Capital, Inequality and Justice:

Reflections on *Capital in the 21st century*

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on "Capital in the 21st century"

In my view, *Capital in the 21st century* is primarily a book about the history of the distribution of income and wealth, and about the violent political and economic conflicts created by inequality. Thanks to the cumulative efforts of several dozen scholars, we have been able to collect a relatively large historical database on the structure of national income and national wealth and the evolution of income and wealth distributions, covering three centuries and over 20 countries. My first objective in this book is to present this body of historical evidence, and to try to analyze the many economic, social and political processes that can account for the various evolutions that we observe in the different countries since the Industrial Revolution. I stress from the beginning that we have too little historical data at our disposal to be able to draw definitive judgments. On the other hand, at least we have substantially more evidence than we used to. Imperfect as it is, I hope this work can contribute to put the study of distribution and of the long run back at the center of economic thinking.

In this article, I seek to sharpen the discussion about those trends, and to address some of the many issues raised by the very interesting papers that were put together by the editors of Basic Income Studies. I start by summarizing the multidimensional approach to capital and power that I develop in my book. I then clarify the role played by r>g in my analysis of wealth inequality. Finally, I discuss some of the implications of my analysis for optimal taxation; the relation between wealth, welfare and power; the basic income proposal; and the regulation of capital and property relations.

Inequality, beliefs systems and institutional change

One central reason why my book is relatively long is because the history of the distribution of income and wealth is complicated. The dynamics of inequality involve many different economic, social, political and cultural processes, several of which are often operating at the same time within a given country. In my analysis, the size of the gap between r and g, where r is the rate of return on capital and g the economy's growth rate, is one of the important forces that can account for the historical magnitude and variations in wealth inequality. In particular, it can contribute to explain why wealth inequality was so extreme and persistent in pretty much every society up until World War I (see Capital..., Chapter 10).

That said, the way in which I perceive the relationship between r>g and inequality is often not well captured in the discussion that has surrounded my book. For example, I do not view r>g as the only or even the primary tool for considering changes in income and wealth in the 20th century, or for forecasting the path of inequality in the 21st century. Institutional changes and political shocks - which to a large extent can be viewed as endogenous to the inequality and development process itself - played a major role in the past, and it will probably be the same in the future.

Indeed, the main conclusion of my analytical historical narrative is stated in the introduction of the book (p. 20, 35), 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. …. It is shaped by the way economic, social, and political actors view what is just and what is not, as well as by the relative power of those actors and the collective choices that result. It is the joint product of all relevant actors combined. … . How this history plays out depends on how societies view inequalities and what kinds of policies and institutions they adopt to measure and transform them."

As I wrote in a follow-up essay with a co-author: "In a sense, both Marx and Kuznets were wrong. There are powerful forces pushing alternatively in the direction of rising or shrinking inequality. Which one dominates depends on the institutions and policies that societies choose to adopt" (Piketty and Saez 2014, p. 842-843).

This also explains why I attempt to study not only the dynamics of income and wealth inequality, but also the evolution of collective representations of social inequality in public discussions and political debates, as well as in the literature and in movies. I believe that the analysis of representations and beliefs systems about income and wealth is an integral and indispensable part of the study of income and wealth dynamics, because these representations ultimately determine the extent of institutional change and the dynamics of inequality. Each country has its own intimate history with inequality, and I attempt to show that national identities play an important role in the two-way interaction between inequality dynamics and the evolution of perceptions, institutions and policies.

In addition, from a purely economic standpoint, I certainly do not believe that r>g is a useful tool for the discussion of rising inequality of labor income: other mechanisms

and policies are much more relevant here, e.g. supply and demand of skills and education. For instance, I point out in my book (particularly Ch. 8-9) that the rise of top income shares in the US over the 1980-2010 period is due for the most part to rising inequality of labor earnings, which can itself be explained by a mixture of three groups of factors: rising inequality in access to skills and to higher education over this time period in the United States, an evolution which might have been exacerbated by rising tuition fees and insufficient public investment; and exploding top managerial compensation, itself probably stimulated by changing incentives and norms, and by large cuts in top tax rates (see also Ch. 14; Piketty, Saez and Stantcheva, 2014)); changing labor market rules and bargaining power, in particular due to declining unions and a falling minimum wage in the United States (see Ch.9, fig.9.1).

