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**THE ROLE OF TAXATION IN THE DISTRIBUTION OF INCOME AND WEALTH**

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**ABSTRACT**

Fin dagli sviluppi delle prime forme di civilizzazione, le disuguaglianze economiche sembrano essere una caratteristica intrinseca delle società umane. In seguito ad una netta riduzione in concomitanza delle due guerre mondiali, le disuguaglianze di reddito e ricchezza sono tornate a crescere toccando oggi livelli preoccupanti e senza prospettive di arresto. Sono davvero un elemento naturale ed inevitabile da accettare? Oppure esistono degli strumenti per superarle? Dopo aver presentato un resoconto della storia delle disuguaglianze – dal punto di vista sia della storia economica che del pensiero economico – lo scopo di questo elaborato è indagare il ruolo della tassazione nella distribuzione del reddito e della ricchezza. In particolare, si evidenzia la correlazione tra la recente concentrazione vertiginosa di reddito e ricchezza nella fascia più ricca della popolazione – soprattutto negli Stati Uniti - e la coincidente diminuzione del livello di progressività del sistema di tassazione. Infine, nell'ultimo capitolo, si discutono nuove proposte di tassazione – ad esempio quella sul patrimonio – come possibili soluzioni per arginare l'andamento crescente di concentrazione della ricchezza, che mina alla base il concetto di parità di opportunità, danneggia la classe media e, di conseguenza, l'economia nel suo complesso.

# INTRODUCTION

Imagine a society in which, at birth, everyone has zero wealth. Subsequently, depending on personal preferences and thanks to a well-functioning welfare state that satisfies the own needs, the individual can decide whether to improve his economic position. It seems the exact description of how our capitalistic and democratic society is supposed to be: everyone has equal opportunities and is entirely free to choose what to do with their own lives. Unfortunately, the actual situation is quite far from this ideal society. Who is born rich will likely continue to be so, and who is born poor will keep this feature for the whole life. Income and wealth are more and more concentrated in the hands of the top 0.1% and 0.01%. Moreover, this result does not seem linked – or, at least, not primarily - to some sensational skills of this share of the population.

From my perspective, studying economics cannot be disconnected from the desire to understand how society functions – or, in particular, what is not functioning in it – with the final aim of improving it. Led by this interpretation of the economic research, the following pages of this work will analyze one of the main issues of today's society: wealth and income inequalities. Moreover, I will recognize in the same subject - taxation - both a potential cause for inequalities' spreading and the solution for their overcoming.

In Chapter One I will first give a brief review of inequalities from a historical perspective. Then, I will analyze today's situation providing detailed data for both developed and developing countries – instead, the rest of the work focuses only on developed economies. In the last paragraph of the first chapter, I will discuss the issue of tax havens for data collection, anticipating the taxation topic that will be the protagonist of the other chapters.
In Chapter Two, I will investigate the link between the spreading of inequalities and the current tax system. In the first paragraph, I will provide a summary of theories on optimal taxation, focusing in particular on those theories – such as the Chamley-Judd one – that suggest zero-capital taxation as the best outcome in the long run. In the second and third paragraphs, I will analyze the tax system of, respectively, the United States and Europe. I will use the decreasing trend in the progressivity level of developed economies' tax systems as an explanation for the simultaneous concentration of wealth and income in the hands of the richest.
Finally, in Chapter Three, I will present new perspectives on taxation – in particular, on capital taxation. In the first paragraph, I will briefly overview special taxes on capital, such as corporate, capital gains, inheritance, property, and wealth tax. In the second one, I will discuss

the potential positive effect of capital taxes on the distribution of income and wealth. Using the online tax simulator https://taxjusticenow.org, I will also provide my proposal for improving the progressivity level of the American tax system, which today seems like a giant flat tax regressive at the top.[1] Conclusively, in the last paragraph, I will highlight the necessity of global cooperation to implement effective new tax reforms.

[1] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

# CHAPTER ONE
# WEALTH AND INCOME INEQUALITIES: A WORLDWIDE OVERVIEW

## 1.1 Wealth and Income inequalities from an historical perspective

Is inequality a new issue? It is the question this paragraph will try to answer from both an economic and an economic thought history perspective.
Jean Jacques Rousseau in his *Discourse on the Origin and Basis of Inequality Among Men*, wrote:

> «From the moment it appeared an advantage for one man to possess the quantity of provisions requisite for two, all equality vanished; property started up; labour became necessary; and boundless forests became smiling fields, which it was found necessary to water with human sweat, and in which slavery and misery were soon seen to sprout out and grow with the fruits of the earth. Metallurgy and agriculture were the two arts whose invention produced this great revolution».[2]

The transition from nomadic to sedentary society (with the development of metallurgy and agriculture) is seen as the starting point of the spreading of inequality. The anthropologist James Woodburn compares the intrinsic equality of the hunter-gatherer societies to the inherent inequality of the sedentary societies:

> «Greater equality of wealth, of power and of prestige has been achieved in certain hunting and gathering societies than in any other human societies».[3]

This hypothesis is also confirmed in *Ten Thousand Years of Inequality. The Archaeology of Wealth Differences*, a book in which some archaeologists identify the trend of inequality in changing of house size over time.[4] They also found that in the Old World, inequality was higher than in the New World, as a result of the presence of «a variety of large domesticated animals in the Old World, coupled with their general absence in the New World».[5] The reason was that «animal husbandry permitted Old World households to generate greater agricultural surpluses than their New World counterparts, and this in turn enabled processes leading to higher level of inequality».[6]

[2] Rousseau, *Discours Sur l'origine et Les Fondements de l'inégalité Parmi Les Hommes*.
[3] Woodburn, 'Egalitarian Societies'.
[4] The lack of written records on wealth before the French Revolution makes difficult to analyse inequalities in the past.
[5] Kohler, *Ten Thousand Years of Inequality*.
[6] Kohler.

The lack of written records on personal income and wealth before the French Revolution produces difficulties in analysing inequalities in the past. [7] Only few economic historians went beyond the documentary sources of Western preindustrial societies.[8] Milanovic et al. (2010) investigated whether it was the industrial revolution to bring about inequalities or inequality existed in preindustrial societies. [9] They theorized the inequality possibility frontier, in which «the maximum attainable inequality is an increasing function of mean overall income».[10] The ratio between the real inequality and the maximum possible inequality is the inequality extraction ratio. Intuitively, the higher is the level of a society' income, the wider is the income share that can be extracted from the upper class.

> «Suppose that each society has to distribute income in such a way as to guarantee subsistence minimum for its poorer classes. The remainder of the total income is very low and barely above the subsistence minimum, the surplus is small. Under those primitive conditions, the level of inequality will be quite modest. But as average income increases with economic progress, this constraint on inequality is lifted».[11]

They found that compared to the maximum inequality possible, inequality in preindustrial societies was much bigger than today. The inequality extraction ratio of Brazil and South Africa, examples of unequal societies today, is the same as the less exploitive preindustrial societies' one. They pointed out that whether the elite fully exploits that maximum was due to economic and political reason. Indeed, wealth redistribution has not always been a matter for politics and institutions. Even the French Revolution (1889), which is often considered the turning point, had no redistribution of wealth among its objectives but the hardy defence of private property. With its ideas of *liberté, égalité, fraternité*, the French Revolution dismantled the *Ancien Régime*, where the three traditional roles (religious, warrior, laborious) legitimized an uneven distribution of wealth according to the group of belonging. These ternary societies were replaced by what Piketty calls *proprietarist* societies, with the theoretical idea of equal access to the property for everybody, regardless of the own social background.[12] However, this model perfectly justified the spreading of inequalities (even if generated from a supposed egalitarian condition) until they reached their climax during the *Belle Époque* (1880-1914).

[7] L'Histoire, 'Les riches et les pauvres'.
[8] Munson and Scholnick, 'Wealth and Well-Being in an Ancient Maya Community'.
[9] Milanovic, Lindert, and Williamson, 'Pre-Industrial Inequality'.
[10] Milanovic, Lindert, and Williamson.
[11] Milanovic, Lindert, and Williamson.
[12] Piketty, *Capitale e ideologia*.

Only from the end of the 19th-century policies have been put in place to combat inequalities. Fiscal policies were the first put in place[13]: a progressive income tax was adopted in 1891 in Germany[14], 1909 in the United Kingdom, 1913 in the United States, and 1914 in France. The establishment of redistributive policies has made it possible to contain inequalities and build more egalitarian societies, especially in Europe and the United States. But it was the First World War and the crisis of the 1930s that accelerated this process, contrary to the Kuznets inverted-U hypothesis[15] that considered this reduction trend naturally embedded in the economic growth process.[16] Indeed, since 1970-80 inequalities started rising again in developed countries: in 1980 the 10% top income represented between 24 and 34 % of total national income; in 2010 between 34 and 56 %.

Although inequality, as the Nobel laureate Angus Deaton wrote, «is one of the gifts of civilization»[17], it is a relatively new issue in economic thought. Indeed, among classical economists, what mattered was not the personal income and wealth distribution – it was the functional distribution: what share of the aggregate income goes to each factor of production.[18] «To determine the laws which regulate this distribution is the principal problem in Political Economy»[19], Ricardo wrote. It was only Karl Marx[20] that, even if focusing on the functional distribution, examined why the rich were becoming richer and the poor poorer, predicting the accumulation of capital in the hands of the few.[21] According to André Roncaglia de Carvalho and Luciana Rosa de Souza[22], research on economic inequality can be classified in different phases: Phase I (1800s-1940), the era of technical progress where the focus is on functional distribution; Phase II (1940-1950), the era of growth where the interest in personal distribution starts arising, but the focus is on the effect of inequality on economic growth; Phase III (1953-1960), the era of development where the focus is on the causes of inequalities; Phase IV (1970-1990), the era of redistribution where technical aspects for measuring inequality are introduced, and the debates start also concerning moral and policy spheres. Protagonists of this

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[13] According to Eric Hobsbawm in "The Age of extremes" (1994), it was the fear of communism that made capitalist societies accept eforming themselves.
[14] In Germany, the first form of social insurance had already been introduced by chancellor Bismarck.
[15] Kuznets, 'Economic Growth and Income Inequality'.
[16] Piketty, *Capital in the Twenty-first Century*.
[17] Deaton, *The Great Escape*.
[18] Alacevich and Soci, *Breve storia della disuguaglianza*.
[19] Ricardo, *On the Principles of Political Economy and Taxation*.
[20] Marx, *Il capitale*.
[21] He found the answer to the question in the exploitation of the proletarian made by capitalists. He introduced the concept of surplus value: equal to the new value created by workers in excess of their own labour-cost, which is appropriated by the capitalist as profit when products are sold.
[22] Carvalho and Souza, 'The Conceptual Evolution of Inequality and Poverty in Economic Thought'.

phase are, among others, Rawls, who in his *A Theory of Justice* introduces the difference principle, according to which:

> «The social order is not to establish and secure the more attractive prospects of those better off unless doing so is to the advantage of those less fortunate».[23]

Indeed, the Pareto optimality starts to be criticized:

> «A State can be Pareto optimal with some people in extreme misery and others rolling into luxury, so long as the miserable cannot be made better off without cutting into the luxury of the rich»[24];

Phase V (2000-today), the era of income and wealth inequality where the focus is on the measurement and the economic and political effects of wealth and income inequalities. However, even today, the inequality issue does not make economists agree on dealing with it.[25] Some think that curbing inequalities would kill economic growth (jeopardy thesis[26]), even if historical evidence does not support this view.[27] Others argue that curbing inequalities would be an obstacle to improving the own position (perversity thesis[28]). For others, inequality does not matter (futility thesis[29]).
Economists such as Piketty[30], Saez and Zucman[31] point out the central position of inequality in today's economy, returning a "photograph" of today's wealth and income inequalities worldwide. Resuming today's situation will be the task of the next paragraph.

