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Does housing wealth contribute to wealth inequality?

A tale of two New Yorks

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A reply to O. Bonnet et al. (2014)

"The bold statement 'Housing wealth isn't wealth' was put to me over a decade ago by Mervyn King..."
Buiter (2010)

"... Like most bold statements, the assertion is not quite correct; the correct statement is that, in a representative agent model, a decline in house prices does create a negative wealth effect on aggregate consumption demand. On average, consumers are neither worse off nor better off."
Buiter (2010)

"These vagabond shoes, are longing to stray
Right through the very heart of it, New York, New York.
I wanna wake up, In that city that doesn't sleep.
And find I'm king of the hill, top of the heap.
These little town blues, are melting away.
I'll make a brand new start of it, in old New York."
Fred Ebb, *Theme from New York, New York*

In *Capital in the 21st century* (hereafter *Capital)*, Thomas Piketty points out the risk of a concentration of wealth in the twenty-first century that would threaten the social justice and meritocratic values of our democratic societies. The main force of divergence is due to the fact that net returns on capital (r) are expected to be greater than the growth of the economy (g), or: "*r>g*". According to Piketty, this will lead to two undesirable consequences: firstly, wealth will have a tendency to concentrate in the hands of a few; secondly, constituted wealth will tend to dominate accumulated wealth from labour: "*the past devours the future*".

In a comment on Piketty's *Capital*, Odran Bonnet, Pierre-Henri Bono, Guillaume Chapelle and Etienne Wasmer (hereafter the authors) attempt to show that the conclusion of the book in terms of the explosion of wealth inequality is not plausible. They point out what they see as an inconsistency in the thesis: according to the authors, the capital accumulation model used by Piketty is a model of accumulation of productive capital, which is inconsistent with the choice to use housing market prices to measure housing capital. To correctly measure housing capital, one should use rent and not housing prices. By doing this, the authors conclude that capital/income ratios have remained stable in France, Britain, the United States and Canada, which contradicts the thesis of Piketty. The authors share some of the conclusions of our own review of Piketty's *Capital* (Allègre and Timbeau, 2014). The return on housing capital has also been pointed by Yglesias (2014). However, we believe that the authors minimize the contribution of housing to the rising inequality of wealth. In particular, we do not agree with their conclusion that the increase in housing prices has effects which *are of a second order (redistributive effects) and are mitigated*" (p.9). [1] As usual, the disagreement is in part due to a lack of consensus on what really matters when discussing inequality: wealth inequality or income inequality or consumption inequality? We emphasize a theoretical inconsistency in the authors' main argument. In fact, they value housing capital as the sum of the present values of rents, under the assumption that what matters is the housing service, then they use a dynastic model in which what matters is the transmission of wealth and not the discounted value of the housing service.

In short, our conclusion is that with regard to inequality, housing wealth is in fact wealth and should be measured in a manner consistent with the measure of other types of wealth.

In very short, Piketty 1 – Authors 0.

Should we care about inequality of income?

"*The value of housing capital must be based on rents, not on housing prices*" (p. 4). The authors recommend evaluating housing capital using the rents of dwellings rather than their market prices. This is surprising because evaluating capital using market prices is relatively standard practice in economics. As the authors point out, it is the convention adopted by national accounts. If one believes in the informative role of prices in a market economy, one must have a good reason to deviate from this standard. Although it is not explicitly explained in these terms, the authors seem to argue that for inequality, what really matters is income and not wealth *per se*. The authors write: "*The rise of housing capital does not imply a rise in the returns in capital. Quite the contrary*" (p. 6) and "*Housing prices are therefore disconnected from the share of income from housing in national income*" (p. 7, underlined by us).

