

Transfer Pricing as a Tool of Global Tax Policy – Temporal and Geographical Analysis

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Abstract: Transfer pricing, which plays a key role in international tax policy, represents one of the most extensively discussed topics in academic literature. The aim of this article is to characterize the development of scientific interest in transfer pricing, specifically to identify the main areas of focus during the period from 1975 to 2023. This goal is addressed through two research questions: first, what are the trends in the timeline of scientific publications and their connection to key regulatory initiatives, and second, what is the geographical distribution of scientific publications, identifying the countries that contribute the most to this discussion. The timeline analysis revealed that interest in transfer pricing significantly increased during periods associated with important regulatory changes, such as the publication of the OECD Transfer Pricing Guidelines in 1992, the implementation of the BEPS Action Plan since 2013, and the agreement on a global minimum tax in 2021. Geographical analysis showed the dominance of the United States, China, and several European countries, reflecting their economic and academic strength. The findings also highlight the growing role of emerging markets in academic research on transfer pricing.

Keywords: transfer price; international tax policy; global economy; OECD

JEL Classification: H25; F23; H26

1. Introduction

Transfer pricing is a key tool in international tax policy, addressing transactions between related entities, such as subsidiaries of multinational corporations. Its proper implementation affects not only taxation in individual states but also the allocation of tax revenues among jurisdictions. Consequently, transfer pricing has become a subject of regulation, with international organizations developing frameworks to ensure that transactions between related entities align with conditions that would be agreed upon between independent parties.

Among the pioneers addressing transfer pricing issues were international organizations and institutions such as the League of Nations, which in 1933 issued the Draft Double Taxation Convention. This document was the first to formulate the concept of fair allocation of tax rights based on economic presence (Lang et al., 2016). In subsequent decades, the issue of transfer pricing was extensively developed, particularly through the efforts of the Organisation for Economic Co-operation and Development (OECD). The OECD published its first recommendations on transfer pricing in 1979 as the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. These guidelines, regularly updated, laid the foundation

for standardizing the arm's length principle (OECD, 1979). This principle requires that transactions between related entities be valued as if conducted between independent parties.

Academic interest in the issue of transfer pricing from the 1970s to the 2020s highlights the evolution of theoretical approaches and practical challenges associated with its application in multinational corporations. In the 1970s, research focused on the theoretical optimization of transfer pricing and its practical use. Merville and Petty (1978) examined the setting of transfer prices in multinational corporations, emphasizing their role in tax optimization, risk management, and maintaining division autonomy. They pointed out that no universal method could simultaneously satisfy all corporate objectives and recommended mathematical models, such as linear programming, to balance these goals. Kanodia (1979) further developed this issue by addressing uncertainty and risk-sharing, proposing transfer pricing systems that consider different risk approaches between divisions and the headquarters. He demonstrated that proper coordination could enhance resource allocation efficiency but also highlighted the challenges in motivating managers, as incentives often fail to lead to optimal outcomes.

At the same time, Lall (1979) pointed out issues related to the control of transfer pricing in developing countries. He explained that manipulation of transfer prices is the most severe problem in industries with high technological specificity, such as the pharmaceutical sector, where comparable market prices are absent. Additionally, developing countries often lack the capacity for effective regulation, leading to further issues. Lall suggested focusing on high-risk industries and promoting international cooperation as a tool to improve transparency and oversight.

In the 1980s, academic interest shifted to the impacts of regulatory constraints and their influence on decision-making in multinational corporations. Halperin and Srinidhi (1987) examined U.S. tax regulations, specifically the "resale price" and "cost-plus" methods, demonstrating that differences in tax rates between the U.S. and foreign jurisdictions led to inefficient resource allocation and distorted corporate decisions. Companies faced challenges in aligning rules across jurisdictions, resulting in suboptimal decisions. Samuelson (1982) explored the strategic adaptation of firms to "arm's length" rules, which set limits on transfer pricing. He highlighted how companies manipulated production and sales to achieve more favorable transfer pricing, significantly influencing their economic behavior and strategy.