## 1.2 Wealth and Income inequalities: worldwide data

In the XX century took always increasing importance, among economists and politicians, the *trickle-down idea*: a regressive policy favouring the richest would be beneficial to all the social classes. The trickle-down concept aimed to justify economic inequalities, together with the productivity marginal theory, a theory whereby everyone is retributed according to the own marginal productivity, thanks to the competition. Those who contribute more to economic

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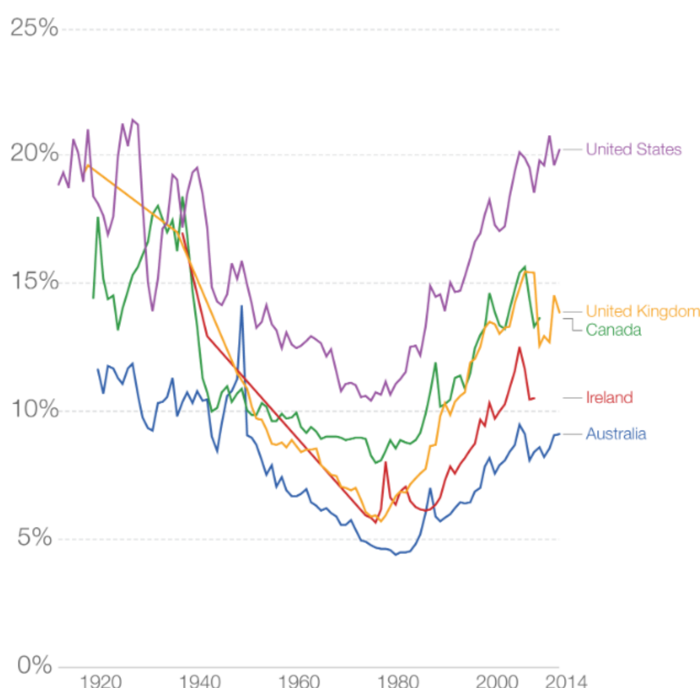
[23] Rawls, *A Theory Of Justice*.
[24] Sen, *On Ethics and Economics*.
[25] Alacevich and Soci, *Breve storia della disuguaglianza*.
[26] HIRSCHMAN, *The Rhetoric of Reaction*.
[27] The thirty years of postwar saw both economic growth and lower levels of inequalities.
[28] HIRSCHMAN, *The Rhetoric of Reaction*.
[29] HIRSCHMAN.
[30] Piketty, *Capital in the Twenty-first Century*.
[31] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

growth should receive more and enjoy favourable treatment to encourage their own talent.[32] However, looking at data on average wages (of workers without any managerial position) and productivity in the United States, from 1979 to 2018, the average worker compensation increased only by 11.6%. Instead, the productivity was 69.6% higher.[33]
In contrast, in the same period, top 0.1% earnings grew 15 times as fast as 90% earnings.[34] Already in 1990, data suggested that the increase in top 0.1% earnings does not reflect the companies' results.[35] Also, countries with a similar level of technological development, productivity and income per capita differ in terms of economic distribution before taxes.[36] These shreds of evidence show how standard economic theory is not able to explain inequalities. Instead, an essential role in shaping distribution is given by policies, such as fiscal policy, which role will be discussed in Chapter Two and Three.
The purpose of this paragraph is to give a worldwide overview of inequalities. In particular, it will focus first on developed countries and then on developing ones.

In developed countries, after a fall during the Great Recession and the World Wars, inequalities have been increasing, particularly in English-speaking countries. Indeed, there since 1920 to today, inequalities followed a U-shape curve.




[32] Mankiw, 'Defending the One Percent'.
[33] Gould, 'State of Working America Wages 2019'.
[34] Gould.
[35] Jensen and Murphy, 'Performance Pay and Top-Management Incentives'.
[36] Mazzucato and Jacobs, *Ripensare il capitalismo*.

Source: World Wealth and Income Database (2018)

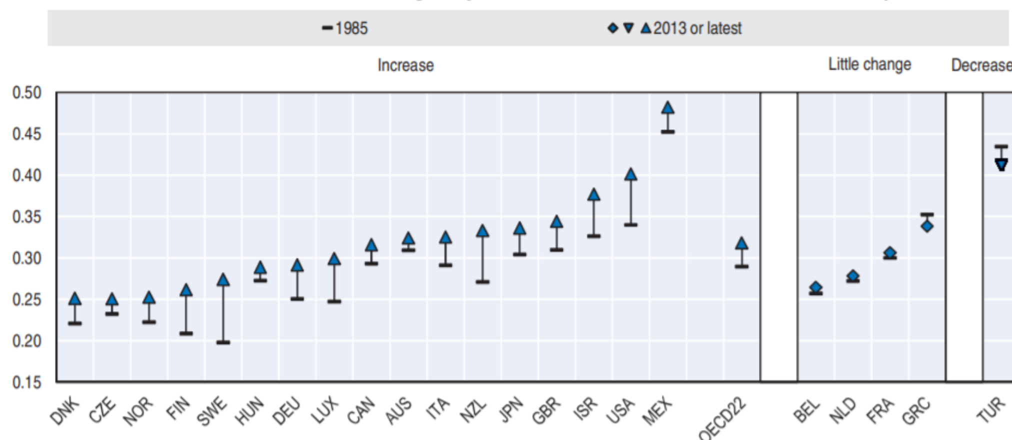
According to Stiglitz[37], the more countries follow the US model, the more unequal they are: the United Kingdom is the second[38] most unequal country among developed countries.

One measure widely used by inequality scholars is the Gini coefficient. It is derived from the Lorenz curve, a function that links at each share of the population (sorted by its income) the corresponding share of income. The closer is a nation's Lorenz curve to the equality line (the diagonal), the more equal is the country.[39] Because the Lorenz curve is not an excellent tool to compare the degrees of inequality among countries[40], economists use the Gini coefficient, defined as twice the area between the Lorenz curve and the diagonal. It can assume values between 0 (perfect equality) and 1 (perfect inequality).

The Gini coefficient in developed countries has increased in the last 25-30 years.

**Figure 1.3. Income inequality increased in most OECD countries**

Gini coefficients of income inequality, mid-1980s and 2013, or latest available year




Source: OECD (2015), *In It Together*.

The Gini index in Western Europe is often below 30: Norway and Sweden have ones of the lowest income inequality - after government taxes and transfers - across the OECD, and the lowest Gini indexes of around 0.25; low levels of Gini Index are also Belgium's, Denmark's, Germany's Austria's. These low values are not surprising because of a developed welfare state

[37] Mazzucato and Jacobs.

[38] The first are the United States.

[39] In the extreme case of perfect equality, the nation's Lorenz curve corresponds to the equality line. In the case of perfect inequality, the nation's Lorenz curve corresponds to a reversed L.

[40] When the curves cross each other, it is difficult to determine which country has a higher degree of inequality.

in those countries.[41] Instead, European countries with higher Gini coefficient are the United Kingdom, Italy, Spain and Portugal.[42]

In the United States, one of the developed countries with the most worrisome level of inequality, the Gini coefficient is 41.4.[43] Saez and Zucman[44] estimated that between 1980 and 2014 the average real income of the richest 1% increased by 169%. Its share of national income more than doubled (from 10 to 21%). The average real income of the richest 0,1% increased by 281%. Its share of national income almost triplicated (from 3.4 to 10.3%). However, looking at wealth, the distribution is even more unequal. The share of wealth owned by the top 1% of families has constantly grown since the late 1970s, reaching 42% in 2012. The wealth share of the top 0.1% grew from 7% in 1978 to 22% in 2012.

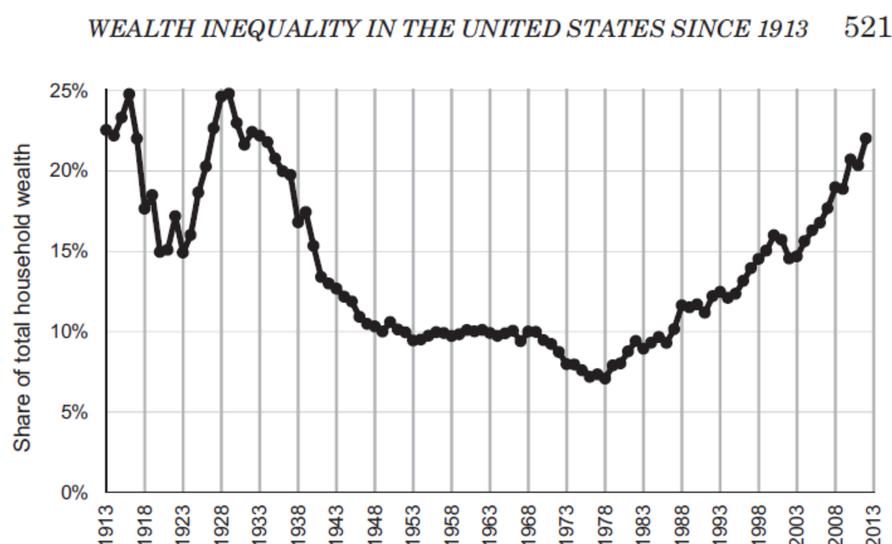



FIGURE I

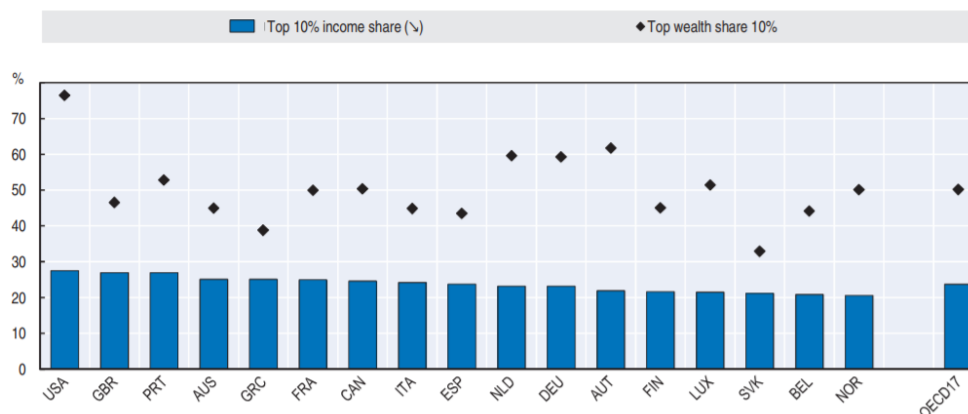
Top 0.1% Wealth Share in the United States, 1913–2012

Source: Saez and Zucman, 'Wealth Inequality in the United States since 1913'.

For all countries for which data are available, wealth has always been more unequally distributed than income.[45]

[41] Alacevich and Soci, *Breve storia della disuguaglianza*.
[42] World Bank, 'Gini Index (World Bank Estimate) | Data'.
[43] World Bank.
[44] Saez and Zucman, 'Wealth Inequality in the United States since 1913'.
[45] Piketty, *Capital in the Twenty-first Century*.

Share of top 10% of household disposable income and top 10% of household net wealth, 2012 or latest available year




*Note:* Income refers to disposable household income, corrected for household size. Wealth refers to net private household wealth. Data refer to the shares of the richest 10% of income earners (bars) and of the richest 10% of wealth holders (diamonds), respectively.

Source: OECD Income Distribution Database, 'OECD Income Distribution Database (IDD)'.

However, income remains the main focus of inequality studies because data on wealth are often incomplete and unreliable. A very modest wealth tax of 1% would solve this lack of data.[46] Considering capital as the total wealth owned at a given point in time[47], today's developed countries have a capital/income ratio that varies between 5 and 6, in line with an increasing trend since the 1950s. Even if this ratio is not relevant for the study of within countries inequalities, it measures the importance of capital in a society. The capital/income ratio increases with the increasing of *r*, the return on capital, and the decreasing of *g*, the economy's growth rate. In *Capital in the 21st century* Piketty points out that an explanation for the increasing trend in inequality is the increasing gap between *r* and *g*. In particular, while *r* has increased since the 1970s, *g* has been steady or decreased.[48] According to Piketty, the fundamental r > g inequality is an intrinsic characteristic of the capitalistic system:

> «The main force of divergence in my theory, has nothing to do with any market imperfection. Quite the contrary: more perfect the capital market (in the economist's sense), the more likely *r* is to be greater than *g*».[49]

The r > g theory can be used to explain the opposite tendency of inequalities in developing countries. Given the high growth rate of developing countries' economies and the low return on capital, economic inequality decreases.[50] Indeed, Latin America, the region with the most

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[46] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.
[47] Piketty, *Capital in the Twenty-first Century*.
[48] Piketty.
[49] Piketty.
[50] This trend is the main force in driving the recent fall in global inequality.

income inequality, has not generally experienced an economic growth record in recent decades. Instead, in Asia, the economic boom allowed a decrease in inequality.[51]

Development economics emerged in the 1950s as a subfield of economics. Initially, inequality was a secondary concern, with the first being growth.[52] Indeed, increasing inequality was considered inevitable and counterbalanced by the decrease in poverty.