In any case, this rise in labor income inequality in recent decades has evidently little to do with r-g, and it is clearly a very important historical development. Indeed it explains why total income inequality is now substantially higher in the U.S. than in Europe, while the opposite was true until World War 1. At that time, high inequality was mostly due to extreme concentration of capital ownership and capital income. Wealth inequality is currently much less extreme than a century ago, in spite of the fact that the total capitalization of private wealth relative to national income has now recovered from the 1914-1945 shocks. One central question for the future is to better understand the conditions under which the concentration of property might return to pre-1914 levels.

A Multidimensional History of Capital, Property Relations and Inequality

In my book, I try to offer a relatively detailed, multidimensional history of capital and its metamorphosis. Capital ownership takes many different historical forms, and each of them involves different forms of institutions, rules and power relations, which must be analyzed as such.

Theoretical models, abstract concepts and equations (such as r>g, to which I return in greater detail below) also play a certain role in my analysis. However this role is relatively modest—as I believe the role of theory should generally be in the social sciences—and it should certainly not be exaggerated. Models can contribute to clarifying logical relationships between particular assumptions and conclusions, but only by oversimplifying the real world to an extreme point. Models can play a useful role, but only if one does not overestimate the meaning of this kind of abstract operation. All economic concepts, irrespective of how "scientific" they pretend to be, are intellectual constructions that are socially and historically determined, and which are often used to promote certain views, values or interests. Models are a language that can be useful only if it is solicited together with other forms of expressions, and if one recognizes that we are all part of the same conflicting, deliberative process.

In particular, the notion of an aggregate capital stock K and of an aggregate production function Y = F(K,L) are highly abstract concepts. From time to time I refer to them. But I certainly do not believe that such grossly oversimplified concepts can

provide an adequate description of the production structure and the state of property and social relations for any society.

For example, I explain in Chapter 1, when I define capital and wealth: “Capital is not an immutable concept: it reflects the state of development and prevailing social relations of each society. … 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, mountains, historical monuments, and knowledge. Certain private interests would like to own these things, and sometimes they justify this desire on grounds of efficiency rather than mere self-interest. But there is no guarantee that this desire coincides with the general interest” (p. 47).

More generally, I analyze the diversity of the forms taken by capital assets and the problems raised by property relations and market valorizations throughout history. I study in some length the many transformations in the nature of capital assets, from agricultural land to modern real estate, business and financial capital. Each type of asset has its own particular economic and political history and gives rise to different bargaining processes, power struggles, economic innovations and social compromises.

For example, as noted by Grantham (this issue), the fact that capital ownership and property rights are historically determined is particularly clear when I study the role of slave capital in the Southern United States before 1865, which can be viewed as the most extreme form of ownership and domination of owners over others (Ch. 4). A

similar theme also arises evident when I examine the lower stock market capitalization of German companies relative to their Anglo-American counterparts, a phenomenon that is certainly related to the fact that German shareholders need to share power with other stakeholders (workers, governments, nongovernment organizations, and others) somewhat more than in other countries (Ch. 5). This power-sharing apparently is not detrimental to their productive efficiency and exporting performance, which illustrates the fact that the market and social values of capital can often differ.

Other examples involve real estate capital and natural resource wealth—like oil. Large upward or downward movements of real estate prices play an important role in the evolution of aggregate capital values during recent decades, as they did during the first half of the 20th century (in particular, Ch. 3-6). 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. The issue of oil capital and its world distribution is rooted in the power relations and military protections that go with it (in particular in the Middle East), as well on the consequences for the financial investment strategies followed by the corresponding sovereign wealth funds (discussed in Ch. 12).