A broader perspective on the issue was provided by Spicer (1988), who linked transfer pricing with corporate strategy and intra-firm transactions. Spicer proposed a theory of transfer pricing, demonstrating that these prices are not just tools for tax optimization but have a fundamental impact on the broader functioning of organizations and their long-term efficiency. This approach expanded the understanding of transfer pricing, offering a new perspective on its role in organizational structure and corporate performance.

In the 1990s, transfer pricing became a key tool for coordination and decision-making in decentralized organizations. Luft and Libby (1997) highlighted fairness factors and profit comparisons between divisions that managers consider when setting transfer prices. These aspects can prolong negotiations and lead to suboptimal outcomes. Vaysman (1998) expanded research into the dynamics of transfer pricing negotiations, demonstrating that compensation systems and structured negotiation processes can align managers' goals with organizational

objectives, thereby optimizing profits and minimizing central management interventions. Chan and Chow (1997) focused on the international level, examining tax audits of transfer pricing in China. They found that Chinese authorities target companies with low profitability or long-term losses, favoring the comparable profits method, reflecting a broader regulatory approach centered on profitability.

In the first decade of the 21st century, transfer pricing gained academic attention primarily in relation to tax optimization and managerial incentives. Mehafdi (2000) focused on implementing the arm's length principle in transfer pricing, which requires that prices between related companies be set as if the transactions occurred between independent entities. Hyde and Choe (2005) concentrated their research on the dual role of transfer pricing, both in tax optimization and managerial performance evaluation. During this period, studies began to explore separate transfer prices for tax and incentive purposes, driven by stricter international tax regulations (Fjell & Foros, 2008).

Subsequent research in the 2010s focused on risks associated with transfer pricing and the profitability of multinational firms. Jost et. al (2014) demonstrated that awareness of these risks varies depending on a company's characteristics, industry, and country, influencing their approach to tax audits and optimization. Research by Merle et. al (2019) revealed how multinational firms use transfer pricing to shift profits to tax havens, directly impacting the tax revenues of individual countries. This research confirms that companies face specific risks related to compliance with tax rules, particularly when utilizing tax havens and adhering to the arm's length principle.

In recent years, particularly in the 2020s, there has been a growing interest in the debate between the arm's length principle and the profit allocation method. Studies suggest that while ALP requires extensive documentation and analysis of functions, risks, and assets, the profit allocation method offers a simpler approach to distributing profits across jurisdictions. The Base Erosion and Profit Shifting (BEPS) project has sparked broader discussions about the efficiency and complexity of these methods in international tax planning (Akhand & Mawani, 2023; Kumar et al., 2021). Other research has focused on the manipulation of transfer pricing and its impact on corporate behavior, particularly regarding profit shifting to tax havens, which can lead to inefficient profit allocation and increased tax evasion (Rathke et al., 2021).

Given that transfer pricing encompasses a wide range of research questions, this article aims first to identify trends in scientific interest in transfer pricing over the period 1975–2023 and subsequently to determine the geographical distribution of publications to identify the countries contributing most to the discussion on this topic.

2. Methodology

To achieve the objective, the desk research method was employed. The data sources comprised scientific research studies from the Web of Science (WOS) database, one of the most widely used scientific databases in the Czech Republic. WOS contains a broad collection of scientific articles, books, and conference proceedings, providing a comprehensive overview of scholarly literature and covering a wide range of disciplines related to transfer pricing.

The source data were selected using the keywords "transfer pricing" and its variations "transfer price" and "transfer prices." In the next step, the selection of publications was narrowed to fields such as economics, corporate finance, management, entrepreneurship, and law. Data were collected for all time periods available in WOS, spanning from 1975 to 2023, encompassing a total of 3,907 documents. First, the publications were sorted chronologically, and a timeline analysis was conducted to determine how interest in this topic evolved over time and during which periods the number of studies increased significantly, pointing to key milestones—events that triggered this growth in interest. Subsequently, the studies were sorted geographically. The data were processed using a cartogram, which identified the countries that most actively research transfer pricing and contribute to the discussion.