1. Quotes and page numbers are from Bonnet *et al.*.

If, as the authors imply, the only inequality that counts is income inequality, then writing a book on capital does not have much of an interest besides an historical one. Changes in the value of capital are of no consequence as long as the flow of income received by the owners is unchanged. However, rent is not the only motivation for becoming an owner (otherwise, it is hard to understand why people still buy at today's market price). If other benefits are derived from ownership (insurance, social position), or if tax rules favor homeownership (which is the case in many countries), a rough calculation based on discounted future rents misses out what motivates ownership, which, precisely, might be revealed in asset prices. The authors admit, however, that capital plays a role, but only of second order. Yet they also write: "*However, we would like to make it very clear that we do not deny that the rise in housing price has had real consequences on access to housing and inequality. It has had bona fide consequences on the wealth trajectories of individuals and dynasties: in particular, it is increasingly difficult for an individual without initial wealth to become a homeowner in France*" (p. 3-4). They point out that, "*The increase in housing prices creates an insurance against social risks for owners: in case of money problems, it is possible to sell the property and become a tenant*" (p. 9) and, in the French version of the discussion paper, they mention the possibility of using capital as a collateral. Access to homeownership, insurance against social risk, collateral, inheritance: it seems difficult to qualify all these aspects of capital as "*second order*" without further demonstration.

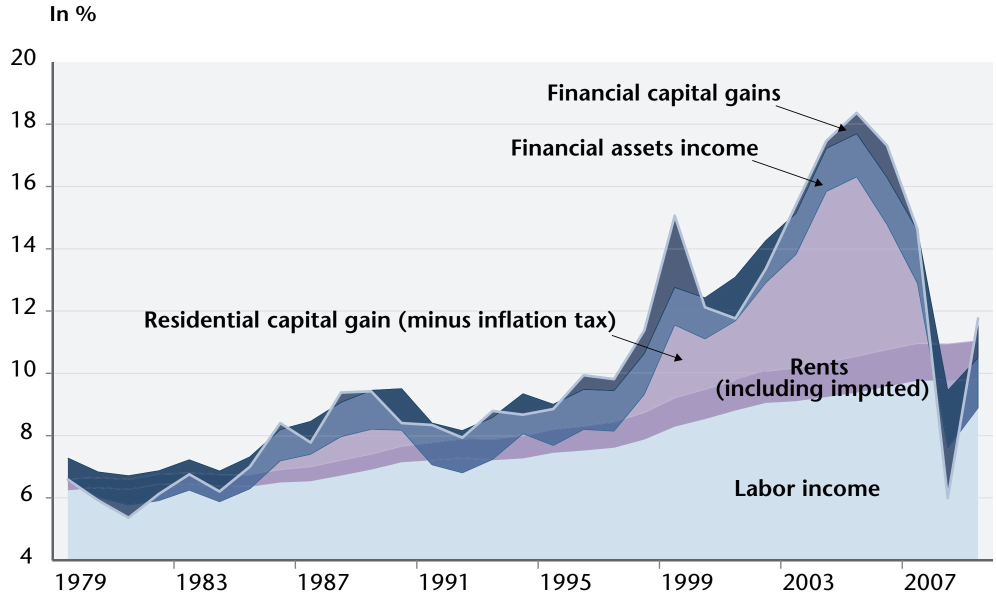
More importantly, although it is a fact that housing prices are disconnected from the share of rents (including imputed rents) in national income, rents are not the only source of income derived from homeownership. The authors seem to neglect capital gains. Correctly measured, household income should include capital gains. Hicks (1946) defined income as "the maximum value which [a person] can consume during a week, and still expect to be as well at the end of the week as he was in the beginning". If we use Hicks' definition of income, ("true") income then equals consumption plus variation of wealth: [2]

$$I = C + dW$$

Capital gains therefore should be included in the definition of household income, as they allow future consumption. Figure 1 shows at the macroeconomic level the importance in France of capital gains relative to labour income and fixed income from property. If what counts is income, then one should not forget capital gains.

2. See Weiztman (2000) for a comprehensive presentation and discussion of the hypotheses needed for this result.

Figure 1. Real labour incomes, real fixed income from capital & real capital gains, France 1979-2009



Source: Allègre *et al.*, 2012.

Should we care about inequality of consumption?

