Review of Thomas Piketty, *CAPITAL IN THE TWENTY-FIRST CENTURY*  
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A. The myriad contributions of Thomas Piketty

Painstaking research (conducted with many colleagues) needed to compile a vast new database on the long-term growth of wealth and income, and the unequal distribution of each, in many countries – thereby grounding debates over inequality in much stronger empirical evidence.

Path-breaking empirical work tracing wealth and income at the uppermost strata of their distributions, showing (1) that a large part of increasing inequality is between the top 0.1% and the rest of the top 10%, rather than between the top 10% and average income recipients and (2) that income inequality is decreasingly labor-earnings-based and increasingly wealth-based – even in the US.

Persuasive analysis of the tendency of wealth to become ever more concentrated at the top, under conditions (currently prevailing in the affluent countries) where the rate of return to wealth is high and the rate of population growth is low.

Insightful attention to the important role of inheritance of financial capital in generating inequality, and the likelihood of a rising importance of inherited vs. recently-earned wealth in the context of continuing growth of wealth and slowing growth of population. [“The past tends to devour the future.”]

Persuasive analysis of how the 1914-45 period of reduced inequality of wealth & income was a departure from the norm, attributable to unusual political events and related public policies (such as wars, other upheavals, the Great Depression, higher taxes) rather than the kinds of economic forces that he argues – less persuasively – are normally predominant and are likely to prevail in the future.

Focus on the danger that extremely concentrated wealth and income at the upper tail of the wealth and income distributions poses to political democracy and hence to ameliorating the condition of the lower tail.

Persuasive argumentation that taxation of very high incomes and bequests won’t depress the growth of productivity and may well improve economic efficiency.
B. Why growth in the capital-income ratio & the capital share of income is not so inexorable

1. CAPITAL VS. WEALTH

Most of the time when referring to “capital” (K), TP actually has in mind private net wealth (W), including physical and financial assets, as valued by the market. Correspondingly, his rate of profit, defined as the “average rate of return on capital,” is actually the average rate of return on market-valued net wealth (W). As several others have suggested, TP should have called the book “WEALTH IN THE 21ST CENTURY” and carefully distinguished wealth (W) from productive capital stock (K).

1a. Rowthorn has pointed out that the rise in W/Y that TP documents is due primarily to a market valuation effect: W/K – essentially Tobin’s Q, where K is measured at constant replacement cost – has risen a great deal. Measures of constant-price K show that real K has actually been stationary or declining in most adcs, so they actually face a problem of too little investment -- not too much.

2. THE RATE OF PROFIT vs. THE RATE OF GROWTH OF WEALTH

TP considers the relationship between the rate of profit (r) and the rate of growth (g) of real NNP=NNI (Y) to be critical to the growth of “beta” (W/Y), arguing that if r-g is positive/0/negative, then the rate of growth of beta will be positive/0/negative. But the rate of growth of beta is by definition equal to w (the rate of growth of W) minus g, and w-g does not necessarily equal r-g because w doesn’t necessarily equal r.

If aggregate saving (S) and investment (I) were precisely equal to aggregate profits (pi), then the rate of return on wealth r (=pi/W) would equal the rate of growth of wealth w (=I/W). But wealth-owners can consume some of their profits, and wage-(& salary-)earners can save some of their income, so w is likely to differ from r. In fact, it is most likely that w < r, because C is much easier for wealth-owners than S is for wage earners. Thus beta is likely to grow more slowly than TP’s r-g analysis suggests.

3. RELATIVE PRICES ALSO AFFECT BETA

TP assumes that asset prices will in the long run evolve the same way as consumer or producer prices. But if and when BETA=W/Y rises because real productive capital stock grows faster than real output, the higher ratio of real K to real Y might well reduce the relative price of assets, thereby lowering market-valued W/Y.
4. g AND r ARE NOT INDEPENDENT OF ONE ANOTHER

TP treats g and r as independent variables. But r can influence g:

Insofar as r is invested in increasing productive capital stock (K), not only will W – as the market value of K – likely rise, but – since K is an input into production – Y will also likely rise. This limits the possible divergence of W and Y and hence also the potential rise of beta=W/Y.

And g can influence r: TP suggests that it doesn’t matter whether output growth g is due to population growth or to technological progress that increases the growth of productivity (i.e., real NNI/NNP per capita). But the more that g is due to productivity growth, the less it is due to population growth, and the slower will be the growth of the labor force. This means that the capital/labor ratio (K/L) grows faster, which puts more downward pressure on r. The productivity-based component of g, by influencing r as it influences g, causes r and g to move more closely together and limits the divergence between the two variables.

5. EVEN WHEN BETA RISES, CAPITAL’S SHARE OF INCOME NEED NOT BECAUSE THE PROFIT RATE WILL FALL

Capital’s (i.e., wealth-holders’) share of Y is by definition rW/Y. But as W/Y rises, K/Y is likely to rise as well, and that is most likely to cause r to fall – because the more K there is in relation to Y, the less productive will K be at the margins, and the fewer will be the profitable opportunities to generate a high return.

