Antinomies of Capital in the 21st Century

Estrada, Fernando

Universidad Externado de Colombia

2014

Antinomies of Capital in the 21st Century

Fernando Estrada

New Draft - Thomas Piketty's Capital in the 21st Century

January of 2015

Abstract
Thomas Piketty's "Capital in the 21st century" has been the most important book economy in recent times. Its aim integrates the debate theories of growth, income distribution, inequality and differences between the extremes income and income of the majority. The work predicts a slow increase in the share of capital income and inequality. His proposal for a global tax on capital is a way to evaluate such tendencies.

Keywords: Piketty, Capital in the 21st century, Capitalism, Distribution, Theory of economics.

Introduction

In Thomas Piketty's *Capital in the 21st Century*, whose Spanish edition has just been published by the Fondo de Cultura Economica is a publishing event in Mexico and Latin America. Marks a return to fundamental works of contemporary debate. Compared to the English version (Harvard University Press, 2014) this translation preserves the style of the original edition in French (Édition du Seuil, 2013). We recognize the tremendous work done by the team of translators and reviewers and say that this is a work that, like *Keynes's general theory,* represents a kind of Copernican revolution in contemporary public debate[1].

---

[1] For references on reactions to the book of Piketty we offer a reduced bibliography: In Spanish: Thomas Piketty, *El capital en el siglo XXI*, Traducción, Eliane Cazenave-Tapie Isoard, con la colaboraciónde Guillermo Cuevas, [Revisión de la traducción, Juan Carlos de Hoyos; Revisión ténica de la traducción, Gerado Esquivel, de la edición original en francés: *Le Capital au xx 1e siécle* de Thomas Piketty, D.R. © Éditions du Seuil, 2013]. Fondo de Cultura Económica, México, 2014, 664 pp. For reviews: El País, Madrid, 18 de mayo, 2014; Jesús Mota, "Cuando el pasado devora el porvenir", El País, Madrid, 4 de diciembre; Luis Fernando Medina, "Se Viene el Gobierno Mundial", Periódico *El Espectador*, Bogotá, 8 de diciembre de 2014; Arlene B. Tickner, "Pensamiento creativo para un orden volátil", *Periódico El Espectador*, 9 diciembre de 2014; Andrés Hoyos, "Piketty", Periódico *El Espectador,* 25 de abril de 2014; Joseph E. Stiglitz, Democracia en el siglo XXI, Periódico *El Espectador*, 6 de septiembre de 2014; Rafael Rivas, "Otra vez los impuestos", Periódico *El Espectador*, 28 de agosto de 2014. José Fernando Isaza, "Concentración", Periódico *El Espectador*, 28 de mayo de 2014. In english: Paul Krugman "That Old-Time Inequality Denial", N / T, May. 2014. Raul V. Fabella, "The Picketty Inequality in the Nash-bargained Social Contract", UP School of Economics, 2014; Odran Bonnet, Pierre-Henri Bono, Guillaume Chapelle et Etienne Wasmer, housing equity Does Contribute to inequality? A comment on Thomas Piketty's *Capital in the 21st* Century, Sciences Po Economics Discussion Papers, 2014; Francois Bonnet, Clement Theory. "Sociology and political science in the patrimonial society: implicaciones of Piketty's Capital. 2014 "; Bernardo Javier López, Félix López Martínez and Engelbert Stockhammer, "A Post-Keynesian Response to Piketty's" Fundamental Contradiction

Piketty´s book contains four distinct parts. The first: Income and Capital, provides an entry relating to the classic problems of income, production and comparisons of growth; there illusions and realities between conventional theories and data are shown. The second deals with the dynamics in the relationship between capital and income in a vast historical overview that describes the metamorphosis of capital[2]. Compare the evolution of wealth from old Europe to the New World. The capital / income is analyzed jointly by Piketty by treatment of long-term continuous series and introduces an explanatory framework to observe the division between capital and labor in the XXI century.