To answer the problem of capital gains, the authors suggest implicitly that what counts is not wealth nor income but consumption. Capital gains exist but "*most capital gains are used by sellers, not to consume more, but to buy a new dwelling*" (p. 7, underlined by us). The main idea of the authors is that a rise in price of housing does not imply a rise in real consumption so it does not really matter in the first order. The authors use an intuition from Buiter (2010) whom they cite: housing wealth is different from financial wealth because people use housing services, and plan to use them in their remaining lifetime. People have to fulfill these housing needs whereas they don't have any "corporate stock" or "corporate bond" need. The authors cite the literature on wealth effects, including Buiter (2010): according to this literature, a rise in housing prices does not have a real effect on consumption of other goods. Only "*if there is a housing bubble, there are real effects on consumption due to distortions. These effects are of a second order however...*" (p. 2). This is however a serious misinterpretation of this literature and the consequences of this absence of wealth effect on consumption. Indeed, this literature studies aggregate consumption but says nothing about inequality. What Buiter (2010) writes is that, concerning the (macro) wealth effect, housing wealth isn't wealth; more precisely, a rise in the fundamental value of housing isn't a rise in wealth. However, Buiter uses a representative agent model: one cannot make inferences on inequality dynamics using a model in which everybody is equal (and only the fate of the representative one is studied). Basically, what Buiter says is that if everyone live in their own house for ever, then variations of housing prices have strictly no impact on consumption and well-being. The authors add that this remains true in a world where there are owners and tenants but where houses are sold only to buy new houses. Then, the real price of houses is always 1: rising nominal prices are "in part an illusion" (p. 11). This is an interesting intuition, but how does it help us think about inequalities in the real world? The argument of the authors can be summed up as follow: if we consider that households receive a dwelling from their parents, and live in it during their entire life – or exchange it against other dwellings – then the evolution of prices will have no real effect. In their conclusion, the authors try to clarify this line of reasoning:

> *To better see this point, let us ask two questions. First, what inequality would there be if each household owned one painting and kept it throughout its lifetime? The wealthiest households might own a pricey Manet or Kandinsky. The poorest might own a painting by a local artist. Now, if the price of art increased uniformly, would this contribute to an explosion of inequality in the sense of a divergent and exponential accumulation of capital? The answer is clearly it would not.*

This comparison does not really nail the argument. Of course, if art prices increased proportionally, it would contribute to an increase in inequality in the common sense of the sentence. If a Manet is worth 10 million euros and a local painter 1,000 euros (these are the magnitudes of the art market), a doubling of art prices would increase the wealth of the holders of a Manet by 10 million euros and the wealth of the holders of a local painter by 1,000 euros. The only reason why inequalities of consumption do not increase in the fable above is because households are *supposed* to keep their painting during their lifetime and are *supposed* to be receiving a constant flow of well-being from the painting, no matter what it is worth on an international art market (the reason why they do not sell if their well-being is constant despite a doubling in price remains a mystery). But, even if we accept these premises, some children will receive an additional 10 million euros in value whereas other children will receive an additional 1,000 euros (if they recognize the value of the painting and don't sell it in a garage sale). Thanks to the magic of free exchange, if the first children do not value the benefit of holding a Manet at 20 million euros, they can sell and do what they want with the money. Even if they decide to hold it, it is difficult to conclude that inequality has not risen with the doubling in art prices. The same happens with housing: individuals do not generally sell their housing to consume capital gains. However, if they do not consume their capital gains, they transfer those gains to their children through bequests. In France, people receive bequests at an average age of around 60 whereas they acquire houses at around 40. Moreover, individuals whose parents are homeowners have a greater chance of being themselves homeowners: their housing service is already met and they can sell the dwelling they inherited for their own consumption. On the other hand, if housing prices rise, individuals who do not inherit a dwelling need to decrease their consumption if they want to become owners: rising housing prices therefore have real effects on consumption inequality through at least unequal bequests, although they might not have any effect on aggregate consumption. At today's prices in Paris and other cities, it is hard to claim that this is a second-order issue (see Figure 1). The authors minimize this problem by using once again a dynastic framework: "*If a young successor inherits an amount of money coming from the sale of a housing good and buys another housing good by means of this legacy, it is the same as if prices had not increased. Here again, the real price of housing is 1 if we think in terms of dynasties*" (p. 9). But the world where the price of housing is always 1 is fantasy. In the real word, dwellings are not always bought with other dwellings, and those who want to work in New York City, London or Paris do not necessarily have parents who are homeowners in these cities. Even a proportional increase in house prices has real effects, because you do not buy an apartment in New York City, NY by selling ten houses in little New York, TX (there is only one house in New York in Texas, see below). Similarly, nobody buys a Manet by selling 10,000 paintings by local artists. If housing prices double, the *absolute* difference in prices between a dwelling in New York, NY and one in New York, TX doubles as well, and this absolute difference can be very important.

