLICY RECOMMENDATIONS: A REVIEW ESSAY OF THOMAS PIKETTY'S **CAPITAL IN THE TWENTY-FIRST CENTURY**

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Quand on disserte sur la répartition des richesses, la politique n'est jamais très loin"

"Whenever one speaks about the distribution of wealth, politics is never very far behind" Thomas Piketty

Thomas Piketty's most recent book, *Capital in the Twenty-First Century* (Belknap Press of Harvard University Press, 2014) is both ambitious and impressive. This should come as no surprise to anyone at this point. The book is ambitious because Piketty sets out to do nothing less than to sketch out the evolution of income and capital since the 18<sup>th</sup> century and up to the end of the 21<sup>st</sup> century. His enquiry has much in common with Karl Marx's enquiry in *Das Kapital*. Piketty's enquiry is similarly entitled. This was not a coincidence. The book presents itself as the contemporary equivalent to Marx's classic. The book is 685 pages long. This almost seems short given the daunting task that needs to be accomplished.

Piketty's book is impressive for many reasons. First, as a contemporary treatise of economics, it distances itself from the discipline of economics' "childish passion for mathematics and for purely theoretical and often highly ideological speculation," and emphasizes "historical research and collaboration with the other social sciences," to use Piketty's words (32).

Second, it has become a best seller! The original French version of the book, *Le Capital au XXIe siècle* (Paris, Seuil) was published in 2013, and millions of copies have since been sold, including German, Spanish, and Chinese translations. The book's success may have a lot to do with touching upon the right subject—economic inequalities—at the right moment.<sup>1</sup> Still, when was the last time an academic book in economics, let alone a rather dense and longish one, made it to the mass market?

Finally, and most importantly, the book is impressive in terms of what it delivers. There are at least three different kinds of contributions in Piketty's work:

1) A gigantic pile of data about wealth and income over the past 300 years.

Admittedly, this was not Piketty's contribution alone. Collaborators like Anthony Atkinson, Emmanuel Saez, and many others were involved; and the *World Top Income Database* was a primary source of data.

2) a) An analysis of the major forces and trends shaping the evolution of income and capital over the past 300 years.

When the rate of return on capital r is greater than growth g the result is the concentration of wealth. This force, which Piketty's expresses with the relation r > g, plays a central role in the book. Furthermore, he argues that it is false to maintain that inequalities tend to decrease in advanced phases of capitalist development, regardless of redistributive economic policies—a position attributed most forcefully to the economist Simon Kuznets. If the capital/income ratio has decreased in comparison to levels observed in the 18<sup>th</sup> century, this is mainly because of growth, two destructive world wars, and even more growth following these wars.

b) Predictions of the future evolution of income and wealth in the 21<sup>st</sup> century.

In the future, the share of capital relative to income, inequality in terms of capital, inequality in terms of income are likely to keep rising, given that the return on capital will probably be larger than growth. If distributive economic policies are not put in place, they are likely to be considerably higher than the low levels observed after the shocks of the 1914-1945 (in a moderately conservative scenario).

3) Policy recommendations on how to avoid rising economic inequalities.

Piketty recommends the institution of a progressive global tax on capital. This is one of the main political implications of the book. He also recommends more investment in education, much higher rates of income taxation, and the development of "new forms of property and democratic control of capital" (569).

The second contribution (2a and 2b) is the *analysis* portion of the book. Most of the text is devoted to this analysis. It runs from Part One to Part Three, or almost 428 pages. Contribution (3) is the *solution* portion of the book. Piketty proposes his solutions in the fourth and last part.

Unfortunately, all parts may not be of equal worth in Piketty's book, as critical response to the three contributions mentioned above has varied significantly. While the quality and the extent of the data collection have been almost universally praised (contribution 1),<sup>2</sup> many commentators, from the right and from the left, have questioned Piketty's analysis of the evolution of income and wealth

(contribution 2a). Even more have been critical of his predictions of the future evolution of wealth and income (contribution 2b).<sup>3</sup> And commentators seem to almost universally disagree with Piketty's policy recommendations (contribution 3).<sup>4</sup>

In this review, I will say a few words about the analysis portion of Piketty's book, but I will focus mostly on its solution portion. By that, I do not aim to be unfair to the book by focusing on what has often been judged as its weakest part; enough has been said, and enough copies of Piketty's book have been sold already, for its value to speak for itself. Rather, discussing Piketty's policy recommendations seems important because a lot has been said about the analysis portion, but not the solution portion, of his work. Also, Piketty is less assertive in the solution portion of the book. He seems willing to admit that other policy recommendations may be equally desirable. Finally, and as Piketty himself emphasized in the opening quote above, theorizing about economic inequality is one thing, but, in the end, it is important to be clear about the political implications of this theorization. Policy recommendations do matter.

The first section in this review focuses on the analysis portion of the book. I go over Piketty's main argument and make two critical points: there is a lack of consideration for, first, human capital and, second, absolute levels of income and capital per capita. The second section of this essay focuses on the solution portion of the book. I also go over Piketty's argument and make five more substantial points: I wonder what Piketty means by social justice; I emphasize that raising taxes is desirable; I ask why it is capital that should be taxed, and how feasible a global tax on capital would be; and finally, I claim that the book could provide more guidance in terms of the policies that could be put in place right now. If the global taxation of capital is not politically feasible in the short to medium term, what should be done in the meantime?

### ANALYSIS

Piketty's book is dense from the outset. The introduction offers no relief to the reader, as he situates his work on inequalities in relation to the work of classical political economists: Reverend Thomas Malthus, David Ricardo, Karl Marx, and Kuznets. It was the latter who broke tradition with Malthus, Ricardo, and Marx's apocalyptic predictions about rising inequalities in advanced capitalist economies. One of the first economists to use US national income data at the time, Kuznets was able to measure income distribution on a national scale. He observed a clear and incontrovertible reduction in income inequality between 1913 and 1948, and concluded that inequality can be expected to follow a bell curve. It should increase, he claimed, and then decrease over the course of industrialization and economic development. This should apply to every capitalist economy everywhere, regardless of redistributive economic policies.