The third part analyzes the structure of inequalities. At first the complex links between inequality and concentration. Followed by a broad reflection on the dissociation between the world of wealth and poverty. The dilemmas corresponding *roughly* to inequality between labor income and capital derived properties[3][3] . Then addresses the dichotomy between merit and long-term heritage, incorporating narrative as a resource that supports the analysis of magnitudes. Return to this point. The final section of the third part is devoted to critical review of global inequality of wealth in the XXI century.

The fourth part is purposeful and suggests regulate capital in the XXI century, two problems reformulating economy since Ricardo and Marx have been linked to the public sphere: a social state and the progressive income tax. Likewise, the author offers his position on two ideas that have spurred criticism among those who have reviewed his work: a global tax on equity and debt.

As regards the same Piketty his book is the result of 15 years of research (1998-2013) essentially devoted to the historical dynamics of income and wealth[4]. Those who

---

of Capitalism "; For additional positions, see Cowen and Stiglitz. Tyler Cowen, "Capital Punishment," *Foreign Affairs,* 2014, J. Stiglitz, "Phony Capitalism," *Harper's Magazine* , 2014; Solow and Milanovic provide articles and explanations that support the model Piketty, vér: RM Solow, "Thomas Piketty Is Right," *New Republic* , April 22, 2014; Branko Milanovic, "The Return of 'Patrimonial Capitalism': Review of Thomas Piketty's Capital in the 21st Century," World Bank Policy Research Working Paper 6974, July 2014 ;. Critical technical aspects of the model: Lawrence Summers, "The Inequality Puzzle," *Democracy Journal* , no. 31 (2014); Chris Giles, *Financial Times* ; John Cassidy, "Forces of Divergence," *New Yorker* , March 31, 2014; Stefan Homburg, Critical Remarks on Piketty's 'Capital in the Twenty-first Century', Institute of Public Economics, Leibniz University of Hannover, Germany, 2014.

[2] For an extension of the database documented by Piketty, see: van Schaik, ABTM "With Piketty's laws replacement investment and depreciation". VoxEU, 2014.

[3] See Rajkamal Iyer and Manju Puri, "Understanding Bank Runs: The Importance of Depositor-Bank Relationships and Networks", *American Economic Review 2012, 102 (4): 1414-1445.*

[4] Thomas Piketty & Emmanuel Saez, "Inequality in the long run", *Science* , Vol 344 Issue 6186, 2014; Facundo Alvaredo, Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez, "The Top 1 Percent in

have read his previous work in articles and journals, see with this publication the partial completion of a work that began with *Les Hauts Revenus en France au XX Siegle* [High income in France in the twentieth century] and his colleagues Anthony Atkinson Oxford and Emmanuel Saenz of California. The originality of the project is to establish a platform covering about 27 countries and have gotten constitute the largest database available on the historical evolution of income inequality. The debate in the United States has certainly helped to give greater visibility to Piketty, among other aspects to exhibit the sharp increase in revenues richest 1 percent from the 70 In his chapters on progressive taxation knew versions previous research on optimal taxation of income and capital[5].

The book also reflects a commitment to the social sciences, and in particular historiography. From the writings of F. Braudel in the early 60s and then M. Foucault during the decades of the 70s and 80s, the European tradition a few authors dedicated to probate files. What we find here is a historiographical exercise compared to similar efforts by Tocqueville mid-nineteenth century to understand the effects of the French Revolution. Piketty discovers that long period of time analyzing the wealth resulting capital presents unprecedented dimensions. From his historical research in notarial archives Piketty could see better multiple parallels also, and the differences-between the structure of existing property, or what he calls *La Belle Époque* and this shared by the companies at the beginning of XXI the century phenomenon. The collection of materials and overall project outcomes are in the database: *World Top Incomes Database,* available historical data and technical information for a thorough reading of the results.

The problem.

Piketty faces a subject of public debate originated during the decade of the 70s, when authors like Rawls and Cohen Buchanan among others stressed the academic return to the public sphere to confront the unequal distribution[6]. The particularity of *capital in the XXI century* if you compare it with *the theory of justice* Rawls (1971) is not only in scope, but the framework that serves a support. Say to summarize, in its simplest version, Rawls conceives the principles of distribution following a Kantian moral, and curious idea of a well-ordered society, while it Piketty *ex post* using the resource tax files compares the

---

International and Historical Perspective", *Journal of Economic Perspectives* -Volume 27, Number 3-Summer 2013-Pages 3-20.

