BOOK REVIEW
CAPITAL IN THE 21ST CENTURY
Thomas Piketty – Author

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Only few books of economy in the recent past years have had a similar effect on public opinion as the work of Professor Thomas Piketty from Paris School of Economics, in which he attempts to explain the dynamics of the last two centuries income inequality in developed countries. Shortly after the release of the English version, appeared excellent reviews from some major economists such as Robert Solow, Paul Krugman, Robert Shiller, all three Nobel Prize winners, as we all know.

“It is the most important book of the century” concluded Esquire magazine, and Paul Krugman, Nobel Prize winner for Economics, described it as “a volume really superb” and “an extraordinary work [...] certainly the most economic important book of the year if not the decade.”

In turn, Martin Wolf, one of the most influential writers on economic issues worldwide, says that the work of Piketty is “extremely important” and Branko Milanovic, a former World Bank economist, says it is “one of the primary works of economic thought”.

The title “Capital in the XXI century” alludes to “Capital” by Karl Marx. The book is a work of highly detailed economic history that aims to decipher the economic rules underpinning the operation of Western societies. The book is based on research conducted over the past ten years by the French economist and addresses a sensitive issue: inequality.

Piketty examined how Western societies have evolved in recent centuries in point of income and wealth (capital), providing an overview of the inequality of the Industrial Revolution until today.

Piketty defines capital (wealth) as majority of shares, money and immovable property owned by people. He said in his book that capital is distributed more unequally than income (for example, 5% of US households
own a majority equity) and Piketty’s book studies the wealth inequality in major Western economies over time.

Income inequality is a much debated theme in society, but the data collected by Piketty shows that capital is even in a greater inequality. In the US, 1% of the population owns 35% of all wealth, while in Europe the wealthiest 1% hold about 25% of the capital of the continent. Both in the US and in Europe, 10% of the population owns more than half of the capital.

![Figure no. 1. Wealth inequality: Europe and the U.S., 1810-2010](image.png)

In the eighteenth century and nineteenth century, Western European companies had huge record levels of inequality. Wealth far exceeded the national income being concentrated in the hands of a few wealthy families located in the upper stratum of social structures. Despite the fact that industrialization has led to the gradual increase of salaries of workers, this system was maintained, inequality is reduced only after two world wars and the Great Depression.

Destruction of property, inflation and high taxes resulting from these crises have made the wealth to fall significantly, this period is characterized by a relatively equal distribution of wealth and income. Now, though, Piketty argues that wealth begins to regain supremacy of capital importance in modern economies reaching levels similar to those recorded before the First World War.
Based on these historical data, Piketty enunciated a theory of capital and inequality. French economist says that wealth is growing faster than the growth rate of the economy (concept summarized in the phrase “r > g”, where r is the rate of return on capital, and g is the growth rate).

![Figure no. 2. After-tax rate of return vs. Growth rate at the world level, from Antiquity until 2100](source: See piketty.pse.ens.fr/capital21c)

The rate of return to capital (after tax and capital losses) fell below the growth rate during the twentieth century, and may again surpass it in the twenty-first century.

**Figure no. 2. After-tax rate of return vs. Growth rate at the world level, from Antiquity until 2100**

The data collected show that Piketty’s g, the growth rate, is on average 5%, but in the past decades it was below this level. *Because the return on capital is higher, the already rich wealth grows faster than the economy of a country. So, since r > g, the rich will become richer, and inequality will increase.*

As you can see in the chart above, the only exception was the period between World War I and 70s. Data collected by Piketty show that the heyday of the middle class was but a fleeting moment, due largely to inherited wealth destruction (of war), inflation, nationalization and progressive taxation policies. *Now – Piketty notes –, companies recreate the world “patrimonial capitalism” in which dominates the rich heritage, as at the end of the nineteenth century.*

Empirical data collected made the economist to draw a firm conclusion in the absence of intervention, market economies will always fall into a dangerous cycle in which existing wealth will increase in value much
faster than wages and sales. For this reason, the standard of living of all people who are not rich will stagnate and even decline, will enter a phenomenon that Piketty describes using the phrase *“past devours future.”*

Piketty argues that there is nothing to prevent natural gradual concentration of wealth. This can be prevented either by rapid economic growth (which may be due to technological progress or population growth) or as a result of state intervention. For this reason, Piketty concludes that governments around the world can prevent emphasizing inequality by imposing a global tax on capital.