New York, TX vs. New York, NY

Left: The only house in little New York, TX. Right: Aerial view of New York, NY. In a world with mobility, homeowners
In New York, NY have more to gain from a doubling of all housing prices than the homeowner in New York, TX.

There is a big difference between Manet paintings and homes: regular people do not need an original painting from Manet in their living room, whereas they need housing services. The entire reason why housing wealth isn't wealth (in a macroeconomic representative agent model) is lost in the comparison with paintings.

Moreover, one can highlight a theoretical inconsistency in the arguments of the authors. According to the authors, the value of housing capital is the actualized value of rent under the assumption that what counts in terms of well-being is the housing service (valued at the market price of this consumption). But then, they use a dynastic model in which what matters is the transmission of ownership. This dynastic model is indeed justified by the low elasticity of consumption to the increase in property prices. However, in a dynastic model (where individuals try to maximize the discounted sum of utilities of their dynasty), the lack of wealth effect is explained by the fact that what matters in terms of dynastic utility is the transmission of the property, not the mere possibility of housing. Otherwise, they would consume the bubble value at the expense of future generations. Obviously, what matters for these dynasties is not the mere housing service. Otherwise, there would not be any bubbles: if prices diverged from their fundamental value, a utility-maximizing dynasty would sell immediately. The existence of a divergence between market price and "fundamental price" (the actualized rents the authors try to measure) proves that ownership, and not just housing services, matters to individuals (which should be obvious to anyone who ever attended a dinner party in London, Paris or New York). If ownership obviously matters to individuals, it does not appear legitimate to use a normative framework where ownership does not matter in order to "correct" prices from a market-based evaluation. Less than 10% of the residential stock is exchanged every year and probably a large share is held for a long period of time. Applying market prices to that stock brings a lot of issues (one of them being quality correction) but still conveys a lot of information about the value agreed by sellers, buyers and bankers.

Should we care about the explosive dynamics of inequality?

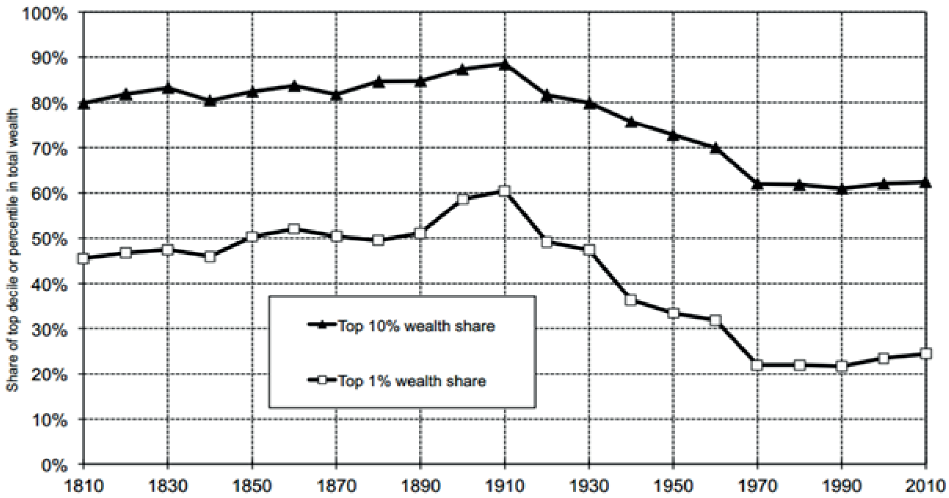
Rising housing prices obviously increase income inequality (when capital gains are included) as well as consumption inequality (mostly through inheritance), which the authors concede but minimize. The authors argue that this does not contribute to the explosive dynamics of inequality and is therefore inconsistent with Piketty's thesis that $r>g$ will produce an explosive dynamics of inequality. First, Piketty's thesis is not that inequality is explosive, so the authors partly use a straw man argument.[3] Piketty is very clear that there are converging and diverging factors to inequality and that divergence is not without limit: he never defends the idea that capital income will make up anything near 100% of national income, or that capital/income ratios will explode. The consequences of $r>g$ are not that apocalyptic, which does not mean that they are not serious. Although Piketty does not discuss divergent forces in housing capital *per se,* we can discuss them here using his dynamic presentation.