A way to measure inequality in developing countries is to use the mean-log deviation (MLD), given by the (appropriately weighted) mean across the household of the log ratio of the overall mean income to household income per person.[53] The higher the MLD, the higher the inequality. In 2010, the estimated MLD for developing countries was 0.578, while in 1981, it was 0.651.[54] Instead, the average MLD for OECD countries is 0.192.[55]

Therefore, although the recent decreasing trend in developing countries, the level of inequality is still higher than in developed countries, with a determinant role played by élites in controlling the resources (especially in Africa) without any gain for the population.[56]

However, after the following paragraph that deals with data collection in tax havens, the 2nd and 3rd chapters will focus on developed countries and, in particular, on the role of taxation in the distribution of income and wealth. However, this does not mean that inequalities are not also a problem for developing countries.

## 1.3 The issue of tax havens for data collection

As the previous paragraph anticipated, a wealth tax is a mean of solving the lack of data related to wealth. Indeed, tax data seems to be the most reliable way to measure wealth. Only few countries such as the Scandinavian have (Norway) or used to have (Denmark, Sweden) broad-based wealth tax. Others, such as France, applied the *impôt de solidarité sur la fortune* (solidarity tax on wealth) from 1989 to 2018. However, it was of doubtful efficacy because of the numerous possibilities of exemptions.[57]

Until today, different methods have been used to measure wealth. First, this paragraph will give a brief review of these methods without overlooking their shortcomings. Then, the issue of tax havens in data collection will be discussed.

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[51] Roser and Ortiz-Ospina, 'Income Inequality'.
[52] Ravallion, 'Income Inequality in the Developing World'.
[53] Ravallion.
[54] Ravallion.
[55] OECD, 'An Overview of Growing Income Inequalities in OECD Countries'.
[56] Alacevich and Soci, *Breve storia della disuguaglianza*.
[57] Piketty, *Capital in the Twenty-first Century*.

Typically, the main source used to measure wealth has been inheritance and estate tax returns. Because they provide information only about wealth at death, the estate multiplier technique is used to estimate the distribution of wealth among the living – a technique that weights wealth at death by the inverse of the mortality rate.[58] However, this method has different intuitive drawbacks: most of the individuals protagonists of the vertiginous recent decades increase in wealth inequality are still alive; most people transfer their wealth just before dying; the wealthy generally live longer than the rest of the population, therefore mortality rate needs to be adjusted for differential mortality by wealth group.[59]

Another mean of measuring the distribution of wealth is income capitalization.[60] With this method, wealth is estimated by the capitalization of income. Also this technique does not lack weaknesses. Its simplest form considers a fixed rate of return by asset class. However, even within an asset class, returns are not homogenous.[61] Nevertheless, even using the most sophisticated version of income capitalization – versions that relies on different rates of return within each asset class – there is evidence that returns are positively correlated with wealth.[62]

Household survey is another method to estimate wealth. In 2019, the Federal Reserve released its own Distributional Financial Accounts - statistics on wealth covering the entire American population from the bottom 50 percent up to the top 1 percent – using household survey data combined with the Forbes 400[63] – a list published by Forbes magazine of the wealthiest 400 American citizens.[64] The main pitfall of this method is the reliance on self-reported data and small sample size at the top.

As it is straightforward to notice, all the shortcomings cited above can lead to underestimating wealth at the top. Based on more reliable self-declaration than household surveys, tax data still seems to be the best available method to measure the distribution of wealth. However, even this method does not overcome the problem of hidden wealth in tax havens – another source of underestimation of wealth inequality.[65]

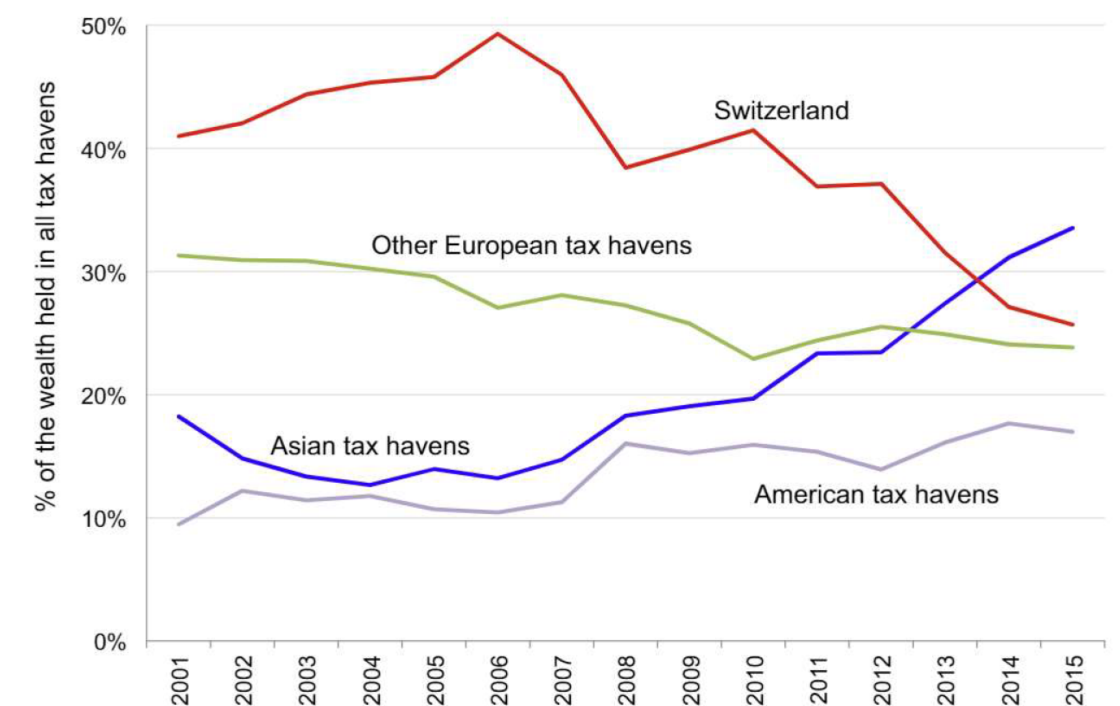
Tax havens started flourishing in the 1980s.[66] In 2013 Zucman, computing “the difference between globally identifiable portfolio liabilities and assets”, estimated that 8% of the global

[58] Zucman, ‘Global Wealth Inequality’.
[59] Zucman.
[60] Saez and Zucman, ‘Wealth Inequality in the United States since 1913’.
[61] Atkinson and Harrison, *Personal Wealth in Britan*.
[62] Fagereng et al., ‘Heterogeneity and Persistence in Returns to Wealth’.
[63] Saez and Zucman, ‘The Rise of Income and Wealth Inequality in America’.
[64] For a critic of the use of magazines in data collection see Saez and Zucman, ‘The Rise of Income and Wealth Inequality in America’.
[65] Taxes can be collected only if taxpayers self-declare their wealth.
[66] Alstadsæter, Johannesen, and Zucman, ‘Who Owns the Wealth in Tax Havens?’

financial wealth (10% of the world GPD) is held offshore[67] – equivalent to $5.6 trillion. Even if it already seems a considerable sum, it is the lowest among the available estimations of offshore wealth, mainly because it captures only financial wealth.[68] The Organisation for Economic Co-operation and Development calculates a total offshore wealth of $5 to $7 trillion in 2007; the Boston Consulting Group finds 7.3$, and Palan et al. approximately $12 trillion for the same year; Capgemini & Merrill Lynch make an $8.5 trillion estimate for 2002; Henry finds $21 to $32 trillion held offshore as of 2010.[69]

There are three main methods used to estimate financial offshore wealth: Switzerland has published the value of offshore portfolios in its banks since 1998[70]; all significant tax havens, such as Hong Kong, Singapore, the Cayman Islands, and the Bahamas published statistics on the amount of deposits owned by foreigners in their banks; specific anomalies in global investment statistics – as Zucman did for his estimation in 2013.[71]

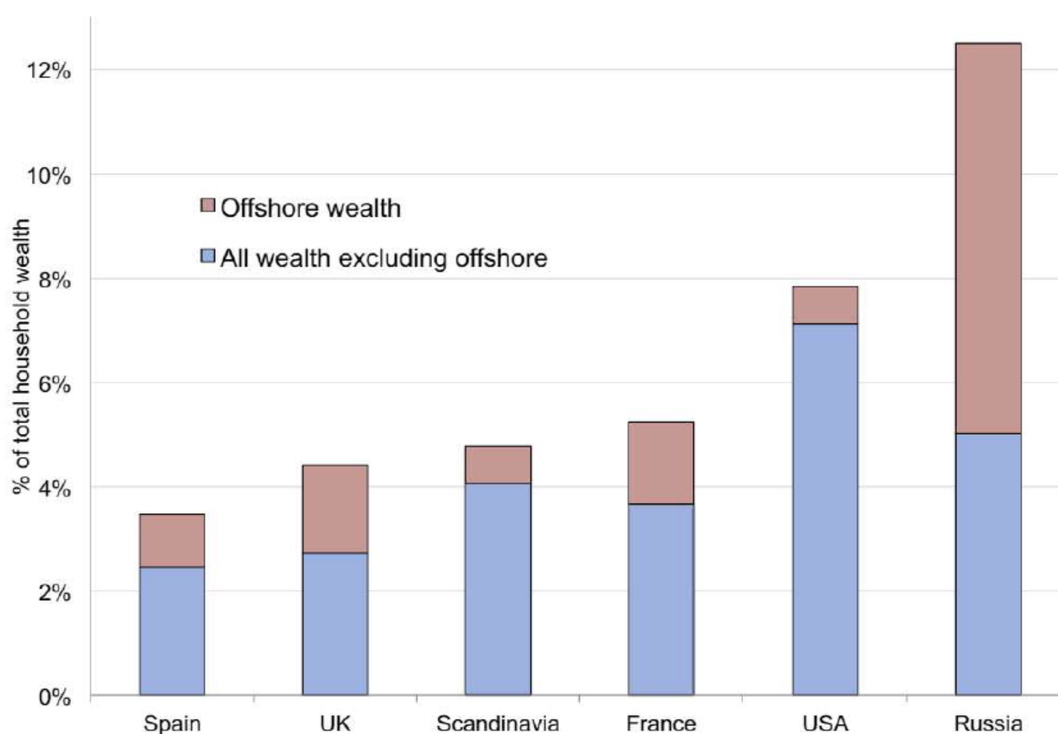
Although Switzerland remains one of the tax havens that owns the most wealth, Asian tax havens' importance has been increasing since 2004.




Source: Alstadsæter, Johannesen, and Zucman, 'Who Owns the Wealth in Tax Havens?'

[67] Zucman, 'The Missing Wealth of Nations'.
[68] Zucman, 'Global Wealth Inequality'.
[69] Zucman.
[70] Zucman, 'The Missing Wealth of Nations'.
[71] Alstadsæter, Johannesen, and Zucman, 'Who Owns the Wealth in Tax Havens?'

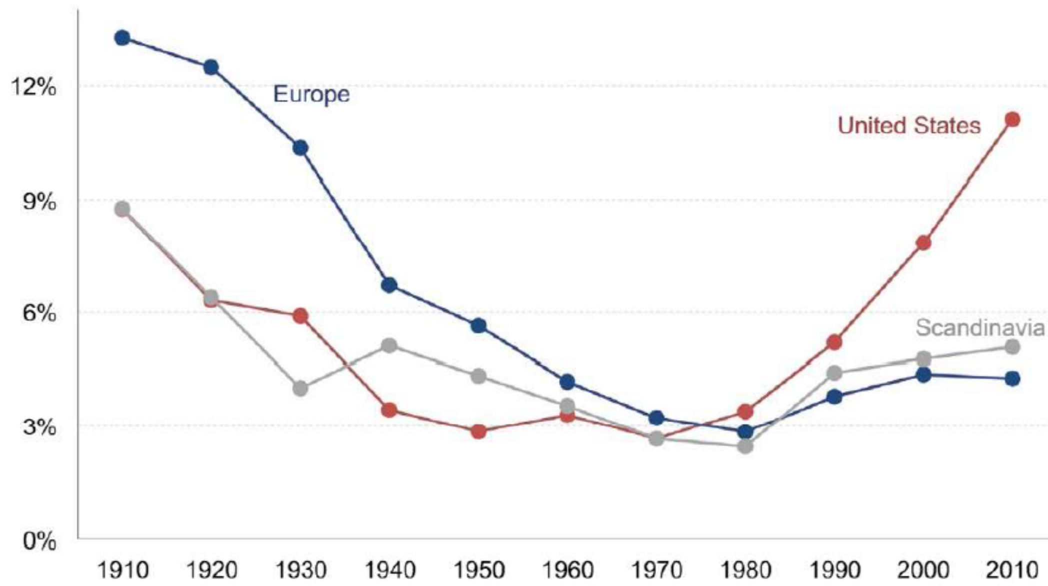
It is relevant to ask who owns the hidden wealth to investigate the implications of offshore wealth on the distribution of wealth. There is large evidence that the majority of offshore wealth is not reported on tax returns[72]. It does not necessarily involve illegal tax evasion: «offshore wealth is typically structured in a way that it does not generate taxable income nor reportable assets».[73] It seems that offshore wealth is owned mainly by the richest. Annette Alstadsæter, Niels Johannesen, and Gabriel Zucman found that, including offshore wealth, top 0.01% wealth share substantially increases – even in Scandinavian countries that do not register a large use of tax havens.[74]




Source: Alstadsæter, Johannesen, and Zucman, 'Who Owns the Wealth in Tax Havens?'

