

Repositório ISCTE-IUL

Deposited in Repositório ISCTE-IUL:

2025-02-27

Deposited version:

Accepted Version

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Dias, P. & Tavares, M. (2025). What we can learn from flat tax research. In Ana Arromba Dinis, Fátima David, Liliana Pereira, Sara Luís Dias (Ed.), Assessing policy landscapes in taxation dynamics. (pp. 513-562).: IGI Global.

Further information on publisher's website:

10.4018/979-8-3693-3908-4.ch018

Publisher's copyright statement:

This is the peer reviewed version of the following article: Dias, P. & Tavares, M. (2025). What we can learn from flat tax research. In Ana Arromba Dinis, Fátima David, Liliana Pereira, Sara Luís Dias (Ed.), Assessing policy landscapes in taxation dynamics. (pp. 513-562).: IGI Global., which has been published in final form at https://dx.doi.org/10.4018/979-8-3693-3908-4.ch018. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.



www.igi-global.com

What we can learn from flat tax research

Paulo Dias

ISCTE – Instituto Universitário de Lisboa, Lisbon, Portugal, paulo.dias@iscte-iul.pt

Miguel Tavares

ISCTE – Instituto Universitário de Lisboa, Lisbon, Portugal, Miguel Conchinhas@iscte-iul.pt

ABSTRACT

This chapter explores the increasing academic and political interest in the "Flat Tax" system, particularly inspired by the outcomes observed in countries with proportional taxation. By analyzing a sample of 109 scientific articles from the Scopus platform using bibliometric indicators, the chapter provides a comprehensive overview of the research trends and key findings in this area. The study reveals a significant rise in publications and citations over the last few decades, with a strong focus from European researchers, though the USA shows the highest interest. The findings indicate that the topic spans various disciplines, resulting in diverse and sometimes conflicting conclusions. This chapter underscores the importance of continued investigation into the flat tax to better understand its broader implications.

The increased political interest in the "Flat Tax" topic, inspired by the results in countries adopting proportional taxation, prompted this study to characterize research on "Flat Tax" in taxation. A sample of 109 scientific articles from the Scopus platform was analyzed using bibliometric indicators, and a summary table/chart of the main articles' conclusions was developed, following the PRISMA methodology.

The analysis revealed growing academic interest in the "Flat Tax" over recent decades, with an increase in both published articles and citations. The subject is predominantly studied by European authors, but it has generated the most interest in the USA. Most articles are co-authored, indicating collaborative research efforts. The topic spans various study areas, leading to publications in multiple scientific journals. Key associated keywords include "tax reform" and "tax system."

The diversity of areas related to the flat tax in these articles results in varied and sometimes divergent conclusions. This study highlights the growing importance of the flat tax in academic research and the need for further investigation to understand its implications fully.

Keywords: flat tax, taxation, bibliometric analysis

INTRODUCTION

The relationship between accounting and taxation is investigated in a multidisciplinary manner in the literature, leading to a diversity of studies on this topic (Dacian, 2010). With the increasing number of scientific articles related to taxation published in specialized journals, continuous investigation of various themes related to this area is necessary to achieve a deep understanding of the subject.

Taxation is crucial for the functioning of countries as it generates fiscal revenue, the primary source of state income. It enables governments to provide essential public goods and services, ensuring the proper functioning of societies and achieving an adequate level of economic stability (Whait et al., 2018; Arab & Basariya, 2020). Additionally, taxation is used to encourage or discourage certain behaviors or consumption patterns, correct market imperfections, and redistribute wealth to make society more equitable (Amirthalingam, 2013; Arab & Basariya, 2020).

To collect these revenues, various tax systems exist, some emphasizing direct taxes, others indirect taxes, and some balancing both. There are systems with more progressive rates, others with proportional rates, and some that balance both. The construction of a tax system is crucial, as it significantly determines macroeconomic indices such as economic growth, fiscal deficit, and public debt (Amirthalingam, 2013). Each tax system has advantages and disadvantages, and the way each country structures its system and defines its rates varies not only by the country's development status but also by the political and economic views of its government and its priorities. Some governments prioritize equity, while others emphasize efficiency, the two fundamental principles in tax system construction (Dagan et al., 1999).

Regarding personal income taxation, most countries have established progressive tax systems to address societal inequalities (Popescu et al., 2019; Sabitova & Dyudina, 2015). However, global economic crises have led to economic stagnation in many countries, resulting in public discontent and increased criticism of progressive tax systems, particularly regarding the compromise of efficiency for equity. Inspired by Eastern European countries, which adopted proportional systems primarily to achieve economic growth, political parties in various countries have discussed tax reform to introduce a flat tax, meaning a single rate for taxing personal income. Proponents argue that a flat tax would offer various advantages, including improvements in macroeconomic indices, such as national economic growth, similar to the experiences of Eastern European countries.

However, opinions on the flat tax are not unanimous, with significant disagreement and debate among parties about the country's future direction. Therefore, an investigation that consolidates the main conclusions of key studies on the topic is relevant, as it allows for observing multiple viewpoints and their justifications.

Despite the political debate, the flat tax topic is not extensively studied academically, though the number of articles on it has increased over the years, indicating growing academic interest. Consequently, there is a need for a study that encompasses various investigations on the flat tax, providing a general understanding of the current state of research on this topic.

This research aims to characterize the existing research on the "Flat Tax" topic by analyzing the trends in scientific articles published on the Scopus platform. The specific objectives are (i) to analyze a set of bibliometric indicators related to the characteristics of the published articles, (ii) to analyze a set of bibliometric indicators related to the characteristics of the researchers, and (iii) to construct a summary table/chart with the objectives and conclusions of the main articles included in the research sample.

Therefore, the research questions guiding this study are (i) What are the trends in the publication of scientific articles? and (ii) What are the main conclusions of the key studies on the topic? These questions aim to understand whether the topic has gained importance in academia as it has in the political sphere and to identify the reasons for the lack of consensus in the debate on this topic.

To answer the research questions, a characterization study was developed. Characterization studies are considered highly relevant as they allow for conclusions about the trends of scientific articles over the years, as well as a set of inherent characteristics. Additionally, this research consolidates the conclusions of key articles on the Scopus platform regarding the "Flat Tax," which is also considered highly relevant in academia, as aggregating existing literature information allows other authors to identify the most relevant publications and thus have a foundation to guide their research.

This investigation followed a PRISMA methodology, developed specifically for systematic reviews and meta-analyses, to assist in reporting the rationale behind the research, what was done by the authors, and their conclusions.

Initially, a literature review was conducted based on scientific articles from prestigious databases such as Scopus or journals listed in quality research rankings like the Academic Journal Quality Guide 2018, ensuring the quality of information. The literature review focused on the flat tax topic but also covered broader themes like the importance of taxation and fiscal revenues to facilitate understanding the conceptual foundations of the flat tax.

Next, data collection for this research was conducted. The search was performed using the Scopus platform, chosen for its high-quality content and global database coverage, ensuring relevant scientific information is not overlooked. The sample definition and data collection process will be further detailed in the methodology chapter.

Subsequently, to evaluate scientific production and characterize research on the flat tax, bibliometric indicators were used to analyze the selected articles for the study sample. Bibliometric indicators were chosen because bibliometrics is a quantitative and statistical technique used to determine knowledge production and dissemination indices (Costa et al., 2012). The analyzed indicators included scientific activity, scientific impact, and thematic associations.

To simplify data visualization and analysis, Excel and VOSviewer software were used, along with metrics provided by the Scopus platform. These tools enabled the development of a set of graphs, tables, and maps, facilitating better analysis of the collected data and characterizing research on the "Flat Tax.

LITERATURE REVIEW

2.1. Taxation

Taxation is fundamental for the functioning of the State, the economy, and society, as fiscal revenue represents the primary source of income for the State (Gribnau, 2015). Consequently, the survival of a government partly depends on its ability to levy taxes since it needs to raise funds to provide not only infrastructure but also public goods and services that cannot be adequately produced by the competitive market, such as schools, roads, and national defense (Whait et al., 2018; Arab & Basariya, 2020).

Thus, increasing the amount of tax revenue is crucial for a country's development (Arab & Basariya, 2020). However, it is relevant to highlight that increasing taxation can negatively affect the incentive for investment in various sectors of the economy, which can impact its long-term growth rate. Additionally, motivation for work and saving may be negatively affected (Popescu et al., 2019; de Hek, 2006).

The stance of each country's government on whether tax revenues should be higher or lower depends on the country's exact position on the Laffer curve (Evans & Aligica, 2008). According to this curve, neither a 100% tax rate nor a 0% tax rate would generate revenue for the State. With a 100% tax rate, people would not work, resulting in no revenue. On the other hand, with a 0% tax rate, although many individuals would work, revenues would still be nonexistent. Thus, what is obtained is a curve in which the aim is to maximize tax revenues (Laffer, 2019).

In addition to providing public goods and services and financing government expenditures, another essential function of taxation, as clarified in the Constitution of the Portuguese Republic, is to ensure a "fair distribution of income and wealth" (Article 103, nr.1), as social welfare is maximized when resources are distributed more equitably (Pántya et al., 2016; Popescu et al., 2019). For this reason, ensuring a fair distribution of the tax burden among individuals has been a central concern in policy-making over time (Popescu et al., 2019).

In summary, the effective use of tax revenues is at the center of a long-standing economic debate aimed at finding the best way to optimize tax revenues while maintaining a balance between equity and efficiency (Arab & Basariya, 2020; Laffer, 2019). It is important to emphasize that all systems have advantages and disadvantages and that the balance between equity and effectiveness can only be achieved through a fiscal policy adapted to each economy (Popescu et al., 2019; Sabitova & Dyudina, 2015).

2.2. Tax Structures

To obtain tax revenues, there are various forms of taxation, both for corporations and individuals, with the quest for the perfect tax structure being the goal of many politicians and economists (Gouveia & Oliver, 1995; Arab & Basariya, 2020). The choice of tax structure should consider various factors, such as its effects on economic incentives, its fairness among individuals with similar taxable capacity, its effects on distribution between high-income and low-income individuals, whether it is compatible with desirable international economic relations, and also

based on its simplicity, ease of understanding, and absence of excessive administrative costs (Popescu et al., 2019).

2.2.1. Direct and Indirect Taxes

Taxes can be classified in multiple ways. One distinction that can be made is between direct taxes, which are levied on income, and indirect taxes, which are levied on consumption. There are various arguments in favor of an indirect tax, such as its lesser negative effects on labor supply and less interference in the choice between present and future consumption (Musgrave & Musgrave, 1989). However, consumption taxes cause distortion in optimal consumption (Watrin & Ullmann, 2008). The main argument in favor of a direct tax is that it is generally the most suitable for income redistribution among income groups (Watrin & Ullmann, 2008). Additionally, in many countries, the largest budget revenues come from income tax returns, with only about 15 out of approximately 200 countries not applying it (Sabitova & Dyudina, 2015). Within income taxes, one of the sources that allows the State to address various economic and social problems in society is the personal income tax (Ibragimov et al., 2014).