[5] For a different version of the model Piketty, see: Evan Hillebrand, "The Global Distribution of Income in 2050, *World Development* ", Vol 36, No. 5, pp.. 727-740, 2008; William J. Baumol, "On income distribution and growth", Journal of Policy Modeling 29 (2007) 545-548, 2007.

[6] John Rawls, The Theory of justice, 1971; Buchanan, James M., Tullock, Gordon, The Calculus of Consent: Logical Foundations of Constitutional Democracy, 1962.

systematic mass of data in several countries with unequal distribution[7]. What difference, then both proposals? The test supported to warn that capitalism mechanically reproduce inequalities inherited while leaving without questioning the values that cemented the differences in income. That is, the model of wealth of, a well-ordered society *to* Rawls, not they had to settle with magnitudes that separate income of 1 percent of the richest and the rest of society.

It should be emphasized that Piketty proceeding in a narrative tradition used as Balzac and Auden literary sources, and the novel serves an intuitive way to show the deep structure of inequality in the distribution of wealth globally. This appeal to intuition does not seem casual; the author sustains that capital and its distributive forms are not a matter of expert economists, but everyone falls[8]. In other words the mechanisms used to reveal the enormous inequities created by the wealth should not be limited to conventional reservoir models and numerical arithmetic series[9]. However, Piketty brings the issue of sufficient methodological rigor distribution tools. And he is trying to establish regularities with extensive historical data sample numbers, years, decades and centuries crucial for economic history.

But back to the core problem. We have noted that income inequality is not a new book, however since 1970 the evolution of inequalities has shown differences reviews[10]. The gap between the rich and the rest of society played a tendency toward what Ch. Tilly called *desdemocracia.* Theorists like Rawls, Nozick and Cohen had charted a course, but his message still amounted to generate an expanded towards universal audience debate. Since the economy, the alleged causes of inequality have been divergent: the minimum wage losses, union decline and lack of negotiation, outsourcing, globalization, replacement labor, technological shifts with tremendous changes in working life: up highly qualified and competent professionals ; and below, a majority unskilled, uneducated. On both fronts the set of responses to inequality by analysts remained limited. Nether the *Theory of Justice* Rawls and subsequent developments, or the revealing contradictions Nozick in *Anarchy, State and Society,* or polemical essays of Marxist Gerald Cohen, managed to explain the extreme threshold of inequality. What happened to the upward trend in income of 1 per cent compared to the rest of society? How coherently explain the levels of inequality in societies

[7] Fred Campano, Dominick Salvatore, "Economic development and income distribution", *Journal of Policy Modeling* 29 (2007) 553-566.

[8] Helen Scarborougha, Jeff Bennettb, "Estimating preferences intergenerational distribution", *Ecological economics* , 2008.

[9] Michael Grimm, "Does inequality in health impede economic growth?", *Oxford Economic Papers*, 1- 27, 2011.

[10] Andreas Bergh, Therese Nilsson, "Do liberalization and globalization Increase income inequality ?, *European Journal of Political Economy* 26 (2010) 488-505, 2010.

just experienced the rise of modern industrial capitalism?[11].

Response

The Capital in the XXI century contains the answer to these questions. The key used by Piketty was to establish a framework where data could be interpreted from a different historical time. Indeed, being the capital (wealth) its main purpose was to observe their work time path compared between France, USA and UK. The accumulation of data series allowed Piketty track the issue of inequality to the mid-eighteenth century. The database he built with his team now provides differentiated information countries: India, Sweden, Holland, France, Germany and the United States. The patient work of the arithmetic capital accounting country was necessary because what mattered was to compare long periods in different geographical areas. It was necessary to know against what type of units you could contrast the wealth, say, between Britain and France during a given year. The methodological resource Piketty was to divide the wealth measured in local currency of that time between the national income, also measured in local currency at the time. The relationship between capital and income is translated in this way in "years". So using this technique compared can know that the total wealth in France in 1850 amounted to the equivalent of seven years' income, but in the case of the United States in 1950 only equivalent to four years of income. This resource compared with "years" between wealth and income was fundamental to compose the other chapters. There is a new methodology, but a historiographical resource that helped simplify large numbers and adapt to less complex units.