The authors argue that there is not a dynamic toward housing inequality, pointing out that the proportion of owners has risen continuously between 1950 and 2006. However, this is totally consistent with Piketty's theory. The data in the book do tell another story: wealth inequality is today at a historic low point in

3. Piketty (2015) makes it especially clear that r-g does not imply an explosive dynamic of inequality: "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 (…) But this finite inequality level will be a steeply rising function of the gap *r-g*." (underlined by us).

France (Figure 2). This weak concentration of wealth obviously does not contradict the book's own theory.

Figure 2. *Capital in the 21st century* shows that wealth inequality has fallen in France. Rising inequality is a prediction for the 21st century

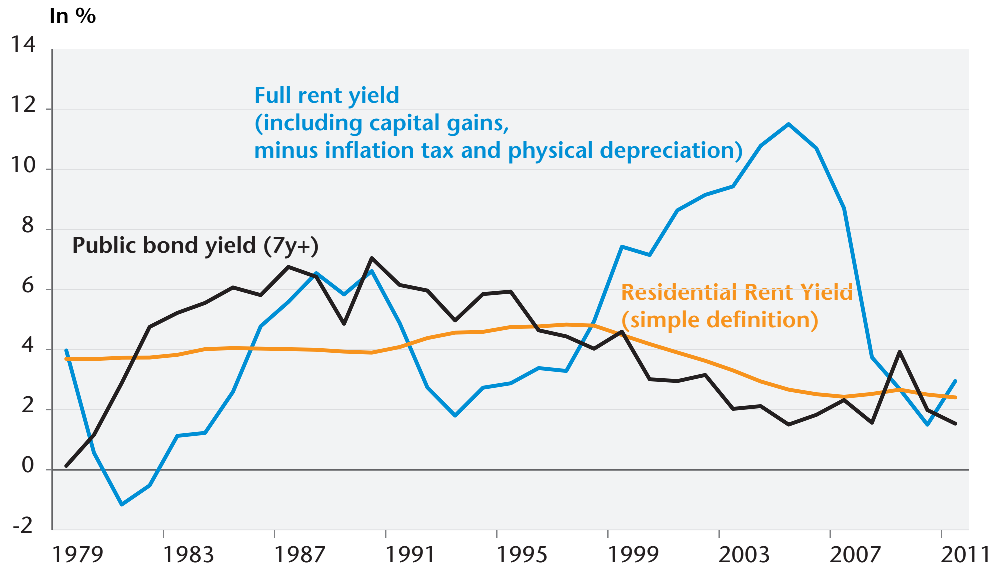


The top decile (the top 10% highest wealth holders) owns 80-90% of total wealth in 1810-1910, and 60-65% today.
Sources and series: see piketty.pse.ens.fr/capital21c.

In fact, until 1999, housing returns were relatively low (Figure 3). Following Piketty's theory, one does not expect any divergence before that date. It is only between 1999 and 2008 that returns, including capital gains, were particularly high (Timbeau, 2013).