The institutional analysis of property relations and capital assets also has international and public-sector dimensions. The hypertrophy of gross financial asset positions between countries, which is one of the main characteristics of the financial

globalization process of recent decades, is a recurring theme of the book (Ch. 1-5, 12, 15 and 16). I analyze the very large magnitude of the net foreign assets positions reached by Britain and France at the height of their colonial empires, and I compare them to today's net positions of China, Japan or Germany. I repeatedly stress that international property relations - the fact that economic actors in some countries own significant claims on real and financial assets in other countries – can be particularly complicated to regulate in a peaceful manner. This was certainly true during the colonization and decolonization period. Issues of international property relations could erupt again in the future. The difficulty to deal with extreme internal and external inequality certainly contributes to explain the high political instability that has long plagued the development process in Latin American and African countries.

Public capital, which depends on the changing patterns and complex political histories of public investment and deficit trajectories, nationalization and privatization policies, also plays a critical role in the book (especially Ch. 3 and 4). I emphasize the sharp dissimilarities in country experiences (contrasting in particular the cases of Britain and France in the 18th and 19th centuries), as well as the commonalities (such as the historically large level of public capital in the postwar period, and the large decline in recent decades, in rich countries as well as in Russia or China, with important consequences on the distribution of private wealth and the rise of new forms of oligarchs).

Given the specific and context-heavy discussion of these multidimensional factors, does it still make sense to speak of "capital" as a single category? The fact that it is technically possible to add up all the market values of the different existing assets (to

the extent that such market values are well defined, which is not always entirely clear) in order to compute the aggregate value of the capital stock K does not change anything about this basic multidimensional reality of assets and corresponding property relations. I attempt to show that this abstract operation can be useful for some purposes. In particular, by computing the ratio β=K/Y between the aggregate market value of capital K and national income Y, one can compare the overall importance of capital wealth, private property and public property in societies that are otherwise impossible to compare. For instance, one finds that in spite of all metamorphoses in the nature of assets and institutional arrangements, aggregate capital values - expressed in years of national income - are approaching in a number of countries the levels observed in the patrimonial societies that flourished in the 18th-19th centuries and until World War I. I believe that this finding is interesting in itself. But it certainly does not alter the fact that a proper comparison of these different societies requires a careful separate analysis of the various asset categories and corresponding social and economic relations.

r>g and the amplification of wealth inequality

I now clarify the role played by r>g in my analysis of the long-run level of wealth inequality. Specifically, a higher r-g gap will tend to greatly amplify the steady-state inequality of a wealth distribution that arises out of a given mixture of shocks (including labor income shocks).

Let me first say very clearly that r>g is certainly not a problem in itself. Indeed, the inequality r>g holds true in the steady-state equilibrium of the most common

economic models, including representative-agent models where each individual owns an equal share of the capital stock. For instance, in the standard dynastic model where each individual behaves as an infinitely lived family, the steady-state 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 percent, γ=2, and g=1 percent, then r=5 percent. In this framework, the inequality r>g always holds true, and does not entail any implication about wealth inequality.[1]

In a representative-agent framework, what r>g means is simply that in steady-state each family only needs to reinvest a fraction g/r of its capital income in order to ensure that its capital stock will grow at the same rate g as the size of the economy, and the family can then consume a fraction 1-g/r. For example, if r=5 percent and g=1 percent, then each family will reinvest 20 percent of its capital income and can consume 80 percent. This tells us nothing at all about inequality: this is simply saying that capital ownership allows to reach higher consumption levels - which is really the very least one can ask from capital ownership.

Indeed, r>g corresponds to a standard "dynamic efficiency" condition in standard economic models. In contrast, the inequality r<g would correspond to a situation which economists often refer to as "dynamic inefficiency": in effect, one would need to invest more than the return to capital in order to ensure that one's capital stock

[1] Intuitively, in a model where everyone maximizes an infinite-horizon utility function $U = \int_{0 \leq t \leq +\infty} e^{-\theta t} u(c_t)$ (with $u(c) = c^{1-\gamma}/(1-\gamma)$), then $r = \theta + \gamma g$ is the unique rate of return to capital possible in the long-run for the following reason: it is the sole rate such that the agents are willing to rise their consumption at rate g, that is at the growth rate of the economy. If the return is higher, the agents prefer to postpone their consumption and accumulate more capital, which will decrease the rate of return; and if it is lower, they want to anticipate their consumption and borrow more, which will increase the rate of return.