But Kuznets's observation about reducing inequalities can be attributed to two factors. First, three decades of growth following World War II—a period that was referred to in France as the "*Trente Glorieuse*"—and, second, a largely acci-

dental compression of high US income from 1913 to 1948, following the shocks triggered by the Great Depression and World War II. Income equality in the US started rising in the 70s, and has not stopped rising almost ever since. Kuznets was aware of the second factor, but that did not stop him from maintaining an optimistic vision; and this certainly did not stop his theory from becoming quite influential in the US and abroad.

The main conclusion of Piketty's book is that we should be wary of any economic determinism about wealth and income inequality. Various dynamics can push alternately toward convergence and divergence between the well-off and the least well-off. A fundamental force of divergence (though there are other forces) is the relation between the rate of return on capital and growth. As mentioned above, if the rate of return is larger than growth (r > g), wealth inequality will increase, because capital owners will tend to become wealthier. Piketty writes: this force "will play a crucial role in this book. In a sense, it sums up the overall logic of my conclusion" (25).

Part One is a quick overview of capital, wealth, income, and growth; of the ways in which they can be defined in relation to each other; and the ways in which they have evolved since the 18<sup>th</sup> century. It is not intended to contain new ideas. It is mainly addressed to the reader not familiar with this topic. That chapters 1 and 2 contain no new ideas is debatable, because they rest on economic theories or methodologies that can be called into question, but so be it.

It should be pointed out that "capital" and "wealth" are used interchangeably by Piketty to describe things like building, machinery, infrastructure, land, and natural resources. Income is divided into two categories: income from capital takes the form of rent, dividends, interest, profits, capital gains, royalties, etc. Income from labour takes the form of wages, salaries, bonuses, etc. (18).

Capital is a stock (a quantity at a given point in time) and income is a flow (a quantity per unit of time). In order to speak of the former in relation to the latter, Piketty finds it more useful to use to the capital/income ratio  $\beta$  (50). The total wealth at a given point in time is divided by the quantity of the good produced and distributed in a given period (a year generally). The more traditional approach is to speak in terms of the capital-labour split in income. Also, it is assumed that  $\alpha = r \times \beta$  (52). The share of capital in national income  $\alpha$  is equal to the product of the rate of return on capital *r* by the capital/income ratio  $\beta$ .

*Where is human capital?* As pointed out by many commentators, Piketty's choice to exclude human capital is among the most problematic aspects of his methodology.<sup>5</sup> Capital is defined as the "sum total of nonhuman assets that can be owned and exchanged on some market" (46). But what about all the human assets, like health, skills, knowledge, leadership, and creativity, which generally have a market value?<sup>6</sup> Some of these assets can be accumulated: skills and knowledge, for instance. And some assets can even be inherited, or at least passed along from generation to generation: intelligence, leadership, creativity, and genetic predispositions to these attributes.

Understandably, Piketty has chosen to leave human capital out of the equation because it is so difficult to measure. And this does not necessarily diminish the value of the analysis portion of the book. The findings about non-human capital are already quite interesting in themselves. But two problems persist in the face of this exclusion: First, he does not sufficiently emphasize the fact that his findings may shift significantly toward convergence if human capital was put back into the equation. When human assets are taken into account, the differences between the well-off and the least well-off tend to diminish in terms of capital ownership. Second, and more importantly, leaving out human capital is problematic when discussing policy recommendations (more on this below).

We may say that the book conducts an analysis along three dimensions: capital accumulation, which is captured by the capital/income ratio; income concentration, or inequality; and capital concentration, or inequality. The main conclusions along each of these dimensions are as follows: The capital/income ratio has almost returned to its pre-1914 level, and it is expected to rise considerably higher in the  $21^{st}$  century (195-196, see also Figure 5.8 in the book).Income inequality has increased significantly in what Piketty calls the Anglo-Saxon countries (the United States, Great Britain, Canada, and Australia), but to a much smaller extent elsewhere. In the US during the 1930s, the share of national income going to the top decile was more or less 45 percent. It decreased to below 35 percent from the 1950s to the 1970s, and it is now well above 45 percent. The share of the top decile in national income started slightly higher in Europe at more than 45 percent, it decreased below 35 percent in the 1970s and 1980s, and it is now around 35 percent (321-325, see also Figure 9.8 in the book). If one sticks to inequalities in terms of capital ownership, the analysis is less conclusive. To be sure, capital concentration was high to start with, but it has not significantly increased after reaching various lows in the 1940s, 1950s, 1970s, or 1980s. It remains within the same range: around 70 percent of total wealth in the US and 60 percent in Europe for the top decile (347-350, see also Figure 10.6 in the book).

Part Two focuses on the capital/income ratio  $\beta$ . Chapter 3 looks at the changes in capital in France and Britain from the 18<sup>th</sup> Century: the nature of capital was transformed from agricultural land, to infrastructure, business, and financial capital; but its total amount relative to income remains relatively stable at seven years of national income, or 700 percent. To be sure, the capital/income ratio decreased to 300 percent after the First World War, but it has now returned almost to its pre-war level. Also, these variations are largely accounted for by variation in private, as opposed to public, capital. Chapter 4 looks at the overall European and US cases, where similar trends emerge, despite capital/income ratio tending to be higher in Europe, and even if Europe was affected more strongly by the shocks of the 1914-1945.

In chapter 5, Piketty introduces another central relation:  $\beta = s / g$  (166). This asymptotic law tells us that the capital/income ratio will tend toward the saving rate *s* divided by the growth rate *g*. If a country saves 12 percent of its income

every year, and the rate of growth—because of population and/or economic growth—is 2 percent, then  $\beta$  will tend toward 600 percent on the long run. This allows for the making of predictions like the ones mentioned above about the future evolution of the capital/income ratio. The ratio will return to its pre-worldwars level by 2030, and may rise above 600 percent by the end of the century.

Chapter 6 extends the reflection on the capital/income ratio and the capitallabour split in income to various hypotheses about growth and the saving rate. Here, it is hypothesized that the predicable rise in the capital/income ratio will not necessarily lead to a significant drop in the return on capital (when the stock of capital increases, its rate of return decreases because capital becomes more easily available). The decrease in the rate of return will be smaller than the increase in the capital/income ratio, so that, in the end, the share of capital in come should increase (233).

Do not absolute levels of capital and income per capita matter? Another questionable aspect of Piketty's analysis is deeply embedded in its methodology. Notwithstanding its convenience as a measure of the size of capital, the capital/income ratio hides a lot of the reality of the evolution of capital and income. One loses the sense of how different national economies fare in comparison to each other in terms of absolute levels of capital and income per capita. For instance, capital per capita could be lower in country *B* than it is in country *A*; and income per capita could be lower by the same proportion; then both countries would have the same capital/income ratio. But could we say that these countries are comparable for the purpose of the analysis?