Also, it seems that the effect of offshore wealth on the top 0.01% wealth share has been increasing since 1980 – the year when tax havens started flourishing.

[72] Johannesen and Zucman, 'The End of Bank Secrecy?'
[73] Alstadsæter, Johannesen, and Zucman, 'Who Owns the Wealth in Tax Havens?'
[74] Alstadsæter, Johannesen, and Zucman.




Source: Alstadsæter, Johannesen, and Zucman, 'Who Owns the Wealth in Tax Havens?'

Therefore, it is evident that with the recent financial globalization, wealth cannot be measured only on a national basis: it is necessary a global cooperation on distributional statistics that would allow a major transparency on offshore wealth.

**CHAPTER TWO**
**TAXATION IN THE US AND EUROPE: IS THE TAX SYSTEM A CAUSE FOR THE SPREADING OF INEQUALITIES?**

## 2.1 Theories on the optimal taxation

Taxation has always been a topic of primary importance that directly links economics theory and applied economics. Already in the 18th century, Adam Smith investigated how taxation should be structured, pointing out his four principles concerning taxation in general:

1. «The subjects of every state ought to contribute towards the support of the government as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state».[75]
2. «The tax which each individual is bound to pay ought to be certain, and not arbitrary».[76]
3. «Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it».[77]
4. «Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state».[78]

Taxation has two main tasks: collecting revenues for the state's treasury and distributing income and wealth among citizens. In achieving these objectives, efficiency and equity concerns arise. To which concern put more emphasis is a normative decision.

This paragraph will briefly review the prevalent 20$^{th}$-century theories on optimal taxation that, presumably, shaped fiscal policies in recent times. Then, the following two paragraphs of chapter Two will try to find a bridge between those theories (and their consequent application) and last decades rising inequalities.

From an efficiency perspective, the most desirable taxation form is the lump-sum one: a tax that, because it is commensurate with exogenous factors (such as age or sex), does not distort individuals' behaviour. A general tax on all the commodities would be a lump sum tax. However, since not all commodities can be taxed (for instance, leisure cannot), it is hard to

[75] Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*.
[76] Smith.
[77] Smith.
[78] Smith.

actually implement a lump sum tax[79]. Ramsey in his *A contribution to the theory of taxation* (1927)[80], a paper that «can be thought of as launching the field of optimal taxation and revolutionising public finance»[81], rules out the possibility of lump sum taxes by assumption. In particular, he concludes that taxing inelastic goods is the best way to minimize efficiency costs.[82] However, intuitively, necessities are less elastic than a luxury: the optimal Ramsey tax system is likely to be regressive.

Derived from Ramsey's result is the Corlett–Hague rule (1953), which states that commodities more complementary to leisure should carry a relatively higher tax burden.[83] This, indeed, would offset the tendency of the tax system to induce substitution towards leisure, making, however, again the tax system likely regressive.

Ramsey and Corlett-Hague theories have been criticized because they abstracted from consumers' heterogeneity. In particular, Diamond (1975) stated that taking into account differences in income levels and consumption patterns, low tax rates on commodities that weigh more heavily for the poorest consumers are preferable from an equity perspective.[84]

Against indirect taxation (such as commodity taxation), the Atkinson-Stiglitz theorem states that «where the utility function is separable between labour and all commodities, no indirect taxes need be employed».[85]

The Atkinson-Stiglitz theorem is often invoked in the discussion on capital taxation. Indeed, since capital income taxation can be interpreted as the taxation of future consumption, the theorem implies that income from labour taxation is preferable over capital income taxation that would not improve equity compared to the non-linear income tax while additionally distorting savings.

Chamley (1986)[86] and Judd (1985)[87] stated that the optimal tax rate on capital return is zero in the long run.

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[79] Also, a general lump sum tax does not distinguish between rich and poor, overcoming the equality concern. Indeed, Mirrlees, in his "An Exploration in the Theory of Optimum Income Taxation" proposes a non-linear lump sum tax that takes into consideration heterogeneity in agents' skills.
[80] Ramsey, 'A Contribution to the Theory of Taxation'.
[81] Stiglitz, 'In Praise of Frank Ramsey's Contribution to the Theory of Taxation'.
[82] Ramsey, 'A Contribution to the Theory of Taxation'.
[83] Corlett and Hague, 'Complementarity and the Excess Burden of Taxation'.
[84] Diamond, 'A Many-Person Ramsey Tax Rule'.
[85] Atkinson and Stiglitz, 'The Design of Tax Structure'.
[86] Chamley, 'Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives'.
[87] Judd, 'Redistributive Taxation in a Simple Perfect Foresight Model'.

Considering today's evidence on the more uneven distribution of capital than labor income and the increasing aggregate value of capital relative to total labor income, Chamley and Judd's result will be deeper discussed below.[88]

According to Bas Jacobs and Alexandra Rusu (2017), there is a strong link between the Chamley-Judd result and the theory of optimal commodity taxation previously discussed in this paragraph.[89] If the tax on capital income is seen as a differentiated tax on consumption at different dates, it should be zero if optimal consumption taxes are uniform.[90]

In the Chamley-Judd model, there is total certainty, and individuals have a standard utility function. The model assumes that the government chooses and communicates the optimal time-variant system at time zero so that individuals anticipate the tax rate in advance. In the beginning, tax rates on capital are consistent. However, as time passes and the tax rates are anticipated long in the distance, the tax rate converges to zero in the long run.[91]

Given the Chamley-Judd theory:

> «When the consumption decisions in a given period have only a negligible effect on the structure of preferences for periods in the distant future, then the second-best tax rate on capital income tends to zero in the long run».[92]

However, even if capital income tax is zero in the long run, it could not be the case in the short run. The state can levy capital income tax in the short run to raise its revenues: the best policy for the government is to tax capital until it accumulates sufficient assets to fund public goods and never tax capital again. In *Positive long-run capital taxation: Chamley-Judd revisited*, Ludwig Straub and Iván Werning found that, even if under certain conditions capital income tax can be zero in the long run, it can do so at a slow rate, after centuries of high tax rates.[93]

Undoubtedly, zero capital income taxation has been the predominant theory until recent times. The relation between fiscal policies and the level of economic inequalities will be discussed in the following two paragraphs focusing, in order, on the United States and Europe.

Instead, an emphasis on new perspectives on optimal capital taxation will be introduced in Chapter Three,[94] since:

[88] Bastani and Waldenström, 'How Should Capital Be Taxed?'
[89] Jacobs and Rusu, 'Why Is the Long-Run Tax on Capital Income Zero?'
[90] Jacobs and Rusu.
[91] Saez and Stantcheva, 'A Simpler Theory of Optimal Capital Taxation'.
[92] Chamley, 'Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives'.
[93] Straub and Werning, 'Positive Long-Run Capital Taxation'.
[94] See, for example, Saez and Stantcheva, 'A Simpler Theory of Optimal Capital Taxation'; Straub and Werning, 'Positive Long-Run Capital Taxation'; Piketty and Saez, 'A Theory of Optimal Capital Taxation'.

«Bridging the gap between economic theory and the policy debate seems especially important in the current context with growing income and wealth inequality, and where a large fraction of top incomes comes from capital income».[95]

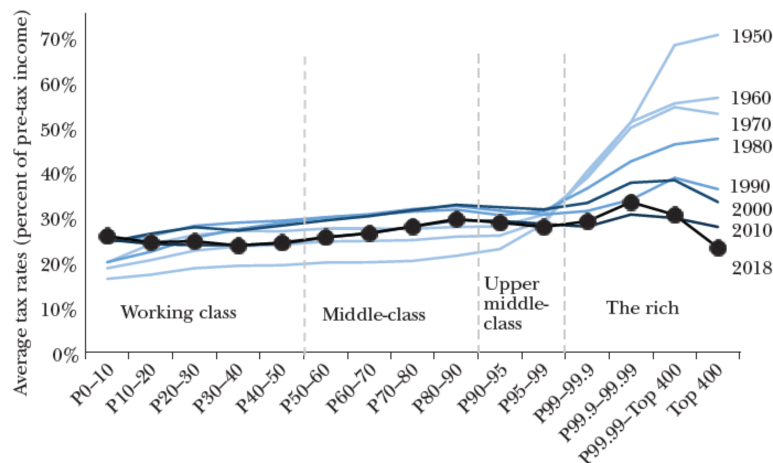
## 2.2 The case of the United States

After having done a brief overview of the mainstream theories on optimal taxation, this chapter aims to investigate whether the tax system is a potential cause for the spreading of inequalities. This paragraph will focus on the United States and the following one on Europe.

As Piketty wrote in his *Capital in the 21st century*, «The major twentieth-century innovation in taxation was the creation and development of the progressive income tax».[96] A tax is progressive when its rate increases as the taxable amount increases. Intuitively, progressivity is based on the principle that the same amount of money does not necessarily have the same value: 100 euro used to buy bread and 100 euro used to buy champagne differ consistently in satisfying the underlying need.[97]

Evidence shows that the United States' tax system has experienced a pronounced decline in the progressivity level since 1950.[98]

**Average Tax Rates By Income Groups**
*(percent of pre-tax income)*



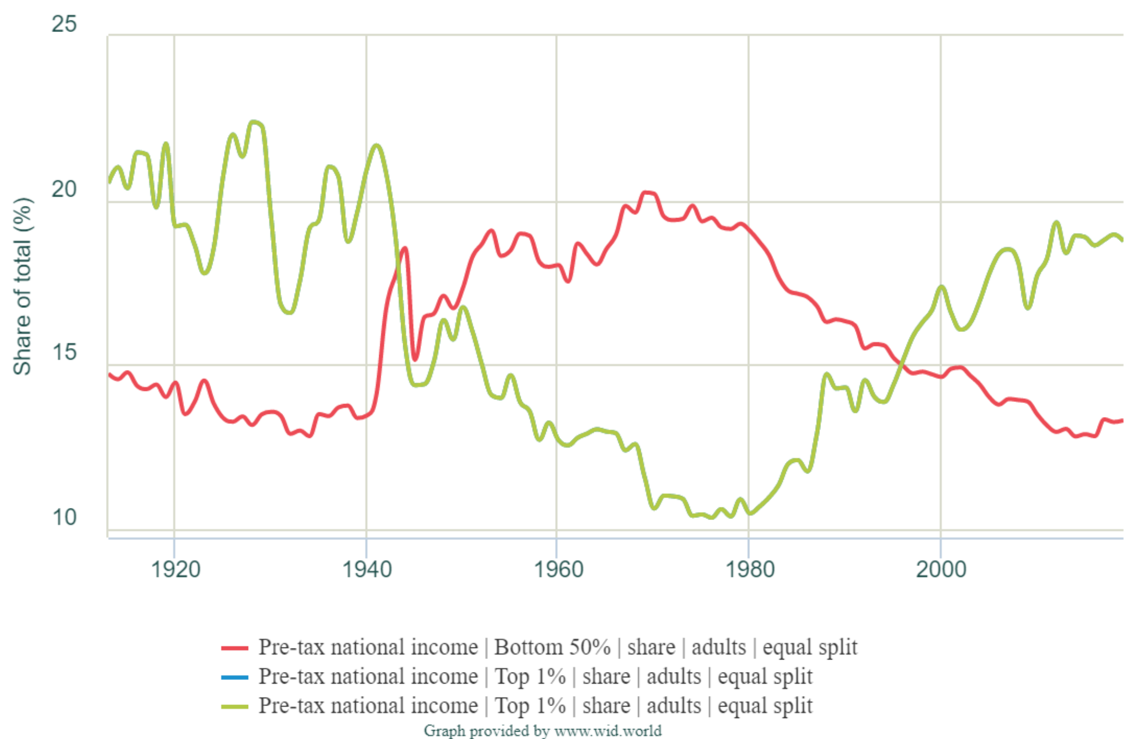

*Source:* Saez and Zucman (2019b).
*Note:* The figure depicts the US average tax rate by income groups from 1950 to 2018. All federal, state, and local taxes are included. Taxes are expressed as a fraction of pre-tax income. P0-10 denotes the bottom 10 percent of the income distribution, P10-20 the next 10 percent, etc.