2.2.2. Regressive, Progressive, and Proportional Taxes

In addition to being classified as direct or indirect, taxes can also be distinguished as progressive, proportional, or regressive. Regressive taxation, usually a fixed amount tax, imposes a higher percentage of tax burden on low-income workers, decreasing with increasing income. Although regressive taxation demonstrates extreme simplicity in terms of administrative efficiency, lower administrative costs, and reduces the possibilities of tax evasion, it is rarely considered because it fails to generate high tax revenues and has negative effects on wealth distribution (Dabrowski & Tomczynska, 2001). One potential way to ensure a fair redistribution of wealth is through the establishment of a progressive tax system, in which average and marginal tax rates increase with income (Pántya et al., 2016). Ensuring a fair redistribution of wealth is one of the main arguments in favor of this form of taxation and results from the opinion, advocated by authors such as Marx and Engels (1848), that economic differences among citizens should be corrected. Therefore, citizens with higher incomes should be taxed at higher marginal rates, and these tax revenues should be redistributed to lower-income citizens through state expenditures (Bonga-Bonga & Perold, 2014). Another advantage advocated by proponents of a progressive system is that it acts as an automatic stabilizer against economic cycles of countries, as there is a possibility of taxpayers moving from one bracket to another, minimizing the effects of economic shocks, offering greater stability to the economy (Popescu et al., 2019; Bonga-Bonga & Perold, 2014). In practice, in case of a recession, if workers' salaries are reduced, they will be taxed at a lower marginal rate, thus retaining a higher percentage of their income, which reduces the impact of the recession on their incomes. In the case of an economic expansion, the opposite would occur. Thus, despite macroeconomic shocks, due to the stabilizing effect provided by progressive taxation, aggregate consumption would remain relatively constant at any phase of economic cycles (Bonga-Bonga & Perold, 2014). However, critics of the progressive system argue that the State can stabilize the economy through more effective means and that the benefits of stabilizing the economy are only realized if governments behave responsibly and do not incur additional expenses during periods of economic expansion; otherwise, the desired countercyclical function is not fulfilled (Popescu et al., 2019; Bonga-Bonga & Perold, 2014).

Despite the identified advantages, the progressive tax system also faces criticism. Some authors argue that there is injustice in the progressive system as it penalizes individuals who work and save more, and removes incentives for labor supply and savings decisions, both for families and private companies. By withdrawing income from those who earn more, the incentive to produce is removed, and by providing another source of income to those who earn less, the incentive to produce is similarly diminished (Laffer, 2019). Consequently, economic agents may choose to work less, allocating more time to leisure and engaging in simpler tasks, thereby hampering economic growth (Conesa & Krueger, 2006; Bonga-Bonga & Perold, 2014). Another critique relates to the fact that this is the most complex tax system, which can trigger a feeling of increased tax pressure, one of the most relevant factors regarding tax non-compliance and the growth of the shadow economy (Pántya et al., 2016; Bonga-Bonga & Perold, 2014).

Due to these criticisms, many countries have been discussing tax reform, with the proportional tax system, in which there is only one tax rate on income, gaining emphasis (Ventura, 1999).

2.3. Flat Tax

2.3.1. History

The flat tax, or proportional tax, is not a recent idea, having been discussed and utilized throughout history up to the present day (Evans & Aligica, 2008). During the medieval period in feudal Europe, taxation was carried out through a system similar to what is now considered a proportional system, in which landowners received a fixed proportion of agricultural production (Fischer & Ferraro, 2019). Following the medieval period, Adam Smith (1776), one of the most recognized economists of his time, although stating that "it is not unreasonable that the rich should contribute to the public expense not only in proportion to their revenue but something more than in proportion," also advocated for proportional rates, stating that "the subjects of every state ought to contribute to 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" (Fischer & Ferraro, 2019). Additionally, according to the same author, a country's tax system should be simple, efficient, transparent, and fair. Although no tax system is perfect, a proportional system is the one that comes closest to these criteria (Heath, 2006). Also, in the Classical school, taxation was a constant focus of attention for economists. Authors such as Ricardo (1817) and Mill (1848) concluded that reasonable tax systems should be based on two fundamental principles: efficiency and equity. Consequently, two theories of taxation were developed, each emphasizing one of the two principles. The proportional tax was designed primarily to satisfy the principle of efficiency, while the progressive tax addressed the principle of equity (Dagan et al., 1999). Most countries, in an attempt to address some income inequalities in their societies, have opted to establish progressive tax systems (Popescu et al., 2019; Sabitova & Dyudina, 2015). In the 20th century, authors of economic liberalism revived the idea that a proportional system could be a viable alternative to a progressive system. Hayek (1960) developed arguments against the idea that ensuring a fair income redistribution required progressive income taxation. Friedman (1962) complemented the idea, arguing that the best way to alleviate poverty would be through a flat tax on income (Evans & Aligica, 2008; Fischer & Ferraro, 2019). In 1983, economists Robert E. Hall and Alvin Rabushka first developed and formalized academic work on the existence of a single tax rate on income, applied to both personal and business income, combined with a deduction or base subsidy (Heath, 2006; Fischer & Ferraro, 2019). In the system proposed by Hall and Rabushka, all salaries, wages, and pensions above the exemption threshold would be subject to a single marginal tax rate, resulting in an increase in average tax rates as labor income increased (Ventura, 1999). Thus, in practice, this combination of a flat income tax rate with a base deduction leads to a progressive regime, albeit different from the notion of progressivity in which both marginal and average rates increase with income (Ventura, 1999; Fossen, 2009). Until around the end of the 20th century, fixed income taxes could only be found in tax havens such as Hong Kong or the Channel Islands, such as Guernsey and Jersey (Fuest et al., 2008). However, in the last decade of the 20th century, the poor countries of Eastern Europe, which were under the communist regime of the Soviet Union, began to adopt proportional systems for income tax as they regained independence and aimed primarily for economic growth. The first wave of these tax reforms began in 1994 in Estonia, followed by Lithuania and Latvia in the following years, characterized by relatively high tax rates, close to the highest marginal rate before the reform (Barrios et al., 2020). Starting in 2001, the second wave began with tax reform in Russia, continuing in countries such as Serbia (2003), Romania (2005), and Hungary (2011), characterized by reduced tax rates, close to the lowest marginal rate before the reform (Barrios et al., 2020). In less than fifteen years, the flat tax ceased to be considered an inconceivable alternative, as although these reforms were implemented only in the former socialist economies of Eastern Europe, the economic growth observed in these countries has generated the opinion that this concept could also be adopted by Western European countries (Evans & Aligica, 2008; Peichl, 2009). For this reason, along with the other advantages provided by a proportional tax system, an increasing number of European countries, especially those facing financial difficulties and stagnant economies, have been considering the possibility of adopting this fiscal policy (Evans & Aligica, 2008).

2.3.2. Advantages

When discussing a personal income tax reform, one of the objectives is its simplification. Simplicity is understood as an important characteristic of tax systems, as system complexity is often considered a barrier to equity and efficiency because it can allow high-income taxpayers to exploit tax loopholes to reduce their tax burden (Fuest et al., 2008). One of the advantages of adopting a proportional tax system is precisely its administrative simplicity (Evans & Aligica, 2008). A simple system combined with low tax rates brings benefits in terms of reducing compliance costs, reducing the need for expensive accountants and consultants, understanding, and minimizing collection costs by facilitating the work of tax authorities (Fuest et al., 2008; Heath, 2006). This cost reduction could potentially reduce tax evasion and underreporting of income, thus widening the tax base (Duncan & Peter, 2010). However, critics of the flat tax argue that a change in the tax system is not necessary to observe a decline in tax evasion and income underreporting, as this could be achieved through investment and improvement of tax authorities (Popescu et al., 2019). It is also important to note that the effect of reducing tax evasion, which is usually a central point in tax reforms in countries with developing economies, may have less impact in countries with more developed economies since these countries usually have a lower percentage of informal economy and tax evasion (Paulus & Peichl, 2009).

In addition to the advantages outlined regarding the administrative simplicity of the flat tax, its adoption, if implemented with low tax rates, is also associated with a potential significant increase

in efficiency, employment, and economic growth through improved incentives (Fischer & Ferraro, 2019; Peichl, 2009; Benczúr et al., 2018). A reduction in tax rates would incentivize work by making it more rewarding, especially for households in higher tax brackets, and discourage leisure time by increasing its opportunity cost (Heath, 2006; Ventura, 1999; Bonga-Bonga & Perold, 2014; Conesa & Krueger, 2006). It is noteworthy that lower marginal rates not only lead to an increase in labor supply but also alter the way income is compensated, allowing workers to retain more of their income and companies to reduce costs (Feldstein, 1995; Ventura, 1999). Thus, the reduction in tax rates should result in increased savings and investment, facilitating entrepreneurship and the creation of small businesses, which, coupled with greater work motivation, attraction of foreign investment, and qualified immigrants, would stimulate the economy (Duncan & Peter, 2010; Skipper & Burton, 2008; Bonga-Bonga & Perold, 2014). This economic stimulus would provide more jobs and consequently more work opportunities for all citizens, potentially leading to greater social mobility (Heath, 2006). However, there are also those who argue that reducing tax rates would not lead to substantial economic growth (Skipper & Burton, 2008). These authors argue that a more egalitarian society would have higher long-term economic growth since investment in human capital increases efficiency and, the better the wealth redistribution, the more opportunities low-income citizens will have due to access to public goods, better education, and healthcare (Aghion et al., 1999; Osberg, 1995). Furthermore, individuals with lower incomes tend to demonstrate higher performance compared to those with higher incomes under a progressive tax system (Pántya et al., 2016). Finally, it is also observed that in countries where there is already a lot of private initiative and a large part of the active population is employed, a proportional tax system without being accompanied by profound reforms in the education, labor, and health systems of the state will not result in substantive differences (Pogátsa, 2009).

2.3.3. Disadvantages

Despite the specified advantages of adopting a proportional system, it also contains disadvantages, which from the perspective of the International Monetary Fund and some European Union officials, outweigh the benefits derived from it, which is why they have strongly criticized it, vehemently opposing the idea of this method of taxation (Voinea, 2013). A negative consideration is the decrease in state revenues. However, proponents of the flat tax cite the advantage of broadening the tax base due to the decline in tax evasion and income underreporting to demonstrate that the decrease would be less than expected. Additionally, although it is expected that revenues will be lower in the short term, in the long term, the dynamic effect on growth should result in an increase in tax revenues (Heath, 2006). Another disadvantage presented regarding proportional taxation, and considered by many as the main disadvantage of this system, is that it shows a negative impact on wealth distribution, since the tax burden is mostly borne by low-income individuals (Ventura, 1999; Barrios et al., 2020; Popescu et al., 2019; Benczúr et al., 2018). Unlike the middle and upper class who benefit from this fiscal policy in the long run, the lower class experiences a significant loss as the decline in tax progressivity cannot be compensated for by economic growth (Altig et al., 2001). In this way, an exacerbation of inequalities is expected, which is why the spread of flat tax to developed countries is limited (Paulus & Peichl, 2009; Popescu et al., 2019; Peichl, 2009). However, its proponents argue that the redistributive effect depends on the tax rate and deductions applied and suggest that specific combinations can lead to highly redistributive personal income tax systems. Still, if considerable tax deductions or low tax rates are not established, the flat tax indeed provides little redistribution in society (Domonkos, 2016; Paulus & Peichl, 2009). It is practically consensual among authors that progressive taxation is the best way to achieve equality. However, some authors like Rawls (1971) argue that a certain level of inequality is acceptable if with these inequalities society as a whole is better off than it would be without them. Aaberge et al. (2004) in their study draw an analogy between wealth redistribution and dividing a cake, suggesting that the progressive system would result in a more equitable distribution of slices, but a proportional system would result in a larger cake.

METHODOLOGY

To construct a scientific investigation, which is an organized and methodical process, one or more research questions must be established (Merriam, 2009). The declarative research questions of this study are to determine the publication trends of scientific articles and to understand the main conclusions of the major studies conducted on the subject. To answer these questions, a characterization of the research will be performed through bibliometric analysis, which allows drawing conclusions about the characteristics and trends of scientific articles over the years.

In this bibliometric analysis, the PRISMA methodology (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) will be utilized, specifically developed for application in systematic reviews and meta-analyses (Liberati et al., 2009). The PRISMA methodology serves as guidance to help authors prepare protocols aimed at providing the foundation for the review and the methodological and analytical approach, providing a minimum set of items to be included in systematic reviews and meta-analyses (Moher et al., 2015). In this research, some items of the PRISMA methodology were used, including the title, abstract, introduction, objectives, the adopted methodology, and the results.