To use a more concrete (and rather extreme) example, the gross domestic product per capita of Sweden is about 60 times higher in comparison to Burundi. Let us assume that both capital and income follow the same proportion. The capital stock is 60 times larger in Sweden that it is in Burundi and the rate of income is 60 times larger as well. If that is the case, these two countries will have the same capital/income ratio. Can these two countries be treated as two similar datapoints? Do they convey the same empirical evidence?

The capital/income ratio overlooks important aspects, both from descriptive and normative points of view. First, descriptively, it does not tell us how country A evolved in comparison to country B. Did capital and income per capita stay the same, thus resulting in the same capital/income ratio for both A and B? Did it decrease or increase? And if the capital/income ratio is different in one country in comparison to the other, should this be attributed to changes in the capital and/or income per capita, or just to changes in capital and income relative to each other (as Piketty's analysis would suggest)? Can we say that the main forces and trends are the same in A and B if capital and income per capita are different, if capital and income per capita are the same, if they have changed through time, and so on?

Second, normatively, the capital/income ratio hides all the information about how members of different countries fare in relation to each other. A high capi-

tal/income ratio may be an issue because it suggests high capital accumulation and high economic inequality,<sup>7</sup> but if capital and income per capita are considerably higher in A in comparison to B, can we say that A and B are equally unjust? Again, the example of Sweden and Burundi suggests there is a lot more to take into account beyond the size of capital relative to income.

No single numerical measurment can capture everything there is to say about capital, income, and economic inequality. Piketty does not pretend to be offering one, and, to be fair, he also uses other metrics in the book, especially when discussing inequality in the next part. But the capital/income ratio does play a central role. And, most importantly, many of the other metrics Piketty uses are also relative metrics in regard to national per capita values. They do not allow assessing the absolute levels of inequality in one country in comparison to another. For instance, Piketty discusses income inequality by comparing the share of income of the top decile in France and the US. This hides the information about the absolute level of income in both countries. To use the example above, Sweden and Burundi could technically be equal in terms of the share of income going to the top decile. Does this mean that the trends are the same in both countries? Does this mean that both countries are equally just or unjust in terms of income inequality?

Piketty turns to the question of inequality in Part Three. After an introduction to the basic notions behind inequalities and their order of magnitude in chapter 7, the following chapters look at the historical evolution of inequality around the world. The shocks of the 1914-1945 period played an essential role in the compression of inequality, but the trends have not been the same everywhere. In regard to income inequalities, chapter 8 and 9 show that the situations in the US and other Anglo-Saxon countries like Britain, Canada and Australia have been completely different than the situation in France and in countries like Germany, Sweden, and Japan. While the share of income of the top decile has remained relatively stable in France, it has literally exploded in the US with the emergence of the supermanager (and its supersalary).

Chapter 10 looks at the evolution of capital inequalities, concluding that the concentration of wealth remains high, even if less extreme than a century ago. The share of capital of the top decile in the US was about 70 percent in 2010, while it was about 80 percent in 1910. Chapter 11 studies the changing importance of inherited wealth over the long run, and chapter 12 looks at the prospect of the global distribution of wealth over the next decades. Unfortunately, the conclusions of both chapters cannot be summarized easily, dependent as they are on various hypotheses and scenarios about the saving rate, the return on capital, growth, etc. It may be pointed out, however, that Piketty envisions the top centile, and especially wealthy individuals in oil states who benefit from petroleum rent, as owning a significant portion of the world's capital.

### SOLUTIONS

We get at last to Part Four, where Piketty introduces his policy recommendations: how should we regulate capital in the 21<sup>st</sup> century? There are four chapters in Part Four. Chapter 13 makes a series of general claims about the social state. It is difficult to identify one overarching argument or claim besides, perhaps, that the social state should be modernized, but certainly not dismantled, in order to be more efficient. Piketty explains that the social state has appeared mostly in the 20<sup>th</sup> century, when tax revenue in rich countries went from 10 percent of national income to as high as 55 percent in Sweden. Education should also be reformed to have a more significant impact on social mobility. Capitalized pension plans—where benefits are paid out from the return of investments—are not necessarily preferable to PAYGO systems—where benefits are paid from the wages of actives worker—, even if return on capital is expected to be greater than growth (r > g) in the 21<sup>st</sup> century.

*What is social justice*? I cannot help but smile when Piketty says there is a certain "consensus concerning the abstract principles of social justice" (480). To be fair, he makes this point in order to say there is much more disagreement when these principles are articulated into substantial policies, even if they may look consensual in theory. This may be right. Still, not much theorizing about the principles of justice is needed to know that there is anything but consensus there. The more one tries to articulate one's fundamental principles of social justice, the more one finds disagreement. Many different fundamental intuitions start to appear: utilitarian, libertarian, egalitarian, liberal, liberal egalitarian, luck egalitarian, prioritarian, and so on.<sup>8</sup>

To overlook disagreements about principles of justice is not just a metaphysical issue (about the compatibility of different conceptions of justice); it will have important practical implications, too. Later on, Piketty claims that a progressive tax "represents an ideal compromise between social justice and individual freedom" (505). But this very much depends on how much one values equality—presumably, Piketty's understanding of social justice—and liberty. If liberty trumps other values like equality, a progressive tax is not an ideal compromise at all. In fact, it does not mean anything to say that a policy is a compromise between "social justice" and "individual freedom," because individual freedom is simply social justice according to some particular conceptions of justice. And even among people for whom justice means both more equality and more liberty, let us say, there are many ways in which these principles can be articulated in substantial policies that do not involve progressive taxation. Constraints on rights of ownership may be imposed, among other things.<sup>9</sup>

These problems are pervasive throughout the fourth part of the book. Piketty tries to convince the reader of the desirability of certain policy changes by appealing to social justice, but he never clarifies his own understanding of the term. This (wrongly) suggests that anyone who cares about social justice (howso-ever defined) should support similar changes.