[95] Saez and Stantcheva, 'A Simpler Theory of Optimal Capital Taxation'.
[96] Piketty, *Capital in the Twenty-first Century*.
[97] Beghin, *Diritto Tributario*.
[98] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

Source: Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

As Saez and Zucman (2020) wrote, «In 2018, the U.S. tax system looks like a giant flat tax that becomes regressive at the very top end»[99]: in particular, the 2018 fall in progressivity can be explained with the 2018 cut in the corporate tax made by the Trump's administration.[100] Indeed, while for the middle class the tax burden has remained almost the same, for the top 0.01% it dropped from 70% in 1950 to less than 20% in 2018.

In the same period, as chapter one has already deeply shown, top income share increased, together with income inequalities.




Source: WID - World Inequality Database, 'USA'.

However, as Saez and Piketty pointed out (2007) it is difficult to prove that the decrease in progressivity caused the increase in inequalities, because a problem of reversed causality can arise:

> «It is conceivable that causality might have run in a reverse way—that nontax forces generated an increase in income concentration and that top income earners were able to

[99] Saez and Zucman.
[100] Biden is now proposing to increase it again.

use their greater incomes to influence the political process and obtain a reduction in tax progressivity subsequently».[101]

Another way to measure the progressivity level of a tax system is to compute the ratio between direct (such as income's) and indirect (such as consumption's) taxation.[102] Direct taxation depends on the personal level of income or wealth.[103] Instead, indirect ones do not: they are a form of regressive taxation with an anti-redistributive effect.[104]

Looking at the United States, it is interesting to notice that drops in direct over indirect taxes ratio happened during Republican governments. Instead, increases accompanied Democratic governments.

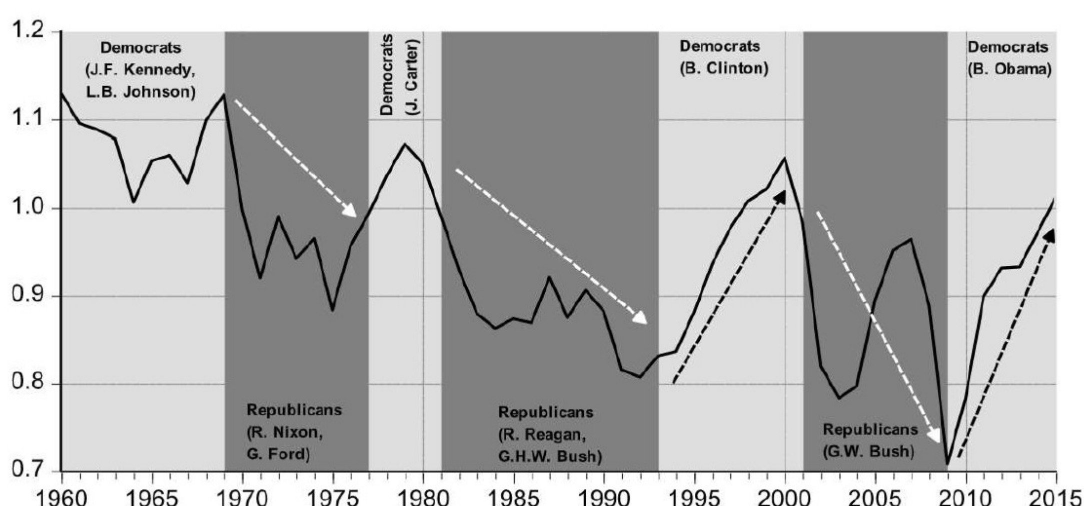
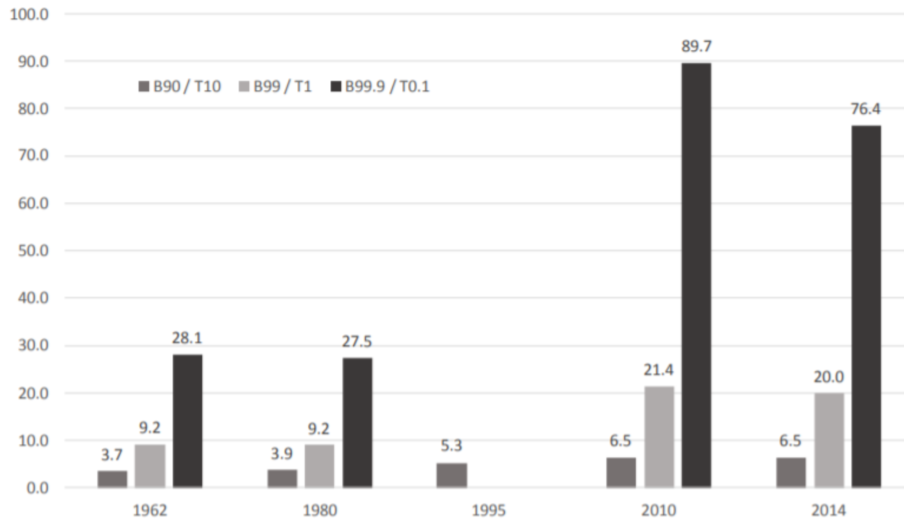



**Fig. 1.** Tax composition ratio in the US across electoral cycles.
Author's computation based on OECD data (OECD Economic Outlook No. 101).

Source: Sala, 'A Fresh Look at Fiscal Redistribution and Inequality in the US across Electoral Cycles'.

To give an additional measurement of progressivity level, Hatgioannides et al. (2018) introduced the Fiscal Inequality Coefficient (FIC): «The ratio of the average income tax rate per given income group divided by the percentage of national income owned by the same income group».[105] Using Piketty et al. (2016) data on the U.S., Hatgioannides et al. (2018) elaborated the FIC based on income shares.

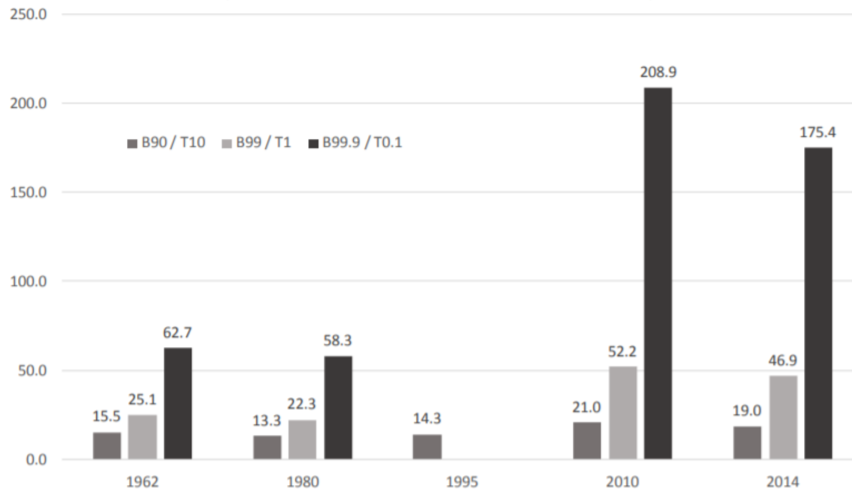
[101] Piketty and Saez, 'How Progressive Is the U.S. Federal Tax System?'
[102] Sala, 'A Fresh Look at Fiscal Redistribution and Inequality in the US across Electoral Cycles'.
[103] Beghin, *Diritto Tributario*.
[104] Ruiz and Trannoy, 'INDIRECT TAXATION IN FRANCE'.
[105] Hatgioannides, Karanassou, and Sala, 'Should the Rich Be Taxed More?'. The FIC ranges from the value of one (in the case of perfect equality), to large values approaching, in the limit, infinity (perfect inequality).




Source: Hatgioannides, Karanassou, and Sala, 'Should the Rich Be Taxed More?'

The graph above starkly evidences that since 2010, the bottom 99.9% effectively contributes largely more than the top 0.1%.

The same observation can be done in the case of the FIC based on household wealth share.




Source: Hatgioannides, Karanassou, and Sala, 'Should the Rich Be Taxed More?'

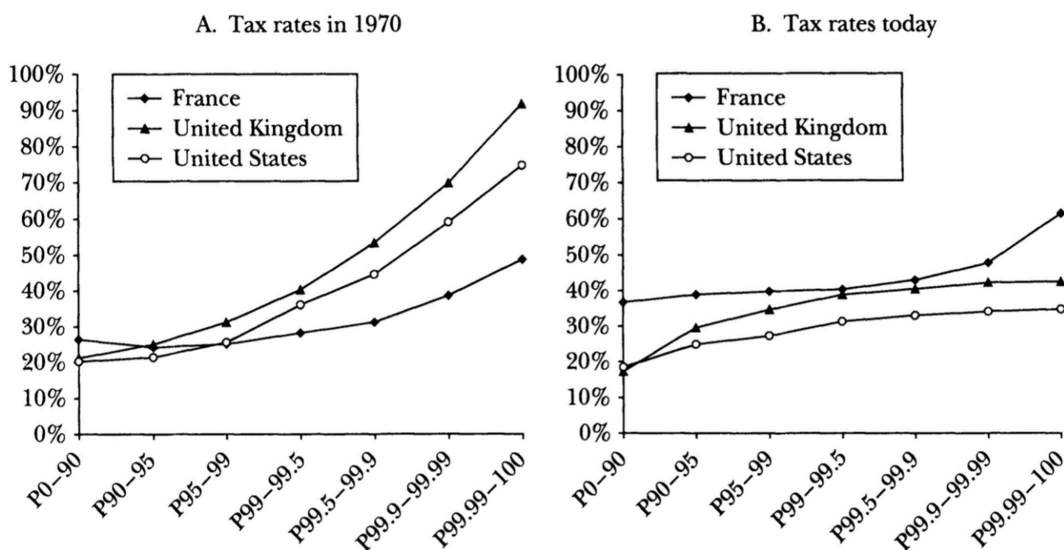
As noticeable from the graph above, the FIC computed considering household wealth shares is even more significant. Indeed, although the increasing importance of wealth relative to income,

in the United States, a wealth tax on overall capital is absent.[106] Proposals and new perspectives on potential wealth tax will be discussed deeply in Chapter 3.

This paragraph evidenced that taxation is a potential tool in shaping the distribution of income and wealth. The following paragraph will deal with Europe: further insights into the link between taxation and inequalities will be provided.

## 2.3 The case of Europe

Looking at the progressivity level of two indicative European countries - France and the United Kingdom – in 1970 and 2005 (today in the right-side graph), it is noticeable that the former's has increased, while the latter's has followed the United States' trend – discussed in the previous paragraph.




*Notes:* Figure displays tax rates acorss income groups in the three countries. Tax rates in the United States include the four federal income taxes. Tax rates in France and the United Kingdom include individual income taxes, payroll taxes, and estate and wealth taxes but exclude corporate income taxes. In the united Kingdom, the two top groups are P99.9–99.95 and P99.95–100 (instead of P99.9–99.99 and P99.99–100).

Source: Piketty and Saez, 'How Progressive Is the U.S. Federal Tax System?'