keeps rising as fast as the size of the economy. This would correspond to a situation of excessive capital accumulation from a social and economic efficiency standpoint.[2]

So what is the relationship between r-g and wealth inequality? To answer this question, one needs to introduce extra ingredients into the basic model, so that inequality arises in the first place.[3] In the real world, many shocks to the wealth trajectories of families can contribute to making the wealth distribution highly unequal (indeed, in every country and time period for which we have data, wealth distribution within each age group is substantially more unequal than income distribution, which is difficult to explain with standard life-cycle models of wealth accumulation). There are demographic shocks: some families have many children and have to split inheritances in many pieces, some have few; some parents die late, some die soon, and so on. There are also shocks to rates of return: some families make good investments, others go bankrupt. There are shocks to labor market outcomes: some earn high wages, others do not. There are differences in taste parameters that affect the level of saving: some families consume more than a fraction 1-g/r of their capital income, and might even consume the full capital value; others might reinvest more than a fraction g/r and have a strong taste for leaving bequests and perpetuating large fortunes.

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[2]. As is well known, r<g cannot happen in infinite-horizon models with no shock and perfect capital markets. This is because r<g would violate the transversality condition: the net present value of future resources would be infinite, so that rational agents would borrow infinite amounts in order to consume right away, until r rises above g. However, in models with other saving motives, such as finite-horizon overlapping generation models, it is possible to have r<g and excessive capital accumulation.

[3] In the dynastic model with no shock, there is no force generating inequality out of equality (or equality out of inequality), so any initial level of wealth inequality (including full equality) can be self-sustaining, as long as the modified Golden rule is satisfied. Note however that the magnitude of the gap r-g has an impact on the steady-state inequality of consumption and welfare: if r-g is small then high-wealth dynasties need to reinvest a large fraction of their capital income, so that they do not consume much more than low wealth dynasties.

A central property of this large class of models is that for a given structure of shocks, the long-run magnitude of wealth inequality will tend to be magnified if the gap r - g is higher. In other words, wealth inequality will converge towards a finite level. The shocks will ensure that there is always some degree of downward and upward wealth mobility, so that wealth inequality remains bounded in the long run. But this finite inequality level will be a steeply rising function of the gap r-g. Intuitively, a higher gap between r and g works as an amplifier mechanism for wealth inequality, for a given variance of other shocks. To put it differently: a higher gap between r and g allows to sustain a level of wealth inequality that is higher and more persistent over time (i.e. a higher gap r-g leads both to higher inequality and lower mobility). Technically, one can indeed show that if shocks take a multiplicative form, then the inequality of wealth converges toward a distribution that has a Pareto shape for top wealth holders (which is approximately the form that we observe in real world distributions, and which corresponds to relatively fat upper tails and large concentration of wealth at the very top), and that the inverted Pareto coefficient (an indicator of top end inequality) is a steeply rising function of the gap r - g. The logic behind this well-known theoretical result (which was established by many authors using various structures of demographic and economic shocks) and this “inequality amplification” impact of r - g is presented in Chapter 10 of my book.[4]

The important point is that in this class of models, relatively small changes in r - g can generate large changes in steady-state wealth inequality. E.g. simple simulations of the model with binomial taste shocks show that going from r-g=2% to r-g=3% is sufficient to move the inverted Pareto coefficient from b=2.28 to b=3.25. Taken

[4] For references to this literature on dynamic wealth accumulation models with random shocks, see the on-line appendix to chapter 10 available at piketty.pse.ens.fr/capital21c. See also Piketty and Zucman (2015, section 5.4).

literally, this corresponds to a shift from an economy with moderate wealth inequality - say, with a top 1 percent wealth share around 20-30 percent, such as present-day Europe or the United States - to an economy with very high wealth inequality with a top 1 percent wealth share around 50-60 percent, such as pre-World War 1 Europe.[5]

Available micro-level evidence on wealth dynamics confirm that the high gap between r and g is one of the central reasons why wealth concentration was so high during the 18th-19th centuries and up until World War 1 (see Ch. 10; Piketty, Postel-Vinay, Rosenthal (2006, 2014)). During the 20th century, it is a very unusual combination of events which transformed the relation between r and g (large capital shocks during 1914-1945 period, including destruction, nationalization, inflation; high growth during reconstruction period and demographic transition). In the future, several forces might push toward a higher r-g gap (particularly the slowdown of population growth, and rising global competition to attract capital) and higher wealth inequality. But ultimately which forces prevail is relatively uncertain. In particular, this depends on the institutions and policies that will be adopted.