Additionally, to conduct any research, a solid knowledge base is necessary in the initial phase. Thus, the literature review was conducted through a search of academic journals present in prestigious databases such as Scopus or in rankings based on research quality, such as the Academic Journal Quality Guide 2018, ensuring the quality of the information source. The focus of the literature review was on flat tax; however, it also included a broader explanation of related topics, such as tax systems and progressive taxes, resulting in a better understanding of the conceptual basis of the flat tax.

With the theoretical framework finalized, data collection and analysis were carried out in three distinct phases: data collection, identification of bibliometric indicators, and data analysis.

3.1 Data Collection

The initial phase of the analysis focused on a search on the Scopus platform. Scopus was chosen because it provides high-quality information, such as metadata for all indexed content, allowing for a more precise search and data collection of scientific articles, and its database has global coverage to ensure that relevant scientific information is not omitted (Scopus - Content Coverage Guide, n.d.; Why choose Scopus, n.d.; High-Quality Data, n.d.). The search was filtered so that

publications had to present the term "flat tax" in their keywords or have the term "flat tax" present in their title. It is important to note that the last data collection was carried out at the end of October, in order to include the largest possible number of publications in 2021 in the sample. Thus, with the search with the mentioned filters, 134 results were obtained. Subsequently, the sample was limited to only scientific articles since these are published in peer-reviewed scientific journals, thus ensuring the quality of the publication. With this limitation, the sample became 113 scientific articles. Finally, due to the impossibility of determining the author of 4 articles, these were removed, resulting in a final sample of 109 articles. The relevant information for this research was then collected through the export of a document from the Scopus platform containing citation information, bibliographical information, abstract & keywords, funding details, and other information. The process of the imposed limitations and the subsequent definition of the sample are shown in Figure 3.1, and the titles, authors, and publication years of the 109 articles included are represented in Table 3.1.

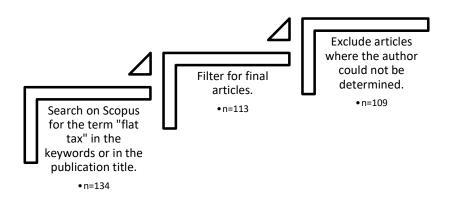


Figure 3.1 - Sample Definition Process Used (Source: Own elaboration)

Table 3.1 - Articles comprising the utilized sample (title, authors, and publication year)

Title	Authors Publica Year		
Flat tax? Maybe not a bad idea after all	Castelluccio, M.	2021	
Flat tax: European experiences and Italian Proposals	t tax: European experiences and Italian Proposals Baldini, M.; Rizzo, L.		
Flat-rate personal income tax in Lithuania, Romania and Hungary: A revolutionary policy	Kovács, B.	2021	
Recent research on labor supply: Implications for tax and transfer policy	Kean, M.P.	2021	
Taxes and the incentive to work under flat and progressive tax systems in Slovakia	Nadirov, O.; Dehning, B Pavelkova, D.	.; 2021	

Flat tax system and heterogeneity of self-employment	Safarov, S.; Abdurazzakova, D.	2021
Does the Personal Income Flat Tax fit with Economic Growth and Inequality in Italy?	Socci, C.; D'Andrea, S.; Pretaroli, R.; Severini, F.	2021
The politics of flat taxes	Carroll, D. R.; Dolmas, J.; Young, E. R.	2021
Progressive Tax Reforms in Flat Tax Countries	Barrios, S.; Ivaškaitė- Tamošiūnė, V.; Maftei, A.; Narazani, E.; Varga, J.	2020
Universal basic income with flat tax reform in France	Magnani, R.; Piccoli, L.	2020
Reflections on economic policy	Laffer, A.B.	2020
How Much Does Basic Income Cost? Modelling Basic Income as Universal Life Annuity	Gan, W. C.	2019
Investment expensing and progressivity in flat-tax reforms	Díaz-Giménez, J.; Pijoan-Mas, J.	2019
The end of the flat tax experiment in Slovakia: An evaluation using behavioural microsimulation in a dynamic macroeconomic framework	v -	2019
A proposal for a simple average-based progressive taxation system	Fischer, DH.; Ferraro, S.	2019
A briefing for a tax system reform	Visco, V.	2019
Why post-communist countries choose the flat tax: A comparative welfare approach	Ganchev, G.; Tanchev, S.	2019
Flat tax - Could it be really flat?	Ondrejovič, S.	2019
On Italy's flat tax needs and sustainability of the public budget	Mele, M.	2019
The flat tax in the Italian reform policy	Romagnoli, G. C.	2019
The flat tax as a fiscal detoxification therapy. Proposals for its introduction in stages in a rough situation	Forte, F.; Guardabascio, D.	2019
Envelope wages, hidden production and labor productivity	Di Nola, A.; Kocharkov, G.; Vasilev, A.	2019
'Flattening' tax evasion?: Evidence from the post-communist natural experiment	Filer, R. K.; Hanousek, J.; Lichard, T.; Torosyan, K.	2019
Minimum Income and Flat Tax Revisited: A Combined CGE- Microsimulation Analysis for Germany	Schubert, S.	2018
Assessing the economic and social impact of tax and benefit reforms: A general-equilibrium microsimulation approach applied to Hungary	Benczúr, P.; Kátay, G.; Kiss, Á.	2018

How Neoliberal Reforms Lose Their Partisan Identity: Flat Tax Diffusion in Eastern Europe and Post-Soviet Eurasia	Appel, H.	2018
Bifurcation Mechanism Design—From Optimal Flat Taxes to Better Cancer Treatments	Yang, G.; Basanta, D.; Pilouras, G.	2018
Basic income and flat tax: The Italian Scenario	Colombino, U.; Islam, N.	2018
Corporate flat tax reforms and businesses' investment decisions: evidence from Switzerland	Galletta, S.; Redonda, A.	2017
Higher Tax for Top Earners	FitzRoy, F.; Jin, J.	2017
Does a Progressive PIT Stabilize the Economy? A Comparison of Progressive and Flat Taxes	Krajewski, P.; Pilat, K.	2017
Getting the poor to work: Three welfare-increasing reforms for a busy Germany	Jessen, R.; Rostam-Afschar, D.; Steiner, V.	2017
Weak differential monotonicity, flat tax, and basic income	Yokote, K.; Casajus, A.	2017
Labour force participation elasticities and the move away from a flat tax: the case of Slovakia	Senaj, M.; Siebertova, Z.; Svarda, N.; Valachyova, J	2016
Evaluating the economic effects of flat tax reforms using synthetic control methods	Adhikari, B.; Alm, J.	2016
Work performance and tax compliance in flat and progressive tax systems	Pántya, J.; Kovács, J.; Kogler, C.; Kirchler, E.	2016
Who Wants a Progressive Income Tax?: Determinants of Tax Policy Preferences in Post-socialist Eastern Europe	Domonkos, S.	2016
Differentially monotonic redistribution of income	Casajus, A.	2016
Welfare gains from the adoption of proportional taxation in a general-equilibrium model with a grey economy: the case of Bulgaria's 2008 flat tax reform	Vasilev, A.	2015
Russia's flat tax reform: redefining its effects on employment	Kryvoruchko, I.	2015
Equal taxation as a basis for classifying financial instruments as debt or equity-a Swedish case study	Hilling, A.; Vilhelmsson, A.	2015
Income taxation as a tool of income redistribution	Sabitova, N.M.; Dyudina, M.P.	2015
Reporting import tariffs (and other taxes)	Tonin, M.	2014
Why is "new" europe more neoliberal?: Pension privatization and flat tax in the postcommunist eu member states	Beblavý, M.	2014
A cge simulation of a flat tax as a possibility for tax reform in South Africa	Bonga-Bonga, L.; Perold, M.	2014

Behavioral responses and the distributional effects of the Russian 'flat' tax	Duncan, D.	2014
Revisiting crisis generators in Romania and other new EU member states	Voinea, L.	2013
Ideas Versus Resources: Explaining the Flat Tax and Pension Privatization Revolutions in Eastern Europe and the Former Soviet Union	Appel, H.; Orenstein, M. A.	2013
A "modest" proposal to balance the federal budget	Matthews, R.B	2013
Progressive or "flat" tax -economic and political dilemma	Blechová, B.	2012
The Effect of Taxation on Informal Employment: Evidence from the Russian Flat Tax Reform	Slonimczyk, F.	2012
Tax evasion, minimum wage noncompliance, and informality	Basu, A.K.; Chau, N.H.; Siddique, Z.	2012
A Flat Tax Reform in an Economy with Occupational Choice and Financial Frictions	Boháček, R.; Zubrický, J.	2012
Expected future earnings, taxation, and university enrollment	Fossen, F.M.; Glocker, D.	2011
On the use of some optimal strategies of fiscal administration during economic crisis	Brojba, L.C.; Dumitru, C.G.; Belciug, A.V.	2010
	Cremer, H.; Gahvari, F.;	
Income tax reform in France: A case study	Cremer, H.; Gahvari, F.; Ladoux, N.	2010
Income tax reform in France: A case study Flat tax reform: The Baltics 2000-2007		2010
	Ladoux, N.	
Flat tax reform: The Baltics 2000-2007	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S.	2010
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax?	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M.	2010
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax? Flat tax and labour taxation - The Czech and Slovak experience The impact of the flat tax reform on inequality - The case of	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M.	2010 2010 2010
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax? Flat tax and labour taxation - The Czech and Slovak experience The impact of the flat tax reform on inequality - The case of Romania	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M. Voinea, L.; Mihăescu, F.	2010 2010 2010 2009
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax? Flat tax and labour taxation - The Czech and Slovak experience The impact of the flat tax reform on inequality - The case of Romania Tatra Tig er growth miracle or belated recovery?	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M. Voinea, L.; Mihăescu, F. Pogátsa, Z.	2010 2010 2010 2009 2009
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax? Flat tax and labour taxation - The Czech and Slovak experience The impact of the flat tax reform on inequality - The case of Romania Tatra Tig er growth miracle or belated recovery? Effects of flat tax reforms in Western Europe Would a flat-rate tax stimulate entrepreneurship in germany? a	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M. Voinea, L.; Mihăescu, F. Pogátsa, Z. Paulus, A.; Peichl, A.	2010 2010 2010 2009 2009 2009
Flat tax reform: The Baltics 2000-2007 Does labour supply respond to a flat tax? Flat tax and labour taxation - The Czech and Slovak experience The impact of the flat tax reform on inequality - The case of Romania Tatra Tig er growth miracle or belated recovery? Effects of flat tax reforms in Western Europe Would a flat-rate tax stimulate entrepreneurship in germany? a behavioural microsimulation analysis allowing for risk Myth and reality of flat tax reform Micro estimates of tax	Ladoux, N. Azacis, H.; Gillman, M. Duncan, D.; Peter, K.S. Beblavý, M. Voinea, L.; Mihăescu, F. Pogátsa, Z. Paulus, A.; Peichl, A. Fossen, F. M. Gorodnichenko, Y.; Martínez-	2010 2010 2010 2009 2009 2009 2009