Might these high returns constitute a force of divergence in terms of inequality? Our answer is yes. In the 1950s, housing ownership was not highly correlated with income: it was best explained by socio-demographic factors: older people and independent workers, including farmers, were more often owners. This is explained by the fact that from an economic perspective it was equivalent to be a tenant or an owner, notably because fiscal rules did not favor ownership. For example, imputed rents of owner-occupiers were taxable until 1965. This was abandoned because of high administrative costs and low returns (Driant and Jacquot, 2005). First, high housing capital gains do not create an increase in the concentration of capital since they are shared between all owners along the income scale. However, the inequality between owners and non-owners increases: the weight of inheritance flows, which are very unevenly shared, increases. The divergence described in Piketty's book takes place in a latter period. As prices rise, homeownership becomes more difficult for the working classes because of credit constraints. Access to ownership is then increasingly correlated with income and with whether one's parents are owners (but both factors are increasingly correlated as well). Ownership becomes increasingly a closed club for the wealthy. If the returns on housing capital remain high, then nothing prevents divergence.

Figure 3. Returns from housing capital



Source: Timbeau, 2013.

Conclusion: *r>g* at the center of Piketty's thesis

Piketty's analysis of the consequences of *r>g* is in fact trivial. Contrary to what the authors write, it is not based on a particular growth model. If *r>g*, then excess income (*r-g*) is either consumed, which leads to an inequality in consumption, or saved and passed to the children, which leads to inequalities in terms of unequal inheritance. Concerning housing, if *r>g* is due to capital gains, it probably leads mostly to unequal inheritance (and greater consumption of housing services). However it is not right to make the problem disappear as in a magic trick. In a trick, the card is always on the side of the hand not visible to the public. Similarly, to make their case, when discussing income or consumption inequality, the authors hide the problem of capital gains and unequal inheritance. When capital gains and inheritance reappear in the discussion, they are treated as second-order problems, but this is exactly where the trick lies: with regard to inequality, they are in fact first-order problems, as we have shown in this discussion.

In a dynastic perspective, if *r>g*, with r being the net returns on capital after taxes including inheritance taxation, then the descendants of the current owners of capital will be able to consume *r-g* forever, without any additional work or effort, which is a problem in a society that defines itself as meritocratic. The issue is therefore not whether *r>g* has harmful consequences or not: socially, it is clearly not desirable that net returns on capital be permanently higher than growth. Piketty demonstrates that such returns are unfair under generally accepted principles of justice (see the discussion on inherited wealth, and Rastignac's dilemma, especially the figures in Chapter 11). As Piketty argues, if *r>g*, the entrepreneurs inevitably tend to become rentiers, and *the past devours the future*.

The question is therefore not whether *r>g* is a problem or not, but whether this relation is likely to continue in the future and in what way public policy can modify it. We believe that there are forces in housing that push towards *r>g*, precisely because housing, like other types of capital, is not purely productive. As noted in our review, the inequality *r>g* is according to us the symptom of a situation where there is some form of rent-extraction (Allègre and Timbeau, 2014). The mechanisms are the same as those that help to maintain the robustness of housing bubbles: "*by their local representation (they vote), by their ability to contest (they may oppose real estate projects using different types of actions), residents have instruments to protect their land rents and therefore increase the value of their inheritance*" (Timbeau, 2013). In our review, we conclude that we must also fight these mechanisms. Taxing capital (and inheritance) is necessary but probably not sufficient. At a sufficiently high level such taxes would surely be rejected, even by the owners of houses near little New York, TX, perhaps at the expense of their children. Children usually have life projects that differ from the ones their parents have for them: they might have little town blues and not plan to live in the family home eternally, looking their entire lives at the same painting by the local painter. In that case, wealth matters – not wealth in purchasing power parity, not wealth "correctly measured" (which for housing is always 1), but wealth at market value.

Local painter vs. Manet

Left: Painting by a young New York, TX artist. Right: Manet, Le déjeuner sur l'herbe.
Owners of an original painting by Manet benefit more from a uniform increase in the price of art than the owners of the noodle painting.

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