Has underlined an ambiguity concerning two basic categories. Solow says that Piketty use "wealth" and "capital" as measurable terms. We know how to calculate the wealth of a person or institution: the value of all your assets and the total amount of debt is subtracted. (Values are market prices or, alternatively, some approximation.) The result, says Solow, is equity or net worth. At least in English, this is often called the capital of an institution or person. However, *the capital* has another meaning not at all equivalent: a "factor of production", an essential element in the production process as factories, machinery, equipment, office buildings or homes (producing "hosting services") . This meaning may differ from "wealth". In short, afrima Solow: there are assets that have value if and only if stem from the wealth, but produce nothing: artistic works, collections of precious metals, etc. (You could say that the pictures on the living room of a house

[11] Patrick Moyes, "An extended Gini approach to inequality measurement", *J Econ Inequal* (2007) 5: 279-303; Brice Magdalou · Patrick Moyes, "Deprivation, welfare and inequality", *Journal Soc Choice Welfare*, 2008; a recommended items assessing capitalism compendium: Ali M. Kutan, Future of Capitalism: Is it failing ?, Economic Systems 34 (2010) 1-2.

produced "aesthetic services", but generally are not considered in national income.)

What is significant in this review? The market value of the shares -the other side of the productive capital of a company- may change in unexpected ways and with greater rapidity than national income. Indeed, during a recession the relationship between wealth and income is likely to fall considerably, although it may happen that the productive capital has changed little or not at all. When working with long periods Piketty recommended not provide care to small inconsistencies between measures; so that with a little patience the resulting data are showing a clear pattern. In France and UK national capital remained relatively stable, about equivalent to seven times the national income between 1700 and 1910, then fell sharply between 1910 and 1950, probably as a result of wars and the Depression, reaching a low of 2.5 in the UK and just under 3 in France. After the relationship between capital and income begins to rise again in both countries to achieve by 2010 a little more than 5 in the UK and slightly less than 6 in France. This time span was different in the United States: starting just above 3 in 1770, rises to 5 in 1910, is slightly reduced in 1920, recovered to a peak between 5 and 5.5 in 1030, falling below 4 in 1950 and again rises to 4.5 in 2010.

The book teaches that wealth / income ratio in the US had been always lower than in Europe. And the main reason in the early years was that the land value increased less in open spaces of North America. Of course, there was more land, but it was too expensive. However, from the twentieth century, the low ratio between capital and income in the US probably began to reflect the highest level of productivity: a certain amount of capital could encourage greater production than in Europe.

From another perspective, the weakness of the capital / income ratio in the United States reflects a fundamental difference in the structure of the inequalities in Europe. The fact that all of the assets represented just 3 years of national income in the United States, compared with more than 7 Europe meant specifically that the weight of the owners and the positions acquired in the past was less important than the New World. It was possible, with some years of work and production limit initial differences in wealth between social groups, or at least reach them faster than in Europe. This is the balance of the relationship between capital / income that Piketty closes the first part of his book. Among the countries compared with data and tax records the relationship of wealth and income has been increasing since 1950, returning to the levels of the nineteenth century. The author believes that this increase will continue in this century, as seen in the following chapters.

What type of bond determines the long-run relationship between capital and income? Piketty adopts the formula: b = $\boldsymbol{s / g}$. And illustrated as follows. Specifically, if a country saves annually 12% of your income if your income by 2% per year, and if the initial capital stock is equal to six years of income, then the capital stock increase by 2% annually, ie exactly the same rate as national income grows; hence the capital / income ratio stable. However, if the capital stock is less than six years of income, savings equal to 12% of income will lead to the capital stock increase more than 2% (ie faster than income) such that the capital / income ratio will increase to its equilibrium level. In all cases, according Piketty, the capital / income in the long term relationship tends towards equilibrium b = ***s / g*** (I eventualemte increased over natural resources), provided however that the long-term asset prices evolve in Likewise average consumer prices.