Historically, as shown in the left-side graph above, the situation was reversed: in 1970, progressivity was substantially high in Anglo-Saxon countries and relatively low in continental

[106] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

Europe.[107] This pattern is in line with Lindert's theory (2004), according to which countries with a high government spending relative to GDP have always adopted taxes characterized by less progressivity and significant exemptions for capital income.[108] Instead, Anglo-Saxon countries in which government spending is a relatively low share of GDP have historically relied upon more progressive taxes.[109]

However, today, Lindert's theory seems not to work anymore.[110] France's shift toward more progressivity taxation – especially for the top 0.1% - can be explained by the adoption, in 1981, of a wealth tax levied on the top 1% wealth holder.[111] Instead, the more a country follows the United States' economic model, the more unequal it appears.[112]

Stefan Kranzinger (2019), studying the decomposition of inequality in Europe, found that Social-Democratic countries – characterized by high social expenditures and high-income levels - are the ones with the evenest distribution. Instead, at the opposite extreme, there are Baltic countries.[113]

**Table 5** Sources of income inequality in the EU-28 by country group, 2014. *Source:* Own calculations, EU-SILC 2014 & 2015

| Country group | Theil index | Annual mean income in thd EUR | Inequality share[a] (%) | Economic weight[b] (%) |
|---|---|---|---|---|
| BC | 0.233 | 11.3 | 0.8 | 0.8 |
| CEE | 0.158 | 23 | 33.0 | 45.0 |
| EEC | 0.223 | 9.9 | 10.7 | 10.4 |
| LME | 0.175 | 20.8 | 12.5 | 15.3 |
| MC | 0.198 | 16.7 | 21.7 | 23.5 |
| SDC | 0.125 | 22.3 | 2.9 | 5.1 |
| Between country group | 0.040 | – | 18.4 | – |
| Europe | 0.215 | 18.4 | 100 | 100 |

Income is defined as equivalised disposable household income and PPP-adjusted (EU-28 = 1). The income reference year for Germany is 2013. Cross-sectional weights from the EU-SILC are used

[a]The inequality share represents the contribution of a country group to the overall inequality of the EU-28

[b]The economic weight describes the income share of a country group with regard to the overall income of the EU-28

Source: Kranzinger, 'The Decomposition of Income Inequality in the EU-28'.

[107] Piketty and Saez, 'How Progressive Is the U.S. Federal Tax System?'
[108] Piketty and Saez.
[109] Lindert, *Growing Public*.
[110] Piketty and Saez, 'How Progressive Is the U.S. Federal Tax System?'
[111] The wealth tax was introduced after the win of the Socialist party in 1981. It was originally named *Impôt sur les Grandes Fortunes*. being abolished in 1986 by Jacques Chirac's government and re-introduced in 1988 by Francois Mitterand, it was definitively removed after Macron's election – replaced by a tax on real estate.
[112] Mazzucato and Jacobs, *Ripensare il capitalismo*.
[113] Kranzinger, 'The Decomposition of Income Inequality in the EU-28'.

In the last years, there seems to be a consistent trend toward less progressivity even in most equal countries such as the Social-Democratic ones. Denmark, which had one of the world's highest marginal tax rates on wealth[114], started reducing it in 1989 and definitively abolished it in 1997.[115] In France, a solidarity tax on wealth (as stated previously in this paragraph) with marginal rates that ranged between 0.5% and 1.5% was abolished in 2017 – and replaced by a real estate tax exonerating all financial assets.

The role of taxation as a potential tool in reducing inequalities will be discussed deeply in the following chapter.

[114] The marginal tax rate on wealth was 2.2 per cent.

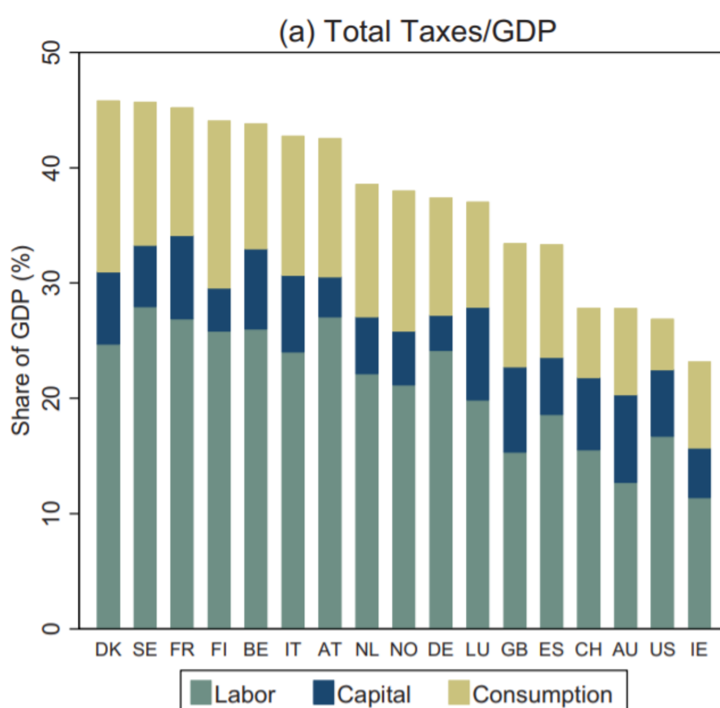
[115] Jakobsen et al., 'Wealth Taxation and Wealth Accumulation'.

## CHAPTER THREE
## TAXATION OF CAPITAL: A SOLUTION FOR INEQUALITIES

### 3.1 An overview of specific capital taxes

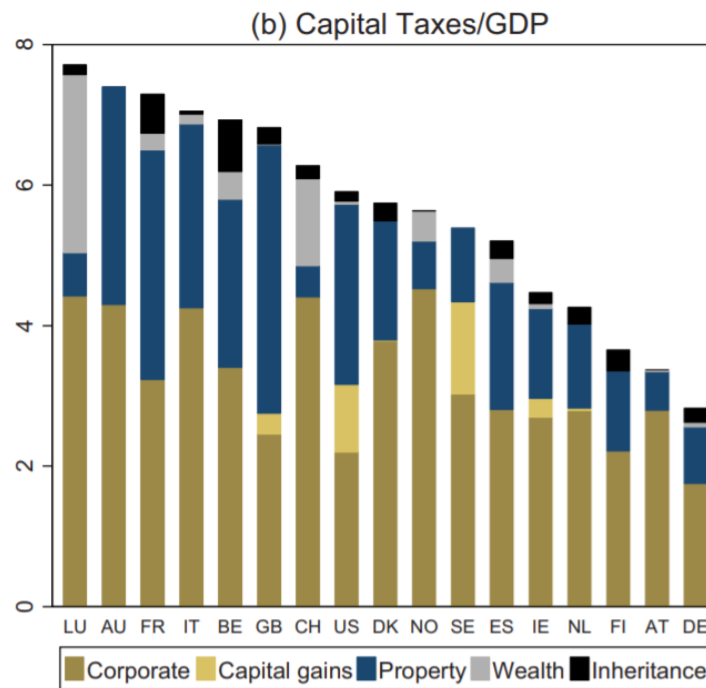
Chapter Three will deepen into a particular form of taxation: capital taxation. Although income taxation – and, in particular, progressive income taxation – is today adopted by almost every developed country, taxation of capital is still not so widespread. As this paragraph will show, there are different taxes on capital, each with different potential effects on overall progressivity and distribution of income and wealth. In particular, the potential effects of capital taxation will be discussed in the following paragraph.

Looking at the aggregate revenues of capital taxes as a percentage of GDP in OECD countries, it is noticeable that while income and consumption taxation represents the main source of tax revenues, capital one constitutes only a small part.




Source: Bastani and Waldenström, 'How Should Capital Be Taxed?'

Analyzing the composition of different capital tax bases – corporate, capital gains, property, wealth, inheritance – corporate tax constitutes unarguably the largest part of overall capital tax revenues.




Source: Bastani and Waldenström, 'How Should Capital Be Taxed?'

The corporate tax is a tax on firms' profits. Since firms do not exist beyond individuals, corporate taxes levy on the shareholders of the company.[116] There are two main concerns regarding corporate taxes: whether the tax burden indirectly harms workers more than shareholders[117]; international competition[118]. Clausing (2012) tried to answer the first question and found no robust link between corporate taxation and wages.[119] Concerning global competition, G7 countries' finance ministers have recently agreed to establish a minimum global tax of 15% for the multinationals operating in G7 members' countries, regardless of where they are based.[120]

Capital gains' taxes refer to taxes matured with increases in a capital asset's value. Gains are considered to be realized when the asset is sold. According to the tipically implemented realization-based tax system, tax payment is delayed until realization: concerns arise in unrealized capital gains – not a marginal problem, considering that today's main corporations' shareholders do not realize capital gains.[121] Auerbach (1991) proposed a retrospective capital

[116] Bastani and Waldenström, 'How Should Capital Be Taxed?'
[117] As explained in Clausing, 'Who Pays the Corporate Tax in a Global Economy?': in an open economy, it is likely for capital to move from high-tax locations to low-tax locations in response to a rise in the corporate tax rate. This behaviour drives wages up in low-tax countries - as the marginal product of labour increases - and wages down in high-tax countries (for the opposite reason).
[118] Firms can decide to relocate their location where corporate tax is lower.
[119] Clausing, 'Who Pays the Corporate Tax in a Global Economy?'
[120] Il Post, 'L'accordo Dei Paesi Del G7 Su Una Tassa Minima Globale per Le Multinazionali'.
[121] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.

gain taxation: extending the already existing literature on accrual capital gain taxation[122], he recommended not tax capital gains upon realization but charging interest on past gains when the realization finally occur.[123]

The property tax is a tax on a specific type of investment – either in land, buildings or both.[124] According to Bastani and Waldenström (2020), housing wealth is one of the most significant wealth and capital income sources for most households. Considering property as an investment, not taxing it could distort choices between investment decisions – if other investment forms such as capital gains are taxed – bringing about inefficiency.

Inheritance tax is «a tax on the beneficiaries who receive bequests from a deceased person's estate».[125] Together with progressive income taxation, the progressive tax on inheritance is considered as «the second major fiscal innovation of the twentieth century».[126] Bastani and Waldenström (2019) pointed out that inheritance taxation has declined in recent decades[127] while absolute inherited wealth appears to have increased.[128]

Wealth taxes refer to taxes on both financial and non-financial assets. Wealth can be classified either as household wealth, private wealth – household wealth plus the wealth of non-profit institutions -, and national wealth - household wealth plus the wealth of non-profit institutions and assets owned by the government.[129] Since the publication of Piketty's *Capital in the 21st century* – in which the author proposes a global wealth tax – wealth taxation has been widely present in economic and public debates. In the United States, politicians such as Elizabeth Warren[130] and Bernie Sanders[131] proposed a wealth tax on the super-rich in their 2020 presidential campaigns.
In the following paragraph, new perspectives on capital taxation will be given, emphasizing wealth taxation.

[122] Vickrey, 'Averaging of Income for Income-Tax Purposes'.
[123] Auerbach, 'Retrospective Capital Gains Taxation'.
[124] Bastani and Waldenström, 'How Should Capital Be Taxed?'
[125] Bastani and Waldenström.
[126] Piketty, *Capital in the Twenty-first Century*.
[127] In Italy, the inheritance tax was abolished by Berlusconi in 2001 and restored by Prodi in 2006. Today it is 4%. In May 2021, Enrico Letta, *Partito Democratico'*s leader, proposed imposing a 20% tax on inheritances above 5 million in order to give 10.000 euros to girls and boys who turn eighteen.
[128] Bastani and Waldenström, 'Salience of Inherited Wealth and the Support for Inheritance Taxation'.
[129] Saez and Zucman, 'Progressive Wealth Taxation'.
[130] Elizabeth Warren, 'Ultra-Millionaire Tax | Elizabeth Warren'.
[131] Bernie Sanders Official Website, 'Tax on Extreme Wealth'.

## 3.2 Potential effects of capital taxation

In the first paragraph of Chapter One, twenty century's theories on optimal capital taxation have been discussed. The shared result was a zero tax on capital – at least in the long run.[132] However, more recent studies have proved that positive capital taxation is optimal for equity and efficiency concerns. This paragraph will present recent findings on the optimality of capital taxation and its potential effects on the distribution of income and wealth.

Straub and Werning (2019), questioned the validity of the Chamley-Judd result and concluded that the long-run tax on capital is positive and significant. Even if capital tax converges to zero, it may do so at such a slow rate that it can imply centuries of high tax rates.[133] From an efficiency perspective, the assumption that only capital accumulates over time is one of the prominent critics of the Chamley-Judd theory.[134] Indeed, also human capital satisfies the accumulation mechanism.[135] In particular, in investment decisions – between physical and human capital – the absence of taxes on capital can distort this choice in favour of physical capital investments.