On the optimal progressive taxation of income, wealth and consumption

I now move to the issue of optimal taxation. The theory of capital taxation that I present in *Capital in the 21st century* is largely based upon joint work with Emmanuel Saez (see in particular Piketty and Saez 2013a). In this paper, we develop a model where inequality is fundamentally two-dimensional: individuals differ both in their

[5] In the special case with binomial saving taste shocks with probability p, one can easily show that the inverted Pareto coefficient is given by $b = \log(1/p)/\log(1/\omega)$, with $\omega = s\, e^{(r-g)H}$ (s is the average saving taste, r and g are the annual rate of return and growth rate, and H is generation length). See Piketty and Zucman (2015, section 5.4) for simple calibrations. Atkinson, Piketty and Saez (2011, figures 12-15) provide evidence on the long-run evolution of Pareto coefficients.

labor earning potential and in their inherited wealth. Because of the underlying structure of demographic, productivity and taste shocks, these two dimensions are never perfectly correlated. As a consequence, the optimal tax policy is also two-dimensional: it involves a progressive tax on labor income and a progressive tax on inherited wealth. Specifically, we show that the long-run optimal tax rates on labor income and inheritance depend on the distributional parameters, the social welfare function, and the elasticities of labor earnings and capital bequests with respect to tax rates. The optimal tax rate on inheritance is always positive, except of course in the extreme case with an infinite elasticity of capital accumulation with respect to the net-of-tax rate of return (as posited implicitly in the benchmark dynastic model with infinite horizon and no shock). For realistic empirical values, we find that the optimal inheritance tax rate might be as high as 50-60%, or even higher for top bequests, in line with historical experience.[6]

In effect, what we do in this work is to extend the « sufficient statistics » approach to the study of capital taxation. The general idea behind this approach is to express that optimal tax formulas in terms of estimable “sufficient statistics” including behavioral elasticities, distributional parameters, and social preferences for redistribution. Those formulas are aimed to be robust to the underlying primitives of the model and capture the key equity-efficiency trade-off in a transparent way. This approach has been fruitfully used in the analysis of optimal labor income taxation (for a recent survey, see Piketty and Saez 2013b). We follow a similar route and show that the equity-efficiency trade-off logic also applies to the taxation of inheritance. This approach successfully brings together many of the existing scattered results from the literature.

[6] See Piketty and Saez, 2013a, fig.1-2 and table 1. Note that the optimal inheritance tax rate can also be expressed as an increasing function of the gap r-g.

Next, if we introduce capital market imperfections into our basic inheritance tax model, then we find that one needs to supplement inheritance taxes with annual taxation of wealth and capital income. Intuitively, in presence of idiosyncratic shocks to future rates of return, it is impossible to know the lifetime capitalized value of an asset at the time of inheritance, and it is optimal to split the tax burden between these different tax instruments. For instance, assume I received from my family an apartment in Paris worth 100 000€ back in 1975. In order to compute the optimal inheritance tax rate, one would need to know the lifetime capitalized value of this asset. But of course, back in 1975, nobody could have guessed that this asset would be worth millions of euros in 2015, or the annual income flows generated by this asset between 1975 and 2015. In such a model, one can show that it is optimal to use a combination of inheritance taxation and annual taxation of property values and capital income flows (Piketty and Saez, 2013a).