Now for the issue of consumption and income. Think of someone who earns *r* percent per year (temporarily excluding taxes). If you part 1 percent rich are likely to consume only a fraction of their income. The rest is saved and accumulated their wealth so that their income will increase nearly *r* percent each year. Savings deposits with annual interest are part of their profits. It is the central theme and the powerful contribution Piketty. While the rate of return exceeds the growth rate of income of the rich will grow faster than income resulting from the workers. Or better, riches do not show a compensatory effect that reduces the total share capital. This trend figures for three consecutive centuries, with 1 per cent to maintain their dominance over the rest of society, do not describe institutional failures, they are mainly based on the ability of the economy to absorb increasing amounts of capital without substances falling rates of return. It is the devouring this past.

A phenomenon of *corona* type *Mateo* explanation in this part. A rich such a system is given a wealth and the poor, they have, are removed. Savings rates derived from work tend to be low, and the accumulation of capital in the hands of workers and employees. Instead the interests of wealth are increasing. If we compare the profitability of wealth relative to wealthier group worker savings are meager, and this mechanism does not offset the expected increase in inequality. But there is another dark line between these underlying trends related to time. If existing accumulations of wealth tend to grow faster than labor income, chances are that participation in inherited wealth increases relative to the fortunes earned by merit. Amid these conditions will not cease to exist entrepreneurs and innovators, investors and managers, artists and athletes who will benefit being in the shadow of renters. However, unbridled inflation or lower growth of the economy can spoil such stories. The corollary to the phenomenon of the *Matthew effect* is that the concentration of wealth and its ability to grow will encourage more to heredity than wealth related merit.

The description of the relationship between the distribution of income and wealth, makes Piketty from an intuitive arithmetic; we found no summary statistics or complex probabilistic series. For example, the percentages of 1 percent (tenth or above that 1 percent) is equivalent here to 10 percent; the next 40 percent, half (the middle class) corresponds to 40 percent among the top decile and the bottom half. Piketty called "middle class" 40 percent of the population located between the top decile and the average which is above the population. As we see it is a relatively ambiguous conceptual unity; the so-called "middle class" without reaching high income equity, income also suffers from the extreme need of the poorest in society. Yet it is an achievement of the author show that such differences exist. It is part of the method used by Piketty, who summarizes the complex data are not always comparable and are described in chapters summarizing their work.

Capital distribution is uneven, often from birth[12]. In the US, 10 percent of the top decile owns about 70 percent of all wealth, and half of it belongs to 1 percent; 40 percent below (the middle class) has about a quarter of total capital (mainly in inmoviliaria housing); population 50 has almost not at all, barely 5 percent of the total. The point is that the investments of the middle class housing are part of a relatively new phenomenon in the economy. Unlike the United States economic policies in Europe show a more egalitarian trend: the 1 percent owns 25 percent of capital; the middle class 35 percent. The historical development has been positive. In his book *The Old Regime and the Revolution* Tocqueville describes a very poor, middle class in these countries during the fourteenth to nineteenth centuries. Since that time the successive changes in demography and urban migration gave a solid foundation for a more inclusive society.

If in the XXI Century accept such an extraordinary concentration of property and wealth would be returning to a similar mentality that had the world in the fourteenth century. You might note, however, that capital income is more concentrated than wealth itself since, as Piketty says, the magnitudes of wealth tend to increase according to their larger size. Part of this advantage depends on the development of an economy of scale where investors also have privileged access to information and positions of power in institutions where decisions are made. Income from work tend to be more dispersed than the concentration of wealth. Piketty these differences observed mainly in the United States: 1 percent earns about 12 percent of total labor income, 9 percent earn below 23 percent; the middle class gets about 40 percent and the bottom half receives a quarter of such income. Again, the conditions in Europe are similar: 10 percent charged a little less and the remaining two groups slightly. The revelations documented by Piketty not discover something original, but critically expose the silent extreme inequality over three consecutive centuries.