Piketty has classified mechanisms that determine the dynamics of wealth distribution in two major categories of forces – **converging and diverging forces**. The first category tends toward a higher distribution of compressed assets, where everyone owns a piece of the wealth of a country, while the second category creates a distribution more unequal, where most of the population do not have anything, and a small hand holds almost all the capital in the economy.

Piketty forces are converging identified on the dispersion of information and skills and investment in education. A clear example of this is the phenomenon of catching up when developing countries adopt production methods and technologies from advanced countries and grow more quickly than if it had to develop these technologies on their own. It’s important to remember that although education and technology can be a source of inequality between countries decline, they can exacerbate inequality within a single country, if education is accessible to all social strata.

**The main argument of the book** is in the foreground force diverging relationship between the rate of return on capital (denoted by $r$) and the rate of income growth and production (denoted by $g$). When $r > g$, capital grows faster than the rest of the economy and previous capital accumulation become very important. When capital is very profitable, those who inherited great fortunes should save a relatively small proportion of wealth at a rate of $r$ percent per year to achieve a consistent income. On the other hand, those whose incomes are predominantly salary and inheritances will not see revenue increasing by $g$ percent per year. If the difference between $r$ and $g$ is very high, wealth heirs may come to dominate the wealth accumulated by employees and heirs descendants will dominate the net wealth accumulated by the employees’ descendants.

This dynamic will lead shortly to a situation in which inherited wealth will dominate the wealth obtained from work. In this case, a
relatively small number of people have control of a large share of capital, which, in the words of Piketty, may be incompatible with the values of a meritocratic society.

Piketty talks about the impact of extreme events in the period 1910-1950, which led to a decrease in inequality in developed countries. The two World Wars and the Great Depression, with the policies of the 40s’ governments led to a decrease in capital stock. In other words, geopolitical and military realities had a large share in the economic changes in the first half of the 20th century.

The author also attributes much of the increase in inequality from 80s until the present to economic policies of the 80s, including significant decreases of marginal taxes and deregulation of financial markets. For example, in the United States, the highest marginal income tax decreased from 70% in 1978 to just below 30% in 1988, but then remained around 35-40% until today (see chart below).

![Figure no. 3. US Top Marginal Tax Rate (Federal Individual Income Tax)](http://blog.econacademia.net)
From my point of view, one of the most interesting charts from Piketty’s book is the chart that follows. In this chart, you can see how the proportion of income held by the richest 1% of US citizens varies. You can clearly see the effects of the Great Depression, when many investors lost fortunes on the stock exchange, then the effects of the Second World War and all tax increases. After the wave of deregulation and tax cuts of the 80s, we see that the proportion begins to grow again.

**Figure no. 4. Top Income Shares, United States, 1913-2012**  
Source: http://blog.econacademia.net

CEPR Research Institute added the most important changes in government policy in the chart presented in figure no. 5. It’s refreshing to see a review that takes into account not only the predictions of mathematical models, but also events that are not necessarily related to the economic sphere.

For me, it was a pleasure to read the first half of this book. The results of academic papers written by Piketty alongside Emmanuel Saez,
Anthony Atkinson and other collaborators are presented in a fairly accessible manner to the general public, with examples from literature and much discussion about the real policies of governments of France, England and the United States.

Mathematical models are kept to a minimum and macroeconomics courses at undergraduate level are most often enough to follow mathematical arguments.

Figure no. 5. Income Share of the Top 1 Percent, 1913-2012 (annotated)
Source: http://blog.econacademia.net
Although the title of Piketty’s book has a Marxist resonance, French economist argues that it is not anti-capitalist, stressing that inequality cannot be solved by increasing the size of the state. The French economist believes that a solution would be a global tax on wealth, but he also recognizes that this idea is utopian, it is hard to believe that world governments will agree to impose a tax at global level (this would be necessary, because the partial imposition of this tax would result in the transfer of capital to countries with lax regulations, as happens today).

