

# Class in the 21<sup>st</sup> Century – Was Piketty Right?

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Thomas Piketty's best-selling book 'Capital in the 21<sup>st</sup> Century' (Piketty 2014) triggered a renewed interest in empirical research regarding the accumulation and distribution of wealth, and a lively debate about their causes and consequences. Wealth determines income, power and opportunities, and is at the very heart of economic inequalities. Understanding the dynamics of wealth accumulation and distribution is thus crucial to tackle these inequalities.

In a nutshell, Piketty's (2014) theoretical argument is that, since the profit rate is usually higher than the growth rate in an economy (an empirical regularity which he finds for most countries and time periods), the concentration of wealth increases over time. This entails a more unequal distribution of income, because the share of profits increases and wealth and capital income are more concentrated than labour income. A rising income inequality finally feeds back into a more unequal distribution of wealth, so that wealth will be ever-increasingly concentrated in the hands of a small elite.

Empirically, Piketty (2014) provides extensive data on the historical evolution of wealth-to-income ratios, wealth, and the personal income distribution. He shows that the wealth-to-income ratio has risen, and that wealth and income have become more unequally distributed in high-income countries since about the 1980s. Regarding the profit rate and the growth rate, he argues that they have been largely stable over the long run, but that the former is empirically higher than the latter.

The reception of the book in Post-Keynesian economics has been mixed. On the one hand, Post-Keynesian economists often recognize the empirical contributions of the book: the collection of historical data and the carving out of observable patterns therein (Rehm and Schnetzer 2016). On the other hand, Piketty's simplistic, neoclassical theoretical framework by which he explains the dynamics of wealth and income inequality has attracted the criticism of Post-Keynesian economists, in whose theoretical frameworks class and distribution have long played a major role (e.g. Galbraith 2014, Palley 2014).

Not only does Post-Keynesian theory show that the distribution of wealth can be stable in the long-run, but it is also capable of explaining the short-run dynamic of wealth accumulation and distribution that Piketty (2014) presents abundant empirical evidence for. In the 'transitional phase', i.e. when the wealth share of capitalists is below its long-run equilibrium value, a rising wealth-to-income ratio and increasingly unequal distributions of wealth and income are all perfectly compatible with Post-Keynesian theory. Due to its focus on the long run, these short-run dynamics have not been investigated by Piketty's Post-Keynesian critics so far. This is the gap the paper intends to close.

To do so, we build a Post-Keynesian model in the tradition of Bhaduri and Marglin (1990), following Ederer and Rehm (2017) by incorporating an endogenous wealth distribution. In contrast to Piketty, we explicitly include two classes, workers and capitalists, as is standard in Post-Keynesian models. We extend the model by blended incomes of workers and capitalists, differential rates of return, and capital gains. We show that the concentration of all wealth in the hands of capitalists is not a likely outcome, but both the euthanasia and the triumph of the rentier are special cases. We therefore reiterate the critique of Piketty's hypothesis of an ever-increasing wealth concentration.

Furthermore, we use the model to explain a 'transitional dynamic' that closely resembles the empirical evidence presented by Piketty and his projections for the near future. Our formulation

finds a rising wealth-to-income ratio, rising wealth and income inequality and a profit rate that is higher than the growth rate of the capital stock (and thus income). Finally, we analyse the effects of a wealth tax, as suggested by Piketty.

## Bibliography

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This paper developed a neo-Kaleckian model with an endogenous distribution of wealth between workers and capitalists, and extended it by including blended wage and capital income of both workers and capitalists, differential returns on assets between workers and capitalists, and capital gains which reflect the increase in firm value due to retained earnings. We looked into the short- and long-run dynamic of the model, discussed Piketty's theoretical arguments against its background, and evaluated his proposal of a wealth tax.

Piketty's main prediction is that a small elite will own all wealth if capitalism is left to its own devices. Our model permits this corner solution of all (or zero) wealth held by capitalists, but usually economies will show a stable long-run wealth distribution in which workers have a positive wealth share. In such an equilibrium, the wealth-to-income ratio is stable, and there is a (stable and positive) gap between the profit rate and the growth rate, which is given by the Cambridge equation. The specific level of the equilibrium wealth distribution between workers and capitalists depends on their saving rates, the profit share, the share of wage income that accrues to capitalists, the differential returns on wealth for the two household groups, and the saving rate of firms.

We therefore reject this theoretical conclusion of Piketty. However, we show that the model has a 'transitional phase', i.e. when the wealth share of capitalists is below its long-term equilibrium, in which the model behaves according to Piketty's (2014) empirical findings for high-income countries since the 1980s. In this situation, the wealth share of capitalists increases endogenously. Furthermore, the wealth-to-income ratio rises, the differential between the profit rate and the growth rate gradually decreases (but is always higher than the long-term gap), and income inequality rises. Consistent with Keynesian logic, a rising wealth share reduces aggregate demand and thus capacity utilization and growth. The paper thus provides theoretical foundations to Piketty's abundant empirical findings.

Finally, we evaluate the effects of a wealth tax, which Piketty suggested for addressing the increasing concentration of wealth. The model shows that the introduction of a permanent wealth tax (or, equivalently, a suitable inheritance tax or capital income tax) can indeed reduce the equilibrium value for the wealth share owned by capitalists – and thus the wealth concentration – as well as the wealth-to-income ratio. The wealth tax also dampens income inequality.

We see a number of interesting avenues for future work. First, endogenizing the profit share and working through the stability aspects of such a model might provide valuable insight into potential 'Piketty dynamics' in a Keynesian framework. Second, expanding the policy research might yield more detailed information on the relative merits of a wealth tax versus an inheritance tax or capital income taxes. Finally, xxx