The benefits and problems of linking micro and macro models - Evidence from a flat tax analysis	Peichl, A.	2009
Flatliners Ideology and rational learning in the adoption of the flat tax	Baturo, A.; Gray, J.	2009
Does a simpler income tax yield more equity and efficiency?	Fuest, C.; Peichl, A.; Schaefer, T.	2008
The "flat tax(es)": Principles and experience	Keen, M.; Kim, Y.; Varsano, R.	2008
Is a flat tax reform feasible in a grown-up democracy of Western Europe? A simulation study for Germany	Fuest, C.; Peichl, A.; Schaefer, T.	2008
Ramifications of a flat tax - Shifting the burden to the middle class	Skipper, D.W.; Burton, H.A.	2008
The ups and downs of flatter taxes	Owens, J.	2007
Flat tax experiments	Osterkamp, R.	2007
Non-manipulable division rules in claim problems and generalizations	Ju, B.G.; Miyagawa, E.; Sakai, T.	2007
On the optimal progressivity of the income tax code	Conesa, J.C.; Krueger, D.	2006
Flat tax reforms: A general equilibrium evaluation for Spain	González-Torrabadella, M.; Pijoan-Mas, J.	2006
Russia's flat tax: Myths and facts	Gaddy, C. G.; Gale, W. G.	2006
Une flat tax en Belgique Quelques éclairages sur les principes et les conséquences d'une telle réforme	Valenduc, C.	2006
Quelques éléments d'analyse de la flat tax	Maggiulli, C.; Mors, M.	2006
Taxation: Circling the flat tax	Matlack, C.; Ewing, J.; Bush, J.; Granitsas, A.; Vitzhum, C.	2005
The Russian 'flat tax' reform	Ivanova, A.; Keen, M. J.; Klemm, A.	2005
Growth effects of shifting from a graduated-rate tax system to a flat tax	Cassou, S. P.; Lansing, K. J.	2004
The welfare of investment deductibility under a flat tax	Cugno, F.; Zanola, R.	2002
Can anyone beat the flat tax?	Epstein, R. A.	2002
Financial repression and optimal taxation	Bai, C.E.; Li, D.D.; Qian, Y.; Wang, Y.	2001

The effect of policy objectives, complexity, and self-interest on individuals' comparative fairness judgments of a flat tax	Bobek, D. D.; Hatfield, R. C.	2001
Flat tax proposals: A current review, with a history of the arguments pro and com	Kyj, L. S.; Romeo, G. C.; Marshall, P. S.	2001
The uneasy case for the flat tax	Buckley, F. H.; Rasmusen, E. B.	2000
Ironing Out the Flat Tax	Weisbach, D. A.	2000
Labor supply responses and welfare effects from replacing current tax rules by a flat tax: Empirical evidence from Italy, Norway and Sweden	Aaberge, R.; Colombino, U.; Ström, S.	2000
Feasible implementation of taxation methods	Dagan, N.; Serrano, R.; Volji, O.	1999
Flat tax reform: A quantitative exploration	Ventura, G.	1999
Flat taxes and effective tax planning	Calegari, M. J.	1998
Estimating flat tax incidence and yield: A sensitivity analysis	Dunbar, A.; Pogue, T. F.	1998
Flat taxes and distributional justice	FougÈre, M.; Ruggeri, G.C.	1998
Revenue, progressivity, and the flat tax	Ho, M. S.; Stiroh, K. J.	1998
The Complexity of Tax Structure in Competitive Political Systems	Warskett, G.; Winer, S.L.; Hettich, W.	1998
A flat tax without bumpy philanthropy: Decreasing the impact of a "low, single rate" on individual charitable contributions	Davies, R. P.	1997
Flat tax intriguing, but will it fly?	Ichniowski, T.; Schriener, J.	1996
Origins of a flat tax	Bank, S. A.	1996
Is there a simpler, flatter tax in our future?	Penner, R. G.	1996
Presidential hopefuls pump up flat-tax debate.	Weissenstein, E.	1996
A snag in Forbes's flat tax?	Shear, J.	1996
The forbes flat tax	Veramallay, A. I.	1996
An analysis of the distributional effects of replacing the progressive income tax with a flat tax	Iyer, G. S.; Seetharaman, A.; Englebrecht, T. D.	1996

Voting over flat taxes in an endowment economy	Gouveia, M.; Oliver, D.	1996
Flat tax' raises interesting questions.	Pallarito, K.	1995
Treasury's modified flat tax proposal could adversely affect tax- exempt hospitals.	Kapp, R. H.; Sterling, M. A.	1984
Examining flat tax rate proposals The equity issues	Beardsley, G. L.	1984

(Source: Own elaboration)

3.2. Bibliometric Indicators

After the data has been collected, it is necessary to evaluate scientific production through bibliometric indicators. Bibliometrics is a quantitative and statistical technique used to assess indices of knowledge production and dissemination, as well as to examine the evolution of various scientific areas and authorship and publication trends (Costa et al., 2012). The assessment of scientific production is carried out using various bibliometric indicators, including indicators of scientific quality, indicators of scientific activity, indicators of scientific impact, and indicators of thematic associations (Costa et al., 2012).

Indicators of scientific quality are based on peer review evaluations of publications for their scientific content and are not quantifiable, and therefore were not analyzed in this investigation (Costa et al., 2012).

Indicators of scientific activity allow the assessment of the level of activity in terms of scientific articles published over time. For this purpose, the following indicators were analyzed: number and distribution of published works, author productivity, collaboration in work authorship, and the distribution and geographical collaboration of articles.

Indicators of scientific impact allow the assessment of the impact of works and sources. The indicator addressed in this study that helps measure the impact of works was the number of citations to the articles in the sample under study. To measure the impact of sources, the influence of scientific journals and their impact factor was evaluated using the CiteScore metric.

Indicators of thematic associations allow the evaluation of article characteristics. In this case, an analysis of the keywords of the scientific articles under study was conducted.

3.3. Data Analysis

To process and analyze the collected data, two software tools were used: Excel and VOSviewer, along with metrics provided by the Scopus platform. Through Excel, a set of tables and graphs was developed to organize a large amount of data and simplify its interpretation. VOSviewer enabled the production of network maps that facilitate the visualization and analysis of

relationships between authors, their countries of affiliation, as well as keywords. Finally, through Scopus, metrics such as H-Index and CiteScore were analyzed to complete the characterization of flat tax research.

RESULTS

In this chapter, the results of the characterization study of research on "Flat Tax" will be presented, considering bibliometric indicators of scientific activity, scientific impact, and thematic associations, as well as a summary table with the main conclusions of the primary investigations from the study sample.

4.1. Indicators of Scientific Activity

Indicators of scientific activity allow the assessment of the level of activity in terms of scientific articles published over time. Indicators such as the distribution of published articles, author productivity, collaboration in article authorship, and the geographical distribution of articles will be analyzed in the following subsections.

4.1.1. Number and distribution of articles published per year

Through Figure 4.2, it is possible to observe that the scientific articles observed in this study were published between 1984 and 2021, spanning a temporal horizon of 37 years. However, it was observed that in the period between 1985 and 1994, as well as in the year 2003, no articles meeting the search criteria mentioned in the Methodology chapter were published on the Scopus platform, reducing the number of years under analysis to 27 years. In this period, a total of 109 articles were published, reflecting an average of 4.04 articles published per year.

Additionally, it can be observed from the same figure that in 2019, 12 articles were published, which corresponds to the maximum number of articles published in the analyzed period. On the contrary, the years 1995, 1997, 2004, and 2011 were the ones with the fewest articles published, with only one article published in each of these four years. Another conclusion that can be drawn is that the most frequent number of articles published in a year is 5, which occurred in 6 years.

Regarding the evolution over time, there is an increase in the number of articles published over the decades, with 2 in the 1980s, 17 in the 1990s, 31 in the 2000s, and 48 in the 2010s, demonstrating that interest in the topic has been gradually increasing. At the beginning of the current decade, 11 articles have already been published in two years, compared to the beginning of the previous two decades when only 6 articles had been published in the first two years, indicating an expectation of an increase in the number of articles published.

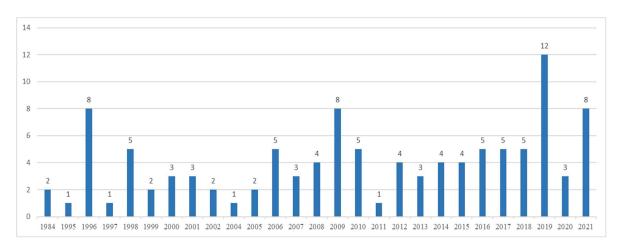


Figure 4.2 - Evolution of the number of published articles

(Source: Own elaboration)

4.1.2. Author Productivity

Analyzing the productivity of authors allows us to conclude which authors produce the most knowledge regarding a specific subject, in this case, which authors have published the most scientific articles on "Flat Tax".

As previously mentioned, the sample of this study includes 109 scientific articles. A total of 201 authors contributed to these publications. Of these, 93% contributed only one article, while 7% published two or more articles. Figure 4.3 graphically presents this information in absolute values.

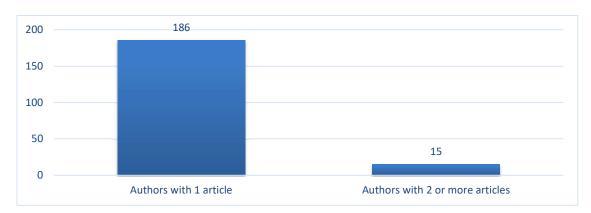


Figure 4.3 - Author Productivity

(Source: Own elaboration)

Following Figure 4.3, Table 4.2 was prepared to detail the most productive authors, i.e., those who published at least two scientific articles. As can be seen from the figure, the author who published the most articles was Peichl with 4 articles, followed by 14 different authors with 2 articles each, and the remaining 186 authors with only 1 article each. It is therefore possible to conclude that, concerning articles published in scientific journals available on the Scopus platform, there is no author who stands out with many articles written on the topic. Instead, the topic in question is one where attention is divided among many authors. This fact leads to various types of studies with different origins, methodologies, and assumptions, which can result in very divergent conclusions.

Table 4.2 - Number of Articles Published per Author

Author	Number of Articles	%
Peichl, A.	4	1,83%
Fuest, C:	2	0,92%
Schaefer, T.	2	0,92%
Duncan, D.	2	0,92%
Senaj, M.	2	0,92%
Peter, K.S.	2	0,92%
Keen, M.	2	0,92%
Pijoan-mas, J.	2	0,92%
Fossen, F.M.	2	0,92%
Voinea, I.	2	0,92%
Appel, H.	2	0,92%
Beblavy, M.	2	0,92%
Casajus, A.	2	0,92%
Colombino, U.	2	0,92%
Vasilev, A.	2	0,92%
remaining 186 authors	1	85,32%
Total	218	100%

4.1.3 Collaboration in Article Authorship

The preparation of an article can be done individually, involving only one author, or collectively, involving two or more authors. Figure 4.4 shows a pie chart illustrating the percentage of articles written individually and collectively. It is evident that the majority of the published articles were written collectively. Out of the 109 articles included in this study sample, 68 were co-authored, representing 62% of the total published articles. The articles written by a single author were 41, which accounted for 38% of the total published articles.

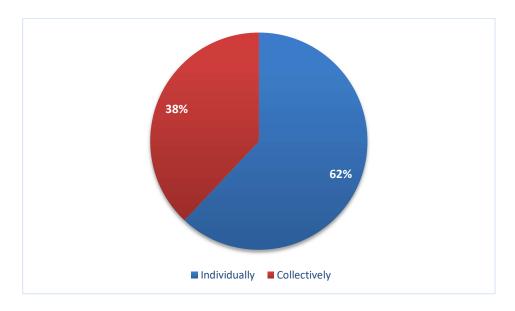


Figure 4.4 - Type of Authorship

(Source: Own Elaboration)

Following this, Figure 4.5 presents the number of articles written according to the number of contributing authors. In addition to individually authored articles, the distribution of co-authored articles among those with two, three, four, or five authors is depicted. Articles written by two authors are the most prevalent, with 40 articles, followed by those written by three authors, totaling 20 articles. The least common are articles written by four and five authors, with only 5 and 3 articles respectively.