**Piketty proposes the adoption of policies that aim unused capital, taxing the inheritances, the huge salaries and static forms of wealth.** These policies would aim at collecting money through taxes, but stimulate people to move their capital in higher-risk areas to create economic activity. The measures proposed by Piketty have little chance of being adopted, as he primarily recognizes. Even if the problem is not solved by the proposals that he made his conclusions ensure France’s entry into history.

Lawrence Summers, former Secretary of the Treasury of the United States between 1999 and 2001 and also Ex-Chief Economist at the World Bank, says that if any of the theories of Piketty do not prove true, he still deserves to win the Nobel Prize for demonstrating empirically that the percentage of capital that reaches the top managers (top 1%, 0.1% and even top 0.01% of the population) has grown considerably in the last generation. “Demonstrating this fact has transformed the political debate,” said Summers.

Piketty stresses that his forecasts, which envisage an acceleration of inequality are not doomed to become reality. “All I propose is to design institutions that can react if needed, if that possibility becomes real. If the share capital does not increase because the return on capital is much higher than the rate of economic growth due to very fast innovation, then we will not need to react to unequal wealth that does not increase and will be very good,” says Piketty. “But we cannot sit and wait for this incredible coincidence to occur. There is no natural force to produce this incredible coincidence, so we need a plan for where it will not happen”, concludes the French economist.
The author gives the example of progressive taxation of income: “It would have seemed an utopia a century ago and yet became reality, not only in Europe, scared by the Bolshevik Revolution in Russia, but also in the US, despite the fact that did not seem to be allowed by the Constitution of this country.” So even if his proposals seem extreme, Piketty believes they will come true sooner or later, either because we will be forced to adopt them after the next crisis of large proportions, or to avoid it from happening.

To decide where we want to take our society, we must know where we are. Piketty’s book showed the importance of statistics and data quality in forming an opinion about inequality, a topic considered until recently the preserve of policy and philosophy more than of the economy.

I wished Piketty would have paid the same attention to expression and economic explanations as he did to his database creation, especially in the second half of the book. Although the entire book is about the dynamics of capital accumulation, it has no mathematical model explaining the factors underlying this accumulation. Moreover, although in many cases it speaks about the importance of fiscal policies in moderation of social inequalities, it does not explain very specific mechanisms by which governments can act and the costs of these interventions.

In terms of expression, often it seemed to me that Piketty attempts to present economic mechanisms as natural laws. An example is the names of the first and the second fundamental laws of capitalism and presenting them as natural laws. Unfortunately, those two relationships are nothing but relations obtained in certain economic models based on mathematical assumptions. As we know, where is the law, there is no bargaining, but these “laws” can be changed by governments through taxes, investment programs, nationalizations, etc., so there are so universal as one might think.

The most common criticism of this book is to address the lack of realistic solutions. Piketty proposes a progressive global tax on wealth, which should temper the trend towards increasing inequality of wealth. It does not seem that much to say in defence of this proposal: it is impossible to obtain a consensus of all countries in the world, the implementation would be cumbersome even for a consensus, then such a tax on wealth would hurt many heirs, which have not liquid wealth.
The alternative proposed by Piketty is a very high marginal tax (70%) of revenue. According to Piketty and Saez’s academic research, a charge that big would distort the labour market so much that it is hard to believe that it would be optimal. I can agree that more items should be included in models of optimal Taxation, but until then I do not think the 70% marginal tax may be optimal.

In conclusion, I recommend those interested in the issues of tax policy and redistribution to read this book, even to get an idea about the dynamics of income distribution and wealth in the past 150 years. Piketty’s analysis is a first attempt to explain this dynamic, but I think there are many things that can be improved in a future edition or by more research.

Whether or not the proposed policies will be applied, Piketty already produced a considerable impact through his volume, involving the society in a debate on inequality.

Even if his forecast did not come true, future historians and economists will recognize “Capital in the 21st century” as one of the most important books of the onset of the twenty-first century, especially considering the considerable social impact.