Considering equity, Saez and Stantcheva (2017) wrote:

> «As long as, conditional on labour income, social marginal welfare weights depend directly on wealth (which is the case if wealth is perceived as unfairly distributed for many possible reasons) or are correlated with wealth (as in the case of the use of wealth as a tag), there is scope for capital taxation from an equity perspective».[136]

In a society whose aim is to maximize equity, the presence of heterogeneity in returns, endowments, and preferences is considered another argument favouring capital taxation.[137] As already discussed in the third paragraph of Chapter One, evidence shows that returns on capital are not homogeneous.[138] Positive capital taxation is required when individuals with higher earnings also generate higher returns on their investments due to economies of scales or better information and networks.[139] The same reasoning applies if people have different consumption preferences: if high-skill individuals prefer to consume in the future more than low-skill ones,

[132] Chamley, 'Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives'.
[133] Straub and Werning, 'Positive Long-Run Capital Taxation'.
[134] Bastani and Waldenström, 'How Should Capital Be Taxed?'
[135] Stantcheva, 'Optimal Taxation and Human Capital Policies over the Life Cycle'.
[136] Saez and Stantcheva, 'A Simpler Theory of Optimal Capital Taxation'.
[137] Bastani and Waldenström, 'How Should Capital Be Taxed?'
[138] Fagereng et al., 'Heterogeneity and Persistence in Returns to Wealth'.
[139] Bastani and Waldenström, 'How Should Capital Be Taxed?'

they will save more and accumulate more capital.[140] Even when both returns and preferences are homogeneous, individuals can differ in initial endowments. This strongly undermines the democratic desire for equal opportunities: only those who can benefit from a high inheritance level at birth can accumulate wealth in the future.[141]

As the previous paragraph wanted to demonstrate, the expression "capital taxation" contains various possible applications. In the following part of this paragraph, special attention to wealth tax will be paid.

In line with his r > g theory presented in Chapter One, Piketty proposed a particular way to reduce the return on capital: a global wealth tax. In addition to the already mentioned (third paragraph, Chapter One) positive effect on data collection, a wealth tax – particularly a progressive wealth tax – would have both a contributive and an incentive justification.[142]

Regarding the incentive justification, a wealth tax would force individuals who use their wealth inefficiently – only to enjoy a certain return on the investment – to sell their assets to pay taxes, allowing dynamic investors to get those assets.[143]

When it comes to the wealthiest's taxation, a shared problem arises: the income earned is not adequately representative of their total contributive capacity.[144] Saez and Zucman (2019) estimated that the top 400 wealthiest Americans earned less taxable equity income relative to their equity wealth than the rest of the population of a factor of about 2.[145] For example, Liliane Bettencourt – the l'Oréal heiress and the wealthiest French – declared to have never earned more than 5 million per year, while her wealth was more than 30 billion euros in 2014.[146] A wealth tax would raise the wealthiest effective tax rates, contributing to the decreasing of wealth inequality. With this aim, Warren and Sanders, in the 2020 U.S. presidential campaign, proposed a wealth tax whose targets were billionaires and multibillionaires.[147] In particular, Warren proposed a 2% rate wealth tax above $50 million and a 3% marginal rate above 1$ billion. Sanders' wealth tax, instead, would levy a 1% marginal rate above $32 million, 2% above $50, 3% above $250, 4% above $500, 5% above $1 billion, 6% above $2.5 billion, 7% above $5 billion, and 8% above $10 billion.[148] The graph below shows the estimated effects of the proposed wealth taxes on overall tax progressivity in the United States.

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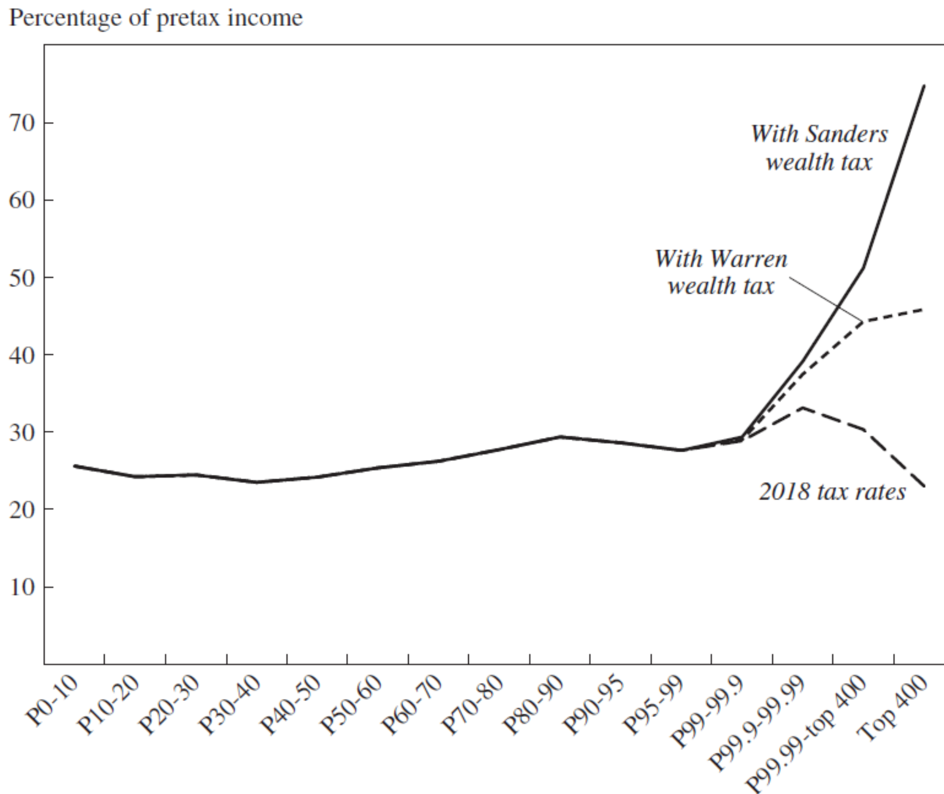
[140] Bastani and Waldenström.
[141] Bloomberg Markets and Finance, *Thomas Piketty on Wealth Inequality, Coronavirus, Wealth Tax*.
[142] Piketty, *Capital in the Twenty-first Century*.
[143] Piketty.
[144] Piketty.
[145] Saez and Zucman, 'The Rise of Income and Wealth Inequality in America'.
[146] Piketty, *Capital in the Twenty-first Century*.
[147] Saez and Zucman, 'Progressive Wealth Taxation'.
[148] Saez and Zucman.




Source: Saez and Zucman, 'Progressive Wealth Taxation'.

Regarding previsions on tax policies' implementations, Saez and Zucman (2019b) created a helpful tool to allow citizens to create their tax proposal for the U.S.[149] This instrument consists of a website (https://taxjusticenow.org) in which different scenarios – current tax system; Joe Biden's tax plan; Pete Buttigieg's tax plan; Barack Obama's tax plan; Bernie Sanders's tax plan; Elizabeth Warren's tax plan; Triumph of injustice's tax plan - for the American tax system are estimated, together with the authors' particular taxation proposal. Using this tax simulator, I will present my suggestions for improving the U.S. tax system (considering as it was in 2019). As the simulator logically indicates, I am going to analyse separately: wealth tax; individual income tax; corporate tax; estate tax; health care. Concerning wealth taxation[150], the United States do not currently have it. In line with Saez and Zucman (2019a)[151], I believe that – like income – wealth should be taxed progressively. In particular, I propose to levy a 1% marginal tax rate for wealth between \$1m and \$10m; a 2% marginal tax rate between \$10m and \$50m; a 3% marginal tax rate between \$50m and \$1b; a 7% marginal tax rate above \$1b. Also, a 0.1% financial transaction tax – a tax on financial transactions on the stock market, futures, and any

[149] Saez and Zucman, *The Triumph of Injustice*.
[150] For its definition, see Chapter 3's paragraph 1 '*An overview of specific capital taxes*'.
[151] Saez and Zucman, 'Progressive Wealth Taxation'.

financial market in which active operators take part - would be implemented. This type of tax is often called Tobin tax because it was the Economics Nobel Price James Tobin who first proposed it.[152] Contrary to the usually implemented consumption tax – which is regressive in its nature because it levies more on low-income individuals –, the financial transaction tax would be progressive. Indeed, by definition, wealthy individuals make financial transactions: revenues from this tax could be used to redistribute wealth to the poor. Usually associated with the Tobin tax is the Robin Hood tax. Robin Hood is an English folk hero who has stolen from the rich to give to the poor. For this reason, a tax whose aim is to redistribute wealth from top to bottom takes the hero's name. A particular application of a Robin Hood tax took place in Italy, where Tremonti's government incremented the tax rate on oil and energetic companies' profits to contrast the extra profits realized by those companies during the 2008 crisis and redistribute wealth to the low-income class who was instead suffering because of the crisis.[153]
Regarding the section "*Individual income tax*", I propose a more progressive taxation than the 2019 one, with a 9% marginal rate tax between $0 and $77k; a 31% marginal rate tax between $77k and $165k; a 40% marginal tax rate between $165k and $315k; a 51% marginal tax rate between $315k and $400k; a 56% marginal tax rate between $400k and $600k; a 70% marginal tax rate above $600k. In addition, I consider full taxation on capital gains and dividends – contrary to the preferential tax rates to which they are usually subjected.
For corporate tax, I propose a 20% effective rate – the nominal one after various deductions. Importantly, I implement a so-called "*better taxation of multinational*", making it impossible for multinationals to avoid taxation simply shifting into tax havens. In particular, tax avoidance and possible solutions will be discussed deeply in the following paragraph.
I keep the estate tax as it already was in 2019 – 40% for bequests above $11 million -, but I lower the avoidance rate from 60% to 30%. In the "*Health Care*" section, I eliminate sales taxes – that, as I explained above, are likely to be regressive -, include health insurance in total taxes, and fund health insurance with taxes.
The graph below shows how the U.S tax system would change with my proposal's implementation.

[152] Initially, the tax was intended to levy only on foreign currency transactions to amortize exchange rate fluctuations.
[153] Beghin, *Diritto Tributario*. The tax was then declared unconstitutional because of the violation of the principle of "*ragionevolezza*". According to the Constitutional Cort, if the aim of the tax was only to tax the extra profits realized during the 2008 crisis, then it should have been limited in time.

Source: 'Tax Justice Now'.

It is only one of the infinite possible combinations of changes in the U.S. tax system, but the main result is evident: the tax system would be more progressive, with a lesser levy on the bottom-income groups and a heavier levy on the top ones. Indeed, the primary aim of a highly progressive tax system is to reduce inequalities – or prevent their formation – to create a more just society in which everyone can prosper, with at the end a better overall result for the whole society. The net surplus for the United States would be $229.1b. It is required to highlight that the tax simulator's creators did not consider potential behavioural responses for the rich who would experience heavier taxation. The reason behind this calculation decision is that those behavioural changes would impact the government's revenues but not the relative improvement in poor condition. Indeed, redistribution of income and wealth should be the primary goal of these policies. Looking only at the aggregate output – instead of at the single parts of the whole - is a result of the emphasis on Paretian efficiency as the unique possible analysis framework.[154] However, alternatives exist. If efficiency is viewed simply as a "fact", instead of only a particular moral framework (utilitarianism, or consequentialism), it creates intellectual barriers to the economic theory and application. As Amartya Sen in his famous work *On ethics and economics* wrote:

[154] Wight, *Ethics in Economics*.

> «A State can be Pareto optimal with some people in extreme misery and others rolling into luxury, so long as the miserable cannot be made better off without cutting into the luxury of the rich», and:

> «Consequential analysis may be taken to be necessary, but not sufficient, for many moral decisions».[155]

Among economists, a specific theory has always been considered when speculating about tax policies: the Laffer curve. It is a curve that relates the tax rate to the tax revenue. When a certain limit - which corresponds to the maximum revenue - is exceeded, further increases in the tax would cause an increase in tax evasion and avoidance so that the revenue level would be reduced. The biggest limit to this theory is that it is impossible to know in which part of the curve the country is – at the peak; after the peak; before the peak - at the moment of policies' considerations. However, even if the actual country's position were knowable, it is clear that the main task of this theory is to achieve maximal government's revenues and not distributional optimality. As Saez and Zucman pointed out,

> «Extreme wealth, like carbon emissions, impose a negative externality on the rest of us. The point of taxing carbon is not to raise revenue but to reduce carbon emissions. The same goes for high tax rates on the very highest incomes: they are not aimed at funding government programs in the long run. They are aimed at reducing income of the ultra-wealthy».[156]

Reducing the negative externalities of the increasing wealth concentration at the top is one of the imperative goals to be striven to achieve in immediate time: evidently, the trickle-down theory – discussed in paragraph two, chapter One – has not worked. Looking at the United States, inequalities have not brought about more growth. In *The Price of Inequality*, Joseph Stiglitz wrote:

> «What America has been experiencing in recent years is the opposite of trickle-down economics: the riches accruing to the top have come at the expense of those down below».[157]

[155] Sen, *On Ethics and Economics*.
[156] Saez and Zucman, *The Triumph of Injustice*.
[157] Stiglitz, *The Price of Inequality*.