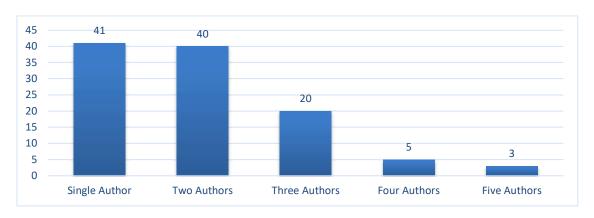


Figure 4.5 - Number of Authors per Article

(Source: Own elaboration)

To analyze the level of collaboration among the most prolific authors, a co-authorship network map was created using VOSviewer software. In this map, authors are represented by circles, which are larger for authors who have published more articles. The connections between authors are represented by lines, which are thicker for stronger collaboration links.

Figure 4.6 displays the connections among the most productive authors, specifically those who contributed to 2 or more articles, grouped into clusters. As previously mentioned, 15 authors contributed at least 2 articles, and of these, 10 have no connections with other authors, meaning they published articles individually. The remaining 5 authors are divided into 2 clusters. One cluster, represented in green, consists of 2 authors (Peter, K.S. and Duncan, D.), and the other cluster, represented in red, consists of 3 authors (Schaefer, T.; Peichl, A.; and Fuest, C.). In the latter cluster, each author has a connection strength of 2 with the others, as they co-authored two articles together, namely "Does a simpler income tax yield more equity and efficiency?" and "Is a flat tax reform feasible in a grown-up democracy of Western Europe? A simulation study for Germany," both published in 2008.

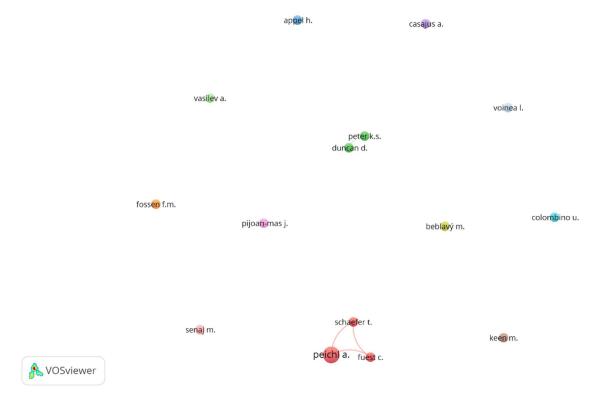


Figure 4.6 - Co-authorship Associations of the Most Productive Authors

(Source: Own Elaboration using VOSviewer)

4.1.4 Geographic Distribution and Collaboration

Another significant indicator of the study is the geographic distribution of the published articles. For this analysis, each author was assigned to the country where they are affiliated with a university or another institution.

It is important to note that the number of affiliated authors is not equal to the number of authors who published the articles analyzed in this study, as some authors are affiliated with more than one country and some are not affiliated with any. Therefore, although there are 201 contributing authors to this study, the number of affiliated authors is considered to be 208. In total, the authors of the articles in this study sample are affiliated with 35 countries. The United States is the country with the highest number of published articles, specifically 42, followed by Germany with 17, the United Kingdom with 14, and Italy with 10. On the other hand, there are 12 countries with only one published article each. It is also important to highlight that the European Commission and the International Monetary Fund were added as "Others" in the table, as authors were affiliated with these organizations, which cannot be associated with any specific country.

In order to understand the level of communication among the most influential countries in this research, a network map was constructed using VOSviewer software, illustrating the geographic collaborations among countries with at least two published scientific articles. It is worth noting that in Figure 4.7, there is a green circle representing Hungary, which is not labeled due to its proximity to a larger circle representing the United Kingdom.

Thus, Figure 4.7 demonstrates the connections among 12 countries to which authors affiliated with at least two scientific articles belong. These 12 countries are grouped into 4 clusters, with a total of 20 connections among them. Germany stands out with the highest number of geographic associations, with 8 connections to other countries (USA, Japan, France, Spain, Italy, Czech Republic, UK, and Hungary). The strongest relationships are with the UK and the USA, with connection strengths of 4 and 2 respectively. Subsequently, the United States of America has 6 connections (Canada, Japan, France, Spain, Germany, and Czech Republic), followed by the United Kingdom with 5 connections (Germany, Czech Republic, Spain, Hungary, and Slovakia).

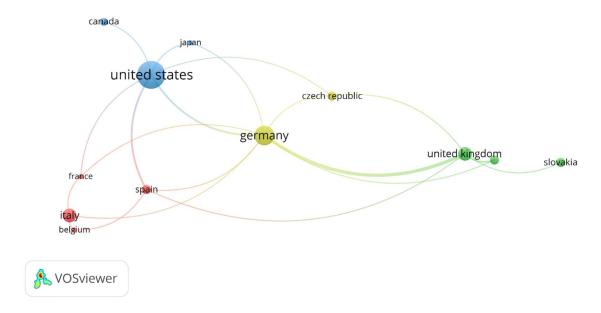


Figure 4.7 - Geographic Associations

(Source: Own Elaboration using VOSviewer)

4.2. Scientific Impact Indicators

Scientific impact indicators allow for the evaluation of the degree of impact that articles have at the scientific level. These can be divided into indicators of the impact of the works, such as the number of times the articles have been cited, and indicators of the impact of the sources, such as the distribution of articles by scientific journal or research area, which will be analyzed in the following subsections.

4.2.1. Indicators of Work Impact

The number of times articles have been cited is one of the indicators that should be analyzed regarding the impact of the works, as it allows understanding whether the articles in the research sample are being used by other researchers and how relevant they are to science. A scientific article is considered more relevant the more times it is cited, as this indicates that it is serving as a source of knowledge for new scientific articles.

The analysis of this indicator was performed on October 24, 2021, using information from the csv file extracted from the Scopus database. This information is relevant because it is expected that the number of citations will increase as new articles are published. Thus, Table 4.4 was constructed with the most cited articles, with a minimum of 10 citations, through which it can be observed that, within this sample, the most cited articles are "On the optimal progressivity of the income tax

code" published by Conesa, J.C. and Krueger, D. (2006), and "Myth and reality of flat tax reform Micro estimates of tax evasion response and welfare effects in Russia" published by Gorodnichenko, Y.; Martínez-Vázquez, J. and Peter, K. S. (2009) with 98 and 85 citations respectively, which together account for more than 20% of the total citations. Another important fact is that 78.14% of the total citations are concentrated in 21 articles and that there are 34 articles that have not received any citations.

Table 4.4 - Most Cited Articles

Title	Citations	%
On the optimal progressivity of the income tax code	98	10,88%
Myth and reality of flat tax reform Micro estimates of tax evasion response and welfare effects in Russia	85	9,43%
Flat tax reform: A quantitative exploration	68	7,55%
Non-manipulable division rules in claim problems and generalizations	53	5,88%
ldeas Versus Resources: Explaining the Flat Tax and Pension Privatization Revolutions in Eastern Europe and the Former Soviet Union	45	4,99%
The Russian 'flat tax' reform	41	4,55%
The "flat $tax(oldsymbol{arphi})$ ": Principles and experience	38	4,22%
Labor supply responses and welfare effects from replacing current tax rules by a flat tax: Empirical evidence from Italy, Norway and Sweden	35	3,88%
ls a flat tax reform feasible in a grown-up democracy of Western Europe? A simulation study for Germany	28	3,11%
Effects of flat tax reforms in Western Europe	27	3,00%
Evaluating the economic effects of flat tax reforms using synthetic control methods	25	2,77%
The benefits and problems of linking micro and macro models - Evidence from a flat tax analysis	25	2,77%
Flatliners Ideology and rational learning in the adoption of the flat tax	23	2,55%
The Complexity of Tax Structure in Competitive Political Systems	22	2,44%
Growth effects of shifting from a gradual ed-rate tax system to a flat tax	21	2,33%
Can anyone beat the flat tax?	14	1,55%
boring Out the Flat Tax	14	1,55%
The Effect of Taxation on Informal Employment: Evidence from the Russian Flat Tax Reform	11	1,22%
The impact of the flat tax reform on inequality - The case of Romania	11	1,22%
Would a flat-rate tax stimulate entrepreneurship in germany? a behavioural microsimulation analysis allowing for risk	10	1,11%
Featible implementation of taxation methods	10	1,11%
Subtotal	704	78,14%
Others	197	21,86%
TOTAL	901	100,00%

(Source: Own Elaboration)

Additionally, through Figure 4.8, it is possible to observe the number of citations per year of publication of the articles. The years 1984 and 1995 do not present any cited articles, thus they are not included in the figure. It can be observed that 2009 was the year of publication with the highest number of citations, with 187 citations from 8 scientific articles.

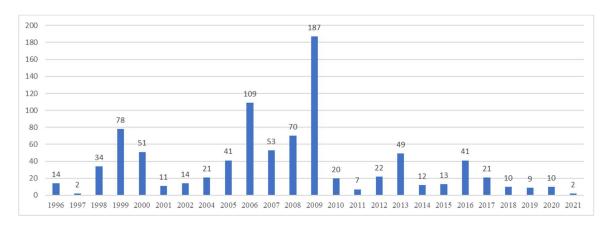


Figure 4.8 - Number of citations to articles published each year

(Source: Own Elaboration)

Furthermore, an analysis of the annual evolution of the number of article citations was conducted. As can be seen in Figure 4.9, the first year in which one of the sample articles was cited was in 1998. From then until the present year, only in 1999 and 2000 were there no citations to any of the articles. A positive trend in article citations can be noted since 1998, with 2019, 2020, and 2021 being the years in which they were most cited, with 73, 90, and 102 citations respectively. It is worth noting that the year 2021 has not yet ended, so the number of citations is likely to increase, further contributing to the idea that interest in the "Flat Tax" topic has been increasing.

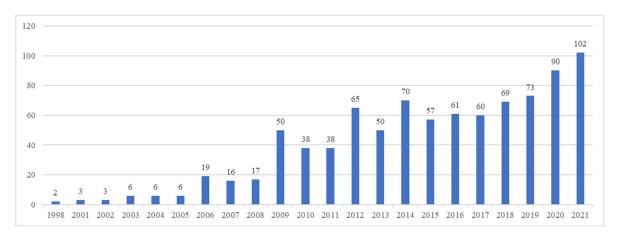


Figure 4.9 - Number of citations per year

(Source: Own Elaboration)

Finally, using the Scopus platform, an analysis of the H-Index was also conducted, a metric that considers the number of published articles and citations to those articles in a balanced way, thus being useful for indicating the impact of a researcher on the development of their scientific field and for making comparisons between researchers (Hirsch & Buela-Casal, 2014). It is important to mention that for this analysis to be conducted, the metric requires the time horizon to be restricted to 15 years and that the analysis can be done on a single publication or on a set of publications. Thus, the choice was made to select the most recent 15 years, from 2006 to 2021, and to analyze the set of publications.

Through Figure 4.10, it can be concluded that this study has an H-Index of 16, meaning that out of the 109 scientific articles composing the sample of this study, 16 have been cited at least 16 times.

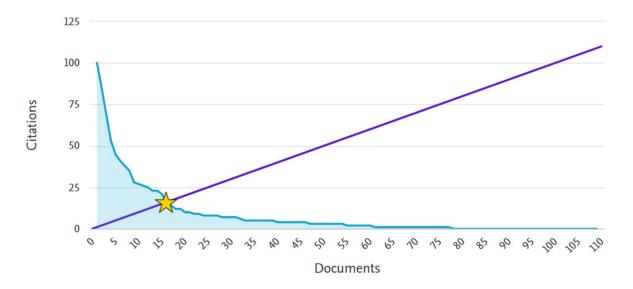


Figure 4.10 - H-Index of the scientific articles composing the research sample

Source: Scopus

4.2.2. Source Impact Indicators

To gauge the impact of the sources, it is important to conduct an analysis of the scientific journals in which the articles are published. For this purpose, the number of articles published in each journal was determined. The 109 articles under analysis were published in a total of 85 scientific journals. It can be observed in Table 4.5 that there is no standout journal with many published articles. The vast majority, identified in the figure as "Other 68 journals," have only one article

published. Nonetheless, the scientific journal with the most published articles is the International Tax and Public Finance with 6 articles, followed by Economics Letters with 4, and the Journal of Policy Modeling with 3 published articles.