3. Results

Although the systematic resolution of transfer pricing issues dates back to the 1930s, the first scientific studies recorded in the WOS database appear only in 1975. Figure 1 illustrates how interest in the topic of transfer pricing has increased over the years.

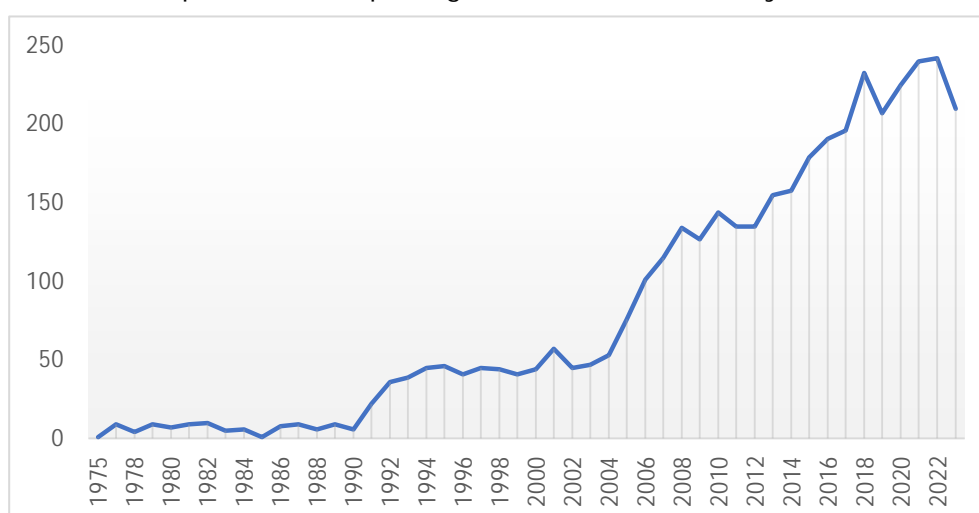


Figure 1. The development of academic interest in transfer pricing over time

The issue of transfer pricing experienced significant growth in academic interest during the years 1992, 2006, 2018, and 2021. This can be attributed to several key events and trends that influenced the regulatory framework and economic environment during these periods.

The 1990s were characterized by accelerating globalization, as multinational corporations increasingly participated in international trade, leading to a higher volume of cross-border transactions among their subsidiaries (Eden, 1998). In this context, 1992 marked a significant milestone when the OECD published the first major version of the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (OECD, 1992). This document established a unified framework for applying the arm's length principle, which became the cornerstone of international transfer pricing practices. The academic community responded to these changes with extensive analyses of the new rules' impacts on corporate strategies and the economies of individual countries.

The year 2006 was notable for the increased focus on transfer pricing audits by tax authorities and media scrutiny. This trend was linked to a growing number of cases where multinational corporations were accused of exploiting differences in tax systems across countries. High-profile tax disputes that captured public attention exposed gaps in existing regulations and led to stricter OECD guidelines and national legislation (Grubert & Altshuler, 2006). Simultaneously, the digitalization of commerce accelerated, with technology companies such as Google and Amazon facing debates over the proper allocation of profits among the countries where they operate (Ting, 2014).

In 2018, both scientific and regulatory interest in transfer pricing increased again due to the advanced implementation of the BEPS (Base Erosion and Profit Shifting) Action Plan, initiated by the OECD in 2013. The goal of this plan was to reduce tax evasion and aggressive tax planning by multinational corporations through stricter transfer pricing rules (OECD, 2018). Mechanisms such as country-by-country reporting (CBCR) required firms to provide detailed information about their financial transactions, creating new research opportunities (Hugger, 2019). This year also saw a significant rise in public pressure for fair taxation of technology giants, contributing to discussions about redistributing tax rights within the digital economy.

The year 2021 marked another major shift, primarily with the agreement on a global minimum tax of 15% for multinational corporations. This step was considered a historic success in combating tax avoidance and encouraged the academic community to focus on the impact of the new tax regime on transfer pricing practices (IMF, 2021). Additionally, the COVID-19 pandemic introduced further complications, disrupting global supply chains and raising questions about how to properly allocate profits and losses among the subsidiaries of multinational corporations (Cui, 2021). At the same time, the intense debate about taxing the digital economy continued, becoming a key focus of the OECD's new regulatory agenda.