One may distinguish among the different taxes which finance state expenses: tax on income, tax on capital, tax on consumption, and direct contributions to governmental programs. A tax may be fixed, proportional, progressive, or regressive. It may have a fixed value, a fixed rate, or its rate may increase or decrease as a function of income, capital ownership, consumption, etc. Finally, a tax may be local/regional, national, or global. The next chapter deals with progressive income taxation, mostly at the national level. The chapter after deals with a progressive tax on capital at the global level.

Chapter 14 proposes that progressive income taxation be reformed in order to be more consistent, more steeply progressive, and of a much higher rate. Piketty suggests that the optimal top tax rate in the developed countries is above 80 percent. But the reader should not dwell for too long on this estimate, for it seems slightly speculative, even by Piketty's account: "No mathematical formula or economic metric estimate can tell us exactly what tax rate ought to be applied to what level of income. Only collective deliberation and democratic experimentation can do that" (513).

The chapter's argument runs as follows: First, it is argued that the history of progressive taxation has been fairly chaotic, with rates shifting upward or downward as a function of the political vicissitudes of the time. Top income tax rates did not exist at the beginning of the previous century. They went as high as 90 percent in the US in 1950s and 60s and then below 30 percent in the 1990s. They are now at 40 percent in that country.

Second, it is argued that low income-taxation is correlated with high executive salaries, but not higher economic performance. The countries with the largest decrease in their top tax (US and Britain, for instance) are also the countries where the top earners' share of national income has increased the most yet, and as counter-intuitive as this may seem, the rate of per capita GDP growth has been almost exactly the same in all the rich countries since 1980 (France and Japan included), no matter the rate of income taxation. In other words, the reduction of top income taxation and the rise of top income do not have any effect besides enriching the top earners.

Third, and finally, it is argued that these findings are consistent with the bargaining model Piketty, Saez, and Stefanie Stantcheva used to explain skyrocketing executive pay: lower marginal rates encourage executives to negotiate harder for higher pay, and executive salaries do not seem to be a good reward of performance. This model and other estimates are used to calculate the rate of 80 percent.

It is in chapter 15 that Piketty recommends the adoption of a progressive global tax on capital. The objective is to tax individual wealth, which includes all financial assets (like bank deposits, stocks, bonds, and partnerships), and non-financial assets (like real estate). If the tax were to be applied at the European level, he would suggest a "rate of 0 percent for net assets below 1 million euros, 1

percent between 1 and 5 million, and 2 percent above 5 million" (517). Much more steeply progressive rates could be envisioned for large fortunes: 5 to 10 percent on assets above 1 billion euros. There could also be advantages to taxing modest-to-average wealth, of 200,000 to 1 million euros, at the rate of 0.1 percent.

Piketty's proposed tax is in no way intended to replace existing taxes. Capital taxation, under the rates mentioned above, would "never be more than a fairly modest supplement to the other revenue streams on which the modern social state depends" (518). If assets were taxed at a rate of 0.1 percent on average, for instance, and if the capital/income ratio were in the order of 500 percent, the tax would only bring in the equivalent of 0.5 percent of national income. If the tax were to serve the more ambitious goal of reducing wealth inequality, one would have to envision much higher rates. The wealth of billionaires would have to be taxed at 10 percent or higher. But, again, this is not necessarily what Piketty recommends. Table 1 summarizes all the proposed rates. He seems more committed to the more modest proposals—in other words, to the first three series of rates on the left.

It should be pointed out that these are just rough indications. The more finely tuned rates of capital taxation should be based on "democratic deliberation" and the "observed returns [on capital] in each wealth bracket over several prior years" (529). Since the real return on the largest fortunes in the world is around 6 to 7 percent, for instance, it would not be excessive to tax fortunes above 100 million euros at rates well above 2 percent (under all the proposals mentioned above).

Assets value (million <i>€</i> )	Tax rate			
	As a modest supplement to the other revenue streams of the state			As a more ambitious measure to reduce wealth inequality
	Base	More steeply progressive	Higher for modest-to- average wealth	_
0-0.2	0%		0.1%	
0.2 - 1			0.5%	
1 – 5	1%			
5 – 1000	2%	2%		
> 1000		5 – 10%		> 10%

Table 1 – The progressive global taxation of capital: a few proposals

As a measure of economic redistribution, a global tax on capital has at least three features. First, it is a tax; second, it taxes capital, as opposed to income or consumption; third, it is global. Let us take each of these features in turn.

*Why a tax?* As it has been wondered, why a tax?<sup>10</sup> If one of the major forces of divergence is a rate of return on capital greater than growth (r > g), and if one

fears rising economic inequality because one expects the rate of return on capital to be greater than growth, there are at least two ways to prevent this undesirable outcome. First, one may compensate for capital concentration with redistributive measures like a tax, or, second, one can stimulate growth. If growth is greater than the rate of return on capital, economic inequality should decrease to some extent. So why not act upon growth?

I must say here that, in my view, this argument suffers from many flaws and that I am inclined to side with Piketty. First, and while any kind of growth will tend to have an effect on the capital/income ratio, not every kind of growth is equally desirable. High population growth—that is, high enough to exceed the expected rate of return on capital—would have cataclysmic impacts on this planet, both environmentally and demographically.

One may reply, second, that it is strict economic growth (in other words, economic growth per capita) that should be stimulated. For instance, one could stimulate entrepreneurship, innovation, or green technologies with the objective of increasing GDP per capita. Although I do not have anything against that kind of growth, I wonder if this is not just an easy thing to say to avoid making the tough choices. There is a large consensus in rich countries that economic growth per capita should be stimulated. In fact, one would be hard-pressed to find any government that does not consider objectives like increasing innovation and economic competitiveness to be central elements of its respective party platform. Yet most predictions suggest that GDP per capita will be halved in the next century (see 99-101 for Piketty's moderately conservative predictions), while annual rates of growth of around 4 to 5 percent would be needed to exceed the expected rate of return on capital (354-357 and 572). If we wanted to boost growth in order to reduce capital concentration, it would have been done already.

Finally, the negative political perception of taxes should be a growing concern for anyone who likes to enjoy the benefits of the social state. While the rates of income taxation, and other type of taxes, have decreased in many rich countries in the last decades, it is becoming increasingly difficult for politicians in these countries to talk about (let alone suggest a raise in) taxation.<sup>11</sup> Nevertheless, taxes are the primary tool to finance the services provided by the social state. As Piketty emphasized in chapter 13, they are strongly correlated with its mere existence.