Shifting the attention toward Europe, a wealth tax has been recently proposed as a potential tool to repay the public debt issued to recover from the Covid-19 crisis.[158] It would be nothing, but a contribution asked to the wealthiest:

> «Issuing public debt is effectively transferring wealth from the public sector to the private sector. Individuals who keep their incomes during the crisis cannot consume as much, and therefore save more. These savings finance the new public debt that helps those who lose their incomes during the crisis. As a large increase in public debt means a large creation of private wealth, it seems natural to ask private wealth to contribute to repaying the public debt after the crisis».[159]

Considering that in Europe, the top 1% and the top 0.1% wealth holders own, respectively, 22.5% and 10% of total wealth, a progressive wealth tax at a rate of 1% above the top 1% threshold, 2% above 0.1% threshold and 3% above $1 billion would raise 1.05% of EU GDP in revenues each year.[160] It is insightful to notice that it would be not the first case in Europe of a tightening of top taxation to repay a considerable debt. To overcome the issue of the public debt accumulated in the first half of the 20th century due to the World Wars, Germany applied highly progressive wealth taxation – time-limited, as the primary aim was to repay the debt and not redistribute.[161]

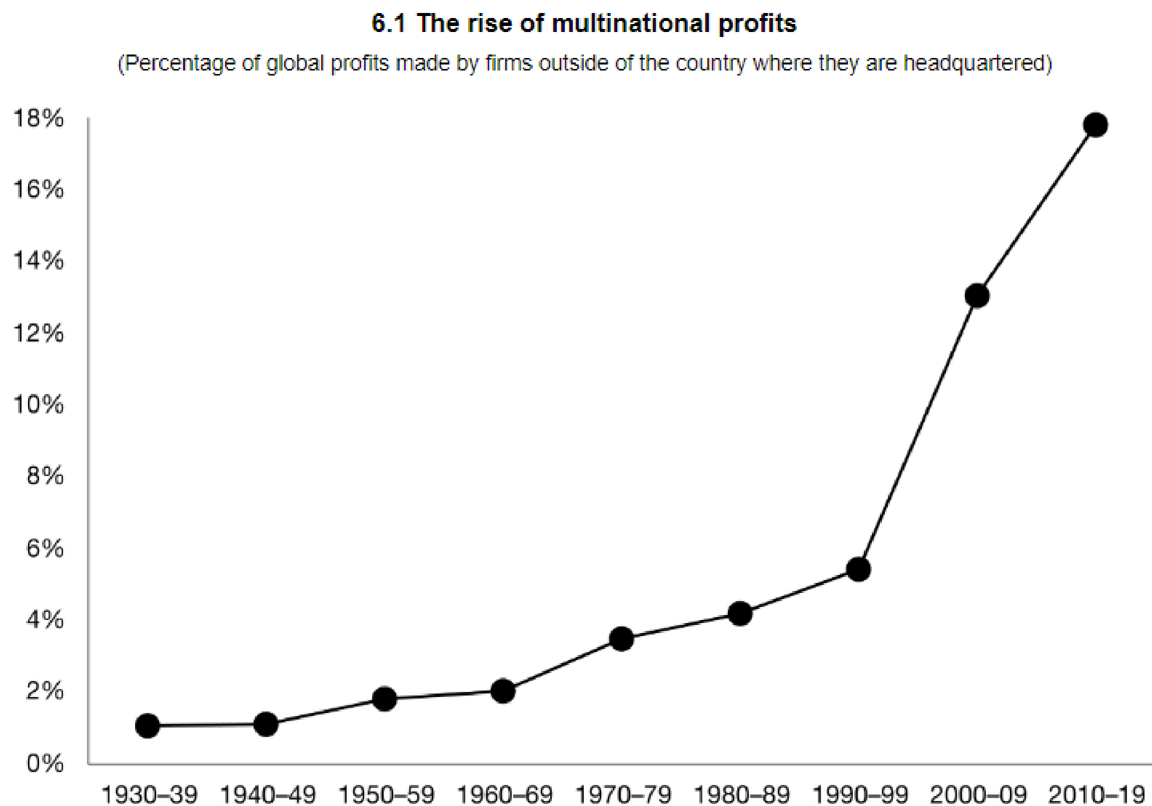
This paragraph focused on the potential positive effects of capital taxation on the distribution of income and wealth and on the overall progressivity of the tax system. The following one will highlight the necessity of global cooperation in implementing practical tools to reduce inequalities.

## 3.3 On the necessity of global cooperation

The primary issue to handle when discussing effective tax policies is the absence of global uniformity. If all the world's countries were under the rule of a unique government, this problem would not exist: companies or households could not avoid a particularly high tax rate just by transferring their assets to a low-tax rate country. Unfortunately, today the situation is the opposite. Shifting the business into tax havens is a widespread behaviour among companies. For this reason, any single country's effort to increase the tax rate – on both capital and income

[158] Landais, Saez, and Zucman, 'A Progressive European Wealth Tax to Fund the European COVID Response'.
[159] Landais, Saez, and Zucman.
[160] Landais, Saez, and Zucman.
[161] Landais, Saez, and Zucman.

– would be worthless. Therefore, in the actual scenario, tax competition among countries seems inevitable. As the graph below shows, the share of global corporate profits that corporations make outside of the country where they are headquartered largely increased in the last decades.




Source: Saez and Zucman, *The Triumph of Injustice*.

However, as anticipated in the previous paragraph, countries started moving toward cooperating on the taxation field in very recent times. Commenting on the agreement reached by G7 on global minimum corporate tax, Janet L. Yellen, U.S. Treasury Secretary, said:

> «Global minimum tax would end the race to the bottom in corporate taxation, and ensure fairness for the middle class and working people in the U.S. and around the world [..] The global minimum tax would also help the global economy thrive, by levelling the playing field for businesses and encouraging countries to compete on positive bases, such as educating and training our workforces and investing in research and development and infrastructure».[162]

Rishi Sunak, Britain's chancellor of the Exchequer, added:

[162] Rappeport, 'Finance Leaders Reach Global Tax Deal Aimed at Ending Profit Shifting'.

> «G7 finance ministers have reached a historic agreement to reform the global tax system to make it fit for the global digital age, but crucially to make sure that it is fair, so that the right companies pay the right tax in the right places».[163]

Therefore, in the case prospected by G7 nations, even if tax havens will not increase tax rates, companies would have to pay the remaining due taxes to their own countries. It is essential to highlight that without a successive agreement in the G20 context, the G7's effort would be worthless. However, even in the best scenario of a G20 agreement, another problem could arise: companies can still move their headquarters to tax havens, avoiding paying the remaining taxes.[164] That is why another tool to ensure the effectiveness of global taxation should be implementing sanctions to tax havens that allow companies to relocate and enjoy the low tax rate. As Saez and Zucman (2019b) pointed out, any effective taxation plan is based on four pillars: exemplarity – each country should police its multinationals; coordination; defensive measures; sanctions against free riders.[165]

Also, information exchange agreements are another way to move toward global cooperation. Regarding the United States, Johannesen et al. (2020) investigated the impact of enforcement efforts – made by the U.S. Internal Revenue Service from 2008 - on taxpayers' reporting of offshore accounts and income.[166] They found that the number of individuals who report foreign accounts to the IRS increased by around 50,000, and the total amount of wealth disclosed by about $100 billion. However, it is still a small sum, considering the estimation of the amount of wealth hidden in tax havens discussed deeply in the third paragraph of Chapter One. Also, to make information exchange agreements work, each country – including tax havens – should collaborate. Bilateral treaties - whose aim is to provide the exchange of bank information - enforced after the 2008 crisis have been proved to cause the shifting of deposits toward tax havens not covered by the treaty.[167]

If a global agreement risks remain a merely utopian aspiration, looking at Europe, the necessary action to take is to transform the European Union into a not only monetary but also fiscal union. The problem of notably favourable corporate tax rates is also present within Europe. The European Commission classified six countries - Netherlands, Cyprus, Malta, Hungary, Luxemburg and Ireland – as fiscally aggressive countries. However, this classification has no practical consequence on the taxation regime. As the table below shows, minimum corporate

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[163] Rappeport.
[164] Saez and Zucman, *The Triumph of Injustice*.
[165] Saez and Zucman.
[166] Johannesen et al., 'Taxing Hidden Wealth'.
[167] Johannesen and Zucman, 'The End of Bank Secrecy?'

tax rates in these countries are extremely low, making officially declared tax rate very different to the ones actually applied – given to tax deductions and exemptions and particular tax rulings.[168]

**Corporate tax rate and effective tax rate**

| | Corporate tax rate | Lowest effective tax rate | Percentual gap |
|---|---|---|---|
| Austria | 25 | 25 | 0 |
| Belgium | 30 | 2,958 | -90 |
| Bulgaria | 10 | 10 | 0 |
| Cyprus | 13 | 0 | -100 |
| Croatia | 18 | 18 | 0 |
| Denmark | 22 | 22 | 0 |
| Finland | 20 | 20 | 0 |
| France | 34 | 34,4 | 0 |
| Germany | 30 | 22,83 | -23 |
| Greece | 29 | 29 | 0 |
| Ireland | 13 | 0,005 | -100 |
| Italy | 28 | 26,9 | -3 |
| Lithuania | 15 | 15 | 0 |
| Luxembourg | 26 | 0,3 | -99 |
| Malta | 35 | 5 | -86 |
| Netherlands | 25 | 2,44 | -90 |
| Poland | 19 | 19 | 0 |
| Portugal | 32 | 30 | -5 |
| Czech Republic | 19 | 19 | 0 |
| Romania | 16 | 16 | 0 |
| Slovakia | 21 | 21 | 0 |
| Slovenia | 19 | 19 | 0 |
| Spain | 25 | 25 | 0 |
| Sweden | 22 | 22 | 0 |
| Hungary | 9 | 9 | 0 |

Source: Tax Haven Index 2019

Source: Osservatorio CPI, 'L'Unione Europea e le eccessive differenze nella tassazione dei profitti tra paesi'.

Today's European Union's structure makes it a lame-duck: only monetary policy is not enough to act effectively. The fiscal one – intended both as taxation and public expenditure – is also required. Already in 1969, the American economist Peter Kenen wrote:

[168] Osservatorio CPI, 'L'Unione Europea e le eccessive differenze nella tassazione dei profitti tra paesi'.

> «Fiscal and monetary policies must go hand in hand, and if there is to be an ‘optimum policy mix’, they should have the same domains. There should be a treasury, empowered to tax and spend, opposite each central bank, whether to cooperate with monetary policy or merely to quarrel with it».[169]

Finally, global cooperation in the taxation field is both necessary and feasible. A choice needs to be made: whether to pursue a just society based on a fair tax system.

[169] Kenen, *The Theory of Optimum Currency Areas*.

# CONCLUSION

Imagine a society where, once you are born, what you will be in the future depends mainly on your family's wealth. Everyone says that if you want to become the most famous football player, you do not need anything but to train. However, if you cannot afford to buy football clothing or pay the monthly fee for training, you have zero chance to reach a decent level. Everyone says that if you want to become the next Bill Gates, you only need to study hard and discover your natural talent. However, if you cannot afford the tuition fees of the most prestigious universities, it is almost certain that you will not be able to cross the threshold of the middle class.

Now, imagine that an available tool - for economists and politicians - to solve this resistance to equal opportunities exists: taxation. Indeed, thanks to its mighty power of redistribution, taxation manages to adjust the undesirable - and often undesired - excessive inequalities and concentration of wealth. Moreover, the government can use the collected revenue to finance the basic - and maybe, in an advanced society, the upper - needs of each citizen.

Intuitively, a society where everyone - and not only a few - can follow their aspirations and feel fulfilled in their lives is definitively a richer, other than happier, society.

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