Table 4.5 – Distribution of articles published by scientific journal

Journal	Number of published articles	%
International Tax and Public Finance	6	5,50%
Economics Letters	4	3,67%
Journal of Policy Modeling	3	2,75%
Acta Oeconomica	2	1,83%
Atlantic Economic Journal	2	1,83%
CESifo DICE Report	2	1,83%
Economic Modellng	2	1,83%
Eastern European Economics	2	1,83%
Ekonomicky casopis	2	1,83%
FinanzArchiv	2	1,83%
Journal of Applied Business Research	2	1,83%
Modern healthcare	2	1,83%
National Tax Journal	2	1,83%
Notizie di Politeia	2	1,83%
Reflets et Perspectives de la Vie Economique	2	1,83%
Research in Labor Economics	2	1,83%
Romanian Journal of Economic Forecasting	2	1,83%
Others	1	62,39%
TOTAL	109	100,00%

(Source: Own Elaboration)

Another metric that can be analyzed to understand the relevance and importance of scientific journals is the CiteScore. CiteScore is a metric for evaluating the impact of scientific journals, calculated by dividing the number of citations over a 3-year period by the number of documents published in the same period. The published documents include scientific articles, conference papers, book chapters, reviews, and data papers. Thus, the CiteScore indicates the average number of citations per document published over a three-year period, reflecting whether the documents produced by a scientific journal are more or less cited, which aids in its evaluation since the greater the impact of a journal, the better the perception of its quality.

In Figure 4.6, the five scientific journals with the highest CiteScore values can be observed, as well as the three journals that contributed the most articles to the sample of this study. The Journal of Political Economy and Economic Policy are the journals with the highest CiteScore, 10.9, meaning that on average, each document they published was cited 10.9 times. The journals that contributed the most articles to the sample of this investigation, such as the Journal of Policy

Modeling, Economic Letters, which is the journal with the most documents produced between 2017 and 2019, and International Tax and Public Finance, have a lower CiteScore, suggesting that they have a lesser impact compared to the others.

Table 4.6 - Top 5 Journals with the Highest CiteScore Impact Factor and Top 3 Journals with the Highest Number of Published Articles

Journal	Published Articles	CiteScore	Percentil	Citations	Documents	%
Journal of Political Economy	1	10,9	97%	3023	277	86%
Economic Policy	1	10,9	97%	459	42	81%
European Journal of Political Research	1	6,4	96%	1237	193	88%
Comparative Political Studies	1	6,3	96%	1626	259	84%
Economic Journal	1	5,9	90%	2486	424	80%
Journal of Policy Modeling	3	3,5	78%	1013	291	70%
Economics Letters	4	2,7	70%	4483	1640	50%
International Tax and Public Finance	6	1,7	51%	326	195	60%

(Source: Own elaboration with data extracted from Scopus)

Finally, it is also important to conduct an analysis of the study areas in which the scientific articles are categorized. The scientific articles present in this investigation are inserted into various study areas. It is worth mentioning that some articles fall into more than one of these areas, so the number of articles considered is 162 and not 109. Thus, as seen in Table 4.7, there are three main areas of focus: "Social Sciences" and "Business, Management and Accounting" with 29 articles each, and especially "Economics, Econometrics and Finance" with 87 articles. The remaining areas with less representation are "Arts and Humanities," "Medicine," "Mathematics," "Decision Sciences," "Engineering," "Environmental Science," and "Psychology," as can be observed in the figure below.

Table 4.7 - Distribution of Articles by Study Area

Study Area	Published Articles	% Published Articles
Economics, Econometrics and Finance	86	53,09%
Business, Management and Accounting	29	17,90%
Social Sciences	29	17,90%
Arts and Humanities	7	4,32%
Medicine	5	3,09%
Mathematics	2	1,23%
Decision Sciences	1	0,62%
Engineering	1	0,62%
Environmental Science	1	0,62%
Psychology	1	0,62%
Total	162	100%

(Source: Own elaboration)

4.3. Indicators of thematic associations

The analysis of keywords is one of the main indicators of thematic associations. Keywords require careful analysis to understand which themes related to "Flat Tax" are most researched by the authors of scientific articles. Once again, using the VOSviewer software, a network map was created with the main keywords used by the authors to help understand the interconnection between them. As in the previous network maps, the keywords are represented by circles, which are larger the more times that keyword has been used in published scientific articles, and the connection between them is represented by lines that unite them, which are thicker the stronger the connection. It is also important to note that the closer the circles are, the stronger their relationship. The keywords that appear in 3 or more scientific articles were selected for this map. Of the 322 keywords present in the articles, only 38 meet this requirement.

Through Figure 4.11, it is possible to observe that, naturally, the keyword that appears in the most articles is "flat tax." Following this, "tax reform" and "tax system" are the terms that most frequently appear as keywords in the articles, 14 and 12 times respectively, suggesting that the main topics under analysis concerning articles related to the flat tax are the analysis of tax systems, as well as reforms and possible tax reforms.

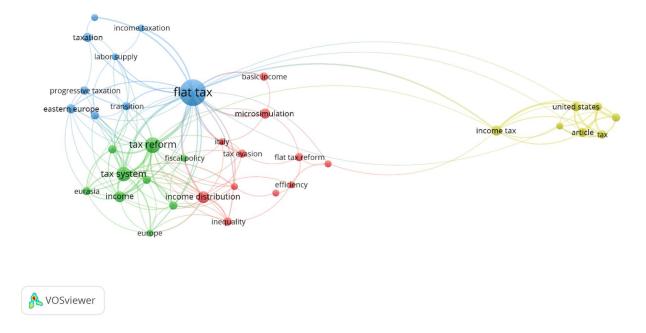


Figure 4.11 - Association of Keywords Used in the Articles

(Source: Own elaboration using VOSviewer)

4.4. Table with the conclusions of the main articles

Finally, a summary table/chart was developed to group the main conclusions of the main articles with more than 5 citations that are part of the sample of this study, aiming to facilitate the study of the topic and serve as a basis for future research.

Table 4.8 - Objectives and conclusions of the main articles in the sample

Article Title	Study Objectives	Conclusions
On the Optimal	Calculate the optimal progressivity	The optimal US income tax would be
Progressivity of the	of the US income tax code.	a flat tax of 17.2% with a fixed
Income Tax Code	of the OS meome tax code.	deduction of about \$9,400.
Myth and Reality of	Examine the effects of the 2001	Significant changes in tax evasion are
Flat Tax Reform:	Russian tax reform, which	associated with changes in voluntary
Micro Estimates of Tax	introduced a flat income tax, on	compliance; the productivity response
Evasion Response and	consumption, income, and tax	to the tax reform is small compared to
Welfare Effects in	evasion.	the evasion response.
Russia	- C. M. S.	and evaporation responses.
Flat Tax Reform: A	Explore a revenue-neutral tax	The elimination of effective capital
Quantitative	reform where the current US income	income taxation has a significant
Exploration	and capital income tax structure is	positive effect on capital
•	replaced with a flat tax.	accumulation; profit, income, and
	•	especially wealth distributions
		become more concentrated.
Ideas Versus	Examine the rapid spread of pension	Material resources can accelerate the
Resources: Explaining	privatization and the flat tax in	diffusion of political ideas and
the Flat Tax and	former communist countries to	encourage adoption in larger states,
Pension Privatization	understand the role of material	but are not necessary; political
Revolutions in Eastern	resources in the diffusion of new	networks with ideas can rapidly
Europe and the	political ideas.	spread reforms in competitive
Former Soviet Union		environments even without
		significant financial resources.
The Russian 'Flat Tax'	Determine if the substantial increase	There is no strong evidence of a
Reform	in income tax revenue was a direct	supply-side effect of the reform;
	consequence of the flat tax reform in	however, tax compliance improved
	Russia.	significantly, accounting for about a
		third of the increase in revenue,
		though it remains unclear if this was
		due to the tax reform or changes in law enforcement.
The "Flat Tax(es)":	Davious the experience with flat	There is no evidence that behavioral
The "Flat Tax(es)": Principles and	Review the experience with flat taxes that have been adopted in	responses of the Laffer type generate
Experience and	many countries in recent years.	revenue increases from the tax-cutting
12 April 10 HCC	many countries in recent years.	elements of these reforms; their
		impact on tax compliance is
		theoretically ambiguous, but evidence
		suggests improved compliance; the
		distributive effects may have
		increased progressivity; the adoption
		of flat taxes has not solved the
		challenges of taxing capital income.

Labor Supply Responses and Welfare Effects from Replacing Current Tax Rules by a Flat Tax: Empirical Evidence from Italy, Norway, and Sweden	Examine labor supply responses and welfare effects of replacing the current tax systems in Italy, Norway, and Sweden with a flat income tax.	Efficiency costs of the current tax relative to a flat tax can be quite high in Norway and much lower, but positive, in Italy and Sweden; in all three countries, "rich" families - defined by pre-reform income - tend to benefit more than "poor" families; in Italy and Sweden, a majority would lose from a switch to a flat tax, while in Norway a majority would benefit from the switch.
Is a Flat Tax Reform Feasible in a Grown-up Democracy of Western Europe? A Simulation Study for Germany Effects of Flat Tax Reforms in Western Europe	Analyze the equity and efficiency effects of revenue-neutral flat tax reforms for Germany. Determine if there is room for a political reform toward a flat tax in Western Europe.	Due to its limited efficiency effects and problematic distributive impact, it is unlikely that these tax reforms will be implemented in mature Western European democracies. Under specific circumstances, these tax reforms can increase income equality and improve work incentives; however, in most cases, there is a trade-off between efficiency and equity.
Evaluating the Economic Effects of Flat Tax Reforms Using Synthetic Control Methods	Analyze the impact of flat income tax reform in eight Eastern and Central European countries that adopted it between 1994 and 2005.	Positive economic impacts are found in all eight countries, in variables such as per capita GDP and employment; however, impacts differ between countries that adopted the flat tax in an initial wave of reforms and those that adopted it in a second wave, with higher impacts in the former.
The Benefits and Problems of Linking Micro and Macro Models - Evidence from a Flat Tax Analysis	Describe the latest generation of simulation analyses and illustrate the benefits and problems of linking micro and macro models through the analysis of tax reform proposals to introduce a flat tax in Germany.	A flat tax on personal income can indeed overcome the fundamental equity-efficiency trade-off while simultaneously increasing tax revenue; however, this conclusion does not hold for a flat tax that combines a flat tax on personal income with a flat tax on corporate cash flow.
Flatliners: Ideology and Rational Learning in the Adoption of the Flat Tax	Understand what factors explain the wave of flat tax adoption in Eastern Europe.	The wave of flat tax adoption stems from rational learning, where economically right-leaning governments evaluated the reform's success (measured by its ability to attract foreign investment) over the medium term; rational emulation in a shorter period also contributes to the likelihood of adoption, as does a shift toward economically liberal ideology.