TP recognizes that, as W/Y increases, r will tend to fall; but he makes an argument that the fall in r will not outweigh the rise in W/Y, so the wealth-holder’s share will nonetheless continue to rise. He claims that this will be the case if the elasticity of substitution (e) in production between K & L is greater than 1, which it has been for a long time and is likely to continue to be in the future. But a number of economists have shown that TP ignores the difference between the gross and net K/L ratios; e is measured in terms of gross K, but his analysis is based on net K. His conclusion actually holds only if e is considerably higher than 1, which is rarely the case. (Indeed, by the same logic, an unusually high value of e is necessary to prevent r from falling faster than g when g slows down.) The force of such criticism is diminished, but not eliminated, by the fact that it applies directly & fully to productive capital stock K and only indirectly & partially to wealth W.

5a. Rowthorn has observed that, in the US, K/Y in constant prices has fallen considerably in the past several decades. And the constant elasticity of substitution between K & L (e) has been shown in several studies to be less than unity. This evidence is against TP’s assumptions about rising K/Y and e>1; but standard neoclassical marginal productivity theory would also in this case predict a rise in capital’s share of income. If K does not actually receive its marginal product, a more complex explanation of the rising capital share is needed – e.g., the declining economic & political power of organized labor in most adcs. Yet this doesn’t preclude low real investment as a contributory factor.
C. Further thoughts about Piketty’s work

1. What explains the fall in inequality from 1914 to 1975?

TP doesn’t clearly indicate the extent to which he believes it was (1) purely economic forces, i.e., growth in Y (g) that was unusually rapid and thus greater than the rate of return to capital (r), or (2) institutional and political forces (wars, government regulation of business and labor, etc.) that led to policies much less favorable to the wealthy – such as much higher taxation, if not confiscation – of inherited wealth. Konczal (Boston Review) noted that TP assigns no role in offsetting “r > g” to the growth of “the social state” that ensures access to health, education, and income security; labor unions and the regulatory state are missing or underdeveloped in his analysis. As Kuttner (American Prospect) has emphasized, TP underplays the extent to which unions, and other progressives (in the US) and social democrats (in Europe), took advantage of the temporary weakness of capital and successfully pushed for a significantly more equal distribution of income (plus government transfers & services) in the period 1945-75.

2. What explains the rise in inequality from 1980 to the present?

It isn’t necessarily only – or even mainly – the economic forces stressed by TP: r > g leading to an inexorable rise in the W/Y ratio, the capital share, and overall inequality. There are many other plausible explanations:

- labor-saving technological change
- opening up of China and the former Soviet Union to the world market, adding enormously to the world’s supply of labor (at all skill levels)
- increasing globalization, which offers so many more opportunities for mobile capital
- deregulation of business – especially finance, which has grown so disproportionately

3. What can overcome the long-term tendency of wealth and income inequality to rise?

TP is ambivalent about what could overcome the long-run rising trend of inequality, which he sees as inexorable due to the working out of the economic forces modeled in his theoretical apparatus. On the one hand, he argues that only exceptionally dramatic political events and public policies (like the wars and upheavals that characterized the 1914-45 period, leading to much higher levels of taxation and regulation of business that continued up to the mid-1970s) can reverse the long-term trend of rising inequality. On the other hand, he suggests that the current trend toward greater and greater inequality is likely to be reversed in the future by political action grounded in the defense of democracy.

Yet as Krugman (New York Review of Books) has noted, the history TP recounts offers little basis for optimism, since the high taxation rates in mid-20th century were the result of chaos (wars & upheavals) rather than a democratic surge; and – as many have observed – great wealth has always been able to purchase political influence. Moreover, as Schenk (The Nation) has written: “Democratic ideals have inspired countless egalitarian movements, but liberal democracy has triumphed across so much of the world because of its success as counterrevolutionary reform: no other political system has done a better job defanging social resentment and fostering acceptance of vast inequalities.”

4. The role of “supermanagers” and “supersalaries” in growing inequality.

TP recognizes that in the US (unlike in Europe) growing inequality from 1980-2010 was driven much more by high labor incomes for supersalaried supermanagers than by inherited wealth. It is arguable that some of these high labor incomes should be treated as capital rather than labor income. TP predicts that in the US in the future supersalaries will become less and less important relative to capital accumulation and inherited wealth, but his foresight is less compelling than his hindsight.
5. TP looks mainly at “primary” wealth and income distributions, ignoring taxes and transfers, as well as access to public services (education, health, etc.).

All of the data in Parts I-III of the book are indeed pre-tax, pre-transfer and w/o reference to public. In Part IV he does talk about taxation – how much it rose and became more progressive between 1914 and 1980, and has been declining and becoming more regressive since 1980 – but he does not present information on disposable income or access to public services. So his primary distributions probably overstate somewhat the degree of inequality in disposable income & access to public services – especially in post-WW2 Europe, where transfers and public provision is significantly more substantial than in the US.