The increased interest in transfer pricing during these years can thus be attributed to a combination of regulatory changes, high-profile cases of tax avoidance, growing globalization, and changes in the digital economy. These factors provided new challenges and opportunities for academic analysis, enriching the understanding of one of the most significant areas of international economics.

Transfer pricing remains primarily an academic discipline, emphasizing detailed and rigorous research published in scholarly journals. The lower representation of conference proceedings and other document types suggests that the field is more focused on long-term studies rather than the rapid dissemination of new ideas.

Figure 2 illustrates the geographical distribution of academic works on transfer pricing, showing that the largest contributors are the United States (1,322 works), followed by China (470 works), the United Kingdom (309 works), Germany (286 works), Canada (200 works), France (187 works), Australia (161 works), Italy (120 works), and the Netherlands (107 works). This distribution can be interpreted based on economic, academic, and regulatory factors influencing the focus of research in individual countries.

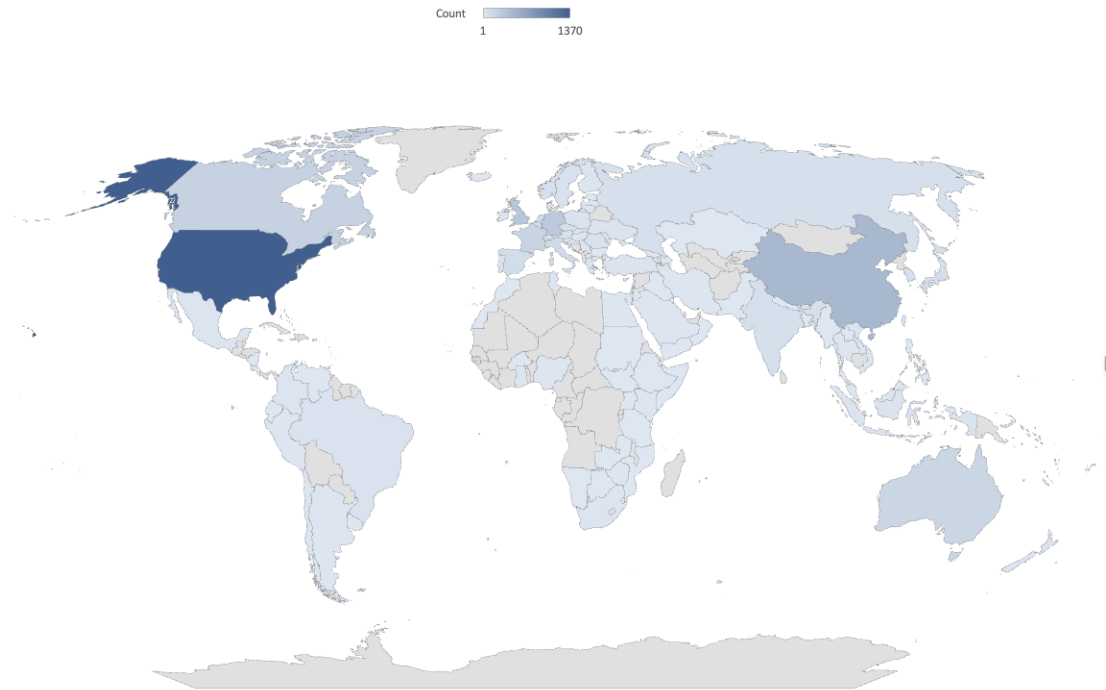


Figure 2. Geographical distribution of academic works

The United States clearly dominates transfer pricing research, which can be attributed to several key factors. The size of the U.S. economy and the presence of numerous multinational corporations, such as technology giants and pharmaceutical companies, ensure that transfer pricing is highly relevant to the country (Eden, 1998). The U.S. tax system, including recent changes like the Tax Cuts and Jobs Act of 2017, often influences international discussions on profit allocation and tax policy, driving research in this area (Gravelle, 2019). Additionally, the United States boasts an extensive network of top-tier universities with the capacity to conduct in-depth and detailed research in this field.