The Complexity of Tax Structure in Competitive Political Systems Growth Effects of Shifting from a Graduated-rate Tax System to a Flat Tax	Explore the nature of tax complexity in competitive political systems. Assess the growth effects of shifting from a graduated-rate tax system to a flat tax.	Simple tax systems (such as a flat tax) are not compatible with vigorous political competition. Empirical evidence regarding the links between tax policy and long-term growth is somewhat inconclusive; the growth effects of taxes are sensitive to the choice of parameter values, particularly the elasticity of labor supply, which has a
Can Anyone Beat the Flat Tax?	Assess whether proportional taxes are fair and determine if a superior alternative exists.	substantial impact on the growth implications of the reform. The flat tax may be inferior to the ideal progressive tax system, if it could be determined what the ideal system is; since it cannot, the flat tax offers a robust second-best choice for public finance, which, in an imperfect world, counts as the best choice.
Ironing Out the Flat Tax	Address the lack of detail on how to implement a flat tax, considering design issues.	The scheme would be complex and difficult to implement, though still somewhat simpler than the current system.
The Effect of Taxation on Informal Employment: Evidence from the Russian Flat Tax Reform	Study the effect of the Russian tax reform on informal employment.	The tax reform led to a significant reduction in the share of informal workers; the reform seems to have had the strongest effect on the prevalence of informal irregular activities; stronger effects were also documented for individuals who benefited from the largest tax rate reductions. The strong response to the tax reform supports the hypothesis that informal and formal labor markets are well integrated.
The Impact of the Flat Tax Reform on Inequality: The Case of Romania	Determine the impact of the flat tax on inequality in Romania.	Inequality indicators show an increase in inequality caused by the flat tax.
Would a Flat-Rate Tax Stimulate Entrepreneurship in Germany? A Behavioral Microsimulation Analysis Allowing for Risk	Estimate the ex-ante effects of the 2000 German tax reform and two hypothetical flat tax scenarios on entries and exits of self-employment based on a structural microsimulation model with transition rates under risk estimated econometrically.	Flatter tax systems do not encourage people to choose self-employment; on the contrary, they discourage it.
Welfare Gains from the Adoption of	Provide a quantitative assessment of the welfare effect resulting from the	The lower effective tax in the new tax regime induces a relocation of people

Proportional Taxation in a General-Equilibrium Model with a Grey Economy: The Case of Bulgaria's 2008 Flat Tax Reform Flat Tax Reform: The Baltics 2000-2007	introduction of proportional taxation in Bulgaria in 2008, an effect that works through the grey economy channel. Understand how a balanced flat tax system, or a move towards it, can be optimal, as applied to the tax reform in the Baltic economies from 2000 to 2007.	to the official sector, stimulates investment, and increases output and consumption; under a flat tax, the size of the informal sector is smaller. Equal flat taxes on personal and business income would have increased welfare more in all three countries than the current reforms; a move towards balance between labor and capital tax rates, through adjusting just one rate, achieves utility
Getting the Poor to Work: Three Welfare-Increasing Reforms for a Busy Germany Does Labour Supply Respond to a Flat Tax?	Study three budget-neutral reforms of the German tax and transfer system designed to improve work incentives for low-income people. Identify the effect of taxes on the labor supply of men and women.	gains as high or higher than the current reforms. The three reforms reduce labor supply in the first decile of the income distribution; the flat tax scenario reduces overall labor supply by about 5%; the reform designed to increase participation reduces labor supply by 1%; the reform that provides incentives to work full-time has negligible effects on overall labor supply. The tax reform led to a statistically significant increase in men's working hours but had no effect on women's
Estimating flat tax incidence and yield: A	To estimate the distributive effects of replacing existing federal income	working hours; the reform increased the likelihood of finding a job for both men and women. The proposed flat tax would increase the tax burden for most taxpayers and
sensitivity analysis	taxes with a flat tax as proposed by Representative Richard Armey and Senator Richard Shelby.	significantly redistribute the tax burden, primarily from the top decile to other taxpayers. If the flat tax were modified to become more progressive, although the gains for the top decile would be reduced, this pattern of redistribution persists.
Assessing the economic and social impact of tax and benefit reforms: A general-equilibrium microsimulation approach applied to Hungary	To evaluate the long-term macroeconomic, fiscal, and distributive consequences of tax and benefit reforms in Hungary.	The Hungarian tax reform may have boosted production by improving work incentives for high-wage workers (along the intensive margin), but reduced work incentives and employment levels for low-wage workers. The policy measures introduced since 2008 have substantially increased income inequality.

Behavioral responses and the distributional effects of the Russian 'flat' tax	To simulate the distributive impact of the Russian personal income tax following the 2001 tax reform that introduced a flat tax, using data from the Russian Longitudinal Monitoring Survey.	The direct tax effects increased net income inequality. However, the changes in pre-tax distribution (indirect effect) had a significant negative impact on inequality, leading to an overall decline in net income inequality. Regarding the non-tax factor, the reform had little overall effect on income inequality, suggesting that objections based on income inequality to flat tax structures are largely unfounded, especially in transition countries with high levels of tax evasion.
Expected future earnings, taxation, and university enrollment	To estimate the impact of taxes on the university enrollment process.	A revenue-neutral flat tax scenario with an unchanged base deduction would significantly increase the cumulative probability of university enrollment for male high school graduates by 1.8 percentage points (5 years after high school graduation), corresponding to a relative increase of 3.1%.
Flat tax reforms: A general equilibrium evaluation for Spain	To quantify the aggregate and distributive implications of a series of tax reforms aimed at introducing a revenue-neutral flat tax in Spain.	A flat tax with a marginal rate of 23.11% and a fixed deduction equal to 30% of per capita income would result in increases in aggregate output, aggregate consumption, and labor productivity by 5.1%, 4.8%, and 2.8%, respectively. These reforms also generate increases in the Gini indices of post-tax income and consumption. The proposed reform reduces the tax burden for those in the bottom 60% of the income distribution. However, the consumption level for those in the bottom 20% decreases by 1.6%.
Progressive Tax Reforms in Flat Tax Countries	To analyze the effects of shifting from a proportional tax system to a progressive tax system.	A reduction in income inequality can be achieved with a positive, albeit negligible, impact on employment and growth.

To assess the effects of a revenue-

neutral tax reform introducing a

universal basic income regime

combined with a flat income tax that

replaces the current minimum

income subsidy, several other conditional benefits, and the current

progressive income tax.

Universal basic income

with flat tax reform in

France

in income

macroeconomic

The reform induces not only a

inequality and poverty but also a

significant reduction

slightly

effect.

positive

Does a Progressive PIT Stabilize the Economy? A Comparison of Progressive and Flat Taxes	To examine the impact of progressive personal income tax rates and their effectiveness as an automatic economic stabilizer.	The analyzed tax acts relatively efficiently as an automatic stabilizer. However, it was also observed that the progressivity of the tax is not the primary reason for the effectiveness of a progressive personal income tax as an automatic stabilizer. Personal income tax acts as an automatic stabilizer mainly due to employment sensitivity to GDP fluctuations.
Who Wants a Progressive Income Tax?: Determinants of Tax Policy Preferences in Post-socialist Eastern Europe	To investigate the determinants of public opinion on personal income taxation in Central and Eastern European countries.	Socioeconomic and demographic variables, such as household income, occupational social class, and age, are important in determining preferences for personal income tax. Beliefs about fairness and perceptions of corruption also play a significant role.
The effect of policy objectives, complexity, and self-interest on individuals' comparative fairness judgments of a flat tax	To identify how individuals form impartial judgments about a tax system and the factors they rely on when comparing the fairness of a flat tax system with the current tax system.	Individuals were influenced by their ideas about the economic objectives achieved by each tax system, unwarranted complexity, and especially self-interest.

(Source: Own elaboration based on the scientific articles under analysis)

CONCLUSION

5.1. Conclusion of Results

The main objective of this research was to characterize existing studies on the topic of "Flat Tax" to analyze trends in scientific articles published on the Scopus platform. Information was gathered and processed from Scopus and subsequently analyzed using Excel and VOSviewer software, applying bibliometric indicators to evaluate the level of activity in published scientific articles, the impact of these works and sources, and the characteristics of the articles.

In this investigation, 109 scientific articles published over 27 distinct years were analyzed. It was observed that, on average, 4 articles were published per year, with a positive trend in the number of articles published over the decades. The most productive year to date was 2019, with 12 articles published. This increase in the number of published articles over the years was also accompanied by an increase in the number of citations. From 1998 to 2021, a substantially positive trend in citations was noted, with only two citations in 1998 and 73, 90, and 102 citations in 2019, 2020, and 2021 respectively. This indicates that academic interest in the topic has been increasing in recent decades.

Regarding author productivity, it was found that 201 authors contributed to the 109 scientific articles. Of these, 186 contributed only one article, while 15 published two or more articles, corresponding to 93% and 7%, respectively. Of the authors who published two or more articles, 14 published two articles, and only one author, Peichl, A., published more than two, with four articles. This suggests that the topic "flat tax" attracts the attention of many authors.

Concerning collaboration in authorship, it was observed that the majority of published articles (62%) were written collectively, meaning by more than one author, while 38% were written individually. Among the collaboratively authored articles, those with two authors were most common, with 40 articles published. A network map revealed that among the 15 authors who published more than one article, only Peter K.S., Duncan D., Schaefer T., Peichl A., and Fuest C. have connections with each other, indicating that most of the most productive authors on the topic do not have relationships with each other.

Analyzing geographical distribution and collaboration, authors contributing to the analyzed articles were affiliated with institutions in 35 countries across all continents except Antarctica. More than half were affiliated with countries in Europe, the continent with the most countries investigating the topic, spanning 24 countries. Nevertheless, the USA had the most authors interested in the topic, with 64 affiliated authors publishing scientific articles. A network map showed that Germany, the USA, and the UK had the most connections with other countries, indicating higher communication levels with other countries.

Regarding the impact of sources, it was observed that the 109 articles were published in 85 scientific journals. Of these, 68 published only one article. The journals with the most articles were International Tax and Public Finance, Economics Letters, and Journal of Policy Modeling, with 6, 4, and 3 articles respectively. This indicates a wide dispersion across journals, with no single journal specializing in the "flat tax" topic.

The study also categorized the articles into 10 different fields, indicating that various types of topics can be studied through the research theme. The predominant fields were "Economics, Econometrics and Finance" with 87 articles, and "Social Sciences" and "Business, Management and Accounting" with 29 articles each.

An analysis of keywords showed that 322 different keywords were used by the authors, indicating that a multitude of topics can be investigated in relation to the flat tax. However, the most frequently used keywords were "tax reform" and "tax system," suggesting that the main themes of analysis in flat tax-related articles are taxation systems and fiscal reforms.

Finally, a summary table was developed to group the conclusions of the main articles in the sample. The table indicates that, as mentioned previously, the scientific articles analyzed were written over several years by many authors. Influenced by the time period in which they conducted their research and their diverse origins, these authors performed different types of studies on a wide range of topics with distinct objectives, methodologies, and assumptions, resulting in diverse and sometimes divergent conclusions, making comparisons difficult.

5.2. Limitations

One limitation of this research was the difficulty in comparing articles, as they addressed different themes related to the flat tax. Another limitation arose from the restrictions imposed on the sample selection. The scientific articles were sourced exclusively from the Scopus platform, and only articles with the keyword or title "flat tax" were included, potentially excluding relevant articles from the analysis. The existence of articles with unidentified authors, which had to be excluded, also reduced the sample size, posing a limitation. Finally, the inability to compare the research results with other studies that might have used a different sample of scientific articles was considered a limitation, as no other characterization of research on the "flat tax" was found.

5.3. Suggestions

Given the limitations imposed on the sample definition in this study, it would be interesting to reduce these restrictions by including articles published in other databases similar to Scopus or by not limiting the sample to articles with the keyword or title "flat tax." This would provide a broader and more comprehensive investigation of the flat tax. Another suggestion is for future research to focus on more specific topics within the flat tax, such as comparing articles that analyze only the effect of the flat tax on economic growth, inequality, or any other relevant study topic.