*Why tax capital?* Even if taxation is a desirable tool for financing state services and reducing economic inequality, why is it capital that should be taxed? Piketty's book is dense, and it is easy to lose the sense of which views are put forward and which views are not. Before I raise some doubts about the desirability of capital taxation, it is important to identify three justifications for capital taxation that one *cannot* infer from the analysis put forward in the book.

First, one cannot infer that capital should be taxed because the capital/income ratio is too high or expected to rise even higher in the 21<sup>st</sup> century. It is assumed throughout the book that a high capital/income ratio is not desirable because this

leads to high capital concentration and, therefore, high economic inequality. But this assumption is just that: an assumption. In fact, Piketty has no definite position on what capital/income ratio is desirable (see note #7). The relations between a high capital/income ratio, on the one hand, and economic inequality, on the other hand, are much more complex. It is possible in theory for the capital/income ratio to be high while capital is equally distributed, because the capital/income ratio only considers the total capital stock. It captures capital accumulation, not concentration. If the capital stock is large in relation to income, but is also equally distributed, is it capital that should be taxed? Not necessarily, especially given that Piketty doesn't recommend taxing low-tomodest wealth and even modest-to-average wealth under some of the proposals above. If capital is equally distributed, people's wealth will tend to be in these ranges.

If one wants to measure inequality in terms of capital, one should turn to capital concentration specifically, which brings me to the second justification not easily inferred from the book. Should capital be taxed because capital inequality is too high or because it is expected to rise in the 21<sup>st</sup> century? Here again, Piketty's view is complex and does not yield a simple answer. Remember that the book's analysis is conducted along three main dimensions. The main conclusions are that the capital/income ratio or capital accumulation is high and expected to keep rising. This is potentially worrying. But, as mentioned above, we cannot infer from that that capital should be taxed. Income inequality is also high, and this is certainly worrying to the extent that it maps directly into rising economic inequality. However, the analysis in terms of capital concentration was less conclusive. There is significant inequality in terms of capital, but it has not risen and/or is not expected to rise significantly. The main conclusion in terms of the evolution of capital inequality is that "the concentration of wealth, even if taxes on capital are abolished, would not necessarily return to the extreme level of 1900-1910" (375); keeping in mind that this result is somewhat hypothetical and that it could shift significantly one way or another, especially if human capital were also taken into account.

Finally, it is tempting to assume that the world's billionaires have so much money that it would be enough to tax them to finance state expenses. This is a third justification that cannot be inferred from the book. It is clearly demonstrated that, first, fortunes within at least the 10 to 100 million euros range (rather than 1 billion euros), would need to be taxed in order to obtain a tax basis large enough for a tax on capital to be non-negligible. In other words, the wealth of the world's billionaires is insufficient. Second, Piketty recommends relatively modest rates of taxation, such that the tax is nothing more than a mere supplement to actual state revenues. This is not to say that a tax on wealth would not bring in significant revenue, but much higher rates would be necessary to finance the bulk of state expenses; and these rates may not be sustainable. The wealth of the well-off is not an inexhaustible resource that one can tap at will. So, one may wonder, why is it capital that should be taxed? Piketty puts two justifications forward. First, a contributive justification: "Income is often not a well-defined concept for very wealthy individuals, and only a direct tax on capital can correctly gauge the contributive capacity of the wealthy" (525). But this is not a strong argument given that wealth is often not a well-defined concept either. Both of them are difficult to measure accurately for wealthy individuals, given their access to specialized financial services and the possibility to exploit the advantages of various legal frameworks. Fiscal paradises make it easy for wealthy individuals to hide their wealth through bank secrecy and other permissive fiscal laws put in place for the main purpose of attracting foreign capital (more on fiscal evasion below).

The second reason for capital taxation comes from the incentives it may provide: the purpose of the tax can be "to force people who use their wealth inefficiently to sell assets in order to pay their taxes, thus ensuring that those assets wind up in the hands of more dynamic investors" (526). But this argument should not be overstated either, even in Piketty's view. The return on capital does not seem to be heavily correlated with the efficiency of the investor; rather, it is largely unpredictable and chaotic, and tends to be correlated with the size of the initial fortune of capital owners (larger fortune yields larger returns). What is more, the incentive justification, if it is empirically founded, is a justification for an income tax on capital almost as much as a justification for direct tax on capital. If one assumes that capital owners expect returns from capital, taxing capital income will also incentivize them to use their capital efficiently. If the returns are too small, there will not be enough profit left once the tax is paid.

To sum up: there is not a strong justification for capital taxation in Piketty's book. A high and/or potentially rising capital/income ratio is not an argument for taxing capital in itself; inequalities in terms of capital ownership do not constitute a strong argument either, and this is the dimension of Piketty's analysis where the findings are the least conclusive; and, finally, taxing wealth is no more than a modest contribution to state revenues. The two justifications put forward in the book are also questionable. Should capital be taxed because income is not a well-defined category, given that both wealth and income are potentially difficult to measure accurately for wealthy individuals? Has the incentivizing effect of a capital tax been empirically confirmed? I don't deny that rising economic inequality is a problem—on the contrary, something should be done to combat it. But based on the reasons mentioned above, I wonder if one should prefer capital taxation, especially when there may be stronger reasons to prefer other forms of taxation.

Taxing income or consumption taxation may be preferable for two reasons. First, this seems much more feasible from a political point of view; or rather, I should say, less infeasible. There are already considerable political obstacles to raising taxes, but these obstacles would be even greater if one not only tries to raise existing taxes, but also tries to create new taxes on capital. I will say more on the feasibility of a global tax on capital below. Second, Piketty's analysis suggests

that the most important inequalities are income inequalities. If high executive salaries, among other things, are the main problem, why not legislate directly against them? Why not focus on income taxation, both personal income and the income of organizations like corporations? This is certainly not more difficult than taxing capital and may be more targeted as a redistributive measure.

*How feasible is a global tax?* My main concern regarding a global tax on capital can be summarized as follows: a global tax is desirable, but a global tax on capital in the strong sense is infeasible in the short to medium term. Something needs to be done about economic inequality; hence the solution will have to be a weaker measure. Rising income or consumption taxes at the national level plus adopting measures against international fiscal evasion may be more feasible. A tax on capital is politically infeasible in itself, plus, as if this were not enough of a challenge already, the effectiveness of said tax depends on even stronger measures against international fiscal evasion. I will now elaborate on these ideas.