One difficulty is that optimal tax formulas soon become relatively complicated and difficult to calibrate, however. In particular, the optimal split between annual taxes on wealth stock and annual taxes on capital income flows depends on the elasticity of rates of return with respect to taxation (i.e. the extent to which observed rates of return are sensitive to individual effort and portfolio decisions, as opposed to idiosyncratic, uninsurable shocks). Naturally, intertemporal substitution elasticities also play a role. Note that as long as such behavioral elasticities are not too large, the impact on socially optimal tax rates will not dramatically alter our general conclusion (namely, given the observed magnitude of wealth concentration, capital tax rates should be relatively high, especially on high wealth holders, so as to

alleviate the tax burden falling on labor income; see Piketty and Saez 2013a). However these various elasticities are important in order to determines the optimal tax mix. Substantial additional research is necessary before we can provide a realistic, complete calibration of the optimal capital tax system (which involves a mixture of progressive taxes on inheritance, annual wealth holdings and annual capital income flows).

In my book, I propose a simple rule-of-thumb to think about optimal wealth tax rates. Namely, one should adapt the tax rates to the observed speed at which the different wealth groups are rising over time. For instance, if top wealth holders are rising at 6-7% per year in real terms (as compared to 1-2% per year for average wealth), as suggested by Forbes-type wealth rankings (as well as by recent research by Saez and Zucman (2014), which in my view represent the best estimates that we have so far), and if one aims to stabilize the level of wealth concentration, then one might need to apply top wealth tax rates as large as 5% per year, and possibly higher (see Ch. 15; see also Ch. 12, Tables 12.1-12.2). Needless to say, the implications would be very different if top wealth holders were rising at the same speed as average wealth. One of the main conclusions of my research is indeed that there is substantial uncertainty about how far income and wealth inequality might rise in the 21st century, and that we need more financial transparency and better information about income and wealth dynamics, so that we can adapt our policies and institutions to a changing environment. This might require better international fiscal coordination, which is difficult but by no means impossible (Zucman, 2014).

An alternative to progressive taxation of inheritance and wealth is the progressive consumption tax (see e.g. Gates 2014). This is a highly imperfect substitute, however. First, meritocratic values imply that one might want to tax inherited wealth more than self-made wealth, which is impossible to do with a consumption tax alone. Next, the very notion of consumption is not very well defined for top wealth holders: personal consumption in the form of food or clothes is bound to be a tiny fraction for large fortunes, whose owners usually spend most of their resources in order to purchase influence, prestige and power. When the Koch brothers spend money on political campaigns, should this be counted as part of their consumption? When billionaires use their corporate jets, should this be included in consumption? A progressive tax on net wealth seems more desirable than a progressive consumption tax, first because net wealth is easier to define, measure and monitor than consumption, and next because it is better indicator of the ability of wealthy taxpayers to pay taxes and to contribute to the common good (see Ch.15).

Wealth, welfare and power

It should also be noted that the computations about optimal tax rates that we derive in our work with Saez take a relatively narrow welfarist approach, and fail to integrate explicitly into the analysis the power dimension of property relations. That is, in the Piketty-Saez (2013a) optimal tax computations, we attempt to solve for the optimal tax rates on labor income and inherited wealth (and/or capital income flows and annual wealth holdings) maximizing the lifetime economic welfare of the social groups receiving little inherited wealth, i.e. their lifetime after-tax monetary resources. In practice, because the bottom half (or even the bottom two thirds) in society

receives little inheritance, the optimal tax rates appear to be almost the same for a very large social group – assuming that everybody has the same perceptions about wealth mobility, which is clearly not the case, thereby implying that beliefs and ideology necessarily play a large role in public discussions about such tax rates.

A more comprehensive approach to wealth inequality and taxation should take into account the implications of inequality not only for the distribution of welfare (as approximated by the distribution of after-tax monetary resources), but also for the distribution of power and capabilities in the broadest possible sense. In particular, extreme wealth inequality can potentially have negative implications on political voice and influence and on the functioning of democratic institutions. This is discussed in my book, but of course I am unable to quantify the impact for optimal tax rates and other policies. Some authors argue that we should distinguish between inequality of social status and inequality of monetary resources, and that we should be concerned mostly with the former, and not so much with the latter. I agree that these distinctions are important, but it seems to me that the frontier is not entirely clear. That is, extreme inequalities in monetary resources always tend to generate inequalities in basic social and political capabilities and status.