One of the critical aspects of inequality related to income are obtaining higher

[12] Anet Currie, "Inequality at Birth: Some Causes and Consequences", *American Economic Review: Papers & Proceedings 2011, 101: 3, 1-22.*

wages[13]. About 60 percent of revenue from "1 percent" in the United States come from earnings, and only when we reached the top tenth of 1 percent of capital revenues begin to predominate: 70 percent of revenues hundredth of the top 1 percent originate in the capital. This story is repeated in other countries. France for example, has a similar rate of wage income at all levels, but there are also very high salaries. This aspect is relatively new in the economy. In the 1960s, the top 1 percent of earners cashed 5 percent of all earnings. The increase in this percentage has been constant until today when the top 1 percent of earners receive between 10 and 12 percent of all wages. However, the involvement of the highest salaries in the case of France remained stable at 6 percent until recently. In short, apparently the development of extreme inequality at the top of the wage distribution is American. Piketty and its working group have done a thorough job in tax returns between those recoben high incomes in the United States. The work of N. Taleb was also revealing about this phenomenon scandalous concentration of capital between those who Piketty calls "superejecutivos". These characters represent large corporations (particularly in the financial industry sector)[14].

Counting or not with the option to purchase shares, large wage income become wealth or future income from it. The rise of superejecutivos, especially in America, was the promoter likewise the enormous inequities that nation in income. A phenomenon hitherto little studied, although Piketty believes that this is a problem fueled by corporate patronage and power relations between large companies. The "thread" in the companies allows payments and bonuses related merits of its own executives. The peculiarity in the evolution of such wage increases is that they can overcome the stops in the highest income deciles. Also shown as a merit award superejecutivos youth who are good reasons to formalize their fortunes. These bonuses do not count as earned income, which means a high stimulus that governments and tax bodies should be estimated. It is however a problem related to the propensity to encourage large companies as a goal. The remarkable thing is Piketty study showing the effects of such deviations in the distribution of capital and related inequalities[15].

Piketty links the issue of income superejecutivos with equity capital and profiteering. The profits of this new generation of rich class non-labor or pension savings; are not employees or dividends from independent businesses. The process is devastating. An advanced system slow down in the productive economy and lower population level in

---

[13] Donghoon Leea, Kenneth I. Wolpin, "Accounting for wage and employment Changes in the US from 1968 to 2000: A dynamic model of labor market equilibrium", *Journal of Econometrics* 156 (2010) 68-85

[14] Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable*. New York: Random House and Penguin. 2007.

[15] Alberto Chong and Mark Gradstein, "Inequality and institutions", *The Review of Economics and Statistics,* August 2007, 89 (3): 454-465.

developed countries, contrasts with higher rates of return on capital and low growth rates; the book describes similarities between capital and revenue century regarding the conditions were during the nineteenth century. In some cases the share of capital in the economy of countries far exceeds net income in national income. Inherited wealth has evolved acquiring new outfits in financial markets; however, this is kind of the wealth that does not depend on the work and promoting high peaks of inequality in society. The two trends addressed by Piketty to curb this situation: (a) high inflation and tensions in the balance between diminishing returns and (b) technological progress. Both trends are described by the author as expectations of the XXI century.

What to do about this situation of inequality? What policy statements follow from the diagnostic Piketty offer? ¿Irreversible conditions created by capital and its winners were treated? Piketty's proposal targets a progressive tax on wealth; to expand to all countries and impose barriers to evasion in tax havens. The second idea is unrealistic. While acknowledging that a global tax is difficult to think that it is possible to implement a regional tax assets in developed countries in Europe and the United States. The tax riches in mind is to 0 percent on incomes below the million euros, 1 percent for wealth between one and five million and 2 percent for riches that exceed 2 percent of millions of euros . It is an annual tax and not a casual lien or only once. Piketty believes that implementing this tax could generate revenues equivalent to 2 percent of GDP; and the funds raised would be used or distributed by an agreed formula.

However, the recommendation has more projection is the progressive tax. In countries like Colombia (and in general countries with medium levels of development), a tax of this kind calls for measures with high levels of transparency and independent monitoring mechanisms with respect to financial institutions and corporations alike. The fourth part of the book extends detail on the roles that governments in Europe should be taken into account. The progressive tax can offer lower difficulties from the legal point of view, its implementation is a matter of improving both information systems and the control of evasion.