First, I agree that ideal measures against rising economic inequality must be global in scope. The rising levels of assets and demographic fluxes around the world make it very difficult for any one state to address economic inequality by itself.<sup>12</sup> Furthermore, these measures must be global in both a weak and a strong sense. In a weak sense, states can apply these measures independently from each other, but national and international legislation should make it possible for every state to know the financial situations of its citizens abroad, in order to put them in the right fiscal bracket. If state *S* wants to tax citizen *C*'s income or estate, it should be able to know *C*'s total income and estate valuation worldwide, in order to apply the right rate of taxation.

Ideal measures against economic inequality must also be global in a strong sense. There must be extensive international or inter-state coordination, and perhaps even transfers, to achieve the proper distribution of the revenues coming from these measures. If Mr. C lives, works, and does business in different states, and if 90 percent of C's income and capital is taxed in S, what share of C's tax revenues is each state entitled to? Can we simply use a rough rule of thumb like S owns 90 percent of the tax revenues on C? This turns out to be a very difficult question.

The general principles on which the tax systems are based are never fully compatible, nor are they universal or consensual. For instance, most tax systems tend to rely on the principle of residence: each country taxes the income and wealth of individuals who reside within its borders for more than six months a year. Estate taxes, on the other hand, are often based on the location of the assets rather than on that of its owners. Mr. *C* declares that he spends more than six months a year in his main residence in Liechtenstein, but he also owns a luxurious townhouse in Paris—a *hôtel particulier*, if you will, of the sort that can only be found in *la Ville Lumière*—where he often stays for leisure- and business-related purposes. He will pay his income taxes in Liechtenstein, where he will enjoy pleasantly low rates of taxation, and a property tax to the city of Paris.

Is this a fair distribution of the taxation revenues of C at the international level? Although I will not develop this point here, I am inclined to think that each country or jurisdiction (Liechtenstein, France, and the city of Paris in this case), cannot apply its taxes independently, especially in the case of highly mobile and wealthy individuals like C. France may be entitled to part of the tax revenues on C's income. Liechtenstein and France may be entitled to part of the revenues on taxing C's estate in Paris. Hence, there should be coordination among these different jurisdictions. If Liechtenstein and France are both entitled to the tax revenues on C's income, they have to establish how these revenues will be split between them. Some transfers of revenues may even be necessary if both countries decide that it is easier to tax all of C's income in one place (Liechtenstein, say), and then give back a portion of these revenues to the other states (which would be France in this case).

When Piketty first introduces his tax on capital, he seems to envision a global tax in the weak sense. He wants people's capital to be taxed based on a rate corresponding to the value of their worldwide assets. But this point is not entirely clear. He often uses the example of a European tax on capital, which suggests that the redistribution of the tax revenues would take place at the European level, and that the equivalent of intra-European transfers may have to be made from one state to another. Later on, in chapter 16, he claims that European states cannot enact corporate income taxation, or even individual taxation, without much greater economic integration at the European level. The right approach, he writes, "is therefore to create a Eurozone budgetary parliament to deal with" these problems (561). This also suggests more fiscal coordination at the European level, the pooling of tax revenues and the distribution of these revenues to the European states.

In any case, a global tax on capital, both in the weak and the strong senses, seems infeasible. Taxing capital globally presents at least two different kinds of difficulties: technical, on the one hand, and political or legal, on the other hand. Piketty spends a significant amount of time demonstrating, convincingly, in my view, that there are no technical obstacles to the transmission of banking information, a necessary measure for capital taxation. But he goes through the political/legal difficulties much more quickly, and these are certainly the most significant obstacle.

For a global tax on capital to be effective in the strong sense (tax revenues are distributed internationally), it would need to be adopted in almost all states worldwide. If that were not the case, this would create loopholes that the wealthiest individuals could easily exploit to evade the tax. In other words, most states worldwide would need to not only create taxes on capital, but also agree on distribution principles that would apply to all of them. It is very unlikely that this will happen in the short to medium term. Except for a few modest measures in some European and other countries worldwide, taxes on capital are not so common and are nowhere near the all-inclusive tax on capital recommended by Piketty. Furthermore, and as pointed out above, the trends in regard to taxation tend to go in the opposite direction. Anything else than the reduction of the fiscal burden seems difficult to achieve politically in many states. For a global tax on capital to be effective in the weak sense (tax revenues are not distributed internationally, but the rate of taxation is based on the value of people's worldwide assets), international agreements would need to be established, to allow for the international financial situation of all citizens to be adequately known to the relevant states. Although there are no technical obstacles to this objective, it would nonetheless require highly concerted international action against fiscal evasion and, again, one can hardly imagine such initiatives taking place in the short to medium term.

Fiscal evasion is the illegal evasion of fiscal laws by individuals and organizations, like corporations.<sup>13</sup> The fact that it is illegal makes it difficult to come up with reliable estimates of the magnitude of the phenomenon, but the data available suggest it is significant. According to some estimates, fiscal evasion may be as high as US\$3.1 trillion, or about 5.1 percent of the world GDP.<sup>14</sup> One can distinguish between domestic and international fiscal evasion. The former takes place when, for instance, an individual or an organization exploits the legal loopholes in its own country in order to pay less tax.<sup>15</sup> The latter takes place through the exploitation of more advantageous foreign fiscal legislations. Assets are moved to fiscal paradises or tax havens like Luxembourg, Switzerland, Cayman Islands, etc. to benefit from bank secrecy, lower level of taxation, and so on. Here I am mostly concerned about international fiscal evasion.

Stopping international fiscal evasion is necessary if states want to tax capital accurately. If the wealthy, and even the not-as-wealthy, individuals of the world can easily move part of their assets to fiscal paradises, they can easily distort their real financial situation and benefit from lower rates of taxation. A global tax on capital in the weak sense does not require that all states, including fiscal paradises, apply a similar tax. They would not be operating under a common distribution pattern. But the real financial situation of the people being taxed must be known. Hence, it is necessary that practices like bank secrecy be abolished to some extent.

As Piketty points out, some measures have been taken in the US, in Europe, and worldwide to fight against international fiscal evasion. One may think of the Foreign Account Tax Compliance Act (FATCA) in the US or the 2003 EU directives on foreign savings. Unfortunately, these measures are not only modest, but they have nothing in mind like making the global taxation of capital possible. The main objective is to increase banking information primarily for the "enforcement of the income tax" (524).