REFERENCES

Aaberge, R., Colombino, U., & Storm, S. (2004). Do more equal slices shrink the cake? An empirical investigation of tax-transfer reform proposals in italy. Journal of Population Economics, 17(4), 767-785. doi:https://doi.org/10.1007/s00148-004-0193-2

Aghion, P., Caroli, E., & Garcia-Penalosa, C. (1999). Inequality and economic growth: The perspective of the new growth theories. Journal of Economic Literature, 37(4), 1615-1660. Retrieved from http://www.jstor.org/stable/2565487

Altig, D., Auerbach, A. J., Kotlikoff, L. J., Smetters, K. A., & Walliser, J. (2001). Simulating fundamental tax reform in the united states. The American Economic Review, 91(3), 574-595. Retrieved from https://search.proquest.com/scholarly-journals/simulating-fundamental-tax-reform-united-states/docview/233038607/se-2?accountid=38384

Amirthalingam, K. (2013). The importance of taxation and the role of indirect taxes in developing countries: A survey of literature. Colombo Business Journal, 4(1), 43-52.

Arab, H. R., & Basariya, S. R. (2020). A study on the uses of taxation in developing countries. Journal of Critical Reviews, 7(1), 457-463. doi:https://doi.org/10.31838/jcr.07.01.90

Barrios, S., Ivaškaitė-Tamošiūnė, V., Maftei, A., Narazani, E., & Varga, J. (2020). Progressive tax reforms in flat tax countries. Eastern European Economics, 58(2), 83-107. doi:https://doi.org/10.1080/00128775.2019.1671201

Benczúr, P., Kátay, G., & Kiss, Á. (2018). Assessing the economic and social impact of tax and benefit reforms: A general-equilibrium microsimulation approach applied to Hungary. Economic Modelling(75), 441-457. doi:https://doi.org/10.1016/j.econmod.2018.06.016

Bonga-Bonga, L., & Perold, M. (2014). A CGE simulation of a flat tax as a possibility for tax reform in South Africa. The Journal of applied Business Research, 30(6), 1693-1708. doi:https://doi.org/10.19030/jabr.v30i6.8883

Conesa, J. C., & Krueger, D. (2006). On the optimal progressivity of the income tax code. Journal of Monetary Economics, 53, 1425-1450. doi:https://doi.org/10.1016/j.jmoneco.2005.03.016

Costa, T., Lopes, S., Fernández-Llimós, F., Amante, M. J., & Lopes, P. F. (2012). A bibliometria e a avaliação da produção científica. ACTAS — Congresso Nacional de Bibliotecários, Arquivistas e Documentalistas, 11, 1-7.

Dabrowski, M., & Tomczynska, M. (2001). Tax reforms in transition economies - A mixed record and a complex future agenda. Center for Social and Economic Research(231). doi:https://dx.doi.org/10.2139/ssrn.1440219

Dacian, C. D. (2010). The relationship between accounting and taxation: A brief international literature review. Faculty of Economics and Business Administration, 1(1), 496-502.

Dagan, N., Serrano, R., & Volij, O. (1999). Feasible implementation of taxation methods. Review of economic design, 4, 57-72. doi:https://doi.org/10.1007/s100580050026

de Hek, P. A. (2006). On taxation in a two-sector endogenous growth model with endogenous labour supply. Journal of Economic Dynamics & Control, 30, 655-685. doi:https://doi.org/10.1016/j.jedc.2005.02.006

Domonkos, S. (2016). Who wants a progressive income tax? Determinants of tax policy preferences in post-socialist Eastern Europe. East European Politics and Societies and Cultures, 30(2), 423-448. doi:https://doi.org/10.1177/0888325415602055

Duncan, D., & Peter, K. S. (2010). Does labour supply respond to a flat tax? Economics of Transition, 18(2), 365-404. doi:https://doi.org/10.1111/j.1468-0351.2009.00383.x

Evans, A. J., & Aligica, P. D. (2008). The spread of the flat tax in eastern europe: A comparative study. Eastern European Economics, 46(3), 49-67. doi:https://doi.org/10.2753/EEE0012-8775460303

Feldstein, M. (1995). Behavioral responses to tax rates: Evidence from the tax reform act of 1986. The American Economic Review, 85(2), 170-174. Retrieved from https://search.proquest.com/scholarly-journals/behavioral-responses-tax-rates-evidence-reform/docview/233022407/se-2?accountid=38384

Fischer, D.-H., & Ferraro, S. (2019). A proposal for a simple average-based progressive taxation system. Public Sector Economics, 43(2), 141-165. doi:https://doi.org/10.3326/pse.43.2.2

Fossen, F. M. (2009). Would a flat-rate tax stimulate entrepreneurship in Germany? A behavioural microsimulation analysis allowing for risk. Fiscal Studies, 30(2), 179-218. doi:https://doi.org/10.1111/j.1475-5890.2009.00093.x

Friedman, M. (1962). Capitalism and Freedom. Chicago: University of Chicago Press.

Fuest, C., Peichl, A., & Schaefer, T. (2008). Does a simpler income tax yield more equity and efficiency? CESifo, 54(1), 73-97. doi:https://doi.org/10.1093/cesifo/ifn003

Fuest, C., Peichl, A., & Schaefer, T. (2008). Is a flat tax reform feasible in a grown-up democracy of Western Europe? A simulation study for Germany. International Tax Public Finance, 15, 620-636. doi:https://doi.org/10.1007/s10797-008-9071-2

Gouveia, M., & Oliver, D. (1995). Voting over flat taxes in an endowment economy. Economic Letters, 50(2), 251-258. doi:https://doi.org/10.1016/0165-1765(95)00749-0

Gribnau, H. (2015). Corporate social responsibility and tax planning: Not by rules alone. Social & Legal Studies, 24(2), 225-250. doi:https://doi.org/10.1177/0964663915575053

Hall, R. E., & Rabushka, A. (1983). Low tax, simple tax, flat tax. New York: McGraw-Hill Companies.

Hayek, F. (1960). The constitution of liberty. Chicago: University of Chicago Press.

Heath, A. (2006). Flat tax: Towards a british model. Stockholm Network.

High-Quality Data. (n.d.). Retrieved from Elsevier: https://www.elsevier.com/solutions/scopus/how-scopus-works/high-quality-data

Hirsch, J., & Buela-Casal, G. (2014). The meaning of the h-index. International Journal of Clinical and Health Psychology, 14(2), 161-164. doi:https://doi.org/10.1016/S1697-2600(14)70050-X

Ibragimov, M. Y., Ibragimov, R. M., Sinnikova, Y. M., & Tufetulov, A. M. (2014). About progressive tax systems of labor remuneration in Russia. Asian Social Science, 10(23), 28-35. doi:https://doi.org/10.5539/ass.v10n23p28

Laffer, A. B. (2019). Reflections on economic policy. National Association for Business Economics, 55, 41-44. doi:https://doi.org/10.1057/s11369-019-00150-7

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., . . . Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. Journal of Clinical Epidemiology, 62(10), 1-34. doi:https://doi.org/10.1136/bmj.b2700

Marx, K., & Engels, F. (1848). The communist manifesto.

Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. (3rd ed.). San Francisco: Jossey-Bass.

Mill, J. S. (1848). Principles of political economy.

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., . . . Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Systematic Reviews, 4(1). doi:https://doi.org/10.1186/2046-4053-4-1

Musgrave, R. A., & Musgrave, P. B. (1989). Public finance in theory and practice. California: McGraw-Hill International Editions.

Osberg, L. (1995). The equity/efficiency trade-off in retrospect. Canadian Business Economics, 3, 5-19. Retrieved from http://hdl.handle.net/10222/34134

Pántya, J., Kovács, J., Kogler, C., & Kirchler, E. (2016). Work performance and tax compliance in flat and progressive tax systems. Journal of Economic Psychology, 56, 262-273. doi:https://doi.org/10.1016/j.joep.2016.08.002

Paulus, A., & Peichl, A. (2009). Effects of flat tax reforms in Western Europe. Journal of Policy Modeling(31), 620-636. doi:https://doi.org/10.1016/j.jpolmod.2009.06.001

Peichl, A. (2009). The benefits and problems of linking micro and macro models - Evidence from a flat tax analysis. Journal of Applied Economics, 12(2), 301-329. doi:https://doi.org/10.1016/S1514-0326(09)60017-9

Pogátsa, Z. (2009). Tatra tiger: Growth miracle or belated recovery? Acta Oeconomica, 59(4), 377-390. doi:https://doi.org/10.1556/AOecon.59.2009.4.1

Popescu, M. E., Militaru, E., Stanila, L., Vasilescu, M. D., & Cristescu, A. (2019). Flat-rate versus progressive taxation? An impact evaluation study for the case of Romania. Sustainability, 11, 6405-6421. doi:https://doi.org/10.3390/su11226405

Rawls, J. (1971). A theory of justice. Massachusetts: Belknap Press/ Harvard University Press.

Ricardo, D. (1817). Principles of political economy and taxation. London.

Sabitova, N. M., & Dyudina, M. P. (2015). Income taxation as a took of income redistribution. Mediterranean Journal of Social Sciences, 6(1 S3), 174-178. doi:https://doi.org/10.5901/mjss.2015.v6n1s3p174

Scopus - Content Coverage Guide. (n.d.). Retrieved from Elsevier: https://www.elsevier.com/?a=69451&fbclid=IwAR2WBehEx2U6n9VoMkyyVzm00gWEFD1RtsvgjXpKtdew4_pLVcbhbUsZtMo

Skipper, D. W., & Burton, H. A. (2008). Ramifications of a flat tax - Shifting the burden to the middle class. International Atlantic Economic Society(14), 460-471. doi:https://doi.org/10.1007/s11294-008-9168-5

Smith, A. (1776). The wealth of nations. London.

Ventura, G. (1999). Flat tax reform: A quantitative exploration. Journal of Economic Dynamics & Control, 23(9-10), 1425-1458. doi:https://doi.org/10.1016/s0165-1889(98)00079-7

Voinea, L. (2013). Revisiting crisis generators in romania and other new EU member states. Review of International Political Economy, 20(4), 979-1008. doi:https://doi.org/10.1080/09692290.2012.733315

Watrin, C., & Ullmann, R. (2008). Comparing direct and indirect taxation: The influence of framing on tax compliance. The European Journal of Comparative Economics, 5(1), 33-56.

Whait, R. B., Christ, K. L., & Ortas, E. B. (2018). What do we know about tax agressiveness and corporate social responsability? An integrative review. Journal of Cleaner Production, 204, 542-522. doi:https://doi.org/10.1016/j.jclepro.2018.08.334

Why choose Scopus. (n.d.). Retrieved from Elsevier: https://www.elsevier.com/solutions/scopus/why-choose-scopus?fbclid=IwAR3h 5tDC9qSJL3jcHIX2EE6N1fNos4Nd-zxiuxULoaGAxsD3pGFqf7Auhc

KEY TERMS AND DEFINITIONS

Taxation

The process by which a government collects revenue from individuals and businesses to finance public goods, services, and infrastructure, and to redistribute wealth. It serves as the state's primary source of income and influences economic behavior, investment, and growth.

Tax System

A structured framework through which taxes are imposed on income, consumption, property, or other financial transactions. Tax systems can vary between progressive, regressive, and proportional forms, each affecting income distribution and economic efficiency differently.

Flat Tax

A type of tax system where a single constant tax rate is applied to all levels of income, without progressive brackets. It simplifies taxation by removing graduated rates but can have implications for income inequality and fiscal policy.

Progressive Tax

A tax structure where the tax rate increases as the taxable amount increases. It aims to ensure wealth redistribution by placing a heavier tax burden on higher-income individuals, often used to reduce economic inequality.

Tax Reform

Legislative changes to a tax system aimed at improving efficiency, fairness, or revenue generation. Tax reforms may involve simplifying tax structures, adjusting tax rates, or changing the tax base to better meet the economic and social objectives of a country.

Direct Taxes

Taxes that are directly levied on individuals or corporations, such as income or property taxes. They are paid directly to the government and are often used for wealth redistribution and revenue generation.

Indirect Taxes

Taxes imposed on goods and services rather than on income or profits. Examples include Value Added Tax (VAT) and sales taxes. These taxes are generally passed on to consumers and are less progressive than direct taxes.