China ranks second, and its growing presence in scientific production reflects its position as a key player in global trade. As the primary manufacturing hub for many multinational corporations, China is deeply involved in managing transfer pricing, often driven by state regulations focused on controlling cross-border transactions (Chan & Chow, 2010). Simultaneously, as China expands globally, transfer pricing has become an increasingly significant topic for Chinese academic institutions.

European countries, including the United Kingdom, Germany, France, Italy, and the Netherlands, also play a significant role in scientific output in this field. The European Union is pivotal in shaping transfer pricing policies, particularly through OECD initiatives and the implementation of the BEPS Action Plan (OECD, 2018). European economies are often home to multinational corporations with complex supply chains, which naturally attract academic attention. For instance, Germany, as an export powerhouse, addresses issues of profit allocation among subsidiaries, while the United Kingdom focuses on the impact of transfer pricing in the context of its financial sector and post-Brexit tax policies (Crivelli et al., 2015).

Canada and Australia hold significant positions due to their integration with global value chains. Canada benefits from its proximity to the United States and shared regulatory

frameworks through agreements such as the United States-Mexico-Canada Agreement (USMCA), which heightens its focus on cross-border tax issues (Mintz & Chen, 2014). In contrast, Australia focuses on transfer pricing in relation to the rapidly growing markets of Asia and the Pacific. Its geographical location positions it as a key player in the digital economy and trade innovation (Taylor et al., 2015).

This geographical distribution of scientific production reflects the global nature of transfer pricing research and its close connection to the economic and regulatory characteristics of individual regions. Countries with robust economies and well-developed academic infrastructures, such as the United States, China, and European nations, dominate this field, while smaller countries contribute primarily in the context of their specific economic ties and regulatory interests.

4. Discussion

The presented findings confirm the importance of transfer pricing as a critical topic in international tax policy. The increase in publications during key periods, such as 1992, 2006, 2018, and 2021, clearly reflects regulatory changes and economic trends. These milestones correspond to global events, such as the introduction of OECD guidelines, the implementation of BEPS, and the agreement on a global minimum tax. This alignment indicates a strong interconnection between academic research and regulatory initiatives.

The United States dominates transfer pricing research, which corresponds to its economic size, regulatory initiatives, and top-tier academic capacity. Similarly, China and European countries such as Germany and the United Kingdom reflect their economic and academic influence in the field of transfer pricing.

Unlike the findings from the 2010s, which emphasized specific risks associated with transfer pricing compliance (Jost et al., 2014), this article focuses on broader geographical and regulatory dynamics. At the same time, the conclusions point to changes that may signal the end of the traditional concept of transfer pricing based on the arm's length principle.

Significant regulatory initiatives, such as the global minimum tax agreement and disruptions to traditional supply chains (e.g., the introduction of CBCR), suggest that the future of transfer pricing is moving toward the implementation of a global profit allocation method. This approach could replace the current model based on individual transactions, aiming for a fairer allocation of tax revenues across jurisdictions. Such a shift could establish a new standard in international tax policy and create more efficient tax systems for multinational corporations. As noted by Kumar et al. (2021), the current developments in transfer pricing increasingly highlight the need for global reforms and improved rules to address tax planning challenges and contribute to more transparent and equitable tax systems.

5. Conclusions

The timeline analysis identified an increase in academic interest in the topic of transfer pricing over the years, which can be attributed to several key events and trends that influenced the regulatory framework and economic conditions during these periods.

Geographical analysis identified the United States as the largest contributor to this field, followed by China and several European countries. This result reflects the significant role of these regions in the global economy and academic research. The article thus provides a comprehensive overview of the development of trends and achieves its goal of identifying the factors influencing scientific activity in the area of transfer pricing.

The findings also raise new questions for future research. Potential directions for further investigation include a deeper analysis of the role of emerging markets, the impact of technological changes on transfer pricing, and ways in which regulatory policies can contribute to a fairer allocation of tax revenues among countries.

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Conflict of interest: none

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