This is why I wonder, finally, if it is not preferable to institute global taxes on income in the weak sense. These taxes are applied at the national level. They do not require that all states apply similar measures worldwide because no international distribution of tax revenues is involved. But some actions against international fiscal evasion are necessary to apply these taxes effectively. If the most ambitious proposals that the world community have been able to put in place against fiscal evasion only focus on the enforcement of income taxation, this seems more feasible as a measure to deal with an urgent need (economic inequality, that is) as fast as possible.

What is to be done in the meantime? Piketty describes the global taxation of capital as a "useful utopia" (515). To be sure, he is fully aware of the obstacles associated with this measure. A global tax on capital would require a very high, and, no doubt, unrealistic, level of international cooperation. One may wonder, then, what is the point of recommending that capital be taxed if it is simply not feasible? The most convincing answer to that question in my view rests in the distinction between ideal and non-ideal thinking about fiscal policies.<sup>16</sup> Even if taxing global capital is not feasible in the foreseeable future, it serves as an ideal to orient policy decisions. Generally speaking, there may be good reasons for states to apply all forms of taxation simultaneously: income, capital, and consumption. If a state relies too heavily on one type of tax, it will create loopholes that can be exploited by the wealthiest or simply more daring individuals. My main issue with Piketty's proposal is twofold. First, his ideal proposal is so far from reality than it is difficult to see what should be done in the real world right now. Second, this would not be so much of a problem if the book, in addition to putting forward a view of ideal fiscal policies, would tell the reader what less ideal—as in feasible in the short to medium term—fiscal policies should look like. Unfortunately, no such account is to be found in Piketty's book and the reader is left wondering what should be done about economic inequality in the meantime.

Chapter 16 deals with the question of the public debt. The developed world is indebted at levels not seen since the 1945, hence Piketty's consideration of various methods to reduce these debts. Selling or privatizing all public assets, although roughly sufficient to pay all outstanding public debt, is quickly dismissed: these assets are not easy to sell and governments would have to pay to use these assets once they are privatized. The fees may be as high as the heavy interest they have to pay right now on outstanding debts. A blunter approach is to simply repudiate the public debt. This allows for the keeping of public assets but, ultimately, economic consequences of this measure are difficult to predict. A prolonged dose of austerity is also among the worst solutions in Piketty's view. It is considered unjust and inefficient, although the reason of its unjustness and inefficiency are not clearly stated.

Historically, inflation is how most large public debts were reduced. But inflation is hard to control once set in place. Artificially induced inflation may trigger an inflationary spiral. Most importantly, much of the beneficial effects of inflation disappear once it becomes permanent and expected.

The "most just and efficient solution" to reduce public debt, for Piketty, is a tax on capital (541). For instance, the public debt of European countries could be reduced to 20 percent of the GDP in 10 years by applying an exceptional tax: "10 percent on wealth between 1 and 5 million and 20 percent above 5 million" (544). I will not say much about this recommendation besides, obviously, raising the same concerns I have raised above. Given that such a measure is hardly feasible in the short to medium term, what should be done about the public debt in the meantime? One may also wonder how economic inequality is to be dealt with if the bulk of capital taxation is used to reduce the public debt.

Various topics are discussed in the rest of the chapter: what is the role of central banks, what are appropriate monetary policies in a multi-state monetary zone like Europe, what is the ideal level of capital accumulation (see also note #7), what should be done in regard to climate change, and so on. An overarching argument for the remainder of the chapter is difficult to identify here, but three main ideas can be extracted. These ideas also run throughout Part Four.

First, just and efficient fiscal solutions must involve more inter-state and international co-ordination and co-operation. To deal with inflation and public indebtedness in Europe, for instance, European states should pool their debts and create a Eurozone budgetary parliament.

Second, there should be more democratic control of the economy. Piketty points out many times that economic models or calculations can hardly give us all the answers. Ultimately, it is up to people to decide collectively on the level of capital accumulation, capital concentration, income concentration, public indebtment, etc. that they are willing to tolerate. But this will be possible only if, third, there is more economic transparency. The effectiveness of a fiscal policy like a tax depends on the communication of banking information. More importantly, economic transparency is essential for democratic governance and participation. If we want people to collectively decide upon the type of society they want to live in, they must know what this society looks like from an economic perspective.

In concluding this review, I will hazard a prediction of my own: as time passes by, more and more people may take issue with specific elements of Piketty's book. But whether or not one endorses his views, one will hardly be able to say anything about capital accumulation and economic inequality without positioning oneself in relation to his work. This is the sign of an important and valuable contribution on the topic.