However, the proposed tax on capital as progressive taxation are not the main objective of his book. The issue is the difference between the growth rate and the net return on capital. The chapters develop numerous data elements that make up the growing dynamics of inequality whereby the rich get richer. A tax on capital, supplemented by a system of progressive taxation rates, decrease the difference between the returns on capital and growth of countries.

Piketty has stripped with evidence the effects of inherited inequalities. It is not a process of skills and individual incentives in capitalist societies; is not wealth or savings achieved through private investment. Nor is the wealth derived from technological innovation. Capital is related to a structural phenomenon of disadvantages among a majority low-income and 1 percent rich heritage.

Corollary on the progressive tax[16]

Tax policy creates obligations to individuals and organizations. Traditionally, governments have sought two purposes with taxes. First, obtain resources to finance spending on public goods and services. Second, change the relationship between the factors of production. In this regard have been very influential, for example, claims George (1881) on the positive impact it would have on production by 100% tax differential rent. To Hotelling (1931) taxes are the most suitable for the pacing mining tool. Recently, the IDB has stressed the same (Corbacho, Fretes and Lora 2013): taxes are not only to raise, but must be understood as tools for development.

The progressive tax system relates to a situation in which the rate increases with income and purchasing power. In most income and property tax systems in the contemporary world are progressive in nature: at the margin, the rate increases as income increases[17]. It is also possible to have a tax expense that is progressive, applying a similar income criterion: the escalation occurs when the tax rate increases as consumption expenditures are over[18].

If the tax policy is complex, so is the policy of redistribution (Estrada, 2010a). The

---

[16] These endnotes are part of a shared Jorge I González on the progressive tax Hayek and receiving Brennan / Buchanan work.

[17] The marginal increase may be weak (the second derivative of the rate with respect to income is negative) or strong (the second derivative is positive). The diversity of tax forms is manifold. See, for example, *Macmillan Dictionary of Modern Economics* , published under the direction of David W. Pearce, Macmillan Press Ltd. 1992.

[18] One of the most celebrated works in defense of progressive tax tax has been the work of Edwin RA Seligman: *Progressive Taxation in Theory and Practice* , 1894. Seligman develops the history of progressive taxation and an assessment of the theory from Wagner, Paine socialists, Guicciardini, Marshall, Licht; the theory of profit (tax payment is based on the benefit received), which contrasts proportionality and progressivity, the theory of service costs and subsequent decay. Based on a wide range of thinkers: Hobbes, Pufendorf, Turgot, Proudhon, Sartorius and Braun, Seligman identifies the favorable line to the proportional tax by upholding the principle benefit, then questioning from early social and economic philosophy Gandillot, Bentham, Robespierre, Vauthier. The Highlights of the work of Seligman, are found in the third part where does an application of progressive principle fiscal power in the United States and Spain. This is a fundamental work to understand the historical particularities of **SFP** (Spanish translation: *The progressive tax in theory and in practice* ., Victor I. Trad Paret, Madrid, 1913 [in the Library of the External University of Colombia , Ranked: 336 293 464 S i, ex.1]).

search for equality can result from a deliberate fiscal policy measures that touch the income and expenses, or may be an "accidental" effect of economic dynamics are combined. In the first case, it must be remembered that the net balance each family makes to the state. Citizens pay taxes, but at the same time, receive subsidies. In the fiscal accounts of the countries this ratio is not included. Strictly speaking, progressivity should be examined considering the individual's situation before and after taxes (local and national) and subsidies (local and national). This is the intent of the call Sarkozy Commission (Stiglitz, Sen and Fitoussi 2010), for the proposition that the quality of life of people is analyzed taking into account their real purchasing power, and this depends largely on the net balance between taxes and subsidies[19]. To Stiglitz, Sen and Fitoussi, state intervention that contributes to equity is desirable to improve the situation of the poorest people.

These authors Thomas Piketty position adds, but it comes from a privileged status. *The Capital in the XXI century* has brought together to compare historical and wealth inequalities, series; but its author has also led to a theory, data remarkable extent in the debate between economics, social sciences and society.

[19] From an accounting point of view, there is much discussion on how it should allocate the services offered by the state and have no direct monetary valuation.