6. Shouldn’t the rate of return on capital/wealth be disaggregated?

TP deals with the overall rate of return on capital – more precisely, on wealth – r. This is appropriate from the perspective of the wealth-holder, but not from the perspective of the economy. The variable ‘r’ aggregates returns on very different kinds of capital, with potentially very different rates of return. Thus in the US in recent decades the rate of return on financial wealth and on productive capital located abroad has been very high, but the rate of return on domestic nonfinancial productive capital has been much lower. If this lower rate of return also characterizes marginal investment opportunities, it will depress domestic investment and the rate of domestic productive capital accumulation – generating problems of inadequate aggregate demand as well as lower growth of GDP. That won’t stem the tendency toward rising inequality due to r > g, but it will have serious repercussions on the performance of the US economy.

6a. Shouldn’t different components of capital be distinguished?

Rowthorn has pointed out that TP fails to distinguish between very different components of K – in particular, between housing & land (H&L) vs. plant & equipment (P&E). The market value of H&L in ADCs has increased much faster than that of P&E in recent decades, and it accounts for the bulk of the growth in W/Y documented by TP.

7. The implications of TP’s logic for aggregate demand.

TP does not follow up a major implication of his prediction that wealth and income inequality will rise: that this is likely to lead to macroeconomic stagnation. As Solow (CUNY forum) has observed, if both g and r do indeed fall in the future, that should diminish incentives for real investment; and if income is increasingly concentrated at the top, the saving rate would be expected to rise. So it will become ever harder to sustain sufficient I to generate full employment. Frances Stewart (commenting on Summers in Democracy) also noted that a rising capital share will lead to more saving and less consumption as a % of Y; how will investment rise sufficiently to match saving? (Consumer debt cannot expand indefinitely w/o leading to a crisis, as we saw in 2008).

8. Does it matter if inequality grows but the standard of living of the poor rises?

The fact that wealth is rising relative to income, and/or the capital share of income is rising, and/or inequality in wealth and income is rising, does not ipso facto mean that the poor are getting worse off; it could be accompanied by rising real wages and standards or living for all. BUT economic well-being in some respects depends on one’s relative position in the hierarchy of wealth and income; and certainly political & social well-being, along with the vitality of a democracy, is likely to be diminished if a small class of wealthy owners dominates decision-making in a society.
9. Is Piketty practicing “gattopardo economics” that offers change without change?

Palley has criticized TP for providing in the early part of the book a neoclassical mainstream explanation of worsening inequality, and claims that TP thus sidelines progressive analyses that stress the role of economic institutions and structures of power in generating inequality. Palley also suggested that TP’s mainstream approach to inequality leads to a mistaken and politically naïve focus on taxation as the remedy. BUT: (1) TP does not rely solely on mainstream theorizing; he accords a significant role to social and political factors in influencing the degree of economic inequality (between 1914 and 1980, and prospectively in the future); (2) if one can show via mainstream theorizing that growing inequality is due to economic forces inherent in capitalism, that should generate more support for political efforts to counter the trend – whether by reforming or replacing capitalism; (3) TP’s analysis of the rise of supersalaried supermanagers is distinctly un-neoclassical, relying on social norms and the power of corporate executives to serve their own interests; (4) the fact that tax policy reforms will run up against strenuous opposition from the powers-that-be, because capital increasingly controls the political process, does not make such proposals politically naïve; any effort to reduce inequality, whether via reforms of the kind advocated by TP or via more radical measures (unspecified by Palley) will run up against strenuous opposition from the wealthy and powerful. The appropriate criterion for evaluating measures to reduce growing economic inequality is not how radical the measures are, but how likely it is that they can gather the political strength needed to be implementable and successful in reversing the growing inequality.

10. TP ignores the likely long-run effects of ecological limits to growth

Boyer (reviewing TP’s book) observed that increasing emissions of greenhouse gases, associated with predominant use of fossil fuels as a source of energy, are generating global warming, a rise in sea levels, and an increase in destructive weather phenomena – all of which will require considerable new investment just to maintain existing levels of output – let alone to promote economic growth. This would appear to support TP’s prediction of lower rates of growth of output (g) in the long run; but it may well also lower rates of return to productive capital (r) and to wealth (w). Any effort to forecast the likely long-run trend of inequalities in income and wealth needs to address the way in which ecological limits may affect g, k and r.

Bardhan (in another review) suggested that TP’s book, while not mainly concerned with developing countries, does point to the need for more research in these countries: TP’s massive empirical effort should inspire the search for more intensive data and analysis to warrant meaningful propositions that can contribute to democratic debates on inequality and take us beyond what TP calls “the lazy rhetoric of anticapitalism,” which is super-abundant in Indian intellectual circles.

11. Are TP’s data on wealth fundamentally flawed?

Chris Giles (Financial Times 5/23/14) claimed that they are. Reviewing Giles’ assertions and TP’s reply, Neil Irwin (New York Times 5/30/14) concluded that: “If we had to summarize the consensus that has emerged on L’Affaire Piketty, it goes something like this. Mr. Giles raised worthwhile issues about Mr. Piketty’s methods that are fair to debate. But Mr. Piketty’s response also makes clear that Mr. Giles’s approach has flaws of its own and shows less inequality in Britain than there actually is. Indeed, Mr. Giles’s results point to a world at odds not just with Mr. Piketty’s data, but also with that by other scholars...”