### NOTES

- <sup>1</sup> Heidi Moore, "Why Is Thomas Piketty's 700-Page Book a Bestseller?," *The Guardian*, accessed April 16, 2015, http://www.theguardian.com/money/ 2014/sep/21/-sp-thomas-piketty-bestseller-why; The Economist, "A Modern Marx," *The Economist*, May 3, 2014, http://www.economist.com/news/leaders/21601512-thomas-pikettys-blockbuster-book-great-piece-scholarship-poor-guide-policy.
- <sup>2</sup> For some examples among the early English reviews, see John Cassidy, "Forces of Divergence," *The New Yorker*, March 31, 2014, http://www.newyorker.com/ magazine/2014/03/3 1/forces-of-divergence; Robert M. Solow, "Thomas Piketty Is Right," *The New Republic*, April 22, 2014, http://www.newrepublic.com/article/117429/capital-twenty-first-century-thomas-piketty-reviewed.
- <sup>3</sup> Matthew Rognlie, "A Note on Piketty and Diminishing Returns to Capital," June 15, 2014, http://www.mit.edu/~mrognlie/piketty\_diminishing\_returns.pdf; and, from the same author, "Deciphering the Fall and Rise in the Net Capital Share," 2015; Per Krusell and Tony Smith, "Is Piketty's 'Second Law of Capitalism' Fundamental?," n.d., http://aida.wss.yale.edu/smith/ piketty1.pdf; Chris Giles, "Data Problems with Capital in the 21st Century," *Financial Times*, May 23, 2014, http://blogs.ft.com/money-supply/ 2014/05/23/data-problems-with-capital-in-the-21st-century/; for Piketty's response to the Financial Times' critic, see "Addendum: Response to FT," May 28, 2014, http://piketty.pse.ens.fr/files/capital21c/en/Piketty2014TechnicalAppendixResponsetoFT.pdf; for less technical accounts, see Solow, "Thomas Piketty Is Right"; Economist, "A Modern Marx"; and, finally, Justin Wolfers, "Economists Are Unconvinced by 'r>g," *The New York Times*, October 14, 2014, http://mobile.nytimes.com/2014 /10/15/upshot/fellow-economists-express-skepticism-about-thomas-piketty.html.
- <sup>4</sup> Deirdre Nansen McCloskey, "Measured, Unmeasured, Mismeasured, and Unjustified Pessimism," *Erasmus Journal for Philosophy and Economics* 7, no. 2 (2014): 73–115; Cassidy, "Forces of Divergence"; The Economist, "Reading 'Capital': Part 4, Conclusion, and Recap," *The Economist*, April 25, 2014, http://www.economist.com/node/21601214/; The Economist, "Bigger than Marx," *The Economist*, May 1, 2014, http://www.economist. com/node/21601567/; Economist, "A Modern Marx."
- <sup>5</sup> David N. Weil, *Capital and Wealth in the 21st Century*, Working Paper (National Bureau of Economic Research, January 2015), http://www. nber.org/papers/w20919; McCloskey, "Measured, Unmeasured, Mismeasured, and Unjustified Pessimism"; Victoria Stilwell, "Inequality Piketty Doesn't Examine Is U.S. Human Capital," *Bloomberg.com*, accessed March 16, 2015, http://www.bloomberg.com/news/articles/2014-07-15/the-inequality-pikettydidn-t-examine-it-starts-in-womb-in-u-s-.
- <sup>6</sup> For a foundational contribution to this topic, see Gary S. Becker, *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, 3rd ed. (Chicago: University of Chicago Press, 1994); see also Charles I. Jones and Paul M. Romer, *The New Kaldor Facts: Ideas, Institutions, Population, and Human Capital*, Working Paper (National Bureau of Economic Research, June 2009), http://www.nber.org/papers/w15094; and Sherwin Rosen, "Human Capital," in *The New Palgrave Dictionary of Economics*, ed. Steven N. Durlauf and Lawrence E. Blume, Second edition (Basingstoke: Nature Publishing Group, 2008), 98–109, http://www.dictionaryofeconomics.com/article?id=pde2008 H000100.
- <sup>7</sup> See also the discussion about "what  $\beta$  is desirable" towards the end of the book (chapter 16, 562-565), as that question turns out to be a much more complex issue. Piketty has no definite position on what level of capital accumulation is desirable. Letting it increase to the point of capital saturation—where the return on capital is zero because there is so much capital available—is probably not the best way to reduce the rate of return on capital, but that also depends on the origin of growth. In the end, he suggests mainly that the issue should not be decided on the basis of mathematic formulas or economic models, but should be the object of a political decision.

- <sup>8</sup> There are interesting parallels to make here with the idea of incompletely theorized agreements in law. See Cass R. Sunstein, "Incompletely Theorized Agreements," *Harvard Law Review* 108, no. 7 (May 1, 1995): 1733–72, doi:10.2307/1341816; "Incompletely Theorized Agreements in Constitutional Law," *Social Research* 74, no. 1 (April 1, 2007): 1–24.
- <sup>9</sup> John Rawls, whom Piketty quotes in a few places, famously claimed that justice would be better achieved in a property-owning democracy, that is, in a regime of political economy where property rights are considerably constrained in order to allow citizens to control substantial and broadly equal amount of the means of production. See John Rawls, *Justice as Fairness* : A Restatement (Cambridge: Belknap Press of Harvard University Press, 2001), sec. 41 and 42.
- <sup>10</sup> Economist, "A Modern Marx"; McCloskey, "Measured, Unmeasured, Mismeasured, and Unjustified Pessimism."
- <sup>11</sup> For a UK perspective on this problem, see Daisy-Rose Srblin, ed., *Values Added: Rethinking Tax for the 21st Century*, Fabian Society (London, 2015), especially Martin O'Neil contribution; for a Canadian perspective, see Alex Himelfarb and Jordan Himelfard, eds., *Tax Is Not a Four-Letter Word: A Different Take on Taxes in Canada* (Wilfrid Laurier University Press, 2013).
- <sup>12</sup> For points of entry in the voluminous literature on this question, see David Miller, *National Responsibility and Global Justice* (Oxford: Oxford University Press, 2007); Gillian Brock, *Global Justice: A Cosmopolitan Account* (Oxford: Oxford University Press, 2009), chap. 5; Sol Picciotto, *Regulating Global Corporate Capitalism* (Cambridge: Cambridge University Press, 2011).
- <sup>13</sup> On fiscal evasion and competition at the global level, see Peter Dietsch, *Catching Capital: The Ethics of Tax Competition* (Oxford: Oxford University Press, 2015); Peter Dietsch and Thomas Rixen, eds., *Global Tax Governance: What Is Wrong and How to Fix It* (ECPR Press, 2015); Ronen Palan, Richard Murphy, and Christian Chavagneux, *Tax Havens: How Globalization Really Works* (Ithaca: Cornell University Press, 2009); Gabriel Zucman, *Richesse cachée des nations* (Paris: Seuil, 2014).
- <sup>14</sup> Tax Justice Network and Richard Murphy, "The Cost of Tax Abuse, A Briefing Paper on the Cost of Tax Evasion Worldwide," November 2011, http://www.tackletaxhavens.com/Cost\_of\_ Tax\_Abuse\_TJN%20Research\_23rd\_Nov\_2011.pdf; Dietsch, *Catching Capital*, 36ff.<sup>15</sup> American corporate fiscal laws are notorious for their multiple distortions and grey areas. Corporations can easily exploit these loopholes to enjoy relatively low levels of taxation. See Paul L. E. Grieco Gary Clyde Hufbauer, *Reforming the US Corporate Tax* (Washington: Institute for International Economics, 2005).
- <sup>16</sup> See, for instance, Ingrid Robeyns, "Ideal Theory in Theory and Practice," *Social Theory and Practice* 34, no. 3 (2008): 341–62; Laura Valentini, "Ideal vs. Non-ideal Theory: A Conceptual Map," *Philosophy Compass* 7, no. 9 (September 2012): 654–64.