Needless to say, the power dimension of wealth inequality also implies that extreme inequality can be self-reinforcing, because of the political power and influence of the wealthy. One should also point out that there are sometimes constitutional limitations to the adoption of progressive taxation. For instance, the US constitution makes it impossible to have a federal wealth tax: the property tax is a local tax (it can be levied at the city level or state level, but not at the federal level), and it relies only on

real estate property (not financial assets and liabilities). I should stress, however, that this is relatively contingent, and that this should probably not be taken as given. There is extensive historical evidence showing that the fiscal provisions of constitutions can change substantially over time and across countries. In the US, as well in other developed countries, the property tax was created more than two centuries ago, at a time when real assets (land and real estate in particular) played the dominant role, and financial assets and liabilities were relatively negligible. This probably contributes to explain why the property tax was not instituted as a comprehensive tax on net wealth. Also, note that the US constitution made it impossible until 1913 to create a federal income tax, and that ultimately it was amended. Consider another example: current European treaties make it almost impossible to adopt common tax policies, because of the unanimity rule requirement. This is clearly a strong limitation to the possibility of democratic and progressive decision-making in Europe. In order to change fiscal institutions, one first needs to change the political institutions themselves.

Inequality and the basic income proposal

Let me now come to the discussion of the basic income proposal. According to Dahms (this issue), basic income should be viewed as a “superior public policy strategy”. Several articles published in this issue stress that the basic income can complement the progressive income tax and other policy proposals mentioned in my book (see in particular the articles by Haagh (this issue) and Lo Vuolo (this issue)).

In my view, some forms of basic income can and should certainly be part of the ideal social state. I am very much open to such discussions, and I do not have definite views on every aspect of how such schemes should be organized. However, the basic income as such should not be viewed as a magic bullet. Generally speaking, I tend to favor an approach to social justice that is based upon access to basic social rights, functionings and capabilities (education, health, culture, and so on), rather than access to cash transfers.

Of course, cash transfers are part of the ideal social state. In particular, I support the idea of universal cash transfers for dependent children – a policy which interestingly was recently recommended to become the first major European-wide social policy by Atkinson in his book “Inequality: what can be done”. Atkinson also recommends that we use the tax receipts from the progressive inheritance tax in order to finance a capital endowment for every children aged 18-year-old (“inheritance for all”). With the current British inheritance tax, this would correspond to a capital endowment of about 5000£; with the inheritance tax reform recommended by Atkinson, it would amount to 10000£. Maybe the fact of targeting inheritance tax receipts to the universal capital endowment could be a way to change the nature of the political debate about inheritance taxation.

Needless to say, I am also in favor of a basic income for all adults with insufficient market income. However I am not convinced by the idea that all adults should receive this cash transfer. In developed countries with a generous social state, most full-time workers pay more taxes (including income taxes, social contributions, and all indirect consumption taxes) than whatever level of basic income they could possibly

be allocated (precisely because we also need revenue to finance access to basic goods: education, health, culture, and so on). In my view, it makes more sense to reduce their tax burden, rather than to give them access to a cash transfer, which would then have to be financed by higher taxes. But obviously this is a legitimate matter for debate and disagreement.

The multidimensionality of capital regulation

Let me conclude by stressing that the multidimensional nature of capital creates substantial additional uncertainties regarding the future evolution of inequality, as illustrated by the examples of housing and oil prices. In my view, this reinforces the need for increased democratic transparency about income and wealth dynamics.

As I look back at my discussion of future policy proposals in the book, I may however have devoted too much attention to progressive capital taxation and too little attention to a number of institutional evolutions that could prove equally important, such as asset-specific policies (housing and land-use policies, intellectual property legislation, and so on), and most importantly the development of alternative forms of property arrangements and participatory governance. One central reason why progressive capital taxation is important is because it can also bring increased transparency about company assets and accounts. In turn, increased financial transparency can help to develop new forms of governance; for instance, it can facilitate more worker involvement in company boards. But these other institutions must also be analyzed as such.

The last chapter of my book concludes: "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" (p. 570). I do not push this line of investigation much further, which is certainly one of the major shortcomings of my work. Together with the fact that we still have too little data on historical and current patterns of income and wealth, these are some of the key reasons why my book is at best an introduction to the study of capital